The Role of Semantic, Pragmatic, and Discourse Factors in the Development of Case

Edited by

Jóhanna Barðdal
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Introduction

The role of semantic, pragmatic, and discourse factors in the development of case

Jóhanna Barðdal & Shobhana L. Chelliah

1.   Introduction

This volume grew out of a workshop organized by us, Jóhanna Barðdal and Shobhana L. Chelliah, at the 17th International Conference of Historical Linguistics in Madison, Wisconsin (31 July–5 August 2005). Our respective research in Germanic and Tibeto-Burman morphological case marking convinced us of the integral role of pragmatics, semantics, and discourse structure in the historical development of morphologically marked case systems. We thus decided to bring together other scholars researching morphological case marking systems from this perspective.

The workshop included presentations from Sturla Berg-Olsen, Hanne M. Eckhoff, Thórhallur Eythórsson and Jóhannes G. Jónsson, Michael Noonan, and Misumi Sadler, in addition to our own. The articles in this volume include many of the papers which were presented at the workshop, as well as papers by Hans C. Boas, Daniela Caluianu, Michela Cennamo, Eystein Dahl, Ulrich Detges, Tonya Kim Dewey and Yasmin Syed, Felicity Meakins, and Silvia Luraghi, which were written specifically for this volume. It has been our attempt to include a typologically diverse set of languages. Four language families and over fifteen languages are discussed: (1) Indo-European: Vedic Sanskrit, Russian, Greek, Latin, Latvian, Gothic, French, German, Icelandic, and Faroese; (2) Tibeto-Burman, especially the Bodic languages and Meithei (3) Japanese; and (4) the Pama-Nyungan mixed language Gurindji Kriol.

2.   How and why case systems change

The papers in this volume provide discussions of the consequences to changes in case systems and the mechanisms whereby such changes are obtained. These include the addition of new case markers, the distribution of case markers based on discourse considerations, the prevalence of particular case markers based on verb semantics, and case marker syncretism motivated by pragmatics. We have chosen to divide the papers up in the volume according to these criteria, although there is substantial overlap between the criteria in several articles, and an overlap between articles across the defining criteria.

2.1   Semantically and aspectually motivated synchronic case variation

Synchronic variation is a well-known phenomenon in linguistics. Such variation in case marking has often been labeled differential subject and differential object marking and various factors can be involved: for instance, the semantic features of the relevant argument, like thematic role, volitionality, animacy, gender, definiteness, specificity, or clausal features like tense and aspect and the status of the clause as a main or subordinate clause (Bossong 1985, Hoop & Swart 2008, Malchukov 2008). Two papers in the volume, by Dewey and Syed, and Dahl, follow the same path of investigation.

Dewey and Syed investigate case marking in the absolute construction in Gothic in comparison with Greek. They argue that the absolute construction was a native Gothic construction and not a translation from Biblical Greek, as has been argued in the literature. They base their argument in part on the case marking of the absolute, which differs from Greek to Gothic, and in part on the fact that absolutes are sometimes translated as finite clauses, and finite clauses are sometimes translated as absolutes. The subject of the absolute construction occurs consistently with a genitive in Greek, while it may occur with nominative, accusative, dative or genitive in the Gothic material, with dative being the most frequent, then accusative, then nominative and finally genitive. They argue that the case marking of the absolute subject is motivated by a) the semantic relation between the matrix clause and the absolute construction, b) the temporal and/or aspectual properties of the participle, and c) the thematic role of the subject of the absolute.

The article by Dahl, in contrast, examines object case variation with a subset of transitive verbs in Vedic Sanskrit from a synchronic point of view. In particular the variation between accusative and genitive with consumption verbs, perception/comprehension verbs, verbs of desire, verbs of contact by impact and verbs of authority/possession reveals that case variation gives rise to pragmatically motivated interpretations, involving definiteness/indefiniteness at the noun phrase level and boundedness/unboundedness at the verb phrase level. The variation between the accusative and the instrumental also conforms to this pattern, and the same is true for verbs alternating between the locative and the instrumental. Dahl thus concludes that case variation, or more specifically certain differential object marking not related to the adverbial use of the cases, may develop into aspectual predicate modifiers.

2.2   Discourse motivated subject marking

Discourse motivated changes to case marking have also been postulated. In terms of word order and topicalization, for example, Dixon (1994) discusses the derivation of an ergative system from an accusative system in Päri (Western Nilotic). The basic word order in Päri is Verb-Agent-Object (VAO) in transitive clauses and Verb-Subject (VS) in intransitive clauses. The A and S roles are marked nominative and O is accusative

(unmarked). O or S can be topicalized: when O is topicalized the order OVA is obtained and when S is topicalized the order SV is obtained. Since topics are unmarked, in topicalization constructions O and S get the same zero marking. The Agent remains nominative. The end result, due to the frequency of topicalization constructions, is an ergative system where S and O take zero marking and A is marked (see Malchukov & Spencer 2009 for further examples).

Perhaps one of the most well know discussions of the connection between discourse organization and ergativity is Du Bois (1987) who demonstrates statistically that in Sacapultec discourse, NPs marked A encode given information, while S and O may be given or new. Thus discourse organization aligns ergative or absolutive morphological marking with information flow. There is a further correlation of the given and new parameter with clause transitivity. New NP subjects that occur as background information tend to be encoded in intransitive clauses. Given NP subjects, most likely to be involved in activities that are foregrounded, tend to be encoded in transitive clauses (see Hopper & Thompson 1980). Du Bois thus suggests a discourse driven grammaticalization of ergative patterning such that transitivity, givenness, foregrounding, and ergative marking coincide predictably (Du Bois 1987).

The phenomenon of "optional ergativity", as discussed for several languages spoken in Australia, indicates that the close connection between discourse factors and ergative marking, as suggested by Du Bois, is worth serious consideration (see Pensalfini 1999; McGregor 1998, 2006, for example). In this volume, Meakins describes the distribution of the ergative marker in Gurindji Kriol, a mixed language from the Pama-Nyungan languages Gurindji and Kriol. Grammatical relations in Gurindji Kriol are primarily indicated through word order, the SVO feature being inherited from Kriol. However, Gurindji Kriol does exhibit the Gurindji ergative case marker. Meakins illustrates through a careful quantitative study of 1917 clauses that the ergative in Gurindji Kriol distributes significantly with transitivity features but does not occur in an across-the-board fashion within its standard domain, i.e., to mark subjects of transitive verbs. While the ergative predictably marks subjects, these subjects may occur in either transitive or intransitive clauses. However, ergative marking only occurs when the agency of the subject is made prominent for discourse reasons or the subject NP is in contrastive focus. The article illustrates the importance of both syntactic and discourse-based factors in distribution of ergative case. Chelliah, this volume, also shows that the agentive in Meithei occurs only with discourse prominent NPs, thereby illustrating the typological prevalence of the "optional ergative" phenomenon.

Another discourse motivated change to case systems provided in this volume is from Detges who investigates the loss of the two-case distinction in the history of French from the perspective of the theory of Preferred Argument Structure (Du Bois 1987), arguing that case inflection is not needed for communicative purposes. Detges argues convincingly against accounts based on phonological erosion, the emergence of strict

SVO word order, natural morphology, markedness and other functional accounts, and proposes instead an account based on general discourse principles. This explains, in turn, why less frequent values of categories, like non-human nouns, as opposed to human nouns in subject position, feminine as opposed to masculine, adjectives as opposed to substantives, nouns as opposed to determiners, nouns and determiners as opposed to pronouns, and plurals as opposed to singulars, lose their case marking earlier than the values of these categories higher in topicality and higher in discourse frequency.

2.3   Reduction or expansion of case marker distribution

When two or more patterns of case marking are available for marking the same argument, there are varied reasons for why one pattern can gain distributional prominence over the other. Five papers in this volume provide explanations that involve construction reanalysis, frequency, genre specific constructions, and lexical or grammatical semantics, of which the first three are within the framework of a usage-based construction grammar and cognitive grammar.

Construction grammar takes constructions, i.e., form–meaning or form–function correspondences, to be the basic units of language and grammar, and it assumes that all linguistic objects can be accounted for in construction grammar as form–meaning/function correspondences (Croft & Cruse 2004; Barðdal 2006). Constructions can be divided into *specific* constructions, where the semantics of the whole is not derived from the semantics of the parts but is non-compositional, and *general* constructions where the semantics of the whole is the sum of the semantics of the parts (Tomasello 1998, Croft & Cruse 2004). A usage-based construction grammar takes frequencies to be fundamental to the structure of the "constructicon", where highly frequent constructions have a more central place in the grammar than less frequent constructions. Hence, changes in frequencies, both type and token frequencies, may alter the status of constructions within the system (Barðdal 2008) and cause diachronic change. As case marking is an indistinguishable part of the form of argument structure constructions in languages which exhibit morphological case, this may result in changes in case marking of argument structure constructions (Barðdal 2001).

In her article Barðdal investigates the loss of morphological case in the Germanic languages, specifically Icelandic, German, Swedish and English. She argues against several classical hypotheses on case loss, such as phonological erosion, a change from synthetic to analytic language type, a change from free to fixed word order, the development of the definite article, and a change from lexical to structural case. She argues instead for a usage-based constructional approach, based on the partial synonymy of the argument structure constructions. On that approach synonymous argument structure constructions are predicted either to merge, with a subsequent loss of morphological case, or high type frequency constructions are predicted to attract items from low type frequency constructions, gradually causing low type frequency constructions to fall into disuse. Both developments are found in the Germanic languages,

the former in English, Mainland Scandinavian and Dutch, and the latter in Icelandic, Faroese and German. This analysis also accounts for the emergence of the 'blended' construction in the history of the English, Swedish and Faroese.

The article by Eckhoff deals with changes in possessive constructions in the history of Russian. Old Russian had several different constructions for expressing possessive relations, like the genitive, the dative and an adjectival construction, while in Modern Russian the genitive construction has been generalized across the semantic field of possession. The adjective construction was gradually deschematized in the history of Russian, i.e., it became less general and more bound to specific classes of possessors, yielding restrictions on the subconstructions. In contrast, the more general genitive construction became fully general and applicable to all types of nouns, irrespective of semantics and form. This study shows how the framework of usage-based construction/cognitive grammar can be used in diachronic studies, and how variation in case and possessive constructions within the noun phrase, and changes in this variation, can be modeled.

In his contribution Berg-Olsen discusses variation in case and argument structure constructions in Modern Latvian, with the verb *(pie)trūkt* 'lack' and two others, with some comparison with earlier Latvian, Lithuanian, Slavic and Germanic. The verb *(pie)trūkt* can occur in either the (DAT)-NOM constructions or the (DAT)-GEN constructions; the (DAT)-GEN constructions are only instantiated by three verbs in the modern language, while the (DAT)-NOM constructions are much higher in type frequency. The variation is partly motivated by differences in style and genre, with the (DAT)-GEN construction being dominant in formal styles and written genres, and the (DAT)-NOM construction being more evasive in informal registers and colloquial speech. In addition, it is hypothesized that the genitive case marking is motivated by a different construal than the nominative, namely that it denotes a whole. The general weakening in the language of the genitive denoting a whole also contributes to the lesser entrenchment of the family of (DAT)-GEN constructions as opposed to the family of (DAT)-NOM constructions, in part explaining the low type frequency of the (DAT)-GEN constructions.

The contribution by Jónsson deals with dative objects in Faroese, in particular the loss of dative case with monotransitive objects, and the variation between dative and accusative with these verbs. This case assignment is compared with case assignment in both Old Norse-Icelandic and Modern Icelandic, where no loss of dative case can be detected. Predicates where the object shows more proto-patient properties have lost, or are in the process of losing, the dative case, while predicates where the object exists as an active participant in the event have resisted the change most. There are sporadic examples of inherited verbs acquiring dative case, and a few borrowed verbs of grooming consistently occur with a dative object in Faroese. This suggests that the diachronic development of dative objects in Faroese is heavily dependent on lexical semantic factors.

Finally, the article by Caluianu deals with a variation with two-place adjectives in Japanese, which originally occurred with the NOM-NOM case frame, but have started

occurring with the NOM-ACC case frame in contemporary Japanese, exactly like ordinary transitive predicates, although the use of these adjectives with NOM-ACC seems to be more prevalent in non-formal registers. Various factors have been suggested in the literature as responsible for this change, like control, animacy, etc. Caluianu argues that no one particular factor is responsible for this variation, but rather that there is a host of syntactic, semantic, lexical and pragmatic factors responsible, with the main factor being the restructuring of the diathetical paradigm of the relevant cognate transitive predicates in such a way that two-place adjectives are gradually replacing the corresponding verbal form in the active voice. A consequence of this is that these two-place adjectives now alternate systematically with the passive voice.

2.4   Case syncretism motivated by semantics, syntax, or language contact

Not quite so well documented are instances of case syncretism and case splits. Examples of case syncretism are those where case markers indicate more than one grammatical or local relation or where case markers have varied functions (see, for instance, Genetti 1986 who describes case markers used as clausal subordinators in Tibeto-Burman languages). Case splits refer to one case marker splitting into two distinct markers (Blake 1994: 176–177).

Articles in this volume which provide examples of case syncretism are by Noonan, Luraghi, Cennamo, and Boas. Noonan investigates the meanings associated with reflexes of ten Tibeto-Burman etyma in seventy-six, mostly Bodic, Tibeto-Burman languages. Keeping in the mind the difficulty of comparing data from a variety of sources that use different terminology, his findings for the languages surveyed exhibit shared patterns of syncretism; i.e., instances where a Proto-Tibeto-Burman etymon has come to express a similar range of meanings in related languages. For example, in all the branches of Bodic that he surveyed, forms for the ergative, instrumental and genitive are the same. Also found in Bodic, as well as some Kuki-Chin languages, is syncretism between the ablative, dative, locative, comitative, adessive, and superaltive/ superessive cases. For each etymon investigated Noonan tells us in which language it is attested, what the historical origins of the etymon is and general comments on the distribution of its reflexes. Finally, he provides a numerical analysis of the relative frequency of syncretistic sets in the languages surveyed. The paper shows that over time the same etymon can develop a variety of meanings. Although there is great deal of similarity across related languages in the attested syncretisms, contact with unrelated languages may determine the exact syncretic patterns obtained.

As shown in Luraghi, case syncretism can occur for either syntactic or semantic reasons. She analyses the expression of the spatial relations of location, direction, and source in Ancient Greek and Latin and argues that Latin and Greek have evolved differently. In Ancient Greek the instrumental, locative and ablative forms were lost while

other cases which express spatial relations, i.e., the accusative, dative and genitive, were retained. Basic spatial relations could still be expressed by combining the remaining noun forms with three different prepositions, *en, ek,* and *eis*. A fourth preposition, *pará*, could combine with nouns in all three cases to express adessive, ablative, and allative. In Greek, then, a connection continued to exist between cases and spatial semantic roles. A different pattern emerges in Latin where the concrete cases merge with the ablative. Source, location, and direction are expressed with a set of prepositions that occur on nouns in either the ablative or accusative case forms. Thus the connection between case and semantic role is not as clear cut in Latin as in Ancient Greek. Luraghi argues that case syncretism in Latin was due to syntactic factors while syncretism in Greek could be attributed to semantic factors. In Latin, the distribution of the concrete cases in same syntactic environment, i.e. adverbials, lead to the merger of those cases which occurred in that environment. In Greek, in contrast, the instrumental, locative and ablative forms are simply merged to existing case forms and semantic roles are reinforced with the use of prepositions.

A major contributing factor to case syncretism is found in the creation of divergent dialects. In his article on the loss of case in Texas German, Boas compares data from Texas German collected in the 1960's and data collected during the last five years by the Texas German Dialect Project (TGDP). The data collected by the TGDP show increased levels of case syncretism since the 1960's, further contributing to the development of a two-case system which may have began as early as the German settlement. Boas shows that Trudgill's (2004) model of new dialect formation can be used to capture the dialect formation of Texas German, and that the leveling processes associated with such dialect formation may result in a reduction of the case system. Other internal factors contributing to the loss of dative case are homophony or similarity of forms, the generalization of unmarked forms, and similarity in semantic contexts.

Another example of a case spreading to cover two functions is found in Cennamo's article on the so-called extended accusative in Late Latin. She deals with the extension of the accusative from object function to subject function in Late Latin, a phenomenon known in the literature as the extended accusative. The accusative seems to have developed from nominal clauses and is first encountered in unaccusative structures, i.e., equative clauses, passives, anticausatives, and impersonals, yielding a system of stative–active alignment. From there the accusative extends to subjects of transitive predicates, thus yielding neutral alignment, which entails the same case marking on subjects of transitives, subjects of intransitives and on objects. This change coincides with a change in the diathetical system where voice forms become interchangeable, resulting in a temporary loss of voice distinctions. The extension of the accusative from nominal clauses via intransitive structures to transitive structures seems to be motivated in part by semantic factors, such as the inactive nature of the relevant subject

arguments, in part by syntactic factors, such as the degree of cohesion between an argument and its predicate, and in part by pragmatic factors, i.e., the grammaticalization of the argument originally functioning as the topic of the clause.

2.5 Case splits motivated by pragmatics, metonymy, and subjectification

Case markers often develop secondary functions such as clause subordination (Genetti 1986) and the indication of tense and aspect (Blake 1994: 182–184). Analyzing the semantic role marking in the Tibeto-Burman language Meithei (Manipuri), Chelliah shows how the semantic role markers patient, locative, associative, and agentive each exhibit a homophonous enclitic, a morpheme which indicates information as new or surprising from the speaker's perspective. She demonstrates that the system-wide homophony is due to the metonymic extension of semantic role markers and semantic change through subjectification. The result is a synchronic system with an apparently complex semantic role marking system that is actually a pragmatic marking system overlaid on semantic role marking. Recognizing the existence of two overlapping systems greatly simplifies the description of nominal marking in Meithei and provides a suggestive framework for understanding other Tibeto-Burman languages which display distribution of semantic role markers.

A second paper, which illustrates subjectification as a process in affecting case markers, discusses the semantic change of the semi fixed Japanese particles *ni-wa* 'dative-topic' and *ni-mo* 'dative-in.addition'. Sadler compares data from 7th through 20th century literature to show that early uses of these particles were to mark stative locations and locations where individuals worthy of respect reside. The markers then extend in meaning to indicate subject possession or experience. By the 20th century, fixed particles with *-ni* occur regularly with perceptual or mental predicates and come to reflect a speaker's internal state. The use of *ni-wa* in first person narratives is especially effective as a narrative tool, communicating the feelings of first-person experiencer with immediacy and intensity.

3. The current volume's contribution to research on changes in case marking

As, discussed in Section 2, this volume contains articles which focus on how semantic, pragmatic, and discourse-based factors trigger change in case morphology, either across time or as synchronic variation. We show in this section how articles in this volume relate and contribute to existing research on the history of case.

There exists an abundance of research on changes or reanalysis of specific constructions, where case marking plays an important role, like the alleged change from the passive construction to the ergative in the Indo-Aryan languages and the Polynesian languages (for a critical evaluation, see Peterson 1998; Butt 2001; Kikusawa 2002; Eythórsson &

Barðdal 2005; Haig 2008). As a consequence, there is robust interest in the literature on changes in alignment type from one language stage to another. The paper by Cennamo is a significant contribution to this discussion, as it shows how an accusative language like Latin changes into a stative–active language on its way to neutral alignment, before reaching the two-case system of (some of) the Modern Romance languages.

Case syncretism, due to phonological or functional erosion, has also been the subject of substantial interest, both within the classical Indo-European paradigm and within more modern linguistic frameworks. The articles by Boas, Luraghi and Noonan contribute to this discussion. Boas's paper shows how sociolinguistic factors can be at work in case syncretism, i.e., that the leveling processes found in dialect contact situations are also at work in Texas German, exactly like in Russian German and Brazilian German. This takes place in combination with other factors, such as phonological and semantic similarities. Luraghi's paper shows that in such closely related languages as Latin and Greek, different factors contribute to case syncretisms within the domain of spatial adverbials. In Greek it were the semantic factors that won, while in Latin the syntactic factors won. Noonan's paper compares relational markers (markers of grammatical function and location) in seventy-six Tibeto-Burman languages. This comparison forms the basis for a semantic analysis of these markers, as well as providing evidence for possible syncretism. This, in turn, makes it possible to reconstruct proto-forms and trace the historical development of these relational markers.

Extensive work has, of course, been carried out on case marking within the traditional Indo-European paradigm, although the two papers on early Indo-Aryan and Early Germanic, i.e., Vedic Sanskrit and Gothic, contain original contributions to this field. The paper by Dewey and Syed on the case marking of the subject of absolute constructions in Gothic contains data, not only from the New Testament translation, but also from the Skireins, i.e., the eight leaves containing a commentary on the Gospel of John. These data have not been discussed in the literature before, and have as such been excluded from earlier analysis of the absolute in Gothic. Dahl's paper on object marking in Vedic Sanskrit contains original data analyzed in a combined predicate decompositional approach to lexical semantics (Levin & Rappaport Hovav 2005) and a prototype approach to semantic transitivity (Dowty 1991, inter alia), where the relevant transitivity properties are organized through a lattice structure. A second contribution to the role of lexical semantics in the development of object case marking is found in Jónsson's paper on the development of the dative in the history of Faroese. This paper also contains original data on Faroese, published here for the first time.

Syntactic motivations for changes in case marking have been a popular topic within historical generative grammar, particularly on the basis of the theoretical assumption that lexical case has changed into structural case (cf. Allen 1995; Falk 1997, inter alia). This view is argued against in the article by Barðdal, mostly on the basis of empirical data, although several articles in the volume show that syntactic factors are clearly also at work in the evolution of case morphology, particularly in combination with other factors.

A combined syntactic and semantic approach is also found in the construction grammar tack to the development of case marking in the contributions by Barðdal, Berg-Olsen and Eckhoff. Construction grammar has not been amply applied within historical linguistics, and particularly not on the development of case marking. These three papers thus represent original contributions to both historical linguistics and the study of case marking. Barðdal's paper emphasizes the correlation between loss of case, synonymy of argument structure constructions and language contact found in the development of the Germanic languages. In particular, she explains how a contact situation can contribute to loss of case, i.e., through changes in the verbal vocabulary and hence changes in the frequencies of argument structure constructions, which in turn yields changes in the structure of the grammar. Berg-Olsen's paper investigates the competition between the (DAT)-NOM and (DAT)-GEN argument structure constructions with a set of verbs of lacking in Latvian, illustrating that there is a clear stylistic difference in the use of the two constructions, as well as a clear difference in entrenchment. These differences predict that the (DAT)-NOM construction may gradually prevail over the (DAT)-GEN construction in the course of time. Eckhoff's paper shows how the theoretical tools of construction grammar and cognitive grammar, i.e., the lexicality–schematicity hierarchy containing concrete lexically-filled constructions, highly schematic abstract constructions, and everything in between, can be used to capture the changes in the possessive construction in the history of Russian.

Several other papers make use of original methodology and data sources, in addition to the novelty of the case data presented. Caluianu uses Internet data and questionnaire surveys for data elicitation and acceptability judgments to throw light on a current case variation with transitive adjectives in Modern Japanese. Caluianu finds that the restructuring of the active–passive paradigm to include adjectives represents two different modes of conveying emotions, i.e., emotions as relations as opposed to emotions as recurring episodes. Also, Meakins and Chelliah base their analysis on field work and naturally occurring data. All three papers thus contain primary data, not published before. Therefore, an important contribution of this volume is that it demonstrates how significant analytic results can be gained through analysis of varied data sources – either controlled responses to prompts or naturally occurring discourse – and corpus-based data. Increasingly, linguists have come to acknowledge the importance of basing, or at least supplementing, grammatical analyses with data from naturally occurring discourse (Shütze 1996; Chelliah 2001).

In particular the papers on discourse motivated change and pragmatically motivated change constitute fresh contributions to the evolution of case marking. Sadler, for instance, shows how the -*ni* marker in Japanese has developed from marking metonymic locations via marking human referents and experience to marking the subjective framework in first person narratives. Meakins shows how the ergative, a syntactic marker in the source language, can develop into a marker of agentivity and discourse prominence, i.e., topic and focus, in the goal language. Chelliah shows how a

language can develop discourse markers, such as 'adversative', 'unanticipated', 'contrary to expectation', 'contrastive', from semantic markers, through metonymic extensions and subjectification. Hence, morphs which express clause-bound information are extended to express speaker's subjective framing of propositions. Detges shows how discourse preferences explain the order of the loss of case marking in the history of French such that arguments low in discourse preference lose their case marking earlier than the arguments higher in topicality and discourse preference.

We have, by no means, captured all possible types of semantic, pragmatic and discourse-based case changes, as our aim with this volume has first and foremost been to bring these types of changes in case marking to the research fore. With this volume we hope to bring non-syntactic factors in the development of case into the eye of the research field, thus contributing to more research on the nature of semantic, pragmatic and discourse factors in the development of case in the future.

4.   Acknowledgements

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Semantically and aspectually motivated synchronic case variation

Case variation in Gothic absolute constructions

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The choice of case in Gothic absolute constructions is not random, but systematic. Its determining factors are the semantic relationship between the matrix clause and the absolute construction, the tense/aspect of its participle, and the thematic role of its subject. The nominative absolute has main clause semantics, while absolutes in the oblique cases have subordinate clause semantics. The bare dative is the default for absolute constructions in Gothic, while secondary meanings such as durativity or iterativity are linked with other cases. Additionally, the preposition *at* can be used with either the dative or the accusative as a temporal marker or a focussing device.

1. Introduction

This paper examines the use of case in Gothic absolute constructions. The corpus under consideration includes Wulfila's translation of the Greek New Testament (taken from Streitberg 1920a) and the *Skeireins*.[1] Absolute constructions in Gothic provide a rich field for the study of case. Unlike many other Indo-European languages, Gothic allows absolute constructions to occur in a variety of cases. Comparison of Wulfila's translation with his Greek source text illustrates this point: the variety of cases found in the Gothic text differs significantly from the situation in the Greek text, where absolute constructions occur exclusively in the genitive.

In the following we will consider absolute constructions in the nominative, genitive, dative and accusative, and examine the semantic relationship between absolute constructions and their matrix clauses for each of the cases. We argue that the case of each absolute construction in Gothic is determined by this semantic relationship.

The majority of the extant Gothic corpus is an incomplete translation of the Bible. Aside from a fragment of a translation of Nehemiah (portions of chapters 5–7), all Biblical material is from the New Testament.[2] Surviving fragments of the Gospels form the largest part of the corpus, followed by fragments of some epistles. The Biblical material was translated in the 4th century AD by Bishop Wulfila, a native of Asia Minor who spent most of his life among the Goths. Additionally, the Gothic corpus includes eight leaves from a commentary on the Gospel of John, commonly referred to as the *Skeireins*. There is considerable debate as to whether or not the *Skeireins* are a translation of a lost Greek original, which we will not address here (see Bennett 1960 for the most relevant arguments). The Gothic calendar, inscriptions and deeds are not included in this study, as they contain no examples of the relevant construction.

In the Greek original, absolute constructions only appear in the genitive. Wulfila's most common strategy seems to have been to translate a Greek genitive absolute with a Gothic dative absolute, with or without the introductory preposition *at*. However, he also used the nominative, accusative and genitive in the Gothic absolute construction, and in some examples another construction altogether, e.g., a finite clause. Examples may also be found of a Gothic absolute construction translating a Greek finite clause or other non-absolute construction (*pace* Keydana 1997: 79, who claims that the Gothic absolute construction only exists as a translation of the Greek genitive absolute). In the *Skeireins* the frequency of absolute constructions per words of running text is even greater than in Wulfila (Lücke 1876: 35). Moreover, the choice of case for the absolute construction in the *Skeireins* is more evenly distributed between dative, accusative and nominative than it is in Wulfila's text, making the preference for the dative as the dominant case for the Gothic absolute construction less pronounced in the *Skeireins*.

Table 1. Tokens of absolute constructions in Gothic.

	Bible	*Skeireins*	Total
Dative	50	6	56
Dative w/*at*	22	7	29
Accusative	8	5	13
Accusative w/*at*	1	0	1
Nominative	3	5	8
Genitive	1	0	1
Total	85	23	108

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2.   No examples of absolute constructions were found in the Gothic Old Testament fragment, thus we exclude it from this study.

The determining factor of the case of absolute constructions in Gothic seems to be the semantic relationship between the absolute construction and the matrix clause. We define an absolute construction as a participial construction with the semantics of a circumstantial clause, be it temporal, causal, or other. The participle and its logical subject share case marking, and the participle maintains all its verbal arguments in their usual cases, as illustrated in (1), where the subject *imma* 'him' and participle *rodjandin* 'speaking' share dative case marking, and the object of the participle is in the accusative.[3]

(1)   *John 8:30*
       þata   imma   rodjandin   managai   galaubidedun imma
       this.ACC   him.DAT   speaking.DAT many.NOM   believed.3PL him.DAT
       'As He spoke these things, many came to believe in Him.'

The case marking on the subject of the participle and the participle itself is not motivated by the argument structure of the matrix verb, as the verb *galaubjan* 'believe' usually selects for a nominative subject (*managai* 'many') and a single dative object (the second *imma* 'him'). Thus we exclude from consideration participial constructions that function as arguments of a matrix verb.

We do, however, include in this discussion participial constructions introduced by the preposition *at*. In other Indo-European languages, specifically in Latin, similar constructions exist but are not considered absolute constructions. Circumstantial participles introduced by prepositions are usually called *ab urbe condita* constructions. It has been recognized that these have much in common with absolute constructions in Indo-European languages, thus it makes sense to consider the two constructions together (Bolkestein 1982; Ruppel 2007). The distinction between *ab urbe condita* constructions and absolute constructions in Gothic is less strict than in a language like Latin; in fact, they seem to be fully interchangeable in their syntactic distribution. Thus we consider *at* with a participle a subset of the absolute construction in Gothic rather than a separate construction.

We also include in this discussion instances where the subject of the absolute construction is coreferential with an argument of the matrix verb. The matrix argument may, in Gothic, share case marking with the subject of the absolute. Coreference with shared case marking does not occur in the Greek original, although coreference is possible when the subject of the absolute and the matrix argument do not share case marking. As will be argued below, we consider as absolute constructions those examples in the Gothic text where there is motivation for dative marking on the absolute other than the argument structure of the matrix verb.

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3.   All English translations of the Bible, unless otherwise noted, are taken from the New American Standard Bible.

In section 2 we discuss the nativeness of the Gothic absolute construction. This is followed in section 3 by a summary of previous research on Gothic absolute constructions. In section 4 we discuss the distribution and semantics of the Gothic dative absolute, and in section 5 the distribution and semantics of Gothic absolute constructions in other cases. Finally, section 6 presents a summary of our arguments and a conclusion.

2.   Is the Gothic construction native?

Before we examine the choice of case in Gothic absolute constructions we have to address an issue that has hampered research on this subject so far, namely whether the absolute construction itself is native to Gothic. It has often been claimed that the use of absolute constructions in Gothic is due to syntactic borrowing from Greek (Streitberg 1920b; Wright 1954; Bennett 1980; Keydana 1997; Rauch 2003). This claim is based largely on the perceived dependence of Wulfila's absolute constructions on his Greek model. The occurrence of absolute constructions in the *Skeireins* might be seen as evidence of their nativeness, but scholars who consider Gothic absolute constructions as borrowed from Greek have also suggested that the *Skeireins* is a translation of a Greek or Latin model (Lücke 1876).

The data which support these claims are in need of reexamination. While a full reexamination is beyond the scope of this paper, we suggest that careful consideration of Wulfila's use of absolute constructions in Gothic, as well as his strategies for translating Greek absolute constructions, show the nativeness of the construction in Gothic. The Gothic may translate a Greek genitive absolute with a construction that is not an absolute construction, such as a finite clause (fifteen times) or a noun phrase without a participle (once, in John 7:14).[4] The fact that such examples exist argues against the syntactic borrowing of the absolute construction from Greek into Gothic, as Wulfila clearly had other strategies available to him for translating a Greek genitive absolute.

Further evidence for the independence of the Gothic absolute construction comes from the eleven cases in which the Gothic text has an absolute construction but the Greek does not. A complete list is found in Table 2.

Examples such as these not only suggest the nativeness of the Gothic absolute construction, but are also evidence of the variability in case marking available for the absolute construction in Gothic.

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4.   The relevant passages are Matthew 9:10, 9:18, 9:32, 9:33, 27:57; John 6:23; Luke 4:40, 4:43, 14:29, 15:14, 18:40–41, 19:37; Mark 4:17, 15:33; Romans 9:11.

Table 2. Gothic absolutes not corresponding to Greek absolutes.

Verse	Gothic	Greek
Matthew 8:23	Dative absolute	Dative participle
Matthew 9:27	Dative absolute	Dative participle
Matthew 9:28	Dative absolute	Dative participle
Luke 6:29	Dative absolute	Dative participle
Luke 7:44	Dative absolute	Finite clause
Luke 8:27	Dative absolute	Dative participle
Luke 9:34	Dative absolute	Articular infinitive
John 9:32	Dative absolute	Possessive genitive
John 11:44	Nominative absolute	Finite clause
Mark 4:6	Dative absolute	Finite clause
Mark 6:22	Accusative absolute	Finite clause

A further argument against the borrowing of the Gothic dative absolute from the Greek genitive absolute is the fact that slavish imitation of the Greek construction would suggest the use of the genitive for the absolute construction in Gothic. However, the dative and the accusative are the cases most frequently used for the absolute in Gothic. In fact, there is only one instance of a genitive absolute in Gothic, discussed below in section 5.3. It is striking that the most common strategy in Wulfila's translation of the Bible is to render the Greek genitive absolute with a Gothic dative absolute. If he were borrowing the construction from Greek, it is unlikely that he would substitute a different case.

3.   Previous research

Previous authors, including the standard grammars, have noted that absolute constructions in Gothic may occur in cases other than the dative, but give no motivation for the case variation. Scholars who have worked on Gothic absolute constructions in greater detail have recognized the occurrence of absolute constructions in the dative, accusative, nominative and genitive cases. Some scholars have limited themselves to listing the different cases for the Gothic absolute construction without accounting for the reasons behind such case variations (e.g., Lücke 1876; Durante 1969). Others have attempted to argue away the existence of nominative and accusative absolutes alongside the more common dative absolutes. Costello (1980) attempts to eliminate absolutes in cases other than the dative by emending the text. However, his suggestions for

emendation are not convincing on philological and paleographic grounds, and are therefore not standardly accepted (e.g., Snædal 1998).

It is, in fact, not necessary to argue away case variation in absolute constructions, since parallel data from other Indo-European languages show that case variation in the absolute construction is not an isolated phenomenon in Gothic, although it is most pronounced here. Absolute constructions exist in many of the older Indo-European languages, though the case in which they are found differs widely according to language. Some languages, such as Sanskrit and Classical Greek, as opposed to Biblical Greek, have absolute constructions in more than one case. Other languages have a strong preference for absolute constructions in a single case, as with the ablative in Latin or the dative in Slavic. Most scholars agree that Proto-Indo-European had an absolute construction, though there is still disagreement as to the case of the PIE absolute construction (Costello 1982; Holland 1986; Keydana 1997: 27–34; Bauer 2000: 284–298; Ziegler 2002; Maiocco 2005: 22–29).

In the remainder of this paper, we will consider the semantic distribution of the various cases in Gothic absolute constructions. The use of the cases is systematic, not random, as was assumed by previous authors. We will consider each of the cases in turn, beginning with the most frequent.

4.   The Gothic dative absolute

The majority of absolute constructions in Gothic (85%) occur in the dative case. Of these 69% appear without the introductory preposition *at*, though a substantial number occur with *at*.[5] Thus we may say that a bare dative absolute is the default absolute in Gothic. Since it is the default marking on the absolute, the bare dative occurs with a wide variety of thematic roles and semantic interpretations. Outside of Gothic, all absolutes in Germanic (e.g., in Old English, Old Norse, and Old High German) occur in the dative, pointing to the dative as the default case for the absolute construction in Germanic.

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5.   Absolute constructions without *at* are found in Matthew 8:1, 8:5, 8:23, 8:28, 9:27, 9:28, 27:19; Luke 2:42, 2:43, 3:1 (four examples), 3:15 (two examples), 3:21, 6:29, 7:6, 7:42, 7:44, 8:4, 8:27, 8:45, 8:49, 9:34 (two examples), 9:37, 9:42, 9:57, 14:32, 17:12, 19:33 (two examples), 19:36, 20:1; John 6:18, 8:30, 9:32, 12:37, 18:22; Mark 1:32, 5:2, 5:21, 5:35, 6:54, 9:9, 10:17, 10:46, 11:12, 11:27, 14:66, 16:20; Romans 7:3, 7:9, 9:1; 1 Corinthians 5:4; 2 Corinthians 4:18, 7:5; 1 Thessalonians 3:6; *Skeireins* I.b.22, IV.a.5, VI.c.23, VIII.b.5, VIII.c.20 (two examples).

Absolute constructions with *at* are found in Matthew 8:16, 11:7; Luke 2:2, 3:21, 4:2, 6:48, 7:24, 9:43, 19:11, 20:1, 20:45; Mark 4:6, 4:35, 8:1, 11:11, 14:43, 15:42, 16:2; 2 Corinthians 1:11, 2:12, 10:15; Ephesians 2:20; 1 Thessalonians 3:6; *Skeireins* II.d.2, III.a.14 (two examples), VII.b.3, VII.b.14, VIII.c.17, VIII.d.1.

Bare dative absolutes may have Agent subjects, as in (2).

(2) *Matthew 8:1*
Go: Dalaþ þan atgaggandin   imma   af   fairgunja,
down then approaching.DAT him.DAT from mountain

laistidedun afar imma iumjons managos
followed   after him crowds   many

Gk: katabantos   de autou apo tou orous
down-coming.GEN but he.GEN from the mountain

ēkolouthēsan autō ochloi   polloi
followed   him crowds many

'When Jesus came down from the mountain, large crowds followed Him.'

Since Agents in Germanic tend to appear in the dative when not in the nominative, this is unsurprising. The relationship between the absolute and matrix clause in this example is temporal, but as example (3) shows, the relationship between a bare dative absolute and its matrix clause may also be causal.[6]

(3) *Skeireins VI.c.23 ff*
iþ in   þizei   þaim   swa waurþanam, hardizo
but because this.GEN them.DAT so   become.DAT hard

þizei ungalaubjandane warþ   hairto.
the   unbelieving   became heart.NOM

'But because of this, that they had become such men, the hearts of the unbelieving became hard.'

Unlike (2), the subject of the absolute in (3) is an Experiencer. Throughout Germanic, Experiencers tend to occur in the dative, so the appearance of the dative in this example is to be expected.

The bare dative absolute may be ambiguous between a causal or temporal reading, as in (4). The English translation supports a causal reading of the absolute in Greek, but a temporal reading in both the Gothic and the Greek is possible.

(4) *John 6:18*
Go: iþ marei winda   mikilamma waiandin   was urraisida
but sea   wind.DAT great.DAT blowing.DAT was raised-up

Gk: hē te   thalassa anemou   megalou   pneontos   diegeireto
the and sea   wind.GEN great.GEN blowing.GEN stirred-up.3SG

'The sea began to be stirred up because a strong wind was blowing.'

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6.   In citations from the *Skeireins*, the Roman numeral refers to the leaf, the letter to the column, and the Arabic numeral to the line. Thus VI.c.23 is the sixth leaf, third column, 23rd line. All English translations of the *Skeireins* text are ours unless otherwise noted.

Though at first glance it may appear that the dative in (4) could be motivated by the matrix verb, i.e., to express the agent of a passive, this is not the case because of the causal/temporal relation between the participle and the matrix clause.

Given the large number of bare dative absolutes in the Gothic corpus, it appears that this is the unmarked choice for the absolute construction in Gothic. The dative absolute in Gothic may also be introduced by the preposition *at*. This use of *at* represents a significant departure from the Greek construction, which is never introduced by a preposition. However, it does have parallels elsewhere in Germanic, specifically in Old Norse and Old English (cf. Eythórsson 1995: 159–163; Behaghel 1924: 432). The presence of *at* in the Gothic dative absolute serves one of two purposes. Primarily, *at* foregrounds the temporal nature of the absolute, as demonstrated in (5).

(5)   *Matthew 11:7*
      Go: at þaim   þan afgaggandam,   dugann Iesus qiþan þaim
          as them.DAT then away-going.DAT began Jesus speak the

          manageim
          crowd

      Gk: toutōn   de poreuomenōn   ērxato ho Iēsous legein tois ochlois
          them.GEN but away-going.GEN began   the Jesus speak the crowd

      'As these men were going away, Jesus began to speak to the crowds.'

The temporal foregrounding provided by *at* also explains its widespread use with time of day expressions, as in (6).

(6)   *Matthew 8:16*
      Go: at andanahtja   þan waurþanamma   atberun du
          as evening.DAT   then become.DAT   bore.3PL to

          imma   daimonarjans   managans
          him.DAT   demon-possessed crowd

      Gk: opsias   de genomenēs   prosēnenkon autō
          evening.GEN but becoming.GEN brought.3PL him.DAT

          daimonizomenous   pollous
          demon-possessed   many

      'When evening came, they brought to Him many who were demon-possessed.'

The use of *at* and the dative in (6) and similar examples indicates "time when". This is true whether the participle is in the past, as in (6) or in the present, as in (7).

(7)   *Mark 11:11*
      Go: at andanahtja   juþan wisandin   ƕeilai   usiddja in
          as evening.DAT   already being.DAT time.DAT   went   in
          Beþanian miþ   þaim twalibim
          Bethany with the   twelve

Gk: opsias   ēdē   ousēs   tēs   hōras,   exēlthen
    evening.GEN already being.GEN the.GEN time.GEN went

eis   Bethanian   meta tōn dōdeka
to   Bethany   with the twelve

'He left for Bethany with the twelve, since it was already late.'

The second function of *at* in an absolute construction is one that does not occur in the Gospels, but may be found in the Epistles and the *Skeireins*. Here *at* is not used temporally, but serves as a focussing device. Representative examples may be seen in (8–9).

(8) *Ephesians 2:20*
    Go: at wisandin auhumistin waihstataina   silbin   Xristau
        as being.DAT highest.DAT cornerstone.DAT self.DAT Christ.DAT

        Iesu
        Jesus.DAT

    Gk: ontos   akrogoniaiou   autou   Christou Iēsou
        being.GEN cornerstone.GEN himself.GEN Christ.GEN Jesus.GEN

    '… Christ Jesus Himself being the cornerstone …'

The wider context of this absolute is a metaphor comparing those who believe in Christ to a building. Thus claiming that Jesus Christ is the cornerstone is a strong affirmation of the tenets of the Christian faith, something that is important in the Epistles. The use of *at* as a focus device is also evident in (9).

(9) *Skeireins VII.b.14–17 ff*
    At ni wisandin aljai   waihtai   ufar   þans fimf
    as not being.DAT another.DAT thing.DAT beyond the five

    hlaibans jah   twans   fiskans
    loaves and   two   fish

    'There was nothing more than five loaves and two fish.'

Here the use of *at* emphasizes the fact that there is very little food to feed the multitude present at the sermon.

An issue that arises for both bare dative absolutes and dative absolutes introduced by *at* in the Gothic corpus is the question of coreference. In some examples the subject of a dative absolute (with or without *at*) is coindexed with an argument of the matrix clause, which may itself be in the dative. An example may be seen in (10).

(10) *Matthew 8:5*
    Go: afar-uh þan þata innatgaggandin imma   in Kafarnaum,
        after-and then that entering.DAT   him.DAT in Capernaum

        duatiddja   imma   hundafaþs   biþjands   ina
        approached.3sG him.DAT centurion.NOM asking.NOM him.ACC

> Gk: eiselthontos   de   autou   eis   Kapharnaoum prosēlthen
>   entering.GEN but him.GEN into Capernaum   approached
>
>   auto   hecatontarchos parakalōn   auton
>   him.DAT centurion   asking.NOM him.ACC
>
> 'And when Jesus entered Capernaum, a centurion came to Him,
> imploring Him …'

We can see that the Greek source text also has coreference between the subject of the absolute and an argument of the matrix verb, but they do not share case.

The problem in these examples actually comes down to a "scale of absoluteness". On one end of the scale we have languages such Classical Latin and Greek, which avoid any sort of coreference between the subject of an absolute and an argument of the matrix clause. In the middle of the scale, we have languages such as Biblical Greek, which allow coreference but avoid identical case marking. At the most lenient end of the scale we have Gothic, which allows coreference with shared case marking. However, in an example such as (10), the motivation for the dative in the absolute is not related to the motivation for the dative in the matrix clause. The absolute is in the dative because of its temporal relation to the matrix clause, while the matrix pronoun *imma* is dative because it is the object of the verb *duatiddja*, which always takes a dative object.

Examples such as (10) enable a reading of an example such as (11) as containing a dative absolute in the Gothic, although it is a word-for-word translation of the Greek source text, which does not contain an absolute.

(11) *Matthew 8:23*
> Go: jah innatgaggandin imma   in skip, afriddjedun
>   and entering.DAT   him.DAT in ship   followed.3PL
>
>   imma   siponjos   is
>   him.DAT disciples.NOM his
>
> Gk: kai embanti   autō   eis to ploion ekolouthēsan
>   and entering.DAT him.DAT   into the ship   followed
>
>   autō   hoi mathētai autou
>   him.DAT the disciples his
>
> 'When He got into the boat, His disciples followed him.'

Taken in isolation, when we compare the Gothic and the Greek in this example, it appears that the dative of the participle is motivated by the argument structure of the matrix verb in both Gothic and Greek. However, taken together with examples such as (10) above, it is possible to motivate the dative in Gothic in (11) on the basis of the temporal relation between Jesus boarding the boat and the disciples following. For this reason we include this and similar examples as absolutes.

Before we consider Gothic absolutes in other cases, it is worth mentioning that Wulfila's strong preference for the dative absolute is not as marked in the *Skeireins*. While more than half of the absolutes in the Gothic Bible are datives (with or without *at*), the cases are much more evenly distributed in the *Skeireins*. Whether this is due to stylistic differences or a statistical anomaly we cannot be sure.

5.   Gothic absolutes in other cases

In addition to the dative, absolute constructions in Gothic are found in the accusative, nominative and genitive. As discussed above in section 3, previous research has either attempted to explain away such case variation by means of emendation or case attraction, or has simply left it unexplained. Our analysis shows that the case variation is in fact systematic. The case of the absolute construction in Gothic is sensitive to three factors: the semantic relationship between the matrix clause and the absolute construction, the tense/aspect of the participle, and the thematic role of the subject of the absolute construction.[7]

5.1   The Gothic accusative absolute

The accusative is the second most common case for the absolute in Gothic. The accusative absolute in Gothic occurs exclusively with the present participle, never the past participle. This is due in large part to the semantic nature of these absolutes. There are eleven attested examples of accusative absolutes in Gothic (eight in the Bible and three in the *Skeireins*).[8] Most of these examples follow the same semantic pattern. These describe a background action that is ongoing at the event time of the main clause, and the subject of the absolute may be characterized as an Agent in its thematic role. It is the durative nature of the accusative absolute that accounts for the use of the present participle, as well as for the use of accusative case.

(12)   *Luke 15:20*
Go: nauhþanuh þan fairra wisandin gasaƕ ina   atta   is
    yet-and   then far   being.ACC saw   him father his

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7.   Our thanks to Thomas F. Shannon (p.c.) for pointing out the significance of thematic roles in this context.

8.   The relevant passages are Luke 15:20; Mark 5:18, 6:22 (three examples), 9:28; Matthew 6:3; 2 Corinthians 12:21; *Skeireins* III.c.5 (two examples), IV.a.17, V.c.9 (two examples).

Gk: eti   de   autou   makran apechontos   eiden   auton
    still but him.GEN far   being-away.GEN saw   him.ACC

    ho   patēr   autou
    the   father his

'But while he was still a long way off, his father saw him.'

(13) *Skeireins V.c.9 ff*
      Anþarana   raihtis ni   ainnohun stojandan,   ak   fragibandan
      second.ACC   indeed not no-one   judging.ACC   but   granting.ACC

      sunau   stauos   waldufni.
      son.ACC   judgement.GEN   authority.ACC

      'Indeed the second [person of God] judges no-one, but grants the Son the
      authority for judgement.'

The use of the accusative with durative semantics is unsurprising in these examples.
The so-called "Accusative of Duration" is widespread not only in Germanic, but
throughout Indo-European. A Modern German example may be seen in (14).

(14) Ich war den   ganzen   Tag im   Büro.
      I   was the.ACC whole.ACC   day in-the office

      'I was in the office all day long.'

However, the occurrence of Agents in the accusative is rather surprising. When Agents
occur in a case other than the nominative in Germanic, they tend to occur in the dative.
Indeed we do find dative absolutes in Gothic whose subjects are Agents, as discussed in
section 4 above. It seems that two principles are in competition here. On the one hand,
the durative semantics of the absolute construction makes the accusative the preferred
case, while the demotion of the Agent from the nominative seems to call for a dative.
One way of resolving this conflict is to leave the Agent unexpressed, as in (14).

(14) *Skeireins* III.c.5 ff
      Afaruh   þan þo   in   wato
      after-and   then that.FEM.SG.ACC in   water.NEUT.SG.ACC

      wairpandans   hrain   jah hwssopon jah
      throwing.MASC.PL.ACC   clean.NEUT.SG.ACC   and hyssop.DAT and

      wullai   raudai   ufartrusnjandans
      wool.DAT   red.DAT sprinkling.MASC.PL.ACC

      'And after that they throw [the ash] into clean water and
      sprinkle it with hyssop and red wool.'

Both the participles in this example are clearly marked accusative, but the gender and
number (masculine plural) match nothing else in the context. Thus we must conclude
that the subject of the absolute is left unexpressed. Absolute constructions with unex-
pressed subjects are rare in the Gothic corpus. Durative absolute constructions with

expressed subjects are more commonly found in the dative than in the accusative, and it is possible that the author/translator of the *Skeireins* sought to resolve the competition between the two cases in this example by omitting the subjects, though this of course cannot be verified.

In addition to the bare accusative absolute, there is one example of an accusative absolute in Gothic with *at*, seen in (15).

(15) *Matthew 27:1*

Go: at maurgin   þan waurþana,   runa   nemun allai
as morning.ACC then become.ACC counsel took   all

gudjans jah þai sinistan manageins bi   Iesu
priests and the eldest   people.GEN about Jesus

Gk: Prōias   de genomenēs   sumboulion elabon pantes
morning.GEN but becoming.GEN counsel   took   all

hoi archiereis kai hoi presbuteroi tou   laou
the priests   and the elders   the.GEN people.GEN

kata   tou Iēsou
against the Jesus

'Now when morning came, all the chief priests and the elders of the people conferred together against Jesus …'

The use of the preposition *at* 'at' in this example is parallel to its use in the dative absolutes discussed above. All these examples deal with time of day, providing a temporal context for the action of the main clause. However, unlike dative absolutes with time of day subjects, the temporal context provided by the accusative absolute describes the onset of the event, not the completed event. Since the wider context of this passage is that the chief priests and elders were meeting to discuss Jesus' arrest and crucifixion, we can assume that their meeting must have lasted longer than just the morning. Thus the durative meaning of the accusative is pragmatically implied in this example, though in a different guise than with the bare accusative absolute.

5.2   The Gothic nominative absolute

There are eight nominative absolutes attested in the Gothic corpus (three in the Bible and five in the *Skeireins*), all of which have similar semantics.[9] The first of these examples may be seen in (16), where the Gothic nominative absolute translates a Greek finite clause.

9.   The relevant passages are Mark 6:21; John 11:44; *Skeireins* II.d.8, V.c.14, VI.b.17, VI.b.25, VIII.d.5.

(16)   *John 11:44*

Go: jah urrann sa dauþa gabundans handuns jah fotuns
and ran-out the dead bound   hand   and foot

faskjam, jah wlits   is auralja   bibundans
wrappings and face.NOM his cloth.DAT bound.NOM

Gk: exēlthen   ho tethnēkōs dedemenos tous podas kai tas cheiras
came-out the dead   bound   the feet   and the hands

keiriais   kai hē opsis autou soudariō periededeto
wrappings and the face his   cloth   wrapped-around.3SG

'The man who had died came forth, bound hand and foot with wrappings, and his face was wrapped around with a cloth.'

Not only does the Gothic nominative absolute translate a Greek finite clause, but as can be seen from the English translation, the semantic relationship between the absolute and the matrix clause is not truly one of subordination, as we would expect from an absolute. The relationship is instead closer to that between conjoined main clauses.

A similar situation holds true in (17), where the Gothic nominative absolute translates a Greek genitive absolute.

(17)   *Mark 6:21*

Go: jah waurþans   dags   gatils,   þan
and become.NOM day.NOM appropriate.NOM when

Herodis mela gabaurþais seinaizos nahtamat   waurhta
Herod   time birth   his   night-meal made

þaim maistam seinaize
those highest   his

Gk: kai genomenēs   hēmeras eukairou   hote Hērodēs
and becoming.GEN day.GEN strategic.GEN when Herod

tois genesiois autou deipnon epoiēsen tois megistasin autou
the birthday his   meal   made   the lords   his

'A strategic day came, when Herod on his birthday gave a banquet for his lords.'

Here, the nominative in Gothic simplifies the structural complexity of the Greek text. The Greek sentence encompasses all of Mark 6:21 and the first half of 6:22, seen in (18).

(18)   *Mark 6:22*

Go: jah at gaggandein inn dauhtar   Herodiadins   jah
and as going.ACC in daughter.ACC Herodias.GEN and

plinsjandein jah galeikandein Heroda   jah þaim
dancing.ACC and pleasing.ACC Herod.DAT and the.DAT

miþanakumbjandam, qaþ þiudans du þizai   maujai
with-reclining.DAT   said king   to the.DAT girl.DAT

Gk: kai eiselthousēs tēs thugatros   autou   Herodiados
    and entering.GEN the daughter.GEN himself.GEN Herodias.GEN

kai   orchēsamenēs ēresen tō   Herodē   kai
and   dancing.GEN   pleased the.DAT Herod.DAT and

tois   sunanakeimenois   eipen ho   basileus
the.DAT with-reclining.DAT   said   the.NOM king.NOM

tō   korasiō
the.DAT girl.DAT

'… and when the daughter of Herodias herself came in and danced, she pleased Herod and his dinner guests; and the king said to the girl …'

The Greek sentence has two genitive absolutes, one in example (17) and one in (18), both modifying the main clause "she pleased Herod" in (18). The string of genitive absolutes in the Greek relies on context for interpretation, while the Gothic makes the relationship between the absolute constructions and the matrix clause clear by varying the case of the absolutes. The nominative absolute signals a coordination relationship with the matrix clause, while the accusative absolutes stand in a subordinate relation to it. The accusative absolutes also signal the durative nature of the daughter's activities (cf. 5.1. above).

There are three nominative absolutes in the *Skeireins*, for which there is no extant Greek original text. One example may be found in (19), and as with the two nominative absolutes in the Bible, the semantic relationship between the absolute and the matrix clause is one of coordination rather than subordination.

(19)   *Skeireins 6b:25 ff*
    Iþ   þo   weihona   waurstwa unandsakana   wisandona,
    but the.NOM holy.NOM deeds.NOM undisputed.NOM being.NOM

gaswikunþjandona þis   waurkjandis   dom.
make-known.IMP   the Creator's   judgement

'But the holy deeds are undisputed; make the judgement of the Creator known.'

It is cross-linguistically rare to have an imperative as a matrix clause, which we have in this example. Though the semantic content of the absolute provides context for the imperative, the use of the nominative in the absolute construction signals that it stands in a coordinate relationship to the matrix clause. It is possible that coordinating a finite indicative verb with an imperative struck the author/translator of the *Skeireins* as odd for some reason, leading to his use of the nominative absolute.

The second example of a nominative absolute in the *Skeireins* may be seen in (20).

(20) *Skeireins IV.a.17 ff*

nauh	unkunnandans	þo	bi	nasjand,
yet.and	unknowing.NOM.MASC.PL	the.ACC.FEM.SG	regarding	Savior

inuh	þis	laiseiþ	ins
because.and	this	teaches.3SG	them

'They are still ignorant of the plan regarding the Savior, and because of this he [John] teaches them.'

Here the subject of the absolute is unexpressed, as is the subject of the main clause. However, the plural morphology on the participle contrasts with the singular morphology on the finite verb, making it clear that these have different subjects. It may in fact be the different subjects that led the author/translator to use a nominative absolute here rather than two conjoined finite clauses, to make the distinction between the subjects clearer.

The final example of a nominative absolute from the *Skeireins* provides the most convincing argument for nominative absolutes as equivalents for main clauses. In this example, seen in (21), the nominative absolute actually serves as the "matrix clause" for a dative absolute.

(21) *Skeireins II.d.2 ff*

at	raihtis	mann	us	missaleikom	wistim	ussatidamma,	us
as	indeed	man.DAT	of	various		natures	founded.DAT	of

saiwalai	raihtis	jah	leika,	jah	anþar	þize	anasiun
soul	indeed	and	body	and	other.NOM	these.GEN	visible

wisando,	anþaruh	þan	ahmein.
being.NOM	second.NOM	then	spirit.GEN

'As indeed man has been made out of various things, indeed of the soul and of the body, one of these is visible, and the other of the spirit.'

Here the nominative stands in place of a finite main clause. Indeed, there is no finite clause in the vicinity that could serve as the matrix clause for these absolutes.

The use of the nominative in the absolute construction to signal a coordinate relationship between the absolute and the matrix clause is a Gothic innovation in that such usage of the nominative absolute is not found in the Greek Bible. However, it may be that this use of the nominative absolute in Gothic is in fact inherited from Proto-Indo-European. If, as claimed in Holland (1986), such constructions are in fact nominal sentences that lack overt copulæ, their use in place of coordinated main clauses is unsurprising. This would also place nominative absolutes in opposition with absolutes in the oblique cases, where the relationship between the absolute construction and the matrix clause is one of subordination.

5.3   The Gothic genitive absolute

There is only one genitive absolute in the Gothic corpus, seen in (22).

(22)   *Mark 16:1*

Go: jah   inwisandins   sabbate   dagis   Marja   so
and   arrived.GEN.SG   Sabbath.GEN.PL   day.GEN.SG   Mary   the

Magdalene   jah   Marja   so   Iakobis   ja   Salome
Magdalene   and   Mary   the   Jacob.GEN   and   Salome

usbauhtedun   aromata
out-brought   spices

Gk: kai   diagenomenou   tou   sabbatou   Maria   hē
and   arrived.GEN.SG   the.GEN.SG   Sabbath.GEN.SG   Mary   the

Magdalele   kai   Maria   hē   [tou]   Iakōbou
Magdalene   and   Mary   the.FEM.NOM   the.MASC.GEN   Jacob.GEN

kai   Salome   ēgorasan   arōmata
and   Salome   out-brought   spices

'When the Sabbath was over, Mary Magdalene, and Mary the mother of James, and Salome, bought spices.'

As this is the only example of a genitive absolute in Gothic, any claims we might make about the use of the genitive absolute in Gothic would be purely speculative. However, it is striking that this is the only example of an absolute construction where the subject of the absolute is a named day. Thus it is possible that the use of the genitive here is parallel to the use of the genitive in iterative time expressions in other Germanic languages, for example in Modern German *montags* 'on Mondays'. Further evidence for the iterative nature of the time expression in this example is found in the fact that *sabbate* 'Sabbath' is a genitive plural, while *dagis* 'day' is a genitive singular. Thus we might translate the expression *sabbate dagis* as 'the recurring day on which Sabbaths occur'.

6.   Summary and conclusions

The present discussion has shown that absolute constructions are native to Gothic and that case variation in the Gothic absolute construction is systematic. The nativeness of the Gothic absolute construction emerges from the fact that Wulfila could translate Greek genitive absolutes with non-absolute constructions in Gothic, as discussed in Section 2, as well as insert an absolute into his translation where none exists in the Greek original, as seen in the examples in Table 2. In these examples, the Gothic absolute is not only idiomatic, but on occasion also makes implied semantic relationships in the Greek explicit.

The systematicity of case variation in Gothic also speaks to the status of the absolute construction in Gothic as a native construction. The use of the various cases is not random, as assumed by previous authors such as Lücke (1876) and Durante (1969), nor can it be explained away through emendation, as attempted in Costello (1980). Thus neither the nominative nor the accusative absolutes in Gothic can be seen as corrupted dative absolutes, as claimed by Costello. Instead, the choice of case in the Gothic absolute construction depends on the semantic relationship between the matrix clause and the absolute construction, the tense/aspect of its participle, and the thematic role of its subject.

The dative is the most common case found in the absolute construction in Gothic, and thus may be viewed as the unmarked case of the absolute. Other case markings, as well as the use of *at* to introduce the absolute, are marked, and thus impart a special semantic interpretation to the absolute construction. Most common are the use of *at* with the dative, followed by the accusative and the nominative. Also attested are the use of the genitive, and the use of *at* with the accusative. Our findings are summarized in Table 1 above.

In conclusion, the Gothic absolute construction was subject to a complex and systematic set of rules, which provided the translator of the Gothic Bible and the author/translator of the *Skeireins* with a finely calibrated tool for expressing nuanced syntactic relationships. Their sophisticated use of the absolute construction demonstrates not only that Gothic syntax operates independently of the Greek original, but also that Gothic provides a rich corpus in terms of types (though not of tokens) for the study of the use of case.

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Some semantic and pragmatic aspects of object alternation in Early Vedic*

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In Early Vedic, the earliest attested stage of Indo-Aryan, many two-place verbs allow their object argument to be alternately expressed by two or more case categories, i.e., they show *object alternation*. In this paper I examine three different object alternation patterns and show that they have similar semantic and pragmatic properties. I argue that the object case marking and object alternation options of a given verb depends on two semantic dimensions, namely its relative inherent transitivity and its aspectual properties. Interestingly, the use of the Early Vedic case categories as object markers appears to be partially independent of their use as adverbial adjuncts. The various object alternation patterns found in Early Vedic represent a fruitful starting point for exploring the morphosyntax-semantics interface in this language.

1.   Introduction

Early Vedic has a bewildering variety of argument realization patterns. The second argument of two-place verbs can be expressed by six different case categories in this language. Moreover, several individual verbs have their second argument expressed by two or more case categories, a phenomenon which is often referred to as object

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alternation or differential object marking (cf. e.g., Butt 2006 with references). However, despite the fact that the case syntax of Early Vedic has been thoroughly investigated in a number of studies (e.g., Delbrück 1867, 1869; Siecke 1869, 1876; Gaedicke 1880; Jamison 1976; Haudry 1977; Hettrich 2007, forthcoming), the various object alternation patterns in Early Vedic have not received much attention in the scholarly literature. This fact is both surprising and understandable. It is surprising as Early Vedic has a rich system of object alternation and thus provides much interesting data for the typological study of object alternation phenomena and it is understandable as the Early Vedic data are often difficult to evaluate. For one thing, the corpus is very limited and hence the attestation of a given construction type is sometimes extremely scarce. Thus, the fact that a given verb is only attested with a given type of object is not sufficient to exclude the possibility that it did not have any other argument realization options. Moreover, the Early Vedic sources mainly consist of sacrificial hymns which in most cases are directly addressed to various gods and forces of nature, partly mentioning various mythical deeds carried out by the addressee and partly exhorting the addressee to act in some manner beneficial to the speaker. The hymns generally provide very little contextual information, so the interpretation of a given construction in a given passage often remains obscure.

However, although these restrictions pose severe limitations on our understanding of the Early Vedic language, the problems they cause are at least to some extent possible to overcome. For instance, we may entertain fairly precise assumptions about what types of verbal predicates may be expected to show object alternation and what types may not on the basis of the many recent language-specific and typological studies of argument realization in general and object alternation in particular (cf. e.g., Kiparsky 1998, 2001; Blume 1998; Levin 1999; Levin & Rappaport Hovav 2005; Beavers 2006; Partee 2007). Moreover, on closer examination it appears that the semantic effect of the various object alternation patterns in Early Vedic systematically corresponds to that of object alternation patterns in other languages, but that the particular alternation pattern depends on the semantic properties of the lexical verb. More specifically, verbal predicates with a relatively high inherent transitivity in a sense to be defined below tend to select one object alternation pattern, whereas verbal predicates with a relatively low inherent transitivity tend to select another. It is noteworthy, however, that the various object alternation types examined here have more or less identical semantic and pragmatic effects. Two or more case categories typically have different implications with regard to whether the noun phrase has a definite or an indefinite reading and whether verb phrase has a telic or an atelic reading. My main claim here is that the various object alternation patterns in Early Vedic have largely the same range of discourse functions as similar constructions in other languages (cf. e.g., Kiparsky 1998 on Finnish, Svenonius 2002 on Icelandic and Partee 2007 on Russian). I also argue that an assumption which seems to be implicit in other work (e.g., Hettrich 2007), namely that the use of the Early Vedic case categories as object markers is intimately linked to their use as adverbial

adjuncts, may have to be slightly revised. The various patterns of object alternation found in Early Vedic rather seem to reflect that the various case categories are associated with different aspectually relevant semantic properties in this type of environment. Moreover, the exact semantic contribution of a given case category to the verb phrase varies according to the semantic properties of the verb and to the other available object realization options associated with the verb. Although this point may seem opaque, I hope it will be clearer in the course of this paper.

A predicate decomposition approach to verbal semantics along the lines of Levin & Rappaport Hovav (1995 and elsewhere) combined with a prototype approach to semantic transitivity provides a fruitful framework for exploring the Early Vedic data. Rather than offering a detailed study of every single object alternation pattern found in this language, I have chosen to limit my scope to three alternation patterns: one in which the accusative alternates with the genitive, one in which the accusative alternates with the instrumental and one in which the instrumental alternates with the locative. Moreover, I attempt to pinpoint some semantic and pragmatic factors which contribute to determining the distribution of the various case categories in each of these patterns. This is not to say, however, that the other patterns are uninteresting, but I will have to reserve a discussion of them for future work.

The paper is organized as follows. Section 2 contains a discussion of the basic theoretical assumptions made in this paper. Section 3 contains a discussion of the Early Vedic data. Section 4 contains a summary and conclusion.

2.   Semantic transitivity and object case marking: A prototype approach

I noted in the previous section that there is a significant cross-linguistic tendency that some types of verbs allow object alternation, whereas other types of verbs are generally incompatible with construction type. This section aims at developing a theory about the semantic underpinnings of argument realization in general and object alternation in particular.

According to a wide-spread view the argument realization options of verbal predicates are systematically constrained by their semantic properties (cf. e.g., Dowty 1991; Blume 1998; Levin 1999; Beavers 2006). This view typically presupposes that the semantic properties of individual verbal lexemes include several lexical entailments which among other things are relevant for the morphosyntactic realization of their second argument. It is questionable, however, whether all elements of verb meaning play an equally important role in this respect. Therefore it is tempting to adopt an assumption that has been central in recent research within lexical semantics, that verb meaning consists of two components, namely *the grammatically relevant aspects of verb meaning* and *the idiosyncratic aspects of verb meaning* (cf. e.g., Levin 1999; Levin & Rappaport Hovav 1995). The grammatically relevant elements of verb meaning are

common to a large number of verbs and systematically determine their morphosyntactic behavior. The idiosyncratic elements of verb meaning, on the other hand, are peculiar to a particular predicate and distinguish it from other predicates with similar semantic and morphosyntactic properties. This distinction is intuitively clear and reasonable. Consider for instance the near-synonym two-place predicates *execute* and *murder*. For one thing, both these predicates entail that the first argument is volitional and sentient and that the second argument is sentient and is totally affected by the situation. Verbs like *break* and *fracture*, on the other hand, share the entailment that the second argument is totally affected by the situation, but they neither entail a sentient and volitional first argument nor a sentient second argument. Their different lexical entailments are reflected in their different morphosyntactic behavior (cf. also Levin 1993). For instance, whereas the two latter verbs are compatible with the so-called middle alternation (cf. *He broke the window: windows break easily* and *He split the log: logs split easily*) and with the so-called Instrument subject alternation (*He broke the window with a hammer: The hammer broke the window*; *He split the log with the axe: The axe split the log*), the two former verbs are incompatible with both these alternations (cf. *The hangman executed the convict: *Convicts execute easily*; *The thief murdered the housekeeper*: **Housekeepers murder easily* and *The hangman executed the convict with poison: *The poison executed the convict; The thief murdered the housekeeper with a poker: *The poker murdered the housekeeper*). The notions of sentience and volitionality, then, appear to determine the morphosyntactic behavior of verbs and may accordingly be regarded as grammatically relevant.

However, although there is a close semantic resemblance between *execute* and *murder*, these two verbs are clearly not synonymous. For one thing, the verb *execute* in the sense intended here entails that the first argument puts the second argument to death in accordance with some principle of justice, a presupposition which is not shared by the verb *murder* which on the contrary typically implies that the situation is an act of injustice or cruelty. This semantic difference does not, however, have any morphosyntactic repercussions and may within the present framework be assumed to reflect the different idiosyncratic semantic properties of the two predicates.

Although verbs of killing like *execute* and *murder* and two-place change of state verbs like *break* and *split* differ in some interesting respects, they pattern identically with regard to their argument realization options. These verbs may generally be characterized as *causative-transitive* as they entail that the second argument undergoes a change of state caused by the first argument. Interestingly, causative-transitive two-place verbs invariably take the canonical case frame associated with two-place verbal predicates, i.e., they take a nominative-accusative case frame in nominative-accusative languages and an ergative-absolutive case frame in ergative languages. In contrast, non-causative two-place verbs, like interaction verbs (e.g., *help* and *agree*) and psychological verbs (e.g., *like* and *fear*), show a considerable variation across languages as

to the realization of their semantic arguments. This may be illustrated by the different argument realization patterns of the non-causative two-place German interaction verb *helfen* 'help' which takes an object argument in the dative and its English counterpart which takes an object argument in the accusative (cf. Tsunoda 1985; Blume 1998 & Levin 1999 for further examples).[1]

(1) *Peter   hat   mir   geholfen*
     Peter.NOM   AUX   me.DAT   helped
     'Peter helped me'

Moreover, as pointed out by Levin (1999), near-synonymous non-causative two-place verbs often show different patterns of object realization even within one and the same language. Consider for instance the English verbs *watch* and *look*. These verbal predicates have more or less identical semantic properties and have similar morphosyntactic properties (cf. Levin 1993). Interestingly, however, the second arguments of these verbs do not have identical morphosyntactic expressions. Whereas *watch* takes the canonical case marking pattern in English, *look* demands a non-canonical expression of its second argument, compare *He watched her* and *He looked at her*. The fact that these verbs have almost identical semantic and morphosyntactic properties strongly suggests that their different argument realization patterns are somehow rooted in their idiosyncratic semantic properties rather than in their grammatically relevant semantic properties.

To account for the divergent argument realization patterns of causative-transitive and non-causative two-place verbs, Levin (1999) suggests an explanation in terms of event structure. Within her theory the aspects of verb meaning relevant for argument realization are represented by so-called event structure templates, whereas the idiosyncratic aspects of verb meaning are represented by the so-called core meaning of a verb. These two components are assumed to be the basic building blocks of verb meaning (cf. Rappaport Hovav & Levin 1998). The theory rests on the hypothesis that Universal Grammar licenses a limited number of event structure templates which constitute the inventory of possible event types. The number of possible core meanings, on the other hand, is virtually unlimited. In (2) and (3) I have included a schematic representation of some recurrent types of event structure templates (after Levin 1999)

(2) Simple event structure templates:
     a. [x ACT ⟨MANNER⟩] ('activity')
     b. [x ⟨STATE⟩] ('state')
     c. [BECOME[x ⟨STATE⟩]] ('achievement')

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1. I use the following abbreviations in the glosses: NOM: Nominative, VOC: Vocative, ACC: Accusative, DAT: Dative, GEN: Genitive, INS: Instrumental, LOC: Locative, ABL: Ablative, AUX: Auxiliary, PRS: Present, IPF: Imperfect, AOR: Aorist, PRF: Perfect, IMP: Imperative, MID: Middle, ABS: Absolutive, SBJ: Subjunctive.

(3)   Complex event structure template
      [[x ACT ⟨manner⟩] CAUSE [BECOME[y ⟨state⟩]]] (causative)

The event structure templates in (2) and (3) are intended as abstract representations of the grammatically relevant information encoded by verbal lexemes. They include a situation of a certain, very general type and one or more argument variables, which are commonly referred to as 'structure participants'. An important difference between the simple event structure templates in (2) and the complex event structure template in (3) is that the former are taken to denote simple situation types consisting of one subevent with one structure participant whereas the latter denotes a complex situation type consisting of two distinct subevents each with one structure participant.

The above assumptions provide a way of formulating some general constraints on the possible morphosyntactic realization of verbal arguments. As a first approximation, consider the so-called 'Argument Realization Condition' proposed by Rappaport Hovav and Levin (1998: 113) which is intended to restrain the morphosyntactic realization of verbal arguments.

(4)   **Argument Realization Condition:**
      a.   There must be an argument XP in the syntax for each structure participant
           in the event structure.
      b.   Each argument XP in the syntax must be associated with an identified
           subevent in the event structure.

Among other things, this condition demands that verbal lexemes which have a complex event structure template like that in (3b) above must have two surface arguments. Verbal lexemes which have a simple event structure template like those in (3a) above, on the other hand, must have one surface argument. Under this formulation, the distinction between simple and complex event structure templates roughly corresponds to that between intransitive and causative-transitive verbs.

So far I have left open the status of non-causative two-place verbs. Levin (1999) observes that non-causative two-place verbs and one-place verbs with a simple event structure template have similar morphosyntactic properties. This may be taken as an indication that non-causative two-place verbs have a simple event structure template (cf. Levin 1999: 234ff.). If this is correct, the second argument of two-place verbs with a simple event structure template can hardly be licensed by the event structure template, which by definition presupposes one argument only. On the other hand, the possibility remains that the second argument of this kind of verbs is licensed by the core meaning of the verb and this is exactly how Levin (1999) solves the problem. She suggests that some verbal arguments are licensed by the event structure template, as well as by the core meaning of the verb, whereas others are licensed by the core meaning alone. On this assumption, one may distinguish two structurally distinct types of two-place verbs, namely those with two structure arguments and those with one structure

argument and one 'core' argument. The first class of verbs would include verbs with a complex, causative-transitive event structure template, whereas the second class of verbs would include verbs with a simple event, non-causative event structure template combined with a core meaning presupposing two semantic arguments.

The distinction between the two structurally different types of two-place verbs has some rather interesting consequences as regards the morphosyntactic realization of object arguments. I noted earlier that causative-transitive verbs take a direct object in the accusative in nominative/accusative languages or absolutive in ergative languages. This fact finds a straightforward explanation within the framework discussed so far. By hypothesis, the object argument of causative-transitive verbs is licensed both by the event structure template and by the core meaning of the verb. Levin (1999) notes that the object arguments of causative-transitive verbs have a unified semantic characterization and that they may be taken to represent the patient role which is semantically highly general. As these arguments are licensed by the event structure, the linking rules specifying their morphosyntactic realization relate directly to their position in the event structure and, moreover, apply identically to all causative-transitive verbs, given the unified semantic properties of the object argument of these verbs. Therefore it is not surprising that the object argument of these verbal predicates have a unified morphosyntactic expression both within and across languages. The second argument of non-causative two-place verbs, on the other hand, is licensed by the core meaning only and arguments belonging to this group cannot easily be given a unified semantic characterization. As these arguments are licensed by the idiosyncratic semantic properties of individual verbs it would hardly be surprising if their morphosyntactic realization were to show a considerable variation both within and across languages.

This hypothesis may be further strengthened by assuming that the particular choice of a given non-canonical object realization pattern reflects the semantic properties ascribed to the second argument by the core meaning of the verb. Consider for instance the near-synonymous pair of verbs *watch* and *look*. The first predicate lexically entails that the first argument actually apprehends the second argument, whereas the second predicate does not share this presupposition, as one can look at something superficially without really seeing it (cf. Levin 1993). It is tempting to suggest that this particular verb selects a prepositional phrase with a basically local meaning as its complement exactly because it often implies that the act of observation is relatively superficial. In section 3 below I examine to what extent the Early Vedic data corroborate this hypothesis, i.e., whether non-canonical argument realization patterns tend to be semantically transparent in the sense that the use of a case category as an object marker is synchronically related to its other salient uses.

The hypothesis that only two-place verbs with a simple event structure template can take a non-canonical object realization construction has at least one important consequence. As alternating object realization patterns minimally presuppose that the

verb is compatible with one non-canonical argument realization pattern, causative-transitive verbs would be expected to be universally incompatible with alternating object case marking. I will assume this as a working hypothesis in the remainder of this paper.

The event structure templates in (2) and (3) above represent one dimension of lexical meaning which has impact on argument realization in general and object alternation in particular. Although the above event structure templates bear an obvious similarity to the classical situation types identified by Vendler (1957), it is worth stressing here that the event structure templates should not be understood in aspectual terms. A growing body of evidence suggests that the semantic differences between the event structure templates are not temporal in nature and that the event structure templates accordingly should be disentangled from aspectual notions in general and telicity in particular (cf. Hay et al. 1999; Levin 1999, 2000; Rappaport Hovav & Levin 2005). More specifically, the notion of causation should probably be kept strictly apart from the notion of a lexically specified change of state, which appears to be one of the factors determining whether the verb phrase has a telic reading or not. However, there is some evidence that the argument realization options of a verbal predicate are partly conditioned by whether it inherently denotes a change of state or not. For instance, verbs like *break* or *split* which inherently denote a change of state are generally incompatible with the conative construction (cf. **He broke at the window*, **He split at the log*), whereas verbs like *cut* or *carve* are perfectly compatible with this construction (cf. *He cut at the log, He carved at the log*). In general, change of state verbs typically select the canonical argument realization pattern in a language and do not show object alternation (cf. e.g., Kiparsky 1998; Beavers 2006). This may be taken as an indication that aspectual notions play a role in argument selection after all and it is therefore necessary to examine some aspectual notions which are often lexically specified.

I assume as a working hypothesis that there is a universal inventory of six different types of lexemes which differ with regard to three privative aspectually relevant semantic features, namely whether they denote a change of state or not ([+Change of State]), whether they denote two or more discrete preterminal stages or not ([+Dynamic]) and whether they are punctual or not ([+Punctual]) (cf. e.g., Olsen 1995; Smith 1997; Rothstein 2004; Dahl 2008). The six types of verbs are listed and defined in Table 1 below.

I have already noted that two-place change of state verbs seem to have fewer argument realization options than verbs that are not encoded for the Change of State feature (cf. also Jónsson this volume on dative verbs in Insular Scandinavian). It remains unclear, however, to what extent the two other lexically specified aspectual features have impact on the argument realization options of the verb. Levin (1999) notes in passing that the assumption of an aspectually defined stative event type seems to be well motivated, something which would imply that the Dynamicity feature is relevant in this respect as well. There is in fact some evidence that the difference between

Table 1. The semantic properties of the verb types.

	[+Change of State]	[+Dynamic]	[+Punctual]
'States'			
'Activities'		+	
'Instantaneous Achievements'	+		+
'Semelfactives'		+	+
'Achievements'	+		
'Accomplishments'	+	+	

dynamic and non-dynamic verbs plays some role in the licensing of arguments in the sense that two-place stative predicates strongly tend to take non-canonical argument realization options and generally seem to select different object alternation patterns than corresponding dynamic predicates. I am unaware of any evidence that the Punctuality feature has impact on argument realization and this feature will therefore mostly be left out of the following discussion.

In the course of this section I have identified several distinct lexically specified semantic features that seem to have impact on the argument realization options of any given two-place verb, namely whether the predicate implies that the second argument undergoes a (total) *change of state*, whether it is *dynamic*, whether it lexically entails that the first argument is *sentient* and whether it is *volitional*. I regard these semantic features as privative, so that a verb unmarked for a given feature is semantically underspecified for and hence in principle compatible with that feature. In many respects, causative-transitive verbs denoting a change of state may be regarded as prototypically transitive and it is reasonable to suggest that two-place verbs are organized hierarchically, with causative-transitive verbs in the most prominent position and other two-place verbs ordered downwards according to their respective lexical entailments (cf. Tsunoda 1985; Blume 1998 for similar suggestions). Along the lines of Grimm (2005) I would like to propose that the hierarchical ordering of two-place predicates assumes the form of a lattice structure, as illustrated in Figure 1. It is important to stress, however, that various other semantic properties may be relevant as well, but the semantic properties included here seem to be particularly important for determining the argument realization options of a given verbal predicate. This notion of prototypical transitivity accommodates the intuition that the core group of transitive verbs consists of causative accomplishments, that not all accomplishments are causative and that not all causative verbs are accomplishments.

This paper rests on the assumption that the hierarchical organization of two-place verbal predicates plays a major role in the organization of language-specific argument realization systems. More specifically, I assume that the relative position of a given
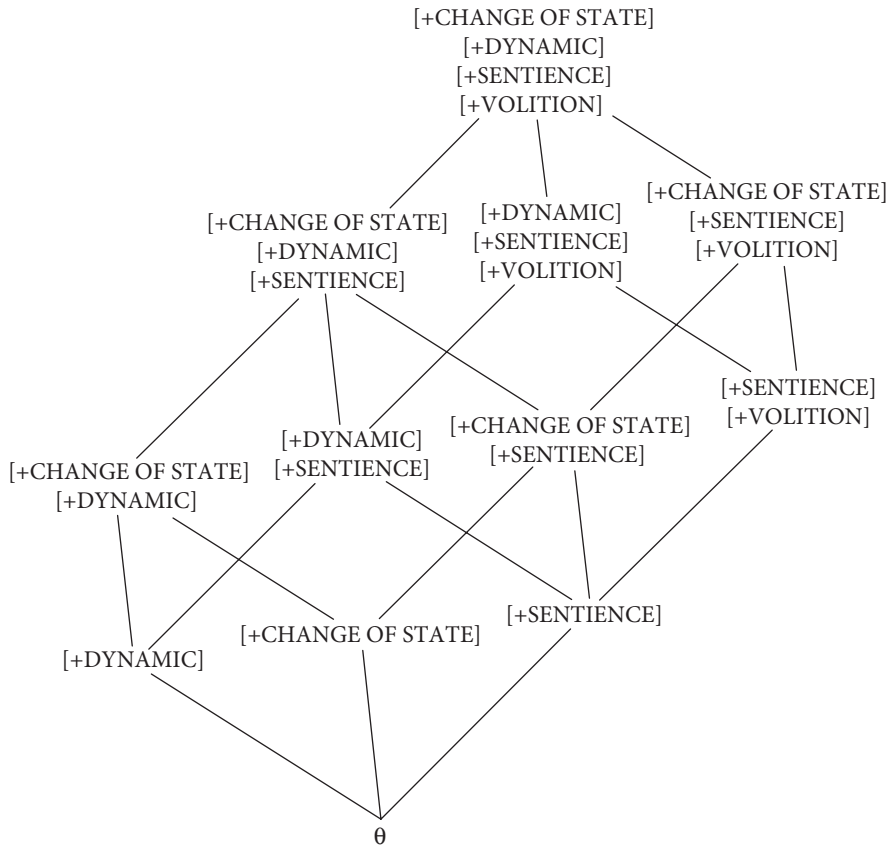
Figure 1. Transitivity properties organized via a lattice.

two-place verb on the transitivity lattice determines its argument realization options, in the sense that there is an inverse proportionality relation between the relative transitivity of a given predicate and the probability that it selects a non-canonical argument realization pattern. For instance, verbal predicates entailing that the second argument is totally affected by the situation are generally situated higher on the lattice and hence more likely to select a canonical case marking pattern than verbal predicates that do not carry this entailment. Verbal predicates that are located relatively low on the transitivity lattice, on the other hand, are more likely to select non-canonical case marking of their respective arguments. The language-specific argument realization patterns available for a given verbs at the lower end of the scale is strongly dependent on the morphosyntactic inventory of the language.

The prototype model of verbal transitivity outlined here gives rise to some interesting predictions with regard to object alternation as well. For instance, a verb situated

at the higher end of the transitivity lattice would generally not be expected to show object alternation, whereas two-place verbs having a lower inherent transitivity would be more likely to select an alternating morphosyntactic realization of their second argument. Moreover, on the assumption that the relevant semantic features are privative it is tempting to suggest that verbs lacking a particular semantic feature may select two alternating argument realization patterns to unambiguously express whether the feature is implied or not (cf. Beavers 2006; Dahl 2008).

According to the theory presented in this section, verb meaning consists of two components, namely a so-called event structure template which comprises some of the grammatically relevant semantic properties of the verb and the so-called core meaning which comprises the idiosyncratic aspects of verb meaning. Verbal arguments are typically licensed by the event structure template and the core meaning of the verb, but some arguments seem to be licensed by the core meaning alone. The different argument realization patterns associated with causative-transitive two-place verbs and non-causative two-place verbs may ultimately be reduced to a difference between two-place verbs with two arguments rooted in the event structure template and two-place verbs with one argument rooted in the event structure template and one argument licensed by the core meaning. Causative-transitive verbs may be regarded as prototypically transitive and other two-place verbs seemingly differ from causative-transitive verbs with regard to various lexical entailments. More generally, two-place verbs are hierarchically ordered in a lattice structure and the relative position of a given verbal predicate in this structure determines its argument realization options. Causative-transitive verbs are not expected to show object alternation because their second argument is totally affected by the situation and object alternation as a rule presupposes that the affectedness may be represented as partial and total (cf. Beavers 2006). Moreover, non-causative two-place change of state verbs are not expected to show object alternation, as they entail that the situation is temporally bounded and object alternation presupposes that the situation can be represented as bounded and unbounded, as the two variants in an alternation pair typically bear on this semantic distinction (cf. Kiparsky 1998; Beavers 2006). Two-place verbal predicates which are underspecified for the Change of State feature, on the other hand, may within the present framework be expected to show object alternation. In the next section I examine some patterns of object realization in Early Vedic from the point of view of the theory expounded here.

3.   Argument realization and object alternation in Early Vedic

3.1   Case and argument realization in Early Vedic

Early Vedic has a rich case system and a great variety of object realization patterns as six of the eight morphological case categories are occasionally used to express the

second argument of two-place verbs. The present study is based on an examination of the case marking patterns of 129 two-place verbs in the Rigveda, which constitutes the corpus of Early Vedic. It has an exclusively synchronic scope.

Early Vedic may be characterized as a nominative-accusative language. Causative-transitive verbs invariably select an accusative-marked second argument and the accusative is by far the most common object marker, even though the second argument of non-causative two-place verbs may be expressed by the dative, the genitive, the instrumental, the locative or the ablative as well. The first argument of two-place verbs, on the other hand, is almost universally realized by the nominative.[2] It can, however, be left unexpressed, as finite verbs show morphological agreement with the subject with regard to person and number. Case markers generally occur both on phrase heads and on modifiers in Early Vedic.

Table 2 contains a summary of the most salient functions of the Early Vedic case categories. For the sake of brevity, the nominative and the vocative have been omitted, since they are never used to express the second argument of two-place verbs and thus are left out of the following discussion.

Although all these case categories are occasionally used to express the second argument of two-place verbs in Early Vedic, they are not equally frequent. It is illustrative that 119 of the 129 verbal predicates investigated in this study are attested with an accusative-marked object argument and that 92 of these verbs are exclusively attested with a second argument expressed by the accusative. In contrast, only two verbs are attested with an ablative-marked object argument. About 54 of the verbal predicates that exclusively take the accusative seem to have an unequivocal causative-transitive meaning and the remaining 38 have a less distinctively transitive meaning. The examples in (5) illustrate that causative-transitive predicates, non-causative two-place activity and state verbs alike are exclusively attested with a second argument in the accusative.

Table 2. The salient functions of the Early Vedic case categories.

Accusative	Patient, Goal
Dative	Benefactive/Malefactive, Recipient, Possessor, Goal
Genitive	Partitive, Possessor, Benefactive
Instrumental	Instrument, Agent, Sociative, Cause, Path
Ablative	Cause, Origin
Locative	Location

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2.   This general rule applies almost universally to one, two and three-place predicates alike. There are, however, a couple of marginal counterexamples where the subject argument of a passive clause derived from ingestion verbs is realized as a genitive.

(5) a. túbhyam *bráhmāṇi*   *várdhanā*   *kṛṇomi*
         you.DAT   prayers.ACC wholesome.ACC make.PRS
         'I am making wholesome prayers for you' (RV VII 22.7)

     b. víśve   paśyanti *uṣásaṃ* *vibhātím*
         everyone.NOM look.PRS dawn.ACC splendid.ACC
         'Everyone is looking at the splendid dawn' (RV VII 78.4)

     c. *vā́r*   ín   maṇḍū́ka ichati
         water.ACC indeed frog.NOM desire.PRS
         'Indeed, a frog desires water' (RV IX 112.4)

As regards the non-causative two-place verbs that are only attested with the accusative, it is ultimately impossible to establish whether the accusative was their only available object realization option. However, the verbal predicates *paś-* 'look at' and *eṣ-* 'desire' are relatively well attested and one may therefore be fairly confident that their second argument as a rule was expressed by the accusative.

The 36 two-place verbs which are attested with other patterns of object case marking, on the other hand, are invariably non-causative and underspecified with regard to the change of state feature. Some of the possible object realization patterns of these verbs are illustrated by the examples in (6).

(6) a. *dadhikrā́vṇo*   akāriṣaṃ   *jiṣṇór*   *áśvasya*   *vājínaḥ*
         Dadhikravan.GEN celebrate.AOR victorious.GEN steed.GEN   strong.GEN
         'I have celebrated Dadhikravan, the victorious, strong steed' (RV IV 39.6)

     b. ayáṃ   ha   *túbhyaṃ* váruṇo   hṛṇīte
         this.NOM indeed   you.DAT   Varuṇa.NOM be-angry.PRS
         'Indeed this Varuṇa is angry with you' (RV VII 86.3)

     c. átaś   cid   *índrād* abhayanta   devā́
         from.that.time indeed Indra.ABL be-afraid.IPF gods.NOM
         'From that time on the gods were afraid of Indra' (RV V 30.5)

The relationship between verbal semantics and non-canonical object realization is generally transparent in Early Vedic, something which is well illustrated by the three examples in (6). According to the prototype approach to transitivity developed in Section 2 above the verb *kar^i-* 'praise, extol' may be characterized as inherently more transitive than the verbal predicates *har^i-* 'be angry or wroth' and *bhay^i-* 'fear'. The verbal predicate *kar^i-* 'celebrate, extol' seemingly presupposes a sentient and volitional first argument and thus is not among the least transitive types of two-place verbs. The two other verbs, *har^i-* 'be angry or wroth' and *bhay^i-* 'fear' lexically entail that the first argument is sentient, but not that it is volitional. In the first case, the first argument has an agentive character. In the second and third case, on the other hand, it rather has the character of an experiencer subject. Verbs belonging

to this latter class, then, have a lower inherent transitivity than those belonging to the first class.

As these verbs are non-causative and hence by hypothesis have a simple event structure template, their second argument is licensed by the idiosyncratic semantic properties of the individual verbs. This assumption readily accounts for the non-canonical case marking patterns exemplified in (6) above. More specifically, the second argument of a two-place verb of praising like *kar^i*- 'celebrate, extol' has semantic properties of a benefactive rather than a patient and as the genitive among other things is used to express exactly the benefactive role, as noted in Table 2 above, the use of the genitive to express the second argument of this particular verb makes perfect sense. Likewise, the use of the dative to express the second argument of the verbal predicate *har^i*- 'be angry or wroth' follows quite naturally from the use of the dative to express the malefactive role. Finally, the use of the ablative with the verbal predicate *bhay^i*- 'fear' is clearly linked with the use of the ablative to express the origin or cause. From another perspective one could argue that verbs like *har^i*- 'be angry or wroth' and *bhay^i*- 'fear' denote something like an inverse transitive relation and they may therefore be expected to select an object realization pattern which is maximally different from that of prototypical transitive verbs.

Having thus established that there is a general tendency in Early Vedic that non-canonical object realization patterns are semantically transparent, I shall now discuss some selected patterns of object alternation and how the various object realization options affect the interpretation of the resultant verb phrase.

3.2   Verbs alternating between the accusative and the genitive

The most common object alternation pattern in Early Vedic is constituted by the accusative and the genitive. Twelve verbs in my data are attested with an object argument alternating between these two cases. Three of these verbs are occasionally attested with a second argument morphosyntactically realized by other case categories, namely the dative, locative or instrumental. I limit the discussion in this section to the alternation between the accusative and the genitive, omitting the other argument realization possibilities for the sake of brevity. Some of the relevant data I omit here are discussed in the following sections.

The two-place predicates participating in the accusative/genitive alternation fall into five semantically distinct classes, namely *ingestion verbs* (*ad-* 'eat', *aś-* 'eat/drink', *pā-^(1)* 'drink'), *verbs of contact by impact* (*jambh-* 'bite'), *perception/comprehension verbs* (*cet-* 'behold, see', *man-* 'think about', *ved-* 'find, learn, know', *śrav-* 'hear, listen'), *verbs of desire* (*kam-* 'long for', *vay^i*- 'wish, strive for') and *verbs of authority/possession* (*īś-* 'control', *kṣay-^(2)* 'have power over'). In the following, each of these classes is discussed in turn.

3.2.1   *Ingestion verbs*

Ingestion verbs are dynamic, they presuppose a sentient and volitional first argu-
ment, but do not entail that the second argument undergoes a total change of state.
Within the present framework, this amounts to saying that only their first argument
is licensed by the event structure template, their second argument being licensed by
their core meaning.

In the Early Vedic texts ingestion verbs typically select a mass noun in the singular
or a count noun in the plural as their second argument, but it may also be left unex-
pressed. According to the philological tradition the accusative is used to express that
the second argument is fully consumed, whereas the genitive expresses that only a part
of the second argument is consumed. This semantic distinction may be illustrated by
the examples in (7).

(7)   a.   simá   *ukṣṇó   avasṛṣṭám̐*   adanti
             themselves.NOM   oxen.ACC   released.ACC   eat.PRS
             'They eat the released oxen themselves' (RV X 28.11)

       b.   pácanti   te   vṛṣabhám̐   átsi   *téṣām*
             cook.PRS   you.DAT   bulls.ACC   eat.PRS   them.GEN
             'They cook bulls for you, you eat (some) of them' (RV X 28.3)

In these examples, the semantic difference between the verb constellation *ukṣṇó
avasṛṣṭám̐ adanti* 'they eat/are eating the oxen' and *átsi téṣām* 'you eat/are eating of
them' can be fully accounted for in terms of total and partial consumption of consum-
able objects. As ingestion verbs do not entail that their second argument undergoes a
total change of state, they may either be interpreted as involving a total consumption or
as involving a partial consumption. From this perspective, the alternation between the
accusative and the genitive clearly seems to represent a way of explicitly distinguishing
two possible interpretations which are available because the verb itself is underspeci-
fied with regard to the change of state feature. From a language-internal perspective
the semantic contrast between the partitive genitive and the semantically more neutral
accusative is well suited to express this type of contrast. At this level of description, the
accusative/genitive alternation primarily relates to the semantic properties of the noun
phrase and this is exactly what one would expect given the traditional analyses of this
alternation (cf. e.g., Delbrück 1888; MacDonell 1916).

In most of the attested cases the noun phrase expressing the second argument is
not explicitly quantized. In a few cases, however, a quantized noun phrase is found and
in these cases the accusative is invariably used as the object marker, as illustrated by
the examples in (8).

(8)   a.   ghṛtásya   *stokáṃ*   sakṛ́d   áhna   āśnām
             ghee.GEN   drop.ACC   once   day.GEN   consume.IPF
             'Once a day I consumed a drop of ghee' (RV X 95.16)

b. ékayā   pratidhā́   apibat   sākám   *sárāṃsi*
    one.INS   draught.INS   drink.IPF   simultaneously   ponds.ACC

    triṃśátam   índraḥ   sómasya
    thirty   Indra.NOM   soma.GEN

    'In one draught Indra simultaneously drank thirty ponds of soma'

    (RV VIII 77.4)

On the basis of the examples in (7) and (8), it is tempting to conclude that the accusative as a rule is used to denote a specific quantity of a consumable entity, whereas the genitive is used to denote an unspecific quantity of such an entity. These considerations suggest that the alternation between the accusative and the genitive with ingestion verbs should be evaluated along two slightly distinct dimensions. At one level, the fact that these verbs are underspecified for the change of state feature motivates the alternation between the accusative of total consumption and the genitive of partial consumption. At another level, the semantic difference between the two types of verb phrases resulting from this alternation may be expected to give rise to different sets of context-dependent implicatures. A tempting assumption along the lines of Krifka (1998) would be that verb phrases consisting of an ingestion verb with an accusative-marked second argument always have a telic reading, i.e., they denote a temporally bounded situation. Verb phrases consisting of an ingestion verb with a genitive-marked second argument, on the other hand, may be taken to have an atelic reading, i.e., they denote a situation which is temporally unbounded. However, we need to consider how this assumption can be tested on the Early Vedic data. It is well-known that definiteness markers represent one common way of distinguishing telic and atelic verb phrases in languages like English. Verb phrases with an object argument consisting of a definite noun phrase generally have a telic reading, whereas verb phrases with an object argument consisting of an indefinite bare mass or plural noun phrase generally have an atelic reading. However, although Early Vedic has five demonstrative pronouns which represent a straightforward way of marking a noun phrase as definite, definiteness is not obligatorily expressed and bare noun phrases are typically vague between a definite and an indefinite reading (cf. Dahl 2008). As ingestion verbs typically have an object argument consisting of a bare mass noun or a bare plural count noun in Early Vedic the actually attested verb phrases are prima facie vague between a telic and an atelic reading.

From this perspective it is interesting to note that the accusative and the genitive in some cases clearly give rise to different definiteness readings when used as the object marker of ingestion verbs. This is neatly illustrated by the examples in (9), where the accusative-marked noun phrase *sómam* in *ápāḥ sómam* 'you have drunk the soma' clearly has a definite reading, whereas the genitive-marked noun phrase *sómasya* in *sómasya ápām* 'I have drunk soma' has an indefinite reading.

(9) a. ápāḥ   *sómam.* ástam   indra   prá yāhi
         drink.AOR soma.ACC home.ACC Indra.VOC go.IMP
          'You have drunk the soma. Go home, Indra!' (RV III 53.6)

     b. kuvít   *sómasya* ápām
         whether soma.GEN   drink.AOR
         'Have I drunk soma?' (RV X 119.1)

These data indicate that the alternation between the accusative and the genitive represent one strategy for marking definiteness distinctions in Early Vedic and may in my opinion be taken as indirect evidence for the assumption that the two case-marking patterns have impact on the aspectual properties of the verb phrase.

   However, the claim that the accusative is associated with a definite reading, whereas the genitive gives rise to an indefinite reading is apparently contradicted by passages like those in (8) above where the accusative-marked noun phrase clearly has an indefinite interpretation, and like the one in (10), where the genitive-marked pronouns *tásya* 'of it' and *ásya* 'of this here' clearly refer to an entity that has already been introduced in the discourse and thus have definite reference.

(10) a. arváṅ éhi   sómakāmaṃ   tuvā   āhur
          hither come.IMP soma-lover.ACC you.ACC   say.PRF

          ayáṃ   sutás   *tásya* pibā   mádāya
          this.NOM   juice.NOM   it.GEN   drink.IMP inebriation.DAT

          'Come hither! They say you are a lover of soma. This is the juice. Drink of it
          to inebriation' (RV I 104.9)

      b. táva   ayáṃ   somas.   tuvám
          you.GEN   this-here.NOM soma.NOM   you.NOM

          éhi   arváṅ. chaśvattamám sumánā
          come.IMP   hither   once more   gracious.NOM

          asyá   pāhi
          this-here.GEN   drink.IMP

          'This soma here (is) yours. You, come hither! Drink once more thereof, you
          gracious one' (RV III 35.6)

It is not immediately clear, however, that examples like those in (8) and (10) suffice to falsify the above claim. I noted that the accusative and the genitive apparently give rise to definiteness effects with noun phrases consisting of a bare singular mass noun or a bare plural count noun. Interestingly, neither of the noun phrases *stokám* 'drop' and *sárāṃsi triṃśátam* 'thirty ponds' in (8) belong to these two classes of noun phrases and the rule stated above therefore does not apply to them. On the other hand, the pronouns *tásya* 'of it' and *ásya* 'of this here' in example (10) have an inherently definite meaning and the rule stated above therefore does not apply in these cases either.

These considerations suggest that the definiteness contrasts arising from the accusative/genitive alternation with ingestion verbs are limited to certain types of noun phrases and hence are pragmatic rather than semantic in nature, as they can be defeated by contextual and lexical factors. On the basis of the preceding discussion it is tempting to suggest that the definiteness effects associated with this particular object alternation pattern is an epiphenomenon of the different aspectual readings arising from the total/partitive distinction associated with these two case categories.

Furthermore, the assumption that the accusative/genitive alternation gives rise to an aspectual difference at the verb phrase level is corroborated by the fact that the two constructions sometimes gives rise to different context-dependent implicatures, something which is particularly clear in contexts with a past reference time. Consider for instance the examples in (11).

(11) a. āmúṣyā   *sómam*   apibaś   camū́
          steal.ABS soma.ACC   drink.IPF vessel.LOC

          sutám.   jyéṣṭhaṃ   tád   dadhiṣe   sáhaḥ
          juice.ACC   highest.ACC then   seize.PRF   power.ACC

          'Having stolen (it), you drank the soma juice in the vessel. Then you seized the highest power' (RV VIII 4.4)

      b. índra   marutva   ihá   pāhi   sómaṃ
          Indra.VOC   with-maruts here   drink.IMP soma.ACC

          yáthā   śāryāté   ápibaḥ   *sutásya*
          as   Śāryāta.LOC   drink.IPF soma-juice.GEN

          'O Indra, you who are attended by the Maruts, drink the soma here, just as you drank soma-juice at Śāryāta's place' (RV III 51.7)

The context in the first example strongly suggests that the verb phrase *sómam apibas sutám* 'you drank the soma juice' refers to a single, specific situation which is located in the past. In the second example, however, the verb phrase *ápibaḥ sutásya* 'you drank soma' rather seems to have a generic reading, something which above all is indicated by the immediately preceding context: Indra is invited to drink the soma offered to him at speech time and the speaker reminds him of the fact that he previously used to enjoy soma offered to him by the mythical sage Śāryata. These examples clearly illustrate how the basic semantic difference between telic accomplishment predicates and atelic activity predicates gives rise to different pragmatically conditioned readings. There is some evidence, however, that this pragmatic flexibility at least partly is favoured by the Imperfect, which represents a general past imperfective category and thus has a semantically relatively unspecific character (cf Dahl 2008). The past perfective Aorist Indicative, on the other hand, typically

induces a specific reading when combined with ingestion verbs regardless of whether the object argument is case marked by the accusative or the genitive, as illustrated by the examples in (12).

(12) a ápāma *sómam* amŕ̥tā abhūma
         drink.AOR soma.ACC immortal.NOM become.AOR
         'We have drunk the soma, we have become immortal' (RV VIII 48.3)

     b. mádhvaḥ ápā nas *tásya* *sacanásya* deva.
         mead.GEN drink.AOR we.GEN this.GEN graceful.GEN god.VOC

         íṣo yuvasva gr̥ṇaté.
         draughts.ACC procure.IMP singer.DAT

         'O God, you have drunk of that our graceful mead. Provide draughts for the singer' (RV VI 39.1)

The data discussed in this section suggest that the alternating use of the accusative and the genitive to express the second argument of ingestion verbs is motivated by the need to distinguish situations where the object argument is fully consumed and situations where only a part of the object argument is consumed. I argued that these two alternating object realization patterns have impact on the aspectual properties of the resultant verb phrases. More specifically, verb phrases consisting of an ingestion verb and an object argument case-marked by the accusative has a telic meaning, whereas verb phrases consisting of an ingestion verb and an object argument in the genitive case has an atelic meaning. In some cases, this aspectual distinction gives rise to a parallel definiteness distinction, where the accusative is associated with a definite reading, whereas the genitive is associated with an indefinite reading. This type of environment represents an area of the interface between morphosyntax, semantics and pragmatics which is particularly difficult to access in dead languages like Early Vedic. Therefore one cannot exclude that the present analysis is contingent on the semantic characteristics of ingestion verbs and it would be considerably strengthened if one could show that the accusative/genitive alternation has a similar effects on other verb classes. This question will constitute the main topic of the following sections.

3.2.2 *Perception/comprehension verbs*

In general, perception/comprehension verbs entail that the first argument is sentient, but are underspecified for the change of state feature, for dynamicity and for volitionality and thus have a relatively low inherent transitivity. Within the present framework, perception/comprehension verbs and ingestion verbs primarily differ with regard to their respective entailments about the first argument. In the unmarked case, the subject argument of perception/comprehension verbs may be characterized as an experiencer, unlike that of ingestion verbs which is more agent-like.

The use of the genitive as an object marker with perception/comprehension verbs seriously challenges the claim that the use of the case categories as object markers is semantically transparent in Early Vedic. It is not immediately obvious why the genitive is used to express the second argument of this class of verbs. As a first approximation one could assume that the use of the genitive to express the object argument of these verbs is somehow related to its use as a benefactive marker, as noted in Table 2 above. This assumption readily accounts for some interesting distributional differences between the accusative and the genitive with perception/ comprehension verbs. For instance, there is a marked tendency that the accusative is preferred as the object marker when the second argument is inanimate, whereas the genitive is used when it is animate, as illustrated by the examples in (13).

(13) a. víśvedeváḥ   śṛnutá   *imáṃ   hávam*   me
          all-gods.voc hear.imp this.acc invocation.acc me.gen
          'O all-gods, hear this invocation of mine' (RV VI 52.13)

      b. *śyāvā́śuvasya   sunvatás*   táthā śṛnu   yáthā́ áśṛṇor
          Śyāvāśuva.gen extracting.gen thus   hear.imp like   listen.ipf

          átreḥ   kármāṇi   kṛṇvatáḥ
          Atri.gen   sacred-deeds.acc   performing.gen
          'Listen thus to Śyāvāśuva, who is extracting (soma), as you listened to Atri, who was performing sacred deeds' (RV VIII 36.7)

In these examples, the accusative-marked noun phrase *imam hávam* 'this invocation' may be interpreted as an incremental theme argument, whereas the genitive-marked noun phrases *śyāvā́śuvasya sunvatás* 'Śyāvāśuva extracting' and *átreḥ kármāṇi kṛṇvatáḥ* 'Atri performing sacred deeds' may plausibly be interpreted as benefactive-like arguments.

The accusative is, however, not excluded as an object marker of animate second arguments. In fact, the accusative seems to be the only option when the second argument is syntactically realized as a complex noun phrase consisting of a noun and a predicative modifier. Consider for instance the examples in (14), where the verbal predicates *ved-* 'know' and *śrav^i-* 'hear' have the meaning 'know/hear that somebody is something'.

(14) a. vidmā́   hí   *tvā*   *vŕ̥ṣantamaṃ*
          know.prs for you.acc strongest.acc
          'For we know you as the strongest' (RV I 10.10)

      b. *bhiṣáktamaṃ*   *tvā*   bhiṣájām   śṛṇomi
          most-healing.acc you.acc healing.gen hear.prs
          'I hear that you are the most healing among the healing' (RV II 33.4)

These distributional differences are not easy to account for in terms of partial vs. total affectedness, as these verbs do not really imply that the second argument is affected by the situation at all. They are, on the other hand, easily accommodated as reflections of a benefactive vs. non-benefactive distinction.

It is unclear, however, whether this assumption can account for all instances of the accusative/genitive alternation with perception/comprehension verbs. For instance, it is not obvious that the genitive-marked second arguments of the verb *cet-* 'perceive, observe' are any more benefactive-like than the accusative-marked second argument in the examples in (15). Nor is it evident, on the other hand, that these examples can be accounted for in terms of total vs. partial affectedness of the second argument.

(15) a. yát   sā́noḥ   sā́num   áruhad   bhū́ri   áspaṣṭa
          when   summit.ABL   summit.ACC   ascend.AOR   much.ACC   see.AOR

          kártuvam,   tád   índro   *ártham*   cetati
          to-be-done.ACC   then   Indra.NOM   aim.ACC   perceive.PRS

          'When he had ascended from summit to summit and had seen that much
          was to be done, then Indra perceived the aim' (RV I 10.2)

     b. sá   hí   kṣáyeṇa   *kṣámiyasya jánmanaḥ*   sā́mrājiyena
          he.NOM   for   dwelling.INS   earthly.GEN race.GEN   sovereignty.INS

          diviyásya   cétati
          heavenly.GEN   perceive.PRS

          'For by means of his dwelling-place he observes the earthly race, by means
          of his sovereignty the heavenly' (RV VII 46.2)

     c. sá   sukrátuḥ   puróhito   dáme-dame   agnír
          he.NOM   wise.NOM   priest.NOM   every-house.LOC   Agni.NOM

          yajñásya   *adhvarásya*   cetati
          sacrifice.GEN   oblation.GEN   observe.PRS

          'He, the wise domestic priest, Agni, observes sacrifice and oblation in every
          house' (RV I 128.4)

In these cases, the relevant difference seems to be whether the situation is represented as temporally bounded or unbounded rather than whether the second argument is represented as benefactive-like or not. It is also worth noting that the genitive-marked second argument in neither of these examples can plausibly be interpreted as partitive at the noun phrase level, but rather must be interpreted as atelic at the verb phrase level.

If my interpretation of the above examples is correct, they indicate that the alternation between the accusative and the genitive has a similar impact on the aspectual properties of the resultant verb phrase with perception/comprehension verbs as was argued to be the case with ingestion verbs. From a more general perspective, this may

be taken to indicate that the Early Vedic accusative/genitive alternation is associated with a distinction between telic and atelic verb phrases regardless of whether the base verb allows for a distinction between full and partial affectedness. I have found no evidence, however, that this alternation pattern gives rise to definiteness effects with perception/comprehension verbs. Thus the case for assuming that the accusative/genitive alternation represents a systematic morphosyntactic way of distinguishing telic and atelic verb phrases has been somewhat strengthened. In the following sections I will explore to what extent this claim can account for the distribution of the accusative and the genitive with other verb classes as well.

3.2.3   *Verbs of desire*

Verbs of desire are generally underspecified for the change of state feature and for dynamicity. They presuppose a sentient and volitional first argument. They therefore seem to be somewhat less inherently transitive than ingestion verbs and somewhat more inherently transitive than the perception/comprehension verbs.

As a rule, verbs of desire take a second argument in the accusative in Early Vedic, but in a few cases, verbs belonging to this class are attested with a second argument in the genitive. The examples in (16) illustrate the alternation between the accusative and the genitive with verbs of desire:

(16) a. agnír   jāgāra   *tám*   ŕ̥caḥ   kāmayante
          Agni.NOM   awake.PRF   he.ACC   sacred-verses.NOM   long-for.PRS
          'Agni is awake. The sacred verses long for him' (RV V 44.15)

      b. yá   ādhrā́ya   cakamānā́ya   *pitvó*
          who.NOM   poor.DAT   longing-for.DAT   food.GEN

          ánnavān   sán   raphitā́ya   upajagmúṣe
          having-food.NOM   being.NOM   miserable.DAT   coming.DAT

          sthirám   mánaḥ   kr̥ṇuté
          hard.ACC   mind.ACC   make.PRS

          'He who although he has food makes his mind hard towards the miserable poor one who comes longing for food …' (RV X 117.2)

In the previous discussion I suggested that the genitive is generally associated with an atelic meaning, whereas the accusative is associated with a telic meaning. However, it remains unclear to what extent this suggestion can explain the distribution of the genitive and the accusative in the examples in (16), as both these verb phrases seem to have an atelic meaning. It is noteworthy, on the other hand, that the accusative is used with a definite meaning, whereas the genitive is apparently used with an indefinite meaning. I noted in section 3.2.1 above that the alternation between the accusative and the genitive in some cases gives rise to definiteness effects with ingestion verbs. On the face of

it, this could be the motivation for the distribution of the accusative and the genitive with verbs of desire in the above examples. Unfortunately, however, the Early Vedic data are too scarce to substantiate this claim any further.

3.2.4   Verbs of contact by impact

Verbs belonging to this semantic class are typically underspecified for the change of state feature and for dynamicity and presuppose a sentient and volitional first argument. Thus they represent a verb class of intermediate transitivity.

Verbs of contact by impact typically take an object argument in the accusative in Early Vedic. Only one verb of this type is once attested with a genitive-marked second argument, namely the verb *jambh-* 'bite'. The passage in which this verb occurs with a second argument in the genitive is cited in (17).

(17) yám   imáṃ   tvám   vṛṣákapim   priyám   indra
      who.ACC   this.ACC you.NOM Vṛṣákapi.ACC dear.ACC   Indra.VOC

      abhirákṣasi   śuvá   nú   *asya*   jambhiṣad   ápi   kárṇe
      protect.PRS   dog.NOM   now   he.GEN   bite.SBJ   over   ear.LOC

      varāhayúr
      fit-for-boar-hunting.NOM

      'This Vṛṣákapi, who is dear (to you) and whom you are protecting, him shall the boar-hunting dog now bite at, over his ear' (RV X 86.4)

Traditional scholarship assumes that the genitive in this example gives the resultant verb constellation a conative-like meaning (cf. e.g., Geldner 1951). On the background of the previous discussion this interpretation seems very plausible. The use of the genitive in this case may be taken as a special instantiation of the use of the genitive as a marker of atelic verb phrases, with other classes of verbs as discussed previously in this section.

3.2.5   Verbs of authority/possession

Verbs of authority/possession are underspecified with regard to the change of state feature, dynamicity and volitionality and typically presuppose a sentient first argument. As a rule, these verbs have a stative character in Early Vedic and generally may be taken to be situated low on the transitivity lattice.

Verbs of this type generally take a genitive-marked second argument in Early Vedic. This may be motivated by the use of the genitive as a possessor marker. From a more general perspective, the use of the genitive to express the second argument of these verbs is fully in line with its more general function as a marker of atelic verb phrases, as these basically stative predicates typically denote a temporally unbounded situation. In a few cases, however, the second argument of verbs of authority/possession is expressed by the accusative, as illustrated by the passages in (18).

(18) a. ā́ satvanaír   ájati   hánti   vṛtráṃ   kṣéti
          to warriors.INS assail.PRS defeat.PRS enemy.ACC   control.PRS

          kṣitī́ḥ
          races-of-men.ACC

          'With his warriors he attacks and defeats his enemy with his warriors, he
          gains control over the races of men' (RV V 37.4)

      b. yád indra   yā́vatas   tuvám   *etā́vad*   ahám
          if   Indra.VOC as-much.GEN you.NOM   so-much.ACC I.NOM

          ī́śīya   stotáram   íd   didhiṣeya
          possess.OPT singer.ACC   indeed   want-to-win.OPT

          'If I got to possess so much as you Indra, then I would indeed want to win
          the singer for me' (RV VII 32.18)

On the basis of the previous discussion it is tempting to suggest that the use of the
accusative in these cases is motivated by the need of an expression which unambigu-
ously classifies the verb phrase as telic, as the genitive typically is associated with an
atelic meaning. If this suggestion is correct, the distribution of the accusative and the
genitive with authority/possession verbs conforms to the pattern shown by the other
verb classes discussed in the previous sections.

From the discussion in the last sections it may be concluded that the alternation
between the accusative and the genitive partly gives rise to definiteness effects at the
noun phrase level and partly to an aspectual contrast at the verb phrase level. In the
following two sections I will investigate whether some other recurring alternation pat-
terns in Early Vedic have similar semantic and/or pragmatic effects.

3.3   Verbs alternating between the accusative and the instrumental

The accusative/instrumental alternation is far less common than the accusative/geni-
tive alternation. Of the 129 verbs in my data, only five individual verbs are attested
by a second argument expressed by the accusative and the instrumental. Of these five
verbs, three are occasionally attested with a second argument morphosyntactically
realized by other case categories.

The verbs participating in the accusative/instrumental alternation fall into four
semantically distinct verb classes, namely *interaction verbs* (*yodh-* 'to fight'), *verbs of
association* (*sac-* 'accompany, follow'), *verbs of authority/possession* (*patya-* 'be lord')
and psychological verbs (*mad-* 'delight in, enjoy', *ran-* 'enjoy, have pleasure in'). These
verb classes have in common that they are underspecified with regard to the change
of state feature and that they entail that the first argument is sentient. Some of the rel-
evant verbs, like *yodh-* 'fight' and *sac-* 'follow' have a dynamic meaning and presuppose
that the first argument is volitional, whereas others, like *patya-* 'be lord', *mad-* 'delight

in, enjoy' and *ran-* 'enjoy, have pleasure in', are apparently underspecified with regard to dynamicity and volitionality. Interestingly, the two former verbs do not show other argument realization options, whereas the three latter verbs have in common that they are occasionally attested with a locative-marked second argument. In this section, I discuss the two verbs that are exclusively attested with a second argument case-marked by the accusative or the instrumental. A discussion of the other pertinent verbs is postponed to section 3.4 below.

Interestingly, the instrumental almost exclusively occurs with middle forms of the verb, that is, forms that are typically associated with a lower degree of transitivity than the active paradigm (cf. e.g., Gonda 1979). Among other things, middle forms of interaction verbs like *yodh-* 'fight' and association verbs like *sac-* 'follow, associate with' are often used reciprocally, as illustrated by the examples in (19):

(19) a. índraś   ca   yád   *yuyudhā́te*   áhiś
          Indra.NOM   and   when fight.PRFMID dragon.NOM
          'When Indra and the dragon fought each other' (RV I 32.13)

      b. ajā́   iva   yamā́   váramā́   *sacethe*
          two-goats.NOM like twin.NOM according-to-wish follow.PRSMID
          'Like two twin goats you follow each other as you wish' (RV II 39.2)

Table 2 above shows that one of the salient functions of the instrumental is to express concomitance and it is reasonable to assume that the use of the instrumental with middle forms of interaction verbs and verbs of association is closely related to this basic function. The examples in (20) illustrate that middle forms with an instrumental-marked second argument have an interpretation which is very similar, if not identical to the reciprocal middle forms in (19).

(20) a. tuvám   vidhartaḥ   sacase
          you.NOM   distributor.VOC   associate-with.PRSMID
          púraṃdhiyā
          goddess-of-liberality.INS
          'O distributer of goods, you associate with the Goddess of Liberality'
                                                              (RV II 1.3)

      b. bahū́ni   me   ákṛtā   kártuvāni   yúdhyai
          many.ACC me.DAT   undone.ACC to-be-done.ACC fight.SBJMID
          tuvena   sáṃ   tuvena   pṛchai
          one.INS   together   one.INS   greet.SBJMID
          'There are many undone deeds for me to be done. I will fight with one,
          I will exchange greetings with another' (RV IV 18.2)

The use of the instrumental with these verbs, then, seems to be motivated by the fact that their core meaning allows for a reciprocal interpretation, hence selecting an appropriate

case category as the expression of their object argument. The examples in (20) show that the construction with the instrumental is compatible with a definite as well as an indefinite meaning, just like the construction with the genitive in the previous section. Now the question remains as to how the construction with the instrumental is related to the construction with the accusative.

Unlike the instrumental, the accusative is found with both active and middle forms of the verbal paradigm, as illustrated by the examples in (21).

(21) a. tákvā   ná bhū́rṇir *vánā*   siṣakti
       predator.NOM like wild.NOM trees.ACC follow.PRS
       'Like a predator he follows the trees' (RV I 66.2)

    b. havíṣ   *kṛṇvántam*   sacase   suastáye
       libation.ACC making.ACC   follow.PRSMID prosperity.DAT
       'To prosperity you follow him who makes libation' (RV V 28.2)

From a comparison of the examples in (20) and (21) is appears that the construction with the accusative has a more distinctly transitive meaning than the construction with the instrumental. Consider the examples in (20a) and (21a) which both belong to hymns addressed to Agni, the god of fire. In (20a), the poet addresses the god as a generous distributor of goods who associates with the Goddess of Liberality. In contrast, (21a) refers to the ravaging of the God of Fire who is described as haunting the trees like a predator haunting its prey. In the first case, the construction clearly has a reciprocal-like meaning which is not available in the second case. Note, however, that the accusative is compatible with a reciprocal-like meaning as well when the verb is marked for middle voice, as illustrated by the example in (21b).

Interestingly, the examples in (20) and (21) suggest that both the accusative and the instrumental are compatible with a definite and an indefinite reading. In this respect, this alternation pattern differs slightly from the accusative/genitive alternation, where the accusative generally tends to be incompatible with an indefinite reading. On the other hand, the examples just discussed seem to suggest that the accusative is selected in contexts favouring a telic reading, whereas the genitive is found in contexts where a telic reading is less obvious. This impression is corroborated by the fact that the construction with the accusative is the rule in past tense contexts where a telic reading is intended, as illustrated by the examples in (22).

(22) a. yátra *devā́m̐*   *r̥ghāyató*   *víśvām̐* áyudhya   éka   ít
       where gods.ACC   raging.ACC   all.ACC   fight.IPF one.NOM indeed

       tuvám   indra   vanū́m̐r áhan
       you.NOM   Indra.VOC Vanus.ACC

       'Where you alone defeated all the raging gods, o Indra, and defeated the Vanus' (RV IV 30.5)

b. | abhí | jaítrīr | asacanta | *spṛdhānám* | máhi | jyótis |
|---|---|---|---|---|---|
| to | victory.ACC | follow.IPF | contending.ACC | great.ACC | light.ACC |

támaso	nír ajānan
darkness.ABL	discern.IPF

'They followed the contending one to victory, they discerned the great light from the darkness' (RV III 31.4)

The accusative/instrumental alternation is limited to a fewer number of verb classes than the accusative/genitive alternation and is primarily found with verbs that have a relatively low inherent transitivity. This alternation pattern primarily affects the relative transitivity of the clause as the instrumental tends to yield a reciprocal-like reading, whereas the accusative appears to be compatible with this type of reading only if the verb is in the middle voice. Unlike the accusative/genitive alternation it does not seem to give rise to definiteness effects. However, there is some evidence that the distribution of the accusative and the instrumental to some extent at least is governed by whether the clause has a telic or an atelic reading just like the alternation between the accusative and the genitive discussed in Section 3.2 above. In the next section I shall examine a third alternation pattern in which the locative alternates with the instrumental.

3.4   Verbs alternating between the locative and the instrumental

The locative/instrumental alternation is about as common as the accusative/instrumental alternation. Only five verbs in my data show this alternation pattern. Four of these verbs are occasionally attested with other types of case-marking on their object argument. The verbs participating in this alternation fall into two distinct semantic classes, namely *psychological verbs* (*kan-/kā-* 'be fond of', *mad-* 'delight in, enjoy', *mod-* 'be happy with', *ran-* 'enjoy, have pleasure in') and *verbs of authority/possession* (*patya-* 'be lord over'). In the following, I will briefly discuss each of these in turn.

3.4.1   *Psychological verbs*
Psychological verbs constitute the largest single class of verbs which allow their object argument to be alternately case-marked by the locative or the instrumental. It is therefore appropriate to examine the use of the locative and the instrumental with these verbs before turning to the single-membered class of authority/possession verbs. Interestingly, several of the psychological verbs discussed here also show other patterns of case marking, most notably the accusative and the genitive. Regrettably, I have to reserve a discussion of the relationship between the two alternation patterns with these verbs for another occasion.

All the psych verbs that are attested with this alternation type denote a positive psychological state of the first argument. These verbs presuppose a sentient first argument and are underspecified for the change of state feature, dynamicity and volitionality.

Most of these verbs have a distinctly stative meaning, thus being close to maximally different from prototypically transitive verbs. Psychological verbs in general tend to select non-canonical patterns of object realization, as illustrated by examples (6b) and (6c) above and it is therefore not surprising that the argument alternation options of these verbs are different from those associated with verbs closer to the transitive prototype.

It is not immediately obvious how the use of the instrumental and locative with these verbs is related to their other salient uses. As a first approximation one could suggest that the instrumental denotes the means with which the first argument attains or perpetuates the positive state denoted by the verb, whereas the locative denotes the domain to which the positive state is limited. Although these suggestions remain somewhat vague, they would provide a way of reconciling the use of these two case categories as the object markers of psychological verbs with their uses as adverbial adjuncts.

From the perspective of the present paper it is interesting that object arguments case-marked by the locative often have a definite reading, whereas the instrumental tends to give rise to an indefinite reading, as illustrated by the examples in (23).

(23) a. *sumnéṣu*   íd   vo   ántamā   madema
    favours.LOC indeed your intimate-friends.NOM enjoy.OPT
    'May we indeed enjoy the favours of yours as intimate friends' (RV VI 52.14)

    b. *rāyā́*   vayáṃ   sasavā́ṃso   madema
    wealth.INS we.NOM victorious.NOM enjoy.OPT
    'May we, victorious, enjoy wealth' (RV IV 42.10)

A similar distributional pattern is found in relative clauses, where the locative is used with definite antecedents and the instrumental with indefinite antecedents, as illustrated by the examples in (24).

(24) a. ávaḥ   kútsam   indara   *yásmiñ* cākán
    favour.IPF Kutsa.ACC Indra.VOC who.LOC be-fond.INJ
    'You favoured Kutsa, whom you were fond of' (RV I 33.14)

    b. áyāhi   kṛṇávāma ta   índra   bráhmāṇi
    come-hither.IMP make.SUBJ you.DAT Indra.VOC prayers.ACC
    várdhanā   *yébhiḥ*   śaviṣṭha   cākáno
    strengthening.ACC which.INS strongest.VOC be-fond.SUBJ
    'O, Indra, come hither! We will make strengthening prayers for you, which you, o strongest one, will enjoy' (RV VIII 62.4)

It should be noted, however, that the instrumental is sometimes found where the noun phrase clearly has definite reference, as illustrated by the example in (25).

(25) diváspṛthivyór   *ávasā*   madema
    heaven-and-earth.GEN protection.INS enjoy.OPT
    'May we enjoy the protection of heaven and earth' (RV V 49.5)

This fact suggests that the instrumental is compatible with both a definite and an indefinite reading, whereas the locative typically gives rise to a definite reading. In this respect, the relationship between the locative and the instrumental with psych verbs is exactly parallel to the relationship between the accusative and the genitive with ingestion verbs and verbs of desire as discussed in section 3.2 above. However, I also noted that the accusative typically gives rise to a telic interpretation, whereas the genitive tends to give rise to an atelic interpretation with the various verb classes participating in that alternation. Furthermore, in section 3.3 above I suggested that the alternation between the accusative and the instrumental is associated with a similar aspectual distinction, the accusative giving rise to a telic reading and the instrumental giving rise to an atelic reading. On this background it is significant that the locative tends to be chosen when a telic reading is intended, as illustrated by the examples in (26).

(26) a. ád   asya   śuṣmíṇo   *ráse*   víśve devā́   amatsata
          then this.GEN   strong.GEN juice.LOC All-gods.NOM enjoy.AOR
          'Then the All-gods enjoyed the juice of the strong one' (RV IX 14.3)

      b. índraṃ   vardhantu   no   gíra,   índraṃ   sutā́sa
          Indra.ACC   strengthen.IMP our songs.NOM Indra.ACC extracted.NOM

          índavaḥ   *índre*   havíṣmatīr   víśo
          drops.NOM Indra.LOC oblation-offering.NOM clans.NOM

          arāṇiṣuḥ
          have-pleasure.AOR

          'May our songs strengthen Indra, may our extracted drops strengthen
          Indra. The oblation-offering clans have found pleasure in Indra'
                                                              (RV VIII 13.16)

These facts suggest that the locative and the instrumental are used as object markers of verbs with a low inherent transitivity, that they give rise to definiteness effects at the noun phrase level and that they represent a way of distinguishing telic and atelic verb phrases. The question arises as to whether these implicatures represent idiosyncratic peculiarities arising from the combination of psych verbs and these two case categories or whether they represent a more general property of two-place verbs with a low inherent transitivity. In the next section I will examine some data which speak in favour of the latter view.

3.4.2   *Verbs of authority/possession*
I noted in section 3.1 above that authority/possession verbs typically have a second argument alternatively realized by the accusative or the genitive in Early Vedic. Interestingly, however, one verbal predicate belonging to this semantic class shows an alternation between the accusative, the locative and the instrumental, namely the verb *patya-* 'to be lord, possess'. In this section I shall examine the use of the locative and

instrumental with this verb to see whether it conforms to the pattern shown by these case categories with psych verbs.

Unlike the other authority/possession verbs in Early Vedic, the verbal predicate *patya-* 'be lord, possess' is a synchronically transparent denominative verb, being related to the nouns *páti-* 'husband, lord, master'. Because of its synchronically transparent relation to this noun it may be expected to have somewhat different semantic properties than other verbs with a similar meaning. The fact that this verb shows a different case marking than other verbs belonging to the same semantic class may be regarded as a consequence of its peculiar status, both with regard to its morphosyntactic and its semantic properties.

The use of the locative to express the second argument of this particular verb is probably motivated by the basic local sense of this case, which may in turn be interpreted as the domain over which the authority extends. The use of the instrumental, on the other hand, is not as immediately transparent, as neither of the salient readings of the instrumental are implied by this verb (cf. Table 2 above). One likely motivation for the use of the instrumental with this particular verb may be that it sometimes gives rise to an indefinite and/or atelic reading, as noted in the previous sections.

Although this verb is scarcely attested, there is some evidence that the locative and instrumental have different implications with regard to definiteness and that the locative is used when the noun phrase has definite reference, whereas the instrumental is used when the noun phrase is indefinite, as illustrated by the examples in (27).

(27) a. índur   *devéṣu*   patyate
       drop.NOM   gods.LOC   be-lord.PRS
       'The drop (Soma) is lord of the gods' (RV IX 45.4)

     b. víśvaṃ   sá   deva   práti váram   agne
        all.ACC he.NOM   god.VOC   according-to-wish.ACC Agni.VOC

        dhatté   dhāníyam   pátyate   *vasavyaìḥ*
        get.PRS grain.ACC possess.PRS riches.INS
        'O divine Agni, he gets all the grain according to wish, he possesses riches'
                                                              (RV VI 13.4)

In this respect, the distribution of the locative and instrumental with *patya-* 'be lord, have power' largely corresponds to the distribution of these two case categories with psych verbs and to the distribution of the accusative, the genitive and the instrumental with other classes of verbs.

In a few cases, the construction with the locative induces a telic interpretation, as illustrated by the example in (28).

(28) índro   mahná   *pūrváhūtāv*   apatyata
     Indra.NOM might.INS first-invocation.LOC have-power.IPF
     'Because of his might, Indra got the power over the first invocation'
                                                              (Rigveda X 113.7)

If the interpretation of the above data is correct, it is tempting to conclude that the use of the locative with this verb is motivated by its idiosyncratic semantic properties. More specifically, the locative expresses the domain over which the authority extends and gives rise to definiteness and telicity effects. The use of the instrumental, on the other hand, is not semantically transparent, but the previous discussion has established that the instrumental is associated with an indefinite and atelic interpretation in other contexts and it is therefore likely that its use with this verb represents a particular instantiation of its use as a marker of indefiniteness and/or atelicity.

The findings of the previous and present sections suggest that the locative/instrumental alternation represents a way of distinguishing definite and indefinite noun phrases and telic and atelic verb phrases with some psychological verbs and with one authority/possession verb. Thus this alternation pattern roughly shows a similar distribution as the accusative/genitive alternation and the accusative/instrumental alternation with other two-place verbs.

4.   Summary and conclusion

In this paper I have examined three object alternation patterns in Early Vedic and have found that they appear to have largely corresponding semantic and pragmatic properties. They have been shown to express a definiteness distinction at the noun phrase level and a telicity distinction at the verb phrase level. The Early Vedic data suggest that the choice of a particular object alternation pattern is determined by the relative inherent transitivity of the verb. Although the use of the various case categories as object markers is generally predictable from their use as adverbial modifiers, there are some instances which apparently defy a strictly compositional analysis along these lines. This fact is interesting from a more general perspective, as they suggest that oblique case categories in some languages develop into aspectual predicate modifiers with functions that are independent of their use as adverbial adjuncts. However, in this paper I have only considered some of the many aspects of object alternation in Early Vedic and more detailed research is needed to clarify how the object case marking system was organized in this language.

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Discourse motivated subject marking

The case of the shifty ergative marker

A pragmatic shift in the ergative marker of one Australian mixed language*

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Gurindji Kriol is a mixed language spoken in northern Australia. It is derived from Gurindji, a Pama-Nyungan language, and Kriol, an English-lexifier creole language. Gurindji Kriol has adopted the argument marking systems from both source languages; case marking, specifically the ergative marker, from Gurindji, and SVO word order from Kriol. These two systems of argument marking were brought into contact and competition in the formation of the mixed language with two results: (i) word order has emerged as the dominant system in the mixed language, and (ii) ergative marking is optional. In this paper I argue that, though the ergative marker continues to contribute to argument disambiguation, its primary function is to accord discourse prominence to the agentivity of a nominal.

1. Introduction

The role of case systems in languages is traditionally conceived of in terms of argument disambiguation, where the primary function of case marking is to distinguish between the subject (A) and object (O) of a transitive verb (Dixon 1979: 117; 1994). However languages where structural case markers such as ergatives are optional present problems for this definition. Gurindji Kriol is one such example, employing ergative marking variably on the transitive (A) and intransitive subject (S). Gurindji Kriol is an Australian mixed language, which fuses Gurindji, a member of the Ngumpin-Yapa subgroup of the Pama-Nyungan family (McConvell 1996), with Kriol which is an English-lexifier creole spoken across the north of Australia (Munro 2000; Sandefur 1979). Gurindji Kriol has both a relatively strict SVO word order derived from Kriol and an ergative case marking system from Gurindji. I argue that the optional nature of

the ergative marker in Gurindji Kriol is the result of contact and competition between these two systems of argument marking in the process of the formation of this mixed language. Word order has emerged from this competition as the dominant system in the mixed language. However the Gurindji ergative case suffix has not disappeared. Though it contributes to argument disambiguation indirectly, in much the same manner as animacy and world knowledge, its distribution has changed radically such that it bears little resemblance to its Gurindji source. Where the ergative marks A arguments categorically in Gurindji, Gurindji Kriol employs the ergative marker only variably on these nominals, and it also found marking subjects of intransitive clauses. This pattern has been labelled 'optional ergativity' in similar accounts (McGregor &Verstraete forthcoming). Here I propose that the function of the Gurindji-derived ergative marker has been extended into the domain of information structure, specifically that the ergative marker is used to accord discourse prominence to the agentivity of a subject.

This paper begins by describing Gurindji Kriol and the behaviour of the ergative marker in the context of optional ergativity in other Australian languages (Section 2). Following this account, I describe the argument marking systems of Gurindji (Section 3.1) and Kriol (Section 3.2), which rely on case marking and word order, respectively. In Section 3.3, I discuss the argument marking system in Gurindji Kriol, and the role of the ergative marker within this system. I then investigate the motivations for the appearance of the ergative marker in Gurindji Kriol using a quantitative analysis[1] (Section 4). Various factors include transitivity variables, such as the animacy of the A argument, and clausal features such as word order and the presence of a co-referential pronoun, will be shown to affect the use of the ergative marker. Though this cluster of factors seems quite disparate, I suggest that they point to an analysis of the ergative marker as a suffix which interacts with the information structure of Gurindji Kriol (Section 5).

The data presented in this article were compiled during seven five-week field trips between 2003–2006 as a part of the Aboriginal Child Language (ACLA) project.[2] The data set consists of 1917 transitive clauses and 116 intransitive clauses with overt A or S nominals from 39 participants. They are grouped into three age categories: 6–15 yr old (15 speakers), 16–25 yr old (14 speakers), 26+ yr old (10 speakers). This subset of data

is derived from a larger set of recordings of conversation, picture-prompt narrative and picture-match elicitation games designed specifically for eliciting overt subject nominals and therefore potential ergative marking. Gurindji Kriol is a young language, probably only 30 years old (McConvell & Meakins 2005). As a result, variation is rife and grammatical patterns emerge as tendencies rather than rules. Large amounts of data from a variety of speakers and quantitative methods have been required to tease out some of these tendencies. As Sadler (this volume) observes in her paper about the development of the -*ni* marker in Japanese, functional changes often involve periods of overlap and therefore variation. It is likely that the window on Gurindji Kriol provided in this paper is one such period of transition with regard to ergative marking.

2.   Optional ergativity in Gurindji Kriol and other Australian languages

Gurindji Kriol originated from contact between non-indigenous colonists and the Gurindji people. In the early 1900s, white settlers set up cattle stations in the Victoria River District area, including on the homelands of the Gurindji. After an initial period of violent clashes, Gurindji people were put to work on the cattle stations as stockmen and kitchen hands in slave-like conditions (Hardy 1968). The *lingua franca* spoken by station owners and the Gurindji workers was a pidginised English, and later Kriol was introduced via imported Aboriginal labour. Kriol was added to the linguistic repertoire of the Gurindji, and in the 1970s, McConvell (1988) observed that code-switching between Kriol and Gurindji was the dominant language practice of Gurindji people. At this time, the linguistic practices of many Aboriginal groups across northern Australia were very similar. However, where Kriol replaced the traditional language of many other groups and code-switching was indicative of a decline in traditional language use, a mixed language originated from similar circumstances at Kalkaringi (McConvell & Meakins 2005; Meakins 2008).

Typologically, Gurindji Kriol is a V-N mixed language, a subclass of lexically mixed languages (Bakker 2003: 124) which includes Michif (Bakker 1997) and Light Warlpiri, a mixed language neighbouring Gurindji Kriol (O'Shannessy 2005). Gurindji Kriol exhibits a structural split between the NP and VP systems, but is lexically quite mixed. In terms of structure, Kriol contributes much of the verbal grammar including tense, aspect and mood auxiliaries, and transitive, aspect and derivational morphology. Gurindji supplies most of the NP structure including case and derivational morphology. This mixed language does not follow the same language-structure divide in its lexicon. Instead nominals and verbals are derived from both Gurindji and Kriol (Meakins 2007). The following excerpt typifies the mixed character of Gurindji Kriol. It comes from a story told by a 19 year old using a picture-prompt book. The book is concerned with the pursuit of a young bird by three boys, and the events that unfold

during the chase. Gurindji elements are italicised and Kriol elements are represented in plain font. All nominal subjects (S and A) are bolded.

(1)   (FM009.B: SS: Narrative)[3]

a.   **WB   an   LD   an   nyuntu,** yumob bin *jayijayi jurlaka* na.
     NAME **and** NAME **and 2SG**   2PL   NF chase   bird   DIS
     'WB and LD and you, you lot were chasing the bird.'

b.   **WB-ngku** baldan   na   *karnti-ngku* meik-im   im   baldan.
     NAME-ERG   fall.over DIS **branch-ERG** make-TRN 3SG.O   fall.over
     'WB falls over because the branch trips him up.'

c.   *nyuntu* **an** **LD-*tu***   *jayijayi* det *jurlaka.*
     2SG   **and** NAME-ERG chase   the bird
     'so now you and LD chase the bird.'

d.   *nyuntu* **an** **LD-*tu***   *jayijayi jurlaka* na.
     2SG   **and** NAME-ERG chase   bird   DIS
     'You and LD chase the bird.'

e.   binij   **LD**   gon, *karnti-ngku* *turrp* im   fut-*ta.*
     finish NAME   go   **branch-ERG** poke   3SG.O   foot-LOC
     'That's it, LD treads on a splinter which goes through his foot.'

f.   i   bin baldan *karnti* bin trip-im-oba   im   …
     3SG.S NF fall.over **branch** NF trip-TRN-over 3SG.O

     nyawa-ma yu   luk   hiya.
     this-DIS   2SG look here

     'He falls over because the branch trips him up. You look here.'

In this example, the nominal system is derived from Gurindji, including case (e.g., ergative *-ngku/-tu*, locative *-ta*) and the VP structure, including TAM markers (e.g., non-future *bin*, transitive marker *-im*) comes from Kriol. Lexically verbs and nominals come from both languages, for example, some verbs are derived from Gurindji, *turrp* 'poke', and some are from Kriol, *baldan* 'fall'. The source of nominals is also mixed, for e.g., *jurlaka* 'bird' is derived from Gurindji and *fut* 'foot' is from Kriol.

One of the striking features of this story is the speaker's use of the Gurindji ergative marker. In the first line, 'WB an LD an *nyuntu*' is the subject of the transitive verb *jayijayi* 'chase' , however this nominal does not receive ergative marking. Yet when this

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3.   All examples are referenced in this style (Recording Reference: Speaker Initials: Genre e.g., narrative, conversation, or peer elicitation). Peer elicitation was elicitation performed by Gurindji research assistants using picture prompt games. A number of narratives were told to the 'Frog, where are you?' book (Mayer 1994 [1969]) which is well known from many other studies. These examples are referenced as 'Frog story'.

verb is repeated in lines (c) and (d), ergative case is marked on the subject nominal. This variable use of the ergative marker is repeated in lines (e) and (f) with the inanimate subject, *karnti* 'branch' . Not only are these subject nominals variably marked, but the subject of the intransitive verb *baldan* 'fall' in (b) also receives ergative case. This excerpt exemplifies the use of the ergative marker in Gurindji Kriol, and what others have dubbed 'optional ergativity'.

Optional ergative languages are characterised by variation in the application of the ergative marker within its standard domain, but where it continues to indicate the grammatical role, A (McGregor & Verstraete forthcoming). Thus, where split ergative languages obligatorily mark A nominals within its domain of application (often according to animacy, person or aspect splits), the application of the ergative marker in optional ergative languages varies, and often extends to marking subjects of intransitive clauses. However split and optional ergativity are not mutually exclusive systems, with optional ergativity often overlaying a split ergative system, as is the case in optional ergative Australian languages. In Australian languages, optional ergativity has been widely reported as an *internal* feature of the language, as well as a result of *language contact*. Though many of the characteristics of optional ergative systems, such as variable marking on A and S arguments are similar across split ergative and optional ergative languages, descriptions of the these systems tend to be divided between contact and non-contact varieties. Where optional ergativity is not attributed to language contact, the ergative marker is generally ascribed discourse features, though it remains fundamentally an argument marker. In the case of contact languages, optional ergativity is considered a consequence of the adoption of word order as the primary argument marking system. I outline each of these optional ergative language types below.

Optional ergativity has been most commonly observed as an *internal* feature of some Australian languages, for example Baagandji (Hercus 1976), Gooniyandi (McGregor 1992, 1998), Jaminjung (Schultze-Berndt 2000, 2006), Kuuk Thaayorre (Gaby 2008), Murrinth-patha (Walsh 1976), Umpithamu (Verstraete 2005), Wagiman (Cook 1988) and Warrwa (McGregor 2006). Many accounts of optional ergativity in these languages suggest that the ergative marker encodes more than syntactic relations, with discourse variables generally considered to play a role in conditioning its distribution. The most thorough pragmatic account is McGregor's (1998; 1992; 2006) work on discourse level expectedness and the agentivity of an actor in Gooniyandi and Warrwa. McGregor defines 'expectedness' in terms of how predictable an actor is within a narrative episode, and animacy as a semantic value of the actor. Actors which are both expected and which have a normal level of agentivity are generally elided. A full nominal occurs when the actor is unexpected. In Gooniyandi, the presence of ergative marking on the full nominal signals normal or higher than expected agentivity, with the absence of marking signifying an actor low in agentivity (McGregor 1998: 518). In Warrwa (McGregor 2006), Kuuk Thaayorre (Gaby 2008) and Jaminjung

(Schultze-Berndt 2006), the presence of an ergative marker in transitive clauses is unmarked discursively, while the absence of an ergative marker signals an unusually low degree of agentivity. In Warrwa the use of a specific focal ergative marker signals higher agentivity and unexpectedness, and the non-use of either the focal or general ergative marker defocuses the agent (McGregor 2006). Although optional ergativity is described as an internal feature of these languages, I suggest that it is not clear whether language contact may have played a role in the development of these systems. Except for Murrinh-patha and Kuk Thaayorre, these languages have very few speakers left, and are under heavy functional pressure from Kriol and English. For example they are no longer the main everyday language of the speakers, and are not being transmitted to children. Thus it seems unlikely that these languages have remained unaffected by language contact.

The variable use of the ergative marker has also been attributed to *language contact*, specifically, the adoption of the English/Kriol SVO word order system of indicating arguments. For example, Schmidt (1985) describes optional ergativity in young people's Dyirbal in terms of the incremental replacement of the case marking system, with an English/Kriol word order system and prepositions. At the stage of language death, which she documents, ergative marking has become optional, with the predicted end point, the complete replacement of the Dyirbal system of argument marking with word order. Bavin and Shopen (1985) find similar patterns in the use of the word order and the ergative marker in the children's variety of Warlpiri spoken at Yuendumu. They observe that children produce transitive subjects preceding objects more often than OA patterns, and do not always use the ergative marker where it would be expected. Bavin and Shopen suggest that these children sometimes rely on word order to signal grammatical relations, making ergative marking redundant. Finally in Light Warlpiri, the predominant word order is SVO, and ergative marking is more likely to be found when the A nominal appears post-verbally. The ergative marker has also adopted discourse functions relating to discourse prominence, which is similar to that which I will describe for Gurindji Kriol (O'Shannessy 2005). More information about Australian case-systems in contact with word order can be found in Meakins and O'Shannessy (submitted).

The adoption of SVO word order seems to be common in situations of contact between Australian languages and English/Kriol, and seems to precipitate a change in a pre-existing argument marking system. However where this phenomenon has been observed, the nature of the interaction between the two systems is not well documented. For example, in Dyirbal it is not clear whether SVO word order is the only pattern available to speakers, and following from this, whether ergative marking is affected if the subject is found post-verbally. It is also assumed that optional ergativity is representative of the remnants of an argument marking system, and the potential transformation of the ergative marker is not investigated further. In the following

sections I draw on the literature on optional ergative languages in situations of con-tact and non-contact to give a synchronic view of the function of ergative marking in Gurindji Kriol. I demonstrate that its variable application correlates with a num-ber of transitivity and clausal features which can be accounted for within a unified description of its function as a discourse marker. I begin by describing the competition between functionally equivalent argument marking systems from Gurindji and Kriol.

3.   Argument marking in Gurindji, Kriol, and Gurindji Kriol

3.1   Argument marking in Gurindji

Gurindji is a morphologically ergative language (Dixon 1972, 1994; Van Valin 1981) with a split case marking system which follows a commonly observed division along free vs bound nominals (Dixon 1994). Following Goddard's (1982) distinction between case form and case marking, Gurindji can be analysed as having a tripartite case system which distinguishes the three core case categories: ergative, nominative and accusa-tive, which map onto the A, S and O argument respectively. Morphologically, however, there is a three way marking split between nouns, bound pronouns and free pronouns. An accusative marking pattern in the bound pronoun paradigm is the result of syn-cretism between the ergative and nominative case forms, and an ergative pattern in the noun system arises from syncretism between the nominative and accusative case forms. The case forms in the free pronouns are completely syncretised providing no marking distinction between the ergative, nominative and accusative categories.

Table 1. Core cases and their respective forms in Gurindji.

Core case	Noun	Pronoun (bound)	Emphatic pronoun
Ergative (A)	-ngku (+allomorphs)	-rna (1SG)	ngayu
Nominative (S)	Ø	-rna (1SG)	ngayu
Accusative (O)	Ø	-yi (1SG)	ngayu

Gurindji is typical of many non-configurational languages, such as Warlpiri, in that nominals are commonly ellipsed and are cross-referenced by pronominal clit-ics. These clitics attach to an auxiliary, for example ngu, which is most often found in second position. Word order is relatively flexible and largely dependent on informa-tion structure, with discourse prominent constituents presented in first position. All elements of the noun phrase are case marked. These features are demonstrated in (2). Ergative case marking is obligatory in transitive clauses, and optional in semi-transitive clauses, that is clauses where the object is marked dative (McConvell 1996: 36). The

nature of optional ergativity in semi-transitive clauses has not been documented. The ergative marker is also found on adverbs of manner, instruments as in (2), question nominals and coverbs in subordinate switch reference constructions.

(2) *wirnangpurru₂* **karu-walija-ngku₁** *yapakayi-ngku₁* *ngu-lu₁-Ø₂*
kangaroo.ACC   **boy-PAUC-ERG**   **small-ERG**   AUX-3PL.S-3SG

kayikay *pa-nana* *kurrupartu-yawung-kulu.*
chase   hit-PRS.IMP boomerang-PROP-ERG

'**The boys** chased the kangaroo with a boomerang.'

3.2 Argument marking in Kriol

In contrast to Gurindji, Kriol does not mark argument nominals morphologically, but through word order which it derives from English (Munro 2005: 119). SVO word order is the pragmatically unmarked pattern, with deviations affecting the information packaging of the clause, as shown in (3) and (4). In (4), the object *dij wan man* is fronted and brought into focus. In the pronoun system, Kriol also behaves like English, using different forms to mark arguments on a nominative-accusative basis. As in Gurindji, Kriol nouns and pronouns may be elided. Thus through word order and pronoun case forms encodes the two grammatical roles of subject and object.

Table 2. Core cases and their respective forms in Kriol.

Core case	Noun	Pronoun (Free)
Nominative (A&S)	pre-verbal	*ai* (1SG)[4]
Accusative (O)	post-verbal	*mi* (1SG)

(3) **det dog** im bait-im   det old man la   arm.
the dog 3SG bite-TRN the old man PREP arm
'**The dog** bites the old man on the arm.' (FHM096: CN: Peer Elicitation)

(4) dis   wan man **det jinek** im bait-im   la   arm.
this one man **the snake** 3SG bite-TRN PREP arm.
'It was the man that **the snake** bit on the arm.' (FHM096: CN: Peer Elicitation)

3.3 Argument marking in Gurindji Kriol

The argument marking system in Gurindji Kriol is the sum of the contact and competition between the Gurindji and Kriol systems. I suggest that these two argument

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4.   Note that the third person singular form 'im' is used across A, O and S roles.

marking systems came into contact as a result of code-switching in the 1970s. The case system from Gurindji and word order from Kriol were recognised as functional equivalents, and competition between these systems ensued. This competition has resulted in two outcomes: (i) the dominance of SVO word order, and (ii) optional ergativity. This section will discuss each of these outcomes and the implications for argument marking in Gurindji Kriol.

The first result of the functional competition between ergative marking and word order is the predominance of SVO word order in Gurindji Kriol, illustrated in (5). SVO word order is the dominant pattern, with only 12.5% of A nominals occurring post-verbally. Of these postverbal cases, 94.5% are found with an ergative marker, an example of which is shown in (6). These figures are based on the Gurindji Kriol dataset of 1917 transitive clauses described in Section 1, and this relationship is quantified in more detail in Section 4.2.

(5) ***jintaku karu-ngku*** i   bin jut-im   kengkaru *mirlarrang-yawung*.
    one   child-ERG 3SG.S NF shoot-TRN kangaroo spear-PROP
    '**One kid** shot the kangaroo with a spear.' (FHM185: AC: Peer Elicitation)

(6) an kengkaru i   bin kil-im   *kurrupartu-yawung* **det** ***karu-ngku***.
    and kangaroo 3SG.S NF hit-TRN boomerang-PROP **the child-ERG**
    'And **the kid** hit the kangaroo with a boomerang.'

                                   (FHM185: AC: Peer Elicitation)

The second result of competition between these systems of argument marking is the optionality of the ergative marker. This system was characterised in (1) by the optional application of the ergative marker to A and S nominals. First transitive subjects are no longer categorically marked ergative, with only 66.5% of A nominals receiving the ergative suffix. Further examples are given in (7) and (8). Both sentences were uttered consecutively by the same speaker in a peer elicitation session. The agent, verb, patient, and word order are almost identical, however the sentences differ according to the application of the ergative marker, present and not present respectively.[5]

(7) ***kajirri-ngku*** i=m   *purlk-karra*   kengkaru.
    woman-ERG 3SG.S=NF pull.guts.out-CONT kangaroo
    '**The woman** is pulling the guts out of the kangaroo.'

                                     (FHM057: SS: Peer Elicitation)

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5. Note that another difference between these examples is the definiteness of the agent NPs, indefinite and definite respectively. Factors affecting the use of ergative marking in Gurindji Kriol will be discussed later, however definiteness was not included in this analysis because the statistical analysis could not support any more variables and impressionistically 'definiteness' does not seem to affect the application of the ergative marker.

(8) **det man** i=m   *purlk-karra*   kengkaru.
     the man 3SG.S-NF pull.guts.out-CONT kangaroo
     'The man is pulling the guts out of the kangaroo.'
     (FHM057: SS: Peer Elicitation)

The other feature of optional ergativity in Gurindji Kriol is the optional use of the ergative marker on intransitive subjects, as shown in (9). In this example, the intransitive verb, *plei* 'play' takes an ergative-marked subject (and a proprietive-marked adjunct "with the dog"). In Gurindji, an ergative marker would never be found marking the subject of an intransitive clause.

(9) ***karu-ngku*** i=m   plei-bat-*karra*   *warlaku-yawung.*
     child-ERG   3SG.S=NF play-CONT-CONT   dog-PROP
     '**The child** plays with the dog.' (FM017.C: RR: Narrative)

The three core case categories of Gurindji are still distinguished through morphological marking in Gurindji Kriol, though a tendency towards the Kriol bipartite system can be observed with the ergative marker beginning to appear on subjects of intransitive verbs, and optionally on transitive subjects. Unlike Gurindji, only two nominal word classes are discernable with the Gurindji emphatic pronouns not grammatically differentiated from the nouns. The Gurindji bound pronoun system has also been completely replaced by the Kriol pronoun paradigm.

Table 3. Core cases and their respective forms in Gurindji Kriol

Core case	Noun	Pronoun (free)	Emphatic Pronoun
Ergative (A)	*(-ngku) + allomorphs	*ai* (1SG)	*ngayu(-ngku)* (1SG)
Nominative (S)	*(-ngku) + allomorphs	*ai* (1SG)	*ngayu(-ngku)* (1SG)
Accusative (O)	Ø	*mi* (1SG)	*ngayu* (1SG)

*brackets indicates optional marking

As was noted in Section 1, Dixon (1979) suggests that the primary role of case systems is to distinguish between the three arguments: A, S and O. Indeed this is the main function of the core case markers in Gurindji (Section 3.1). However optional ergativity in languages such as Gurindji Kriol is problematic for this analysis, suggesting that the language must be using other or additional means to distinguish the A, S and O roles. For example, Dixon (1979: 72) observes that in the Austronesian language of Motu, ergative marking is essential in a transitive sentence such as 'The boy saw the girl', however it is not obligatory in 'The snake bit the boy'. World knowledge about agents and their behaviour is sufficient to identify the likely agent. Walsh (1976: 405) also suggests that other grammatical features may lend themselves to the task of disambiguation. In Murrinh-Patha, information about person, number and

gender, cross-referenced in the subject and object pronoun prefixes, helps identify the nominal arguments. Here the ergative suffix is more likely to be used when A and O have similar person, number and gender values.

I suggest that, in the competition between Gurindji and Kriol argument marking systems, the functional load of argument marking is borne by word order rather than the ergative marker, which is why the ergative marker has been rendered non-obligatory. For example, though the ergative marker is not present in (8), there is no problem identifying the A role as it appears pre-verbally. However A nominals do not always appear in the pre-verbal position, for discourse reasons discussed in Section 5. In this situation, ergative case marking and other elements such as the animacy of participants, cross-referencing pronouns, context and word knowledge play a role in the disambiguation of arguments. For instance, in (10) the agent NP, 'the three boys', occurs after the verb 'chase'. Nonetheless the meaning of the sentence is not affected, suggesting that factors other than word order or the ergative marker can be brought to the task of identifying the agent in this case.

> (10) dei   bin   *kayikayi* im   **jirri-bala** *malyju*.
>   3PL.S   NF   chase   3SG.O   **three-NMZ**   **boy**
>   'They chased it (the bird), **the three boys that is**.' (FM011.A: SS: Narrative)

Number information marked on pronouns is one factor which may be used to identify the A nominal. In this example above, the A nominal and cross-referencing pronoun are both plural, 'the three boys' and 'they'. The relative animacy of the nominals can also help identify the agent. The object pronoun refers to a small animal which helps identify the three boys as the perpetrators rather than the victims of the act of chasing. The boys, as humans, are more likely to be agents than non-human subjects. Another example where animacy contributes to the identification of the A nominal is given in (11) below. In this utterance two unmarked post-verbal nominals are used: 'biscuit' and 'this crocodile'. However there is little problem in assigning them A and O roles because one is animate and the other inanimate, with animates more likely to act on inanimates.

> (11) i=m   hab-im-bat-*karra*   biskit   *nyawa*   **krokodail**.
>   3SG.S=NF   eat-TRN-CONT-CONT   biscuit **this**   **crocodile**
>   '**The crocodile**'s eating the biscuit.' (FM007.C: JA: Conversation)

The relative animacy of the participants in a transitive clause may not provide enough information to disambiguate A and O. In situations where a lower order animate A nominal acting on a human patient is found in the post-verbal position, context and world knowledge can be brought to the task of identifying the A nominal. For example, in (12) the speaker is playing with a crocodile hand puppet, telling her granddaughter that it is biting her. The agent, *kakkak* appears post-verbally without an ergative marker. However there is no problem identifying the agent. The word *kakkak* refers to dangerous animals, particularly of the biting and stinging kind, and the speaker

performs the event with the hand puppet as she says the sentence so there is little doubt about who the biter is.

(12) *katurl* yu bait-im *kakkak* deya bait-im *katurl* *kakkak.*
bite   2SG bite-TRN **animal** there bite-TRN bite   **animal**
'It's biting you **this animal**, there biting **this animal**.'
                                                                                            (FM006.A: SU: Conversation)

Despite its optionality, ergative marking may still be employed for the purpose of distinguishing A from O. For example, where A is post-verbal, and both A and O are overt, and of equal animacy, the ergative marking is always found, and is the only element of the clause which distinguishes A from O. This type of construction is exemplified in (13).

(13) *kajirri*   *nurt*   im   *ngumpit-tu.*
old.woman   squash   3SG.O   **man-ERG**
'**The man** sits on the woman.' (FHM102: RR: Peer Elicitation)

Indeed, as was shown above, regardless of animacy and other clausal features, ergative marking is almost completely categorical in the post-verbal position. 94.5% of A nominals found post-verbally are marked ergative. This high use of the ergative marker may suggest that word order and ergative marking exist in a complementary relationship, with the ergative marker retaining its original function in a limited capacity, namely when the subject is post-verbal. However 62.6% of preverbal A nominals are also found with the ergative marker where word order is sufficient for argument discrimination. For example in (14) the ergative marker is used despite the clear identification of the A nominal by word order (and indeed relative animacy):

(14) *marluka-ngku*   bin put-im   neim board-*ta.*
old.man-ERG   NF   put-TRN   name board-LOC
'**The old man** put his name on the board.' (FHM175: AR: Peer Elicitation)

Thus, though the ergative marker plays some discriminatory role, this factor alone does not explain the function of this case suffix. Similarly, McGregor (1992) problematises the discrimination argument for Gooniyandi, observing that many ergative markers occur where the A role is easily identified. Like Murrinh-Patha, Gooniyandi also contains cross-referencing pronouns which can be used to distinguish arguments. McGregor (1998: 495) notes examples where these cross-referencing pronouns are sufficient for this function, nonetheless the ergative marker is also present. Another argument against suggesting that the ergative's sole function is argument disambiguation is its appearance on subjects of intransitive clauses. This phenomena has also been reported in a number of Australian optional ergative languages, for example Warrwa (McGregor 2006) and Kuuk Thaayorre (Gaby 2008), as well as optional ergative languages elsewhere such as Tibetan (Vollmann 2005: 208) and Batsbi/Tsova-Tush, a north east Caucasian language

(Davison 1999: 183). In Gurindji Kriol, despite the fact that only one argument is present in intransitive clauses and therefore not in need of disambiguation, S is variably marked ergative in these languages, as was shown in (1b) and (9).

I suggest that, though the ergative marker plays a role in differentiating arguments, its primary function is not in this domain. This argument is illustrated by the other elements of the clause which are also employed to distinguish arguments, but whose primary function is something other than argument marking. For example, animacy is a semantic feature of a nominal rather than a syntactic feature evolved for argument marking. However animacy, specifically the relative animacy of nominals, is a feature which lends itself to this task in situations where word order cannot be relied upon. I suggest that the ergative marker can be analysed in a similar manner. Because the ergative suffix continues to be found marking only subjects, albeit transitive and intransitive subjects, this feature allows it to be employed in the process of argument disambiguation. However this use does not entail that distinguishing arguments is the primary function of the ergative marker. The following sections explore the shift in the function of ergative marking in Gurindji Kriol.

4.   Factors motivating the use of the ergative marker in Gurindji Kriol

If the primary function of the ergative marker is not argument disambiguation, the question is: what is being encoded in the use or non-use of the ergative marker in Gurindji Kriol? A number of factors, including animacy, word order and aspect, have been reported elsewhere in the literature as affecting the use of ergative morphology in split ergative and optional ergative languages. These variables and others were coded in all transitive clauses in the Gurindji Kriol corpus which contained an overt nominal subject. In all, 1917 transitive clauses were coded for the dependent variable: *the presence of an ergative marker*, then 10 independent variables: 2 sociolinguistic variables - *age of speaker* and the *formality of context*; a lexical variable - the *language of stem*; a number of grammatical and semantic variables relating to the degree of transitivity of the clause: *potentiality*, *actualisation of the event indicated by the verb, A animacy, O animacy,* and *whether O is overt*; and finally two variables which relate to the clause structure: *the position of A in relation to the verb*, and *the presence of a co-referential pronoun* (see Figure 1). The dependent variable was then tested against the independent variable using a multilevel logistic regression model with a binomial link function (Pinheiro & Bates 2000), with speaker identity included as a random variable.

A full table of results will not be given here, but will be presented in sections as the relevant independent variables are discussed below. First, the age of the speaker, the formality of the context and the language of the A nominal do *not* affect the appearance of the ergative marker. These variables will not be discussed any further. Only

Dependent variable:	ergative marker	(± ERG is present)
Independent variables:	age	(3 categories B=6–15yr, C=16–25yr, D=26+yr)
	formality of context	(3 categories: conversation, narrative, elicitation)
	language of stem	(3 categories: Gurindji, Kriol, proper name)
	actualisation	(± auxiliary present)
	continuative	(± CONT suffix present)
	A animacy	(± A is animate)
	O animacy	(± O is animate)
	O overt	(± O is overt)
	A position	(± preverbal)
	co-referential pronoun	(± subject pronoun)
Random variables:	speaker	(one of 39 speakers)

Figure 1. Variables potentially affecting the use of the ergative marker.

significant variables will be reported. 5 variables did correlate significantly with the appearance of the ergative marker. Nominals which were either *inanimate* (p<0.01), found *post-verbal* (p<0.001), or occurred with a *co-referential pronoun* (p<0.001) are more likely to be found marked with the ergative suffix. Two factors had negative z values indicating an inverse relationship with the use of the ergative marker. Thus the ergative marker is less likely to be present when the verb is marked with a *continuative* suffix or occurred in conjunction with an auxiliary verb which indicates that the event has not been actualised. A discussion of these results follows, and an interpretation of these results in given in Section 5.

4.1   Transitivity variables

The first cluster of factors which was tested relates to the degree of transitivity of the clause: actualisation, continuative aspect, A animacy, O animacy and O overtness. These features are derived from Hopper and Thompson's (1980) work on degrees of transitivity. Hopper and Thompson do not define transitivity as a simple binary value, ± transitivity, rather they measure transitivity in terms of a continuum. For them, transitivity is the degree to which an event is carried over or transferred from one participant to another (1980: 253). The degree of transitivity of a clause is measured as the sum of the interaction between its three constituents – the agent, patient and action – which is calculated through its component parts. These components are summarised in Figure 2:

	COMPONENT	HIGH TRANS	LOW TRANS
A.	PARTICIPANTS	2 OR MORE	1 PARTICIPANT
B.	KINESIS	ACTION	NON-ACTION
C.	ASPECT	TELIC	ATELIC
D.	PUNCTUALITY	PUNCTUAL	NON-PUNCTUAL
E.	VOLITIONALITY	VOLITIONAL	NON-VOLITIONAL
F.	AFFIRMATION	AFFIRMATIVE	NEGATIVE
G.	MODE	REALIS	IRREALIS
H.	AGENCY	A HIGH	A LOW IN POTENCY
I.	AFFECTIVENESS OF O	O TOTALLY AFFECTED	O NOT AFFECTED
J.	INDIVIDUATION OF O	O HIGHLY	O NON-INDIVIDUATED

Figure 2. Hopper and Thompson's (1980: 252) components of transitivity.

Hopper and Thompson (1980: 268) suggest that the ergative clause signals a number of the transitivity features and can be characterised by its correspondence to perfective aspect (C), the total affectiveness of O (I), kinetic/volitional nature of V (B and E), and the active participation of A (H). I will discuss each of these in turn in relation to the Gurindji Kriol data and the use of the ergative marker. Unfortunately one of these variables which relates to semantics of the verb in terms of kinesis and volitionality was unable to be included in the statistical analysis due to an interaction between this variable and A animacy. For example, perception verbs always contain animate subjects.[6]

4.1.1   *Continuative aspect*

The first transitivity feature which Hopper and Thompson relate to the ergative construction is perfective aspect. Perfective aspect indicates that the action denoted by the clause has been actualised thereby increasing the transitivity of the clause. Perfective aspect is not marked in Gurindji Kriol, however continuative aspect is. A corresponding prediction about the ergative marker and continuative aspect might be that the ergative appears less in progressive clauses where an action has not come to completion. Indeed Schultze-Berndt (2000: 172) notes that the ergative case suffix is almost completely absent from progressive constructions in Jaminjung, a language spoken

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6.   This interaction is unfortunate, as some effect may have been predicted. For example, in Samoan a class of less active verbs, such as perception verbs, is distinguished by the absence of ergative marker (Hopper & Thompson 1980: 270). Less strongly, but similarly, in Gurindji the 'say, tell' verbs take a dative-marked object, with ergative marking optional in these construction (Section 3.1). McGregor (1992: 301) makes similar claims about Gooniyandi and the use of the ergative marker in what he calls 'middle' clauses (speech, moving up to someone, seeking).

just north of Gurindji Kriol. Similarly McGregor (1992: 286) observes that the use of ergative marking in Gooniyandi decreases when an action is presented as ongoing. Blake (1976: 286) makes a similar observation for Kalkatungu (an Australian language from central Queensland) where imperfect constructions often lack an ergative marker. Continuative aspect in Gurindji Kriol is marked on the main verb using the Gurindji-derived -*karra* suffix or the -*bat* suffix from Kriol, or a combination of these suffixes. In all, 58.7% of clauses which contained a continuative marker also used an ergative marker. Thus although the ergative marker is more likely to appear than not, it is used significantly less than the overall use of ergative marking (p>0.001). The results are shown in Table 4. An example of a clause containing an unmarked A nominal in conjunction with continuative aspect is given in (15), and the inverse in (16).

Table 4. Appearance of the ergative marker according to continuative aspect.

	Continuative	%	Non-Continuative	%	Total	%
ERG	233	**58.7**	1044	68.7	1277	66.5
no ERG	164	41.3	476	31.3	640	33.5
Total	397		1520		1917	

(15) an   det   ***warlaku***   i=m   *warlakap*-***karra***   botl-*ta*   *walyak*.
      and   the   **dog**   3SG.S=NF   look-around-CONT   bottle-LOC   inside
      'And the **dog** is search**ing** (for the frog) inside the bottle.'
                                                (FHM163: AN: Frog story)

(16) *warlaku*   an   ***karu-ngku***   dei   ***warlakap***   bo   det   *ngakparn*.
      dog   CONJ   **child-ERG**   3PL.S   **search**   PREP   the   frog
      'The dog and the **child search** for the frog.' (FHM144: LS: Frog story)

4.1.2   *Actualisation of event*

The *actualisation* of an event was also measured against the presence of the ergative marker. This category relates to another of Hopper and Thompson's transitivity features, the distinction between irrealis and realis. This distinction is defined in terms of "the opposition between indicative and such non-assertive forms as subjunctive, optative, hypothetical, imaginary, conditional", and Hopper and Thompson (1980: 277) suggest that the irrealis state corresponds to a lower degree of transitivity. Indeed in other Australian languages such as Kalkatungu and Pitta-Pitta "the ergative construction is not used if the verb is irrealis or future" (Blake 1976: 286). The category of actualisation overlaps with ir/realis to a certain extent. Here, it is defined as the actual or potential occurrence of an event, with the latter corresponding to a lower degree of transitivity. In Gurindji Kriol, the actual occurrence of an event is indicated by the tense of the clause, and the potential occurrence of an event is

indicated by the future tense morpheme *garra*, and also modal auxiliaries such as the deontic *garra* 'must', and *labta* 'must' and the epistemic modal *maiti* 'might'. A significant correlation between the non-appearance of the ergative (negative z value) and potentiality was observed in the data (48.7%, p<0.001), suggesting that a clause with a lower degree of transitivity is less likely to be ergative marked than is generally found. The results are summarised in Table 5. For example, in (17) the activity of collecting bush nuts is marked as an event which will occur in the future and has not already taken place. No ergative marking is found in this clause. Where an event is occuring or has come to completion, such as in (18), the use of ergative marking is not affected, but remains optional.

Table 5. Appearance of the ergative marker according to actualisation.

	Potential	%	Non-potential	%	Total	%
ERG	37	**48.7**	1240	67.3	1277	66.5
no ERG	39	51.3	601	32.7	640	33.5
Total	76		1841		1917	

(17) *ngayu*   garra   ged-im   tu   *partiki-walija*.
     1SG   FUT   get-TRN too nut-PAUC
     'I'm going to gather a lot of nuts.' (FM058.C: CE: Conversation)

(18) *kajirri-ngku*   i=m   ged-im   *ngamanpurru*.
     old.woman-ERG   3SG.S-NF get-TRN conkerberry
     'The old woman gathers some conkerberries.' (FHM175: AR: Peer Elicitation)

4.1.3   *Animacy*

Animacy is often observed as a factor affecting case alternations in languages, for example Caluianu (this volume) identifies the animacy of adjectival arguments as a relevant factor in the choice of the NOM-ACC or NOM-NOM transitive adjective constructions in Japanese. As was noted above, Hopper and Thompson (1980: 268) suggest that the ergative also signals the active participation of A. This factor may be measured in terms of the semantic feature of *animacy*. Animacy is a commonly observed factor motivating the appearance of the ergative marker in both *split* ergative and *optional* ergative languages. First splits in ergative languages, where some elements are case-marked ergative and other elements pattern accusatively, are often determined by the "inherent lexical content" of the arguments (Silverstein 1976: 113). A hierarchy of features, now called the 'animacy hierarchy', is based on the lexical content of the arguments and determines the nature of the marking split. Silverstein (1976: 117) initially draws a distinction between speech act participants (first and second person) and non-speech act participants (third person). Within the last category, arguments are categorised according to their semantic features such as ±human,

±inanimate, proper/common noun and ±kin term. Languages differ as to where the split occurs on this hierarchy. Van Valin (1992: 23) summarises the animacy hierarchy as follows:

1st & 2nd person > 3rd human >3rd nonhuman animate > 3rd inanimate > others

Gurindji is an example of a split ergative language where the nominals pattern ergatively and the co-referential bound pronouns use an accusative system (McConvell 1996: 56).[7] This split occurs between the nominal and pronominal clitic systems rather than within the nominal system, therefore providing few clues as to the origin of the animacy effect in Gurindji Kriol. Other Australian languages that are optional ergative languages do display animacy effects. For example, an almost obligatory marking of inanimate transitive subjects has been observed in Umpithamu (Verstraete 2005) and Gooniyandi (McGregor 1992: 275). Gaby (2008: 13) observes a weaker association in Kuuk Thaayore. In Gurindji Kriol where the A nominal is inanimate, there is an increased likelihood of the use of the ergative marker (78.3%, $p<0.01$).[8, 9] The results are shown in Table 6, and (19) and (20) below illustrate the optional nature of the ergative marker with respect to the animacy of A. A is animate in (19) and not marked ergative, and (20) is typical of inanimate preverbal subjects. The A argument, *karnti* 'stick' is ergatively marked.

Table 6. Appearance of the ergative marker according to A animacy.

	A animate	%	A inanimate	%	O animate	%	O inanimate	%	Total	%
ERG	1143	65.4	134	**78.3**	783	66.4	494	67	1277	66.5
no ERG	603	34.6	37	21.7	396	33.6	244	33	640	33.5
Total	1746		171		1179		738		1917	

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7.   Though see Section 3.1 for a discussion of Goddard's distinction between case marking and case form in relations to Gurindji.

8.   The animacy of the O nominal was not found to affect the use of the ergative marker. Relative animacy was unable to be included in the test due to its interaction with A and O animacy. In an exploratory test, relative animacy was included in the analysis and A and O animacy excluded. This variable was not found to be statistically significant, therefore its exclusion from the final analysis seems reasonable.

9.   In many Australian languages including Gurindji the inanimate agent is not distinguished from an instrument in terms of marking. Both receive ergative marking (see Noonan (this volume) for similar syncretisms between the ergative and instrumental in Tibeto-Burman languages). In Gurindji Kriol, however, instruments are marked with the proprietive suffix and true agents with the ergative marker, albeit optionally.

(19) **nyawa   yapakayi   gel** im=in   *turrp* im   … nidul-*jawung.*
   this   small   girl 3sg=pst poke 3sg.o   needle-prop
   'This small woman (nurse) jabbed her with a needle.'
                                                   (FHM125: LE: Peer Elicitation)

(20) **karnti-ngku** *turrp* im   fut-*ta.*
   stick-erg   poke 3sg.o foot-loc
   'The stick jabbed him in the foot.' (He trod on a stick, and it went into his foot.)
                                                   (FM009.B: SS: Narrative)

4.2   Clausal features

Two clausal features were included in the analysis of the effect of various independent variables on the use of the ergative marker: *the position of the A nominal in relation to the verb*[10] and *the presence of a co-referential pronoun.* Both of these variables were found to be significant, indicating that they affect the use of the ergative marker in Gurindji Kriol.

4.2.1   *Word order*

As was discussed in Section 3.3, the predominant word order in Gurindji Kriol is an SVO pattern (87.6%), which it derives from Kriol. Furthermore it was noted in Section 2 that a relationship between word order and ergative marking has been observed in other language contact situations in Australia such as young people's Dyirbal (Schmidt 1985), Yuendumu children's Warlpiri (Bavin & Shopen 1985), and Light Warlpiri (O'Shannessy 2005). Thus word order may be predicted as affecting the use of the ergative marker in Gurindji Kriol, and indeed a significant effect was found between the ergative marker and post-verbal position (p<0.001). Table 7 displays the results of this analysis. Though the ergative suffix is found on 62.8% of all pre-verbal A nominals, it is almost always present in the post-verbal A nominals (94.7%). This distribution is shown in examples (21) and (22), where a preverbal A nominal occurs without ergative marking, and in an equivalent sentence where the A nominal is found post-verbally and is marked ergative.

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10.   In an earlier exploratory study, the position of the A nominal with respect to the O nominal was tested. However because of the overlap between this clausal feature and A order in relation to the verb, it is difficult to determine the meaning of a significant result. For example if ergative marking is used in conjunction with a VOA order, it is difficult to determine whether the ergative marking is a result of A's position with respect to O or V, or indeed both. Due to the nature of this problem, this factor could not be included in the final analysis. Indeed the position of A with respect to O could have been chosen as the word order unit of analysis, however given that the main word order pivot in Kriol is the verb, this is the focus of the word order analysis.

Table 7. Appearance of the ergative marker according to A position.

	Preverbal	%	Postverbal	%	Total	%
ERG	1055	62.8	222	**94.7**	1277	66.5
no ERG	630	37.2	10	5.3	640	33.5
Total	1680		237		1917	

(21) an **imyu** bin teik-im   *jarrpip* wan *karu.*
      and **emu** NF take-TRN carry   a   child
      'And the emu carried a child.' (FM045.D: CE: Narrative)

(22) i   bin teik-im   *jarrpip* najan   **kapuku-ngku-ma** *nganta.*
      3SG.S NF take-TRN carry   another **sister-ERG-DIS** DOUBT
      'And I reckon the other sister carried him.' (FM045.D: CE: Narrative)

4.2.2   *Co-referential pronoun*

The final variable which was tested in this analysis was the presence of a co-referential subject pronoun. As is shown in Table 8, the correlation between the use of the ergative marker and co-referential pronoun is significant ($p<0.001$). Where a co-referential pronoun is found, there is a greater likelihood of also finding an ergative case suffix. 81.4% of A nominals which occurred in conjunction with a co-referential pronoun were marked ergative. (23) and (24) below illustrate this distribution of case marking. In (23) the A NP *jintaku kajirri* 'one old woman' does not occur with an ergative marker or with a co-referential pronoun, and (24) is an example of a nominal A with a co-occurring pronoun. The A nominal is ergative-marked in this example.

Table 8. Appearance of the ergative marker according to co-referential pronoun.

	Coref Pro	%	No Coref	%	Total	%
ERG	888	**84**	389	45.3	1277	66.5
no ERG	170	16	470	54.7	640	33.5
Total	1058		859		1917	

(23) *jintaku* *kajirri*   fil-im-ap   *ngapulu* kap-*ta.*
      one   **old.woman** fill-TRN-up   milk   cup-LOC
      '**One old woman** fills the cup up with milk.' (FHM136: TJ: Peer Elicitation)

(24) det **gel**-*tu*   **i**=m   fil-im-ap-*karra*   *ngawa* pleit-*ta.*
      the **girl-ERG** **3SG.S=NF** fill-TRN-up-CONT   water   plate-LOC
      'The **girl** is filling up the plate with water.' (FHM156: KS: Peer Elicitation)

In conclusion, of the 10 independent variables, 5 were found to significantly affect the distribution of ergative marking in Gurindji Kriol. These variables include three

transitivity features – the use of continuous aspect, the actualisation of the event denoted by the verb and the animacy of the A nominal – and two clausal features - the position of A with respect to the verb and the presence of a co-referential pronoun. Thus the likelihood that an ergative marker is used increases if A is inanimate, found post-verbally and in conjunction with a co-referential pronoun. The combination of these features further increases the chance of finding ergative marking. The use of the ergative marker decreases when the verb is marked with continuous aspect and the event denoted by the verb has not come to completion. Note that these statements are probabilistic rather than absolute. Variation is both expected and present due to the youth of the language (approx. 30 years old), and the statistical methods used help quantify and make sense of the variation. At first glance, these factors appear to be a disparate cluster. However, in the next section, I will argue that these variables contribute to a unified account of the ergative suffix as a marker which accords discourse salience to the agentivity of the entity denoted by a subject nominal.

5.   The ergative marker and discourse prominence

Although the role of the ergative marker in Gurindji is primarily syntactic, this case suffix has not been perfectly replicated in the process of mixed language genesis. The adoption of SVO word order to mark argument structure in Gurindji Kriol and a shift in the categorical application of the ergative marker both indicate that a shift in the function of this case suffix has occurred. As Section 4 demonstrated, the distribution of the ergative marker is influenced by a number of transitivity and clause structure variables. In this section, I suggest that the ergative marker shapes the information structure of a clause by highlighting the agentivity of the subject nominal in both transitive and intransitive clauses. I show that the quantitative work supports the two components of this analysis: 'agentivity' and 'discourse prominence'. This notion of discourse salience appears to relate to the concept of 'focus', in its various instantiations, and indeed the ergative suffix is often found marking subject nominals in question-answer pairs and contrastive focus. However I demonstrate that the ergative marker is also associated with topicalisation constructions, such as left and right dislocation, and as a result I follow Choi's (1999) analysis of topic and focus where discourse prominence is analysed as just one component of these two elements of information packaging. The development of discourse functions in case suffixes is also observed by Chelliah (this volume) for Meithei, a Tibeto-Burman language.

First, the use of the ergative marker continues to relate to the agentivity of the subject of a clause, where agentivity refers to the degree that an event is carried over or transferred from one participant to another. A number of pieces of evidence from the previous section point to this analysis. Most generally, the presence of the ergative

marker is correlated with the transitivity of the clause. As was shown in Section 4.1, the absence of the ergative marker is associated with a clause which exhibits a lower degree of transitivity, according to Hopper & Thompson's (1980) transitivity continuum. For example, it is less likely to be found when the verb is marked continuous or is modified by an auxiliary which signifies that the event has not yet been actualised. Both of these signify a lower level of transitivity. The ergative marker also has a positive correlation with the agentivity of the subject nominal, a measure of a highly transitive clause. To begin with, it is never found marking objects. This extension of the ergative marker has occurred in Jingulu, an Australian language spoken west of Gurindji. In Jingulu, the ergative case suffix now marks other constituents in the clause beyond the transitive subject, and has been analysed as a general marker of discourse prominence, as a result (Pensalfini 1999). In Gurindji Kriol, the ergative case suffix marks only subjects, albeit both transitive and intransitive subjects. In particular, the ergative suffix is more likely to mark inanimate subjects than animate subjects. As McGregor (1992; 1998) has shown, inanimate subjects are more unexpected as agents than animate subjects. Thus the use of the ergative marker with inanimate nominals ensures their interpretation as agentive entities. Similarly the use of the ergative marker on intransitive subjects highlights the agentivity of the S nominal, which has a low level of agentivity in its unmarked form. The continuing association with the transitivity of the clause, particularly in relation to subject agency ensures that it can also be co-opted for the purpose of argument disambiguation, as discussed in Section 3.3, and in this respect I continue to use the term 'ergative' marker for this suffix.

The correlation between ergative marking and the two clausal features also points to a link between the ergative marker and information packaging. In Section 3.3, I showed that SVO word order was the most frequently occurring configuration in Gurindji Kriol, with 87.6% of transitive clauses patterning SVO. Greenberg (1966: 67) and Kroeger (2004: 141) claim that the most frequently found word order in a language is the pragmatically unmarked pattern.[11] Applied to Gurindji Kriol, SVO word order can be analysed as the pragmatically unmarked word order pattern, and deviations from this pattern as altering the information structure of a clause. Of particular interest is the effect of the right and left dislocated positions on the information structure of a clause. These positions can be characterised in terms of the two clausal variables tested in the previous section: word order and the presence of a co-referential pronoun, which were shown to be positively correlated with the appearance of the ergative marker (Section 4.2). Dislocation involves the movement of an argument from its unmarked position to the right or left periphery of a clause, with a co-referential

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11.   However note that this connection has not gone unchallenged, for example see Dryer (1995).

pronoun marking the argument in its place. Both left and right dislocation are related to discourse salience. They are a process of foregrounding topics. For example, in (25) the object "the old man" is left dislocated, with a co-referential pronoun providing the object argument. The result is that the patient of the action, the victim of the boomerang in this example is emphasised. The significance of dislocation and the use of the ergative marker will be discussed more fully below.

(25)   an   det *marluka   kurrupartu-ngku pangkily* im.
       and   the old.man   boomerang-ERG hit.head 3SG.O
       'And the boomerang hit the old man on the head.'

(FHM101: TA: Peer Elicitation)

This pre-theoretical discussion of discourse salience resembles some accounts of 'focus'. Givón (1993: 173) suggests that the notion of focus relates to the importance of information in a verbal clause. Lambrecht (1994: 210) gives a more relative account of focus, describing its function as signalling a salience relation between an element of a proposition and the proposition as a whole. However other views of focus also exist. For example, Halliday (1967) suggests that focus relates to 'newness', that is textually or contextually underivable information. Similarly Comrie (1981) defines focus as "the essential piece of new information that is carried by a sentence". Indeed many occurrences of the ergative marker do seem to relate to the 'newness' of information in the clause. For example, in a reply to a question, the element that provides the part that was previously unavailable to the hearer from the discourse context, is the focus of the clause (Lambrecht 1994: 207; Comrie 1981: 62; Kroeger 2004: 141). In Gurindji Kriol, this element is ergative-marked, as shown in (26), where the ergative marker is found on the 'who' nominal in the question of an intransitive clause and on 'I' in the answer, in a discussion about somebody arriving.

(26)   a.   **wijan**-*tu*   kom-in?
            who-ERG   come-CONT
            '**Who's** coming?'

       b.   ah **RU**-*tu*   kom   na   modibaik-*jawung*.
            ah **NAME**-ERG come DIS motorbike-PROP
            'Ah **RU**'s coming on his motorbike.' (FM045.A: SS: Narrative)

The ergative marker is also used in contrastive focus constructions. Givón (2001: 262) describes contrastive focus as a device where "a referent is contrasted with another referent of roughly the same semantic class". Thus the use of contrast foregrounds the identity of one discourse entity over another, making it more prominent. In Gurindji Kriol, two agents are contrasted by marking the discourse prominent agent with an ergative suffix. This construction is used to contrast two entities which are semantically similar, but more particularly to contrast the degree of agency between two subject

nominals. The nominal whose agency is highlighted receives ergative marking regardless of clause transitivity. An example of this type of construction is shown in (27) in a rendition of the Frog story. Two events take place simultaneously - the owl attacks the boy and the bees attack the dog. The same semi-transitive verb *kuli* 'attack' is used in both clauses, and the agent in the first clause is unmarked, and in the second clause receives ergative marking. This non/use of the ergative marker contrasts the two agents. Both agents are presented as aggressors, but the bees' behaviour is emphasised and contrasted with the owl's aggressiveness through the use of the ergative marker - where the owl attacks the boy, the bees really 'go for' the dog.

(27)   a.   **det** *mukmuk* bin *kuli*   la=im
            the **owl**   NF   attack   OBL=3SG.O
            '**The owl** attacked (the boy).'

       b.   **dem** **bi-***ngku* *kuli* la=im   det *warlaku-warla.*
            those **bee-**ERG attack OBL=3SG.O the dog-DIS
            '(And) **the bees** really went for the dog.' (FHM157: KS: Frog story)

However the ergative marker is not only found marking subjects which may be described as 'in focus', but is also often associated with other discourse devices which highlight given information, or 'topics'. For example, the ergative marker is often found in conjunction with left and right dislocation, as was introduced above. First L-dislocations in Gurindji Kriol consist of an ergative-marked A nominal accompanied by an anaphoric pronoun. A separate intonation contour, which separates the dislocated nominal from the main clause, is also diagnostic of L-dislocation in other languages (see for e.g., Givón 2001: 266). However prosody is not always given as a criteria for L-dislocation (see Kim 1995: 276, for English; and Sankoff 1993:126 for Tok Pisin) and is not used as a criterion for Gurindji Kriol. (28) is a typical instance of a topicalisation structure. (29) is a similar example from an intransitive sentence.

(28)   **det** *karu-ngku* i   bin maind-im-bat   *nyanuny* *kapuku.*
       the **child-**ERG 3SG.S NF   mind-TRN-CONT   3SG.DAT   sister
       '**The child**, he was looking after his sister.' (FHM007: AC: Peer Elicitation)

(29)   an   **det** **gel-***tu* i=m   kombek garram pulastikbag
       CONJ **DET** **girl-**ERG 3SG.S=NF   return   with   plastic.bag
       'And **the girl** is coming back with a plastic bag.' (FHM006: JC: Peer Elicitation)

Functionally, Givón (2001: 265) suggests that "L-dislocation is typically a device to mark topical referents, most commonly definite and anaphoric ones, that have been out of the focus of attention for a while and are being brought back into the discourse". In conversation he notes that it may be used to take the floor and re-introduce a topical referent, and in narratives it is often used as a chain initial device. In Gurindji Kriol, when new referent is abruptly (re)-introduced, the L-dislocation construction is used in conjunction with an ergative marker. For example, in (30) a group of women are

standing around in long grass, becoming worried about snakes. VB says she is going to go where the grass has been cleared by fire. Then RS suddenly notices that FM is about to come with the car and collect them. She introduces FM into the discourse in an L-dislocated construction with FM marked ergative, despite being the subject of an intransitive clause.

(30) VB: *ngayu-ma*   ai=m   gon   *yuka-ngkirri*   barn-*nginyi*.
            1SG-DIS   1SG.S=PRS   go   grass-ALL   burn-ABL
            'Me, I'm going that way where the grass has been burnt out.'

      RS: *nyila-ma*   **FM-*ngku***   i=m   *partaj*   motika-*ngka*
            that-DIS   **FM-ERG**   3SG=NF   climb   car-LOC
            'Oh that one - **FM**, she's just getting into the car.'

      RS: i=rra   kom   *ngantipany*.
            3SG=FUT   come   1PLINC.DAT
            'She'll come and get us.' (FM060.A: Conversation)

Ergative marking is also commonly found in conjunction in other topicalisation constructions such as R-dislocations. R-dislocations are the structural mirror of L-dislocations, however movement also occurs when these constructions involve a subject. The subject, which is unmarked in the pre-verbal position, is found post-verbally, and is cross-referenced with a pronoun. An example is given in (31):

(31) **i=m**   put-im   jumok   tebul-*ta*   igin   **det**   *kajirri-ngku*.
       3SG.S=NF   put-TRN   cigarette   table-LOC   too   **the**   **woman-ERG**
       'S**he** puts the packet of cigarettes on the table again, **the old woman** that is.'
                                                                    (FHM066: LS: Peer Elicitation)

One of the functions of this construction is an afterthought or repair device. Givón summarises the use of R-dislocation as a construction that is used when the referent is firstly considered to be highly accessible, but then the speaker "decided that maybe the referent was not quite as accessible, and so was better re-coded as full NP" (2001: 267). In this respect the nominal is given discourse prominence in order to aid the inter-pretation of a sentence. Indeed in Gurindji Kriol, many of the examples of post-verbal A nominals come from narratives where one actor has already been introduced, yet the next sentence uses a pronoun which actually refers to a new actor. Potentially the use of the pronoun to introduce a new actor could cause some confusion as it may be interpreted as the old actor. The post-verbal A nominal is added in this highly salient position to avoid confusion. The use of ergative marking is almost contrastive, in that it is shifting the agency of nominal from the assumed agent to the corrected agent. For example, in (32), the third singular pronoun in (a) refers to the topic of the 'Frog story', the frog. In the following clause, a third singular pronoun is also used and appears to refer to the single frog, but in fact refers to the frog's family, thereby breaking the topic chain. The post-verbal nominal both changes the referent of the subject pronoun, and the topic chain is repaired. Ergative marking on the post-verbal nominal ensures that

the family of frogs is given the A role rather than the single frog. In this respect the ergative marker also helps disambiguate the arguments, by ensuring that it is the family of frogs not the single frog that is interpreted as the subject of *tata* 'farewell'.

(32) a. im=in   tok   la=im   "*marntaj*   na"
         3sg=pst   talk   obl=3sg   that's.all   dis
         'He said to them "Goodbye then!".'

    b. im=in   tata   la=im   **ngakparn-walija-ngku.**
        3sg=pst   farewell obl=3sg   **frog-pauc-erg**
        'He waved farewell to him, **the group of frogs that is.**'

                                            (FHM066: LS: Frog story)

Thus the ergative marker is not only found marking nominals under focus, but also subjects which are emphatic topics. In this respect, the ergative marker cannot be analysed as either a topic or focus marker, under the definitions discussed above. For a fuller account of the occurrence of the ergative marker within focus and topic constructions see Meakins and O'Shannessy (submitted).

An additional problem for a discourse-based account of the ergative marker is that it is not always found in the topic and focus constructions discussed above. For example (33) is the opening clause of a "Frog story". The boy and frog are introduced as new information in a focus NP which does not receive ergative marking. Similarly in (34) an A nominal is a topic which is reintroduced into a card game in a dislocated construction. However ergative marking is not used here.

(33) **det** *malyju* **an**   *warlaku* bin waj-im-bat   det *ngakparn.*
     the boy   conj dog   nf   watch-trn-cont   the frog
     '**The boy and dog** were watching the frog.' (FHM155: TA: Frog story)

(34) *ngumpin*   i=m   put-im   *warrart-karra* kuloj.
     man   3sg.s=nf   put-trn   dry-cont   clothes
     '**The man**, he put his clothes out to dry.' (FHM064: RR: Peer Elicitation)

In (33) and (34), the absence of an ergative marker downplays the importance of the entity referred by the nominal within these discourse contexts. This absence contrasts with its use in (26)–(32), where the ergative marker has an emphatic effect, i.e., attention is drawn to the nominal marked by the ergative. In order to describe the function of the ergative marker in Gurindji Kriol, I follow Choi's (1999)[12,13] analysis of topic

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12.   See also Butt and Holloway-King (1996) for a similar treatment of topic and focus, and Simpson (2007) for an analysis of constituent order in Warlpiri based on Choi's work.

13.   Choi (1999) considers topic and focus to be one aspect of an integrated account of syntax, however here I follow Simpson's (2007) analysis of information structure as being a separate module which merely interacts with the syntax.

and focus as being constituted by the features ±newness and ±prominence. 'Newness' relates to the given-ness of information, and 'prominence' to the information status accorded to each discourse entity. Both of these features are relative to the discourse status of other information in the clause. Under this analysis, 'focus' relates specifically to new information, and 'topic' to given information, and both may occupy discourse prominent positions. Thus discourse prominence is not equated with focus. Discourse prominence relates to the speaker's evaluation of the status of information, and the attribution of importance to certain pieces of information.

Using Choi's analysis, I suggest that the ergative marker in Gurindji Kriol is used to denote discourse entities that the speaker wishes to make prominent relative to another entity. The prominent discourse entity may be new or given information. Importantly, the ergative marker is more restricted in its scope in terms of marking discourse prominence. As the quantitative analysis demonstrates, the ergative marker continues to be related to transitivity features of the clause. Moreover it cannot be used to mark any discourse entity, only subjects of transitive and intransitive clauses. Thus I suggest that it highlights the agentivity of the subject. In this respect, the pragmatic use of the focal ergative marker in Warrwa is closest to the pragmatic behaviour of the ergative in Gurindji Kriol, as discussed in Section 2. In Gurindji Kriol the ergative marker does not alter the agentivity of A, that is it does not change the level of agentivity with respect to either the semantic value of the actor or the expectation of that actor's behaviour in terms of world view or a given context. Rather it focuses on information already present in the discourse. Sometimes, in adding prominence to the agentivity of one actor, the intended interpretation may be to simultaneously highlight another actor's lack of agency, as in the contrastive constructions exemplified in (27). In other situations the discourse prominent agent adds new information to a clause, as shown in the question-answer pairs in (26). Old information may also be highlighted, as will be demonstrated in (36) in subject chaining where a repeated A nominal is clearly the topic of a sentence, but is also the discourse prominent entity. As a discourse marker of only subjects, the ergative marker does not deviate wholly from its syntactic function as a marker of the A argument.

I present a number of examples here to further demonstrate this function of the ergative marker. (35) is an extract from a Frog story – the first clause (a) is verbless, (b) is intransitive, and (c) transitive. The ergative marker is only found marking the subject of the intransitive clause in (b). In this clause, *binij* 'suddenly' and the ergative marker combine to create a narrative pivot, foregrounding this incident and the dog's involvement in the unfolding events in relation to the surrounding clauses. The role of the dog at this moment is highlighted by the use of the ergative marker.

(35) a. ***warlaku*** jeya botul-*jawung* *ngarlaka-ngka*.
      dog there bottle-PROP head-LOC
      '**The dog** sits there with the bottle on his head.'

b.   binij   ***warlaku-ngku***   i   bin   baldan   *kanyjurra-k*
     finish   **dog-ERG**   3SG.S   NF   fall   down-ALL
     'Suddenly **the dog**, he fell downwards …'

c.   windou-*nginyi*,   **det karu**   i=m   *karrap*   im   baldan.
     window-ABL   **the child**   3SG.S=NF   look   3SG.O   fall
     '… out of the window and **the kid** saw him fall out.'

<div align="right">(FHM149: RS: Frog story)</div>

The ergative marker is often found in conjunction with climatic events in conversation and narrative. For example it can also be used in subsequent mentions of topics, where the subject nominal is not reduced to an anaphoric pronoun. The repetitive use of the ergative marker in these topic chains intensifies the event, and is used in emphatic situations – in the case of narratives,[14] often in climatic moments. The following extract is an example of this type of construction. The story-teller in (36) constructs a topic chain, marking each A nominal ergative, thereby according prominence to its agentivity and heightening the tension around the event of a boy stepping on a prickle. A series of three ergative-marked inanimates is used before the story continues with a new episode.

(36) a.   wan-bala   bin   *turrp*   ***paka-ngku***.
          3SG-NMZ   NF   poke   **prickle-ERG**
          'One of the boys got poked by **a prickle**.'

     b.   ***paka-ngku***   *wartarra*   *wartarra*   *wartarra*.
          prickle-ERG   goodness   goodness   goodness
          '**A prickle** did it, goodness!'

     c.   ***paka-ngku***   *turrp*   im   fut-*ta*   yu   luk   hiya.
          prickle-ERG   poke   3SG   foot-LOC   2SG   look   here
          '**A prickle** poked him right through the foot, you look here.'

<div align="right">(FM010.A: AC: Narrative)</div>

Conversely sequences of A nominals can occur where none of the subject nominals are marked ergative. In these cases, no one entity is deemed more agentive than another. For example in (37), which is another Frog story excerpt, almost all five characters – the boy, dog, mouse, owl and bees – are presented as full nominals and as alternating agents and patients of various actions. In the cases where the characters are agents they are not marked ergative. The sequence is uttered quickly and in long intonational units, relying on word order to disambiguate the arguments. A sense of commotion is created by this rapid alternation of characters who shift between semantic roles, and the absence of ergative marking on all nominals increases the chaotic tempo. No one

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14.   See Meakins and O'Shannessy (submitted) for an example of a emphatic topic chain found in conversation.

character is constructed as more agentive relative to the other discourse entities, and it is likely that the same narrative effect could have been created by marking all of the characters ergative. What is important here is the relative agency of the entities.

(37) a. det *warlaku* bin *karrap* *kuya* det bi   bin baldan.
           the dog   NF   look.at thus   the bee NF fall
           'The dog saw the beehive fall down, like that.'

  b. an det **mawujimawuji** bin *karrap* im.
      and **the mouse**   NF look.at 3SG.O
      'And the mouse looked at him (the child).'

  c. det *karu* bin gu jing-in-at   tri-*ngka* na *nyila-ngka*.
      the child NF go sing-CONT-OUT tree-LOC DIS that- LOC
      'The kid went and called into that tree there.'

  d. *mukmuk* bin *purtuj* im det *karu* bin baldan *kanyjurra-k*.
      owl   NF frighten 3SG.O the child NF fell   down-ALL
      'The owl frightened the kid who fell down (from the tree).'

  e. *warlaku* bin gu past *rarraj nyanuny-ta*, **bi** bin jeij-im   im.
      dog   NF go past run 3SG.DAT-LOC **bee** NF chase-TRN 3SG.S
      'The dog ran past towards him with the bees chasing him.'

  f. det *mukmuk* bin *kayikayi* im   …
      the owl   NF chase   3SG.O
      'The owl chased the boy …'

  g. … dij *karu* i   bin *partaj wumara-ngka*.
         this child 3SG.S NF climb rock-LOC
      '… who climbed up a rock.' (FHM159: LE: Frog story)

6.   Conclusion

In conclusion, I have shown that, though the Gurindji ergative marker has been adopted into Gurindji Kriol, its function does not closely reflect that of Gurindji. The main function of the ergative marker in Gurindji is argument disambiguation, however this use of the ergative marker is only marginal in Gurindji Kriol. Instead Kriol-derived SVO word order is the main system used to distinguish arguments. The ergative marker only functions in a diminished capacity as an argument marker, for example, where deviations from the pragmatically-unmarked SVO pattern occur. The result of this reduced syntactic functionality has been optional ergativity. A number of factors influence its non/appearance including variables relating to the transitivity of the clause and other structural features. I use this cluster of variables to argue that the main function of the ergative marker is marking discourse prominence, specifically highlighting the agentivity of

a subject. The two components of this analysis "agentivity" and "discourse prominence" are supported by the quantitative analysis. First the correlation of the ergative marker with transitivity variables suggests that it continues to relate to the subject of a clause. In this respect can still be used for argument disambiguation. Further clausal variables such as its significant association with post-verbal word order and a coreferential pronoun indicate that it has acquired discourse properties.

The reason for the shift of the ergative suffix from a purely syntactic marker to one that marks discourse prominence (as well as retaining some syntactic features) is examined by Meakins and O'Shannessy (submitted). They give a diachronic account of the development of optional ergativity and information packaging in Gurindji Kriol and Light Warlpiri, a typologically similar Australian mixed language. Meakins and O'Shannessy examine the interaction between ergative marking and word order in these mixed languages and their source languages, Gurindji, Warlpiri and Kriol. They describe the function of ergative marking and the first position in a clause in the source languages, and suggest that the shift to discourse marking was the result of co-opting first position as a syntactic position in the formation of Gurindji Kriol and Light Warlpiri, where it indicated discourse prominence in the traditional source languages, Gurindji and Warlpiri. The result was a functional gap, which was partially filled by new pragmatic qualities of the ergative marker in the resultant mixed languages. What is presented in this further study is a detailed synchronic account of the effects of various semantic and syntactic features of the clause on the appearance of the ergative marker, which strengthens the analysis of the ergative marker in terms of discourse functions.

List of abbreviations

A	subject of a transitive clause	NMZ	nominaliser
ACC	accusative	O	object
AUX	auxiliary	OBL	oblique
ABL	ablative	PAUC	paucal
ALL	allative	PL	plural
CONJ	conjunction	PREP	preposition
CONT	continuative	PRS	present tense
DAT	dative	PROP	proprietive (having)
DET	determiner	PST	past
DIS	discourse	S	subject
DOUBT	doubt	SG	singular
ERG	ergative	TRN	transitive
FUT	future	1	first person
IMP	imperfect	2	second person
INC	inclusive	3	third person
LOC	locative	-	morpheme break
NF	non-future	=	clitic break

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How useful is case morphology?

The loss of the Old French two-case system within a theory of Preferred Argument Structure

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This paper discusses the loss of the Old French two-case system within the theory of Preferred Argument Structure (Du Bois 2003, 1987). It will be shown that the chronology of this process followed a hierarchy of relative frequency, which in turn was driven by discourse preferences. Apart from strictly historical facts, this explanation also accounts for some basic typological properties of case-marking systems. In particular, it will be argued that no correlation exists between morphological case marking on the one hand and word-order flexibility on the other. Moreover, the theory of Preferred Argument Structure allows for a coherent assessment of the long-standing observation that in many cases, morphological case on full nouns is not necessary for distinguishing subjects from non-subjects.

1. Introduction

At first glance, the function of morphological case seems fairly uncontroversial. According to textbook knowledge (e.g., Blake 2001: 1–2), morphological case is needed to mark the syntactic function (e.g., subjecthood or objecthood) of nominal expressions and, ultimately, to indicate their semantic role. Thus, in (1), taken from Modern German, nominative and accusative case serve to identify subject and object, which in turn encode agent and undergoer of the process in question.

(1) a. *Der   Hund beißt den   Mann.*   DOG → MAN,   SVO
         The.NOM dog   bites the.ACC man
         'The dog bites the man.'

     b. *Den   Mann beißt der   Hund.*   DOG → MAN,   OVS
         The.ACC man   bites the.NOM dog
         'It's the man whom the dog bites.'

Of course, there are languages like Modern English or modern written French which lack nominal case. In such languages, the task of indicating the grammatical

function and semantic role of the nominal arguments is often taken on by other linguistic devices, e.g., by word order.

(2) a. The dog bites the man.   DOG → MAN,   SVO

     b. The man bites the dog.   MAN → DOG,   SVO

According to a view still prevailing among typologists (Vennemann 1974: 356; Bossong 1998: 219), languages of the type exemplified by (2) tend to have fixed word order (for a discussion of similar positions on Germanic, see Barðdal, this volume).[1] Modern English and modern written French, for example, have rigid SVO. In languages of this type, word order generally cannot be used for other purposes, such as indicating modifications in the information structure. On the other hand, languages which do have nominal case tend to have – still according to the prevailing view – flexible word order systems. Thus in Modern German, subject–object inversion can, among other things, be used to topicalize the direct object (see 1b). On a superficial level, the hypothesis of a correlation between nominal case and word order seems to be confirmed by the history of French. Old French had a two-case declension which imposed a morphological distinction between nominal subjects and non-subjects.

(3) a. Subject: *li*   *chien-s*   nominative case
                       the.NOM   dog-NOM

     b. Non-subject: *le*   *chien*   oblique case
                       the.OBL   dog.OBL

Interestingly, Old French was – more or less like Modern German – a verb-second language with a relatively flexible word order.[2] As can be seen in (4b), the two-case system guaranteed a correct interpretation of the sentence even if subject and object were inverted, and if, on top of that, the content expressed was semantically implausible:

(4) a. *Li*   *chien-s*   *mort*   *l'*   *ome.*   DOG → MAN,   SVO
          The.NOM   dog-NOM   bites   the.OBL   man.OBL
          'The dog bites the man.'

     b. *Le*   *chien*   *mort*   *li*   *uem.*   MAN → DOG,   OVS
          The.OBL   dog   bites   the.NOM   man.NOM
          'It is the dog whom the man bites.'

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1.   A third option is the prepositional marking of animate direct objects, as can be found in Spanish (*Juan ve <u>a</u> María* 'John sees Mary') as well as in other Romance languages (Bossong 1998: 219pp.). This possibility, as well as many others, will not be taken into account in this paper.

2.   However, both languages differ in that in Old French subordinate clauses also had verb-second word order, whereas in modern German, subordinate clauses have verb-last.

In modern (written) French, things are quite different: on the one hand, nouns are unmarked for case, while on the other hand, word order has become distinctive.[3] Only NPs which precede the verb can be subjects.

(5)　a.　*Le　chien　mord　l'　homme.*　　　　　DOG → MAN,　SVO
　　　　The　dog　bites　the　man
　　　　'The dog bites the man.'

　　　b.　*L'　homme　mord　le　chien.*　　　　　MAN → DOG,　SVO
　　　　The　man　bites　the　dog
　　　　'The man bites the dog.'

Hence, at first glance, the evolution of French seems to be a case in point for the hypothesis of a typological correlation between nominal case and word order flexibility (for discussion, see Marchello-Nizia 1995: 65). What is more, the assumption of such a correlation seems to provide diachronic explanations as to why the shift from Old French to Modern French took place. Both changes, i.e., the loss of the two-case system and the emergence of the SVO pattern, have been used to mutually explain each other. Thus, Foulet (1930[3]: §50), von Wartburg (1965[7]: 129p.), Rheinfelder (1967: 45) and Harris (1978: 49) have argued that the loss of the two-case system directly caused the emergence of SVO. A minority, among them Bourciez (1967[5]: §559), have claimed the reverse. According to this position, the rise of SVO led to the loss of the two-case system, because the latter had become superfluous. However, such claims have been challenged on empirical grounds. Lerch (1934: 267–271), and in greater detail Schøsler (1973: 251–54, 2001a: 277–278), have shown that the chronology of both changes renders implausible the assumption of a causal link between them. The loss of the two-case system was completed between the 12th and the 14th century, depending on the respective dialect. The rise of SVO, in turn, started in the 13th century, but it was not until the 16th century that SVO became the only possible pattern of the normal sentence. If this chronology is correct, then the proponents of a causal link between both changes would be forced to argue that there must have been a "gap" of about 200 to 400 years in which the speakers of Middle French were unable to distinguish subjects from objects – a conclusion which is obviously absurd. In this article, I will show that the above-discussed conception of the functions of nominal case and word order rests on false assumptions. The crux of the problem is that in actual discourse, sentences of the type *the dog bites the man* with two full NPs, which usually serve as textbook

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3.　Modern written standard French basically conserves grammatical patterns that were used in 17th century spoken French, while modern spoken French has evolved considerably in this respect. For a comparison of the basic syntactic patterns of written and spoken French, see Lambrecht (1981: 5–15).

examples for the function of case (or of word order), in reality represent extremely rare and functionally marked constructions (see below, Section 3). In light of modern research on the preferred argument structure of spoken discourse, I will argue that the function of nominal case needs to be profoundly reconsidered.

In the following section (Section 2), I will discuss some by now classical attempts to account for the loss of the Old French two-case declension. It will be shown that none of them has been able to provide a satisfactory explanation. In Section 3, I will outline the theory of Preferred Argument Structure (Du Bois 2003, 1987), which will allow me, in Section 4, to propose some new and surprisingly simple answers to many of the questions addressed in Section 2. In particular, it will be shown that, given the preferred argument structure of "real" discourse, morphological case on full nouns is not necessary for distinguishing subjects from non-subjects as long as the pronouns are marked for case. My conclusion (pointed out in Section 5) therefore is that morphological case is not necessary. This view implies that there is no correlation between morphological case marking on the one hand and word-order flexibility on the other, which also explains why, in the history of French, the two-case system could disappear long before the rise of the SVO pattern.

2.   The problem

As will be shown in the following subsections, the loss of the Old French two-case system has served as a touchstone for the explanatory power of various linguistic theories. Yet none of the explanations hitherto available are fully satisfactory.

2.1   Phonological erosion

According to a traditional view still popular among historical linguists, nominal declension systems are sooner or later eroded by phonological change (e.g., Ineichen 1979: 163; for a discussion of similar positions on Germanic, see Barðdal, this volume). In line with this view, it is widely held that the Old French two-case declension fell victim to a phonological change which, from the 12th century onwards, led to a weakening and ultimate loss of word-final *-s* (Rheinfelder 1967: 286; Buridant 2000: 75). As can be seen from Table 1, the declension of masculine class I nouns, the largest subclass within the Old French declension system, rested crucially on the realization of a word-final *-s*.

Table 1. Two-case declension of OF masculine class I nouns (*chien* 'dog').

	Nominative	Oblique
Singular	chien-*s*	chien
Plural	chien	chien-*s*

The collapse of the two-case system generally led to the elimination of the nomi-native forms. Modern French nouns (singular and plural) normally go back to Old French oblique word forms. In recent years, attention has been drawn to the fact that the Old French two-case system did not depend exclusively on the realization (or absence) of a word-final *-s* (Reenen & Schøsler 2000: 336–338). The articles were another *locus* of case-marking, as can be seen from Table 2.

Obviously, the dropping of the *-s* cannot explain why the nominative article *li* dis-appeared. Interestingly, in Modern French it is still the article (*le* /lə/ vs. *les* /le/) which, after the loss of word-final *-s,* carries the entire burden of indicating the singular–plural distinction (e.g., *le chien* /ləʃjɛ̃/ vs. *les chiens* /leʃjɛ̃/).[4] This outcome provides strong arguments against the "phonological" explanation: as Schøsler (1973: 245) and Reenen & Schøsler (2000: 340) correctly point out, if the distinction between singular and plural has survived the loss of word-final *-s*, the opposition between nominative and oblique should have survived it as well. Therefore, they argue, the disintegration of the two-case system needs an explanation which does not rely on phonological factors. This conclusion is further confirmed by a look at other Old French noun-classes. For masculine class III nouns, a relatively small group of highly frequent items, the case distinction was expressed by suppletion between different word-stems (see Table 3 for masculine *lerre* 'robber, thief').

Table 2. Two-case declension of OF articles.

	Nominative	Oblique
Singular	*li*	*le*
Plural	*li*	*les*

Table 3. Two-case declension of OF masculine class III nouns (*lerre* 'robber, thief').

	Nominative	Oblique
Singular	*lerre*	*larron*
Plural	*larron*	*larron-s*

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4.   In Modern French, a plural *-s* on a noun is almost never pronounced. Thus, in Modern French, both the singular *chien* 'dog' and the plural *chiens* 'dogs' are pronounced /ʃjɛ̃/. At the end of a plural article, the *-s* behaves slightly differently in that it is pronounced in a few but frequent article-noun combinations, where the noun begins in a vowel, e.g., *les enfants* /lezɑ̃fɑ̃/. However, in the vast majority of cases, the plural *-s* of articles as well as of nouns is a mere spelling convention.

In Modern French, the nominative singular forms of the *lerre* type have generally disappeared. This, however, would be unexplainable if the reason for the disintegration of the two-case system really were the loss of word-final -*s*.[5]

2.2   Natural morphology (Mayerthaler 1981)

A theoretically interesting account of the the loss of the Old French two-case declension has been proposed by Mayerthaler (1981) within the framework of Natural Morphology. According to Mayerthaler, singular is the functionally unmarked number category of the noun, and nominative is its unmarked case category (see also Blake 2001: 90). A noun "as such" normally is, according to Mayerthaler, a noun in the nominative singular. Plural, by contrast, is a marked, i.e., functionally derived, number category, and accusative as well as oblique case are marked, i.e., functionally derived, case categories. Hence, in a morphologically well-formed nominal inflection system, the plural form should be morphologically derived from the (zero-marked) singular (as in Engl. *dog* → *dog-s*), and non-nominative case forms should also be morphologically derived from the (zero-marked) nominative (e.g., Lat. *puer* 'the boy.NOM' → *puer-um* 'the boy-ACC'). According to Mayerthaler, systems of this kind are universally preferred. They are *iconic* in that the morphological relation between basic forms and derived ones directly reflects the semantic markedness relations between the functional categories involved. This view also allows for morphological relations which are *non*-iconic (Mayerthaler 1981: 25) such as the singular–plural disctinction in Latin masculine class I nouns (Lat. *urs-us* 'the bear-SG' vs. *urs-i* 'the bear-PL'), where neither of both forms is zero-marked, and where, consequently, neither of them can be considered to be morphologically derived from the other. However, Mayerthaler's theory also entails that morphological systems which are straightforwardly *contra*-iconic are avoided; that is to say, inflectional sytems in which, for example, the singular form is morphologically derived from the plural or in which a nominative case form is morphologically

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5.   However, I do not follow Reenen's & Schøsler's (2000) claim that the phonological hypothesis is further contradicted by the chronology of the change. The disappearance of nominal case-marking by means of an -*s* was first reflected in the *scriptae* based on the western dialects of Old French. As Reenen & Schøsler (2000) correctly point out, texts based on the northern and eastern dialects showed a – seemingly opposing – tendency of generalizing the -*s* to word forms which etymologically should not have it. Thus, in these dialects, one finds *lerre-s* instead of the etymologically "correct" nominative *lerre* (< Lat. *látro*). This, however, does not necessarily mean that in these dialects the two-case system was reinforced, as Reenen & Schøsler (2000: 333–336) suppose. On the contrary, it could mean that the scribes had become unsure of the traditional form *lerre*, and erroneously "regularized" it by adding an -*s*, which had become obsolete in their oral usage long before.

derived from an oblique. Interestingly, the Old French masculine class I nouns represent precisely this dispreferred constellation (see Table 4).

This system is contra-iconic in two dimensions: first, the (nominative) singular *chien-s* is derived by adding an -*s* to the zero-marked (nominative) plural form *chien*, and second, the nominative (singular) is derived from the oblique (singular) *chien*. Instead of taking the existence of the Old French two-case declension as fatal evidence against his view, Mayerthaler (1981: 78, 81) claims that, on the contrary, the contra-iconic character of this system explains its ultimate disappearance. He argues that the breakdown of the two-case declension gave way to a system in which the nominative–oblique opposition disappeared, but in which the singular was derived from the plural, thereby conforming to the principle of iconicity (see Table 5).

However Martinez Moreno (1993: 127) has observed that this picture is misleading, since it is based on the spelling of the word forms. Recall that in modern spoken French, the word-final -*s* of the plural is not pronounced (see above, 2.1 and note 4). As has been mentioned, the singular–plural distinction in Modern French is, in the vast majority of cases, expressed by the vowel-quality of the article alone (/lə/ vs. /le/, see Table 6).

This, however, means that the contra-iconic Old French declension was not replaced by an optimally iconic system, but by a structure in which the singular–plural opposition was coded in a non-iconic fashion. This observation shows that, on the whole, Mayerthaler's argument is unconvincing.

Table 4. Two-case declension of OF masculine class I nouns (see Table 1).

	Nominative	Oblique
Singular	-*s*	Ø
Plural	Ø	-*s*

Table 5. The outcome of the disintegration of the two-case declension.

	[Nominative]	[Oblique]
Singular	–	Ø
Plural	–	-*s*

Table 6. Singular and plural in spoken French.

	[Nominative]	[Oblique]
Singular	–	/lə/
Plural	–	/le/

2.3   Markedness Theory (Andersen 1990, 2001)

A third influential explanation which has been proposed to account for the loss of case inflection is Markedness Theory (Andersen 1990, 2001). Before turning to this framework, it is instructive to look at the sparse relics of the Old French declension system in Modern French. While the Old French nominative has generally been lost in common nouns, some Modern French proper names – mostly those whose spelling ends in an -s – go back to an Old French nominative (e.g., *Charles, Yves, Georges, Louis* etc.).[6] This has been explained by the fact that the nominative forms were also used as vocatives, i.e., for adressing persons by their proper names (Rheinfelder 1967: 65). This rule guaranteed the nominative forms of proper names a certain frequency, which led to their conservation. The same explanation holds for *sire* 'Sir, your majesty' which, as a form of address, goes back to an Old French nominative (whereas the corresponding oblique form gave rise to Modern French *seigneur* 'lord'). Use as a form of address may also explain the conservation of the nominative forms *fils* 'son' and *gars* 'guy' (the corresponding oblique form in the latter case being conserved in Modern French *garçon* 'boy').

While isolated case forms have been conserved in Modern French proper names, pronouns are a domain in which case distinctions as such remain intact (Martinez Moreno 1993: 111); whereas the nominal system of Old French retained only two of the original five Latin cases, the pronouns maintained three case distinctions (see Table 7).[7] What is more, most of the forms contained in the pronominal paradigm have survived from Old French to Modern French.[8] However, this does not

Table 7. Masculine personal pronouns in OF.

	Subject	Non-subject	
	S	IO	DO
Sing.	*il*	*lui, li*	*le*
Plur.	*il*	*leur*	*les*

6.   Other names, on the contrary, for example *Pierre, Henri, Paul, Didier* etc., are continuations of Old French oblique forms.

7.   Unlike in Classical Latin, where the pronouns were transparently inflected forms consisting of a stem and an ending (*ill-e, ill-īus, ill-ī, ill-um* etc.), in Old French they had turned into morphologically opaque elements, where no distinction was possible between stem and ending. In French, pronouns mark case distinctions lexically, i.e., with their entire word form. Specifically, they are not inflected forms (Oesterreicher 1996: 290).

8.   In modern French, the plural of the subject pronoun has become *ils*, and unstressed *li* has disappeared.

seem to apply to neuter pronouns. Thus, relics of the Latin neuter pronoun *illud, *illu* 'it' are only sporadically attested for earlier Old French and became obsolete before the end of the Old French period (Rheinfelder 1967: 117p.).

The conservation of case distinctions in the pronominal system does not seem to be accidental. Most languages make such distinctions, regardless of whether their full nouns are morphologically marked for case or not. The gradual disintegration of the Old French declension system provides data showing that this situation is the natural outcome of an extremely orderly diachronic change. As Schøsler (2001a: 174, 2001b: 283–285) and Reenen & Schøsler (2000: 330) have pointed out, the loss of morphological case from Latin via Old French to Modern French occurred along the dimensions 1–7 of the hierarchy shown in Table 8: it affected non-human nouns before nouns indicating humans, plural nouns before singulars, nouns before pronouns etc.

Note that according to this account, the case inflection was lost earlier in proper nouns than in common nouns (tendency 1). This tendency, however, is in conflict with tendency 2, which seems to be the more general of the two. Tendency 2 not only holds true for the gradual loss of the Old French declension systems in the Middle French period, but it can also be observed in the evolution from Latin to Old French. "Irregular" nouns with suppletive stems of the *lerre/larron* type (see above, Table 3) were the outcome of regular sound change (Old French *lerre* < Lat. LÁTRO, OF *larron* < Lat. LATRÓNE(M)) which had made them morphologically unanalyzable. Interestingly, Old French nouns of this class exclusively designated human referents (Rheinfelder 1967: 24; Schøsler 2001b: 284). This means that not only case distinctions, but also morphological irregularities were longer conserved in nouns ranking high in animacy (Schøsler 2001a: 171).

Tendency 1 in Schøsler's account, in contrast, rests on shaky empirical ground. As she herself points out in detail (Schøsler 1978: 458p.), in the original Old French manuscripts proper names normally appear in abbreviated spellings, thus obscuring

Table 8. Hierarchy of categories reflecting relative chronology of loss of case-marking (Schøsler 2001a: 174, 2001b: 284).

Case loss earlier	Case loss later
1. human proper nouns	common nouns
2. non-human nouns	human nouns
3. feminines	masculines
4. adjectives	substantives
5. nouns	determiners
6. nouns and determiners	pronouns
7. plurals	singulars

the respective case form. What is more, the fact that many proper names in Modern French go back to an old nominative form while others have retained an Old French oblique seems to call into question the validity of tendency 1.

Importantly, Schøsler's findings are not meant to be explanations in their own right – her (2001a) research is designed as an empirical probe into an explanatory theory of markedness proposed by Andersen (1990, 2001). According to this author, unmarked linguistic forms tend to spread first in unmarked linguistic contexts. Table 9 gives an overview of markedness relations within nominal   categories according to Andersen.

Surprisingly, apart from tendency 1 in Table 8, which, as pointed out above, is problematic, Schøsler's results directly run counter to the expectations formulated in Table 9. In particular, Schøsler's tendency 2 is in conflict with the parameters b and d, while tendency 7 contradicts parameter e. Hence, it seems that the loss of the two-case declension (viewed by Schøsler as the spread of an unmarked form) system-atically occurred first in those grammatical categories which, according to Andersen, are marked. This, however, should not be the case, since Andersen's model predicts that unmarked forms will first spread in unmarked contexts. As an alternative option, Schøsler (2001a, 174) discusses a suggestion made by Andersen which consists in regarding the oblique case as a marked form rather than an unmarked one, thereby saving the model's predictions. This argumentation is problematic for various reasons. First of all, it raises serious questions about the concept of markedness and its theoreti-cal status. On the one hand, the markedness parameters of Table 9 are used to explain the modalities of the linguistic change captured in Table 8, but on the other hand, the very same modalities of change are used to determine the markedness relations between the linguistic forms involved. Markedness, originally intended as the *explan-ans* of the observable change, thus becomes a circular concept, dependent on its own *explanandum*. In other words, what is missing in this model is an independent defini-tion of markedness. Another problem of the proposed solution has to do with the fact that the change is viewed here as *spread* of an innovation, rather than *loss* of a hitherto

Table 9. Markedness parameters according to Andersen (2001: 31).

Unmarked	Marked
a. proper	common
b. human	nonhuman
c. animate	inanimate
d. concrete	abstract
e. singular	plural
f. definite	indefinite

well-established form. In Section 4.3, I will propose a simple explanation for the find-
ings established in Table 8.

2.4   Functional explanations

Instead of asking why the two-case system disappeared and why it did so at the exact
time that it did, functional explanations ask why it was possible to dispose of it in the
first place. In other words, the question is to what degree nominal case inflections
were really needed for successful communication. Unlike the diachronic explana-
tions discussed in 2.1–2.3, functional approaches are essentially synchronic. Schøsler
(1973: 244–245, 2001a: 278–283) and Hupka (1982) identify a series of factors which,
apart from morphological case, help to distinguish subjects from non-subjects. These
identification cues include such things as information structure, context expectations,
world knowledge, and the lexical meaning of the respective verb. In most cases, these
factors "conspire" so as to assure the correct interpretation of ambiguous sentences (for
an empirical account for Modern French, see Heilenman & McDonald 1993). Thus, in
(6), the lexical meaning of the verb, combined with trivial world knowledge, makes it
clear who is subject and who is object – here, morphological case is clearly redundant.

> (6)   *Le   fruit   mangea   la   pucele.*
>   The   fruit   ate   the   girl
>   'It was the fruit that the girl ate.'
>   GIRL → FRUIT

In less trivial cases, the context of the sentence, specifically its connection with the
information structure of the text preceding or following it, helps to resolve ambigui-
ties. In cases like (7) the two-case declension could not distinguish subject and non-
subject, since both *vache* 'cow' and *pucele* 'girl' were feminine class I nouns, where no
distinction was made between nominative and oblique case. However, both in (7a)
and (7b), the subject of the ambiguous sentence *une vache veit la pucele* can easily be
identified as the protagonist who is taken up as topic in the following sentence.

> (7)   a.   *Une   vache   veit   la   pucele.*   *Li   mort   el   braz.*
>   a   cow   see.3s   the   girl   her   bite.3s   in.the   arm
>   'A cow sees the girl.'   'She bites her in the arm.'
>   COW → GIRL   COW → GIRL
>
>   b.   *Une   vache   veit   la   pucele.*   *Li   trait   du   let.*
>   a   cow   see.3s   the   girl   her   draw.3s   of.the   milk
>   'It is a cow whom the girl sees.'   'She milks her.'
>   GIRL → COW   GIRL → COW

An additional identification cue was the verbal inflection: Old French verbs were
always marked for person and number.

(8)   *La   pucele   voi-ent   les   vache-s.*
      the.SING   girl   see-PLUR   the.PLUR   cow-PLUR
      'It is the girl whom the cows see.'
      COWS → GIRL

Hupka (1982) focuses especially on the personal pronouns of Old French. Based on 100 instances of the verb *saluer* 'to greet' in the works of Chrétien de Troyes (12th c.), he examines the coding of subject and direct object (see Table 10).

In constellations like a–b and d–f, the pronouns of Old French proved sufficient to indicate subject and object in an unambiguous fashion – here, nominal case inflection was systematically redundant. Only in constellations of the type h, with both a nominal subject and a nominal object, was the two-case distinction formally needed to keep the different syntactic functions apart. Constellation c holds an intermediate position: Old French had null-subjects. At the same time, the subject was indicated by the verbal inflection. Therefore, agreement with the verb sometimes allowed for the distinguishing of subject and object, whereas in other cases it did not.

Table 10 shows that in the vast majority of cases an unambiguous identification of subject and non-subject was guaranteed by the constellation of P and N alone (see also Schøsler 1991: 97). But it also raises a serious question: how relevant, from both an empirical and a theoretical point of view, were the constellation types c and g?

Table 10. 100 sentences with *saluer* 'to greet' in the works of Chrétien de Troyes (Hupka 1982).

a. $S_\emptyset - O_P$	40	Ø GREET-S HIM	✓
b. $S_P - O_P$	9	HE GREETS HIM	✓
c. $S_\emptyset - O_N$		Ø GREET-S THE MAN	!
	12	Ø GREET THE MAN	✓
		Ø GREET-S THE MEN	✓
d. $S_\emptyset - O_P - O_N$	1	Ø GREET-S HIM, THE MAN	✓
e. $S_P - O_N$	1	HE GREET-S THE MAN	✓
f. $S_N - O_P$	15	THE KNIGHT GREETS HIM	✓
g. $S_N - O_N$	8	THE KNIGHT GREETS THE MAN	!
h. $S_N - O_P - O_N$	1	THE KNIGHT GREETS HIM, THE MAN	✓

*Abbreviations used:
S_N nominal subject
S_P pronominal subject
$S_\emptyset$ null-subject
O_N nominal object
O_P pronominal object
✓   subject and object can be distinguished without two-case system
!   two-case distinction necessary to keep subject and object apart

Hupka (1982: 108) remarks that in these cases, the subject–object distinction was assured by the nominal declension alone. Hence, according to him, the two-case system was "highly functional" even though it was needed only in a relatively low number of cases.[9] In Section 3.3, it will be shown that this evaluation is problematic.

2.5   The loss of the two-case declension – an unexplained phenomenon

As has become clear in the foregoing subsections, the loss of the Old French two-case system is still a largely ill-understood phenomenon. However, two approaches have been shown to be of particular interest, namely, first, Schøsler's (2001a, 2001b) and Reenen's & Schøsler's (2000) relative chronology of this change (see Table 8) and, second, Schøsler's (1973, 2001a) and Hupka's (1982) inquiry into the synchronic usefulness of case marking in Old French (see especially Table 10). In the following section, I will briefly outline a theoretical framework which will be used in Section 4 to put together the pieces of the puzzle by proposing surprisingly simple answers to many of the questions raised so far. The framework in question is the theory of *Preferred Argument Structure*, first elaborated by Du Bois (1985).

3.   Theoretical background

According to Du Bois (1985, 1987, 2003), the grammatical representation of arguments in discourse is governed by a few universal principles. These principles, in turn, yield statistically relevant preferences for certain constellations of argument representation.

3.1   Preferred Argument Structure (Du Bois 1985, 1987)

Du Bois (1987, 2003) distinguishes four basic argument types. Arguments of the first type, for convenience labeled S in the following, refer to single arguments of one-place predicates (see 9). As can be seen from a comparison between (9a) and (9b), S is not by definition the grammatical subject of the sentence.

(9) S
    a.   *This place$_S$* sucks. S = subject
    b.   It rained *big showers$_S$*. S = non-subject

The second argument type, labeled X, represents single arguments of copular predicates (see 10). This argument type is less central for our purpose and will therefore be disregarded in the following discussion.

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9.   "… ein Phänomen von hoher Funktionalität" (Hupka 1982: 108).

(10) *X*
    Peter$_X$ is sick.

The remaining two argument types, *A* and *O*, by definition belong together: type *A* refers to the first argument of a two-place predicate, *O* represents its second argument.

(11) *A* and *O*
    Peter$_A$ likes *ice cream*$_O$

Note that this typology only takes into account the core arguments of the predicate (i.e., subject and direct object) while deliberately neglecting peripheral participants, e.g., adverbials (see also Du Bois 1987: 815).

For the linguistic realization of *S, A,* and *O*, a limited number of possibilities exist. Typically, arguments of all types are either symbolized as *full lexical NPs* or as *pronouns*. A third possibility encountered cross-linguistically is to leave arguments unexpressed or to mark them as parts of other constituents (*null-arguments*). Thus, in pro-drop languages like Spanish or Old French, the subject is only coded via the ending of the verb. Curiously, in the average Indo-European pro-drop language, it is the subject rather than a non-subject category which is coded as ø. An explanation for this will be proposed in Section 4.1.

The realization of *S, X, A* and *O* as lexical NP, pronoun or ø is not random. The data presented in Asby & Bentivoglio (1993: 65) for modern spoken Spanish and modern spoken French show that in roughly 2/3 of all cases, *S* is not realized as a full noun. The distribution of N, P and ø among *A* and *O* arguments (i.e., the first and the second argument of a two-place predicate) is even more clear-cut: whereas *O* is realized as a full noun in 2/3 of all cases (67% in the French data, and 60% in Spanish), *A* is *almost never* realized as a lexical NP – in the results provided by Ashby & Bentivoglio, this applies to 93% of the occurrences of *A* arguments in French, and to 94% of the *A*'s in the Spanish data. This means that "Hupka's rest", i.e., sentences of the type DOG BITES MAN, which provide the textbook examples for theories of morphological case, are statistically speaking irrelevant in both languages. These findings can be stated in the form of general preference laws (see 12–15), as have been proposed by Du Bois (1987, 2003).

(12) *One Lexical Argument Constraint*
    "Avoid more than one lexical argument per clause" (Du Bois 1987: 819),
    i.e., avoid more than core argument realized as an NP containing a full
    lexical noun.

(13) *Non-Lexical A Constraint*
    "Avoid lexical A's" (Du Bois 1987: 823),
    i.e., avoid first arguments of two-place predicates realized as lexical NPs.

In combination with the *One Lexical Argument Constraint* (12), the *Non-Lexical A Constraint* (13) also stipulates that only *S* or *O* should normally be realized as lexical NPs.

Since both (12) and (13) refer to lexical NPs, i.e., a certain type of linguistic coding device, they are grammatical in nature. They do not refer to discourse structure as such; however, they are anchored in certain restrictions on discourse organization. Lexical NPs, such as *a dog* or *the man,* are by definition suitable to encode new information. Pronominal forms and ø-anaphora, on the contrary, can only refer back to information which has already been mentioned or which, for other reasons, is somehow given in the context. From this it follows that the *One Lexical Argument Constraint* (12) and the *Non-Lexical A Constraint* (13) are grounded in discourse principles of the following kind.

(14) *One New Argument Constraint*
    "Avoid more than one new argument per clause" (Dubois 1987: 826),
    i.e., avoid more than one argument per clause containing new information.

(15) *Given A Constraint*
    "Avoid new A's" (Dubois 1987: 827),
    i.e., avoid first arguments of two-place predicates that convey new information.

While the grammatical principle (12) and the corresponding discourse-pragmatic rule (14) refer to the quantity of new information/lexical NPs, the preference laws (13) and (15) formulate constraints on the argument type *A*, i.e., on a particular syntactic role. The constraints and their respective relationships are summarized in Table 11.

The discourse-pragmatic foundation of Preferred Argument Structure is confirmed by characteristic disparities concerning the discourse-status of the different argument types. Based on corpora of modern spoken French and Spanish, Ashby & Bentivoglio (1993: 71) show that S, X, A and O can be ordered on a scale built on the parameters [± new], [± animate], [± generalizing]. Whereas *A* arguments tend to code definite (– generalizing), human referents (+ animate) which are contextually given (– new), O arguments at the opposed end of the scale refer to indefinite (+ generalizing), non-human and new referents. X and S arguments hold intermediate positions. All in all, the scale in Table 12 indicates the *relative inherent topicality* of the different

Table 11. Preferred Argument Structure (Du Bois 1987: 829).

	Grammar	Pragmatics
Quantity	*One-Lexical Argument Constraint*	*One New Argument Constraint*
Role	*Non-lexical A Constraint*	*Given A Constraint*

Table 12. Argument types and inherent topicality (Ashby & Bentivoglio 1993: 71).

—— A ——— X ———————————————— S ——————— O ⟶

– new	+ new
+ animate	– animate
– generalizing	+ generalizing
HIGH TOPICALITY	LOW TOPICALITY

argument types (see Givón 1976: 152; Lazard 1994: 191–204), i.e., the relative statistical probability that an argument of the respective type will figure as a sentence topic.

From what has been said so far, it follows that the principles of Preferred Argument Structure are motivated by restrictions on discourse-coherence, which in turn are grounded in the limited capacity of the human mind to process new information. This means that these preferences are largely independent of the grammars of individual languages. However, as will be argued in the following subsection (3.2), they systematically interact with language-specific grammatical categories such as 'subject' and 'object'. These general coding preferences will eventually allow us to cast new light on the problem of explaining the loss of the Old French case system in Section 4.

3.2 Preferred Argument Structure and syntactic function

As Du Bois (1987) has shown, the principles of Preferred Argument Structure provide the discourse bases for the grammatical design of accusative languages as well as of ergative languages. In ergative systems, *S* and *O* are represented by a common syntactic function (*absolutive*, see Table 13) which is opposed to a second syntactic function reserved for argument type A (*ergative* in Table 13, see also Comrie 1978: 332). In languages of the accusative type, on the contrary, *A* and *S* receive a common syntactic representation as *subjects*, in contrast to *O* arguments, which are generally coded as *objects*.

In both language types, the Preferred Argument Structure yields characteristic asymmetries in the grammatical representation of lexical NPs on the one hand and pronouns and ø-anaphora on the other. Empirical analyses of corpora of modern spoken French, an accusative language, have shown that subjects (i.e., mainly *A* and *S* arguments), are predominantly realized as pronouns, whereas objects (normally *O* arguments) are preferably realized as lexical NPs (see the data in Table 14, taken from Lambrecht 1986).

Table 13. Preferred Argument Structure and Grammar: The syntactic coding of *S, A* and *O* (Du Bois 1987: 808).

Accusative languages		Ergative languages
subject	{ A	*ergative*
	{ S }	
object	O }	*absolutive*

Table 14. Asymmetry in lexical vs. pronominal realization of subjects and objects in the *François* Corpus (spoken Modern French, cf. Lambrecht 1986: 209).

	pronouns	nouns
subjects	1440	46
direct objects	71	535

The picture which results from Table 14 is, by and large, tantamount to the long-standing observation that subjects tend to code old (i.e., topical) information whereas objects normally code new (i.e., focal) information (which, in turn, conforms to the hierarchy of inherent topicality given in Table 12).

In Table 15, the concrete results of Lambrecht's (1986) corpus analysis from Table 14 are presented in their abstract proportions, thus providing a more generalized picture of the subject–object asymmetry in modern spoken French as a whole.[10] For the sake of clarity, the exact percentages of Lambrecht's findings (indicated in brackets) are rounded up or down.

Before we attempt to use these figures in order to explain the loss of the Old French two-case system, an important question must be answered: Are the proportions given in Table 15 language-dependent, that is, specific to Modern French, or is it legitimate to assume that in spoken Old French, to which we have no direct access, subjects and objects were coded in similar proportions? This issue will be discussed in the following section.

3.3 Preferred Argument Structure in Old French?

In this section, I will compare Modern French data with evidence from Old French. The figures for modern spoken French given in Table 16 are based on the same corpus data as those in 14. They simply give a slightly different perspective by conveying more detailed information about the 46 lexical subjects mentioned in Table 14 (see lines c and d in Table 16).

Table 15. Asymmetry in the lexical vs. pronominal realization of subjects and objects in modern spoken French (based on table 14).

	pronouns	nouns
subjects	~65% [68.8%]	~ 2% [2.2%]
direct objects	~ 3% [3.4%]	~30% [25.6%]

100% = Σ subjects and direct objects

Table 16. Lexical subjects in modern spoken French (*François Corpus*, Lambrecht 1987).

a. Σ Propositions	1560	=	100.0%
b. Lexical NPs	1550	=	99.4%
c. Lexical subjects in SV sentences	44	=	2.8%
d. Lexical subjects in SVO sentences	2	=	0.1%

---

10. These data also roughly match the results presented in Ashby & Bentivoglio (1993: 65), discussed in Section 3.2.

Specifically, line d confirms once again that "Hupka's rest" (that is, sentences of the type DOG BITES MAN with two lexical NPs) is extremely small in spoken discourse. As Lambrecht (1987: 235–255) points out, constructions of this type have a special function in modern spoken French which consists in introducing *background information*. Discourse passages with background information normally occur under "low information pressure" conditions (Du Bois 1987: 834), i.e., they offer more time to process the information conveyed. Therefore, in such passages, a proposition may exceptionally contain more than one lexical argument. As constructions specialized in background information, propositions with two lexical NPs are not only rare in Modern French – they are *marked constructions*, designed for a special discourse function.

In Table 17 I give the results of a quantitative analysis of the first 265 verses of the *Chevalier de la Charrette*, an Old French narrative poem composed around 1170 by Chrétien de Troyes. Table 18 shows the results for the corresponding passage in a Modern French rendering of the same poem.

The comparison of Tables 16, 17 and 18 yields two results: first, all the data show the same general tendency, albeit to different degrees. Second, the similarity between 17 and 18 is far greater than that between 16 and 18. This means that for the realization of Preferred Argument Structure, the criterion of textual genre seems to be more important than the grammatical difference between Old French and Modern French.[11] This in turn justifies the conclusion that for the realization of Preferred Argument Structure in spoken Old French, we are entitled to assume quantitative proportions of the kind given in Table 15.

Table 17. Lexical subjects in the Old French *Chevalier de la Charrette*, verse 1–265.

a.	Σ Propositions	273	=	*100.0 %*
b.	Lexical NPs	226	=	*82.8%*
c.	Lexical subjects in SV or VS sentences	40	=	*14.7%*
d.	Lexical subjects in SVO sentences	6	=	*2.2%*

Table 18. Modern French version of the *Chevalier de la Charrette*, verse 1–265.

a.	Σ Propositions	289	=	*100.0 %*
b.	Lexical NPs	276	=	*95.5%*
c.	Lexical subjects in SV or VS sentences	49	=	*17.0%*
d.	Lexical subjects in SVO sentences	7	=	*2.5%*

---

11.   This result confirms the conclusion in Ashby & Bentivoglio (2003: 72).

Moreover, an examination of individual passages shows that in the Old French literary genre of the *roman courtois*, sentences with two lexical core arguments instantiate a special construction with a specific discourse function. Sentences of this type regularly appear at places of a topic-shift, where a new protagonist is introduced into the discourse. For example, the OVS sentence with two lexical core arguments occurring in verse 84 in (16) marks such a topic-shift.

(16) SVO/OVS sentences with two lexical NPs in Old French narrative poems

82	*Ce oïrent el pales maint,*					Old topic:
	this heard:PLUR in.the palace many					the mysterious
	'This was heard by many in the palace,'					knight

83	*S′ an fu la cort tote estormie.*					
	and of-it was the court all upset					
	'and the court was all upset about it.'					

84	*La novele$_O$ en a Kex$_S$ oïe,*					New topic:
	The news of.this has Keu heard					*Keu*, the hero
	'The news was heard by Keu,'					of the poem

85	*Qui avoec les sergenz manjoit.*					
	who with the servants ate					
	'who had dinner with the servants.'					

Until verse 83, the poem describes how a mysterious knight appears at King Arthur's court and boldly challenges the king and his entourage. Verse 84 then introduces the hero of the poem, thereby marking the beginning of a new sequence of events. Clearly, the function of the sentence with two lexical NPs is not exactly the same as in modern spoken French in that it does not convey background information. But like in Modern French, the context in which it appears is characterized by conditions of low information pressure.

From the comparison of Tables 17 and 18, it follows that there is no reason to suppose that the distribution of lexical and non-lexical (i.e., pronominal and zero) realizations of subjects and objects in spoken Old French was substantially different from modern spoken French. There is, however, a major grammatical difference between Old French and Modern French concerning subject pronouns: while Old French was a pro-drop language, the realization of subject pronouns is obligatory in Modern French (even though their grammatical status is controversial, see below, Section 4.1). This difference is respected in Table 15a, a slightly modified version of Table 15 (see above, Section 3.2): the term "non-lexical" in Table 15a refers to pronouns as well as to zero realizations of the respective argument type. According to what has been said so far, the proportion of lexical vs. non-lexical representations of subjects and objects in Old French may have looked more or less as indicated in Table 15a.

Table 15a. Hypothesized asymmetry in lexical vs. pronominal realization of subjects and objects in spoken Old French French (based on Table 15).

	non-lexical	lexical
subjects	~65%	~ 2%
direct objects	~ 3%	~30%

In the next section, these figures, together with the principles of Preferred Argument Structure, will be used to provide answers for many of the questions raised in Section 2.

4.   Preferred Argument Structure and case in Old French

Before we can fully interpret the figures in Table 15a, an additional assumption is necessary. Recall the following axiom (17), whose validity has been demonstrated cross-linguistically for a wide range of phenomena (Bybee 1985: 50–53, Bybee & Hopper 2001):

(17)   Frequency and markedness
        Highly frequent grammatical categories are functionally unmarked. They
        are more likely to be represented by ø-morphemes than categories which are
        less frequent.

The principles discussed up to now account for all of the facts discussed in Section 2, for which no coherent explanation has been available so far.

i.   In Table 15a, the two most frequent constellations are non-lexical subjects (~65%) and lexical objects (~30%). According to principle (17), these constellation types are prime candidates for a morphological representation by ø-morphemes. This hypothesis will be elaborated in 4.1 and 4.3.
ii.   The *One Lexical Argument Constraint* (12), which for Old French is confirmed by the proportions in Tables 17 and 15a, explains the pivotal function of pronouns for the distinction of subjects from non-subjects (see Section 2.4). Moreover, it makes it clear why, diachronically, case-distinctions tend to be conserved in pronouns rather than in full lexical NPs. This point will be discussed in 4.2.
iii.   The frequency proportions given in Table 15a, together with the topicality hierarchy in Table 12, explain the relative chronology of the loss of the two-case system in Old French (see Section 2.3). This will be shown in more detail in 3.3.

4.1   Preferred Argument Structure and null-subjects

If non-lexical subjects are the rule, as Table 15a suggests, and if at the same time highly frequent categories are represented by ø-morphemes, as is stipulated in (17),

then it is understandable that in many languages, subjects (rather than objects) should be realized as ø-anaphora, as is the case in pro-drop languages. ø-objects do occur (for Old French, see Marchello-Nizia 1999: 50, for Brazilian Portuguese, see Barme 2001: 236–238), but they are typologically less common than ø-subjects, and they are diachronically less stable. The causal link between the high frequency of non-lexical subjects and their realization as ø-anaphora becomes evident in Modern French. In cases as *je parle* /ʃparl/ 'I speak', it is a much-debated issue if the atonic clitic *je* is best regarded as a pronoun or whether it really is a prefix to the verb (the second view is proposed by Lambrecht 1981). The latter position implies that the atonic subject clitics of Modern French have changed, due to their high frequency, from anaphoric pronouns to mere (subject-) agreement markers of the verb. In other words, this position implies that Modern French has turned into a pro-drop language as a consequence of the high frequency of its subject pronouns.

4.2　Preferred Argument Structure and pronouns

The figures in Table 15a explain why case distinctions are universally preferred in pronouns (see Section 2.3). As I have argued, sentences of the type DOG BITES MAN ("Hupka's rest") with two lexical NPs are not only quantitatively insignificant, but are used as marked constructions with special functions, which can vary from language to language but which have in common that they occur under conditions of low information pressure. Hence, a "normal" two-place proposition consists of a pronominally-realized core argument and another core argument realized as a lexical NP. Under these circumstances, it is fully sufficient to case-mark only one of the two arguments in order to safely distinguish the subject from the non-subject:

(18)　a.　*HE* BITES THE DOG.
　　　b.　*HIM* BITES THE DOG.

Thus, as long as case differences can be marked in the pronominal system, no other linguistic device will be needed to distinguish subjects from non-subjects. Note that this explanation also allows for constellations like (18b), in which it is the object which is pronominally realized – according to Table 15a these cases are, however, far less frequent than pronominally-realized subjects. As has been made clear in Section 2.3, the importance of the pronouns for case-marking has been noted in the literature before, but the precise status of "Hupka's rest" has never been assessed convincingly. The theory of Preferred Argument Structure provides a coherent, discourse-based account of both phenomena.

　　　The view proposed here also offers an explanation of the finding mentioned in Section 2.3 that cross-linguistically, case distinctions tend to be conserved in the pronouns. The *One New Argument Constraint* (14) makes pronouns a frequent category. Therefore, pronominal case distinctions will continue to be used with considerable

token frequencies (see Bybee & Thompson 1997: 381). High token frequency, in turn, entails the entrenchment of the pronominal forms and preserves them from being given up. So, even if a language loses its case marking devices for full lexical NPs (as did Old French), its pronominal system will almost certainly conserve case distinctions.

However, if pronominal subsystems fail to mark case distinctions, this will preferably be so in those pronoun classes which refer to *inanimate* referents. Thus, Engl. *it*, German neuter *es*, Latin neuter *id*, Latin neuter *illud* etc. have identical forms for nominative and accusative case and therefore do not lend themselves to distinguishing subjects from non-subjects. This can be explained by the low topicality of inanimate referents (see above, Table 12). The statistical probability that inanimate referents will be taken up as discourse topics by means of a pronoun is relatively low; they will only exceptionally be coded as subjects. This in turn explains why subject–object distinctions are less common in pronominal classes reserved for inanimates. Furthermore, it also accounts for the fact that – despite the general diachronic stability of pronominal systems as a whole – pronominal classes for inanimates may disappear altogether, as did the Latin neuter pronoun (*illud, *illu*) in Old French (see above, Section 2.3).

4.3   The chronology of case loss in Old French

The figures in Table 15a indicate that full lexical NPs were realized mainly as objects, while their realization as subjects was rather exceptional. Put in slightly different terms, full lexical nouns were realized much more often in the oblique case than in the nominative (see Table 4a), even at a time when the two-case system was still fully intact. As follows from principle (17), nominal objects rather than nominal subjects were the unmarked category, and were therefore most likely to be represented by a *ø*-morpheme.

Thus, contrary to Mayerthaler's (1981) view, the Old French two-case system with its *s*-marked oblique and its *s*-marked nominative was not a morphologically ill-formed system, since the nominative, i.e., the less frequent form, was morphologically derived from the more frequent and hence more basic oblique.

The process traditionally labeled as the "collapse of the two-case system" simply consisted in the generalization of the oblique form, which, from the very beginning, had been more frequent anyway, and which was now progressively extended to the far less frequent lexical subjects. Put more simply, this meant that the nominative forms

Table 4a. Two-case declension of OF masculine class I nouns (singular).

	Nominative	Oblique
Singular	*-s* infrequent	Ø frequent

were progressively lost, because subjects were increasingly coded in the oblique form. The motivation for this change was economy, that is, minimization of the speakers' processing efforts. The change would start in those noun classes for which the nominative morphology was least entrenched – which were, of course, the classes least frequently used as subjects. On the whole, Schøsler's (2001a, 2001b) relative chronology (see Table 8 in Section 2.3, repeated as 8a for convenience) directly reflects the probability with which members of the different classes would be used in the nominative case (see also Schøsler's 2001b: 285). In those categories where this probability was relatively high, the nominative forms were conserved longer, while in categories which were used as subjects less frequently, the nominative forms disappeared more rapidly.

Grammatical items, which were by definition highly frequent anyway, e.g., determiners and pronouns, maintained the nominative form longer than full nouns (see Section 2.1 and 2.2). In turn, the nominative form was conserved longer on nouns than on adjectives, because the latter were the less frequent category (the realization of an attributive adjective is dependent on the realization of a noun, whereas the reverse is not true). Animate nouns, which are inherently more topical than inanimate ones, tend to occur in subject position relatively more frequently than inanimate ones. Hence, the nominative inflection was maintained longer on animates than on inanimates. Singular nouns are more topical than nouns in the plural and hence more likely to appear as subjects – therefore, the loss of the two-case declension first occurred in the plural of common nouns. As has been shown in Section 2.3, the proper names of Old French behave differently from common nouns. For Modern French, Lambrecht (1987: 248–249) has shown that in spontaneous spoken discourse, the usual topicality degree of proper names is almost comparable to that of personal pronouns. Another

Table 8a. Hierarchy of categories reflecting relative chronology of loss of case-marking.[12]

Case loss earlier	Case loss later
2. non-human nouns	Human nouns
3. feminines	masculines
4. adjectives	substantives
5. nouns	determiners
6. nouns and determiners	pronouns
7. plurals	singulars

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12. Table 8a is slightly a modified version of Table 8. In 8a, Schøsler's tendency 1, according to which case loss occurred earlier in human proper nouns and later in common nouns, and which – for reasons pointed out in 2.3 – I consider to be problematic, has been omitted.

factor which contributed to the relatively high frequency of nominative forms in this class was, of course, the language-specific rule of Old French that persons were normally addressed in the nominative form of their name (see 2.3). The category with the highest degree of inherent topicality was the pronouns which, therefore, appeared in the nominative form with the highest token frequency.

Schøsler's (2001b: 284p.) explanation for the "declension preserving status of animate, definite, masculine nouns and pronouns" is that the corresponding referent types, which were especially likely to appear as subjects, needed to have their grammatical function marked more clearly in order to avoid confusion.[13] However, Table 15a shows that, under normal circumstances, there hardly was a chance of confusing subjects and objects as long as case distinctions were maintained in pronouns and ø-anaphora. By contrast, the explanation proposed here does not attribute an inherent grammatical purpose to the change in question. Rather, it boils down to a (well-attested) descriptive diachronic tendency: reductive change (i.e., loss of linguistic form) is checked by high frequency. However, as I have shown, frequency is not an explanation in its own right – in the case discussed here, frequency (low as well as high) is a by-product of general discourse principles as described by the theory of Preferred Argument Structure.

5.   Conclusion, or: how useful is case morphology?

If the argument outlined in this paper is correct, then inflectional case-marking on full nouns is unnecessary for successful communication. Note that this does not imply that the distinction between subjects and non-subjects as such is superfluous. But, as has been shown in this article, under normal circumstances this distinction can be marked in an unambiguous fashion by the pronouns alone (see ex. 18). This means that many beliefs cherished by historical (and other) linguists must be reconsidered. Thus, it seems doubtful that the grammaticalization of new case markers can cogently be explained by the need of speakers for new means to express grammatical case distinctions (see e.g., Company Company 1998: 551). By the same token, the rise of new word order patterns cannot have been triggered by a necessity to make up for a foregoing loss of case distinctions (see above, Section 2). In fact, as I have shown in previous work (Detges 2005, 2006), it is more plausible to assume that such processes

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13.   This argument is somewhat surprising and inconsistent, since in previous work Schøsler has always argued that case marking on the noun is unnecessary for distinguishing subjects from non-subjects (see above, Section 2.4).

are the unintentional by-products of discourse strategies which aim at rhetorical effectiveness rather than grammatical efficiency.

It has recently been argued that "morphology is not necessary" (Aronoff 1994: 165; McWorther 2004), at least from a strictly grammatical point of view. According to Klein (2003), its main function is sociolinguistic. Inflectional morphology represents the oldest and most complex layer of a speech community's grammatical traditions. Therefore, mastery of inflectional morphology normally indicates that the speaker is well-integrated in the speech community. As Klein (2003: 25) puts it, "people do the funniest things in order to fit in socially".[14] Counter to this somewhat radical and simplifying view, one could claim, in line with Schøsler (1973: 260), that morphology is just one of many clues indicating syntactic function and semantic role. In other words, it may be extremely redundant, but it is not entirely useless.

6.   Summary

Starting out from some typical (but problematic) views concerning the function of morphological case, I sketched the specific empirical problems which these views entail for an explanation of the loss of the Old French two-case system (Section 1). In Section 2, I discussed some further attempts to explain this change and pointed out why I think that none of them is really satisfactory. In Section 3, I sketched the theory of Preferred Argument Structure (Section 3.1), and also argued that the predictions made by this theory can be shown to hold true not only for spoken Modern French (Section 3.2) but also for Old French (Section 3.3). This in turn allowed me to develop, in Section 4, a simple explanation as to how and why the two-case declension disappeared (Section 4.3). I argue that the relative chronology of this change was driven by the frequency of usage of the respective word classes, which was in turn conditioned by the preferred argument structure of spoken discourse. As I have shown, this change could only occur because morphological case on full nouns is unnecessary for distinguishing subjects from non-subjects as long as case distinctions are conserved in the pronouns (Section 4.2). At the same time, as I showed, the theory of Preferred Argument Structure predicts that case distinctions are more likely to be found in pronouns than in full nouns (Section 4.2). Furthermore, as a "side-effect" of my argument, I showed that the theory of Preferred Argument Structure also predicts some very basic typological properties of languages, for example the fact that null-subjects are cross-linguistically more common than null-objects (Section 4.1). In Section 5, I reconsidered the question of how necessary case morphology really is.

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14.   "Man macht ja die dümmsten Sachen, um nicht sozial aufzufallen" (Klein 2003: 25, English translation mine, U.D.).

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Reduction or expansion of case marker distribution

The development of case in Germanic

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In this article five existing explanations for the loss of case morphology in the Germanic languages are examined. These are (1) phonological erosion, (2) a change from synthetic to analytic language type, (3) a change from free to fixed word order, (4) the development of the definite article, and (5) a change from lexical to structural case. All five explanations are rejected in favor of (6) a usage-based constructional approach where the breakdown of the case system is expected on the basis of the fact that the argument structure constructions are partially synonymous. Hence, it is predicted that the case and argument structure constructions will either merge, with subsequent loss of case distinctions and case morphology, or that high type frequency constructions will attract new verbs and verbs from low type frequency constructions, gradually causing them to fall into disuse. English, Mainland Scandinavian and Dutch have taken the former path, while German, Icelandic and Faroese have developed along the latter.

1. Introduction*

The loss of morphological case in the Germanic languages has been subject to substantial research for a long time in linguistics, without any general consensus on its causes. In this article I review five hypotheses on the loss of case morphology and show that none of them holds for Germanic (see also Detges, this volume). I then put forward the sixth hypothesis and show that it is compatible with the wide range of relevant data. I begin with a discussion of the classical hypothesis that phonological erosion caused the deflection (Section 2). I argue that the predictions of that hypothesis are not borne out, as phonological erosion should apply to verbal suffixes as well as nominal endings, which, however, is not the case in the history of Swedish.

Then, in Section 3, I examine the traditional axiomatic assumption that the Germanic languages have developed from being synthetic to analytic, and that this has ultimately caused the case system to break down. There are several problems with this explanation, like for instance the fact that there are restrictions on the ditransitive construction in Icelandic which has morphological case, not found in English which does not have case marking. Also, the ditransitive construction blossomed in the history of English after case morphology was lost, attracting several verbs that had not occurred in the construction previously. Moreover, dative objects in Icelandic have not unanimously been replaced with prepositional objects, nor are they an unproductive category, as is expected if Germanic is undergoing a change where periphrastic structures are taking over morphological structures.

In Section 4 I turn to the idea that there is a relation between free word order and the existence of a morphologically complex case system in a language. I point out that the word order has become more fixed in Icelandic, although the case system is intact. The reverse is, however, true for Dutch, where free word order has been maintained while the case system has been lost. Explaining the loss of morphological case with the fixation of the word order does thus not hold across Germanic.

In Section 5 I examine the hypothesis that there is a relation between the loss of morphological case and the emergence of the definite article in Scandinavian. I point out that Icelandic and Faroese differ from Mainland Scandinavian in that these languages have developed a definite article, yet they have maintained morphological case. Hence, the emergence of the definite article does not explain the loss of morphological case in Germanic.

Then, in Section 6, I investigate whether the changes in case marking in the Germanic languages are best described as a change from lexical case to structural case, as has been extensively argued for in the literature. I show that there are changes in case marking in Icelandic which directly contradict this hypothesis. First, structurally case marked subjects have changed into lexically case marked subjects. Second, lexically case marked subjects have changed from one lexical case to the other. Third, structural accusative objects have changed into lexical dative objects. Forth, lexical genitive objects have changed into structural nominative objects. Finally, in the history of English, Swedish and Faroese, structural nominative objects have changed into structural accusative objects, i.e., from one structural case to the other. Several auxiliary mechanisms have been postulated to account for these changes, all of which are derivatives of case marking facts in Germanic, not predictive per se.

Finally, in Section 7, I suggest a usage-based constructional account of the development and argue that its predictions hold for all the Germanic languages, including the development of the 'blended' construction in the history of English, Swedish and Faroese, and case changes in Icelandic in general. As the case and argument structure constructions in Germanic were partly synonymous, there were two logical ways for the case and alignment system to develop: (i) by merging the argument structure

constructions, with subsequent loss of case distinctions and case morphology, and (ii) by eliminating the synonymous low type frequency constructions. A usage-based constructional approach, combined with a view of productivity based on type frequency, coherence, and an inverse correlation between the two, predicts that high type frequency constructions will gain in type frequency over time, as they attract new and existing verbs, at the cost of low type frequency constructions. Rapid changes in the vocabulary are expected to speed up the development, as the proportion of new verbs in a language will be higher during periods of language contact than during other periods. As predicted, the development of case correlates with the amount of language contact found in the Germanic language areas, as English has been exposed to the most language contact and earliest, with the loss of case morphology also taking place earlier than in the other languages. Swedish was also exposed to severe contact during the 13th century and later, which coincides in time with the loss of case. German has been exposed to less foreign influence, and has eliminated several of the Germanic low type frequency constructions. Icelandic has been exposed to least foreign influence and maintained most of the Germanic case and argument structure constructions, although the constructions lowest in type frequency have reduced their type frequency even further.

The accounts in Sections 2–5 place the changes in different domains of grammar, i.e., in phonology (2), change in morphological type (3), word order (4), and semantics/definiteness (5). I argue against these approaches presenting empirical data which are incompatible with the predictions derived from them. In contrast, in Section 6 the issue is a theoretical account of a synchronic mechanism of case assignment which has also been applied to historical material. Again, I argue against this account by presenting empirical data that contradict the predictions derived from this approach, as well as showing that the different auxiliary mechanisms developed to account for the whole array of relevant data are derivatives of the empirical facts and not predictive per se. The account in Section 7 is also anchored in a particular theoretical approach, which strength lies therein that it accords more straightforwardly with the relevant empirical data than that of the account in 6. Section 8 contains a summary of the content and conclusions of this article.

2.   Phonological erosion

The most classical explanation for the loss of case morphology found in the literature is based on the assumption that the case endings have been wiped out by phonological erosion. Blake (2001: 176–178), for instance, argues that the reduction of unstressed vowels to schwa and the loss of final -*n* accounts for the breakdown of the case system in the history of English.

Unstressed vowels have of course been reduced to schwa in more languages than English, like in the Scandinavian languages, but the results of this reduction are

different for different inflectional categories. The masculine and neuter dative singular ending -*e* gradually disappeared during the late Old Swedish period (Wessén 1992: 142), while the present tense first person plural ending -*e*, which existed in the same period, was in fact maintained as a marker of number agreement until last century (Wessén 1992: 252–256). It seems that if the reduction, and subsequently the loss, of unstressed vowels is a causal factor, the agreement marker -*e* should also have been eroded during the late Old Swedish period, which however does not take place until centuries later. This difference in survival between the different *e*-endings, case endings and agreement markers, cannot be attributed to differences in sentence intonation either, as the verb is not placed in a notably more stressed position in the sentence than its arguments are. This example from Swedish shows that phonological erosion cannot be considered a primary cause, as the reduction/loss of unstressed vowels does not apply equally across all inflectional endings but selects out case endings and leaves verbal endings intact.

3. Synthetic to analytic

A change from a synthetic stage of a language to an analytic stage entails that morphological or synthetic structures are replaced with periphrastic structures. For case and argument structure constructions such a change implies that dative objects, i.e., both indirect objects of ditransitives and direct objects of transitives, should be replaced with a prepositional phrase. Several scholars have argued that such a change has taken place in the Mainland Scandinavian languages and that this explains the loss of case marking in that area (cf. Jahr 1995; Faarlund 2001; Askedal 2001). This analysis makes certain predictions about correlating changes in case and argument structure from Old Germanic to the Modern Germanic languages, namely:

(1)   – Morphological case should be lost
         – Ditransitive constructions should have decreased in frequency
         – Dative objects should have been replaced with
            prepositional objects

These predictions are not uniformly borne out for the Germanic languages. Morphological case has not been lost in Icelandic, Faroese and German, although it has gone lost in the other Germanic languages. The ditransitive construction, which is a synthetic construction, should have given way for its analytical counterpart, i.e., the construction where the indirect object is expressed as a PP, and hence the ditransitive should have gone down in frequency. That is, if loss of morphological case is a consequence of a development from synthetic to analytic in Germanic. The frequency of the ditransitive construction has, indeed, decreased in Icelandic, both its type and token frequency, as shown in Table 1.

Table 1. Type and token frequency of the ditransitive construction.

	Old Norse-Icelandic	Modern Icelandic	Total
Types	41	21	62
Tokens	109	57	166

The figures in Table 1 are extracted from a text corpus, consisting of four Old Norse-Icelandic genres and corresponding genres in Modern Icelandic (see Barðdal 2001a for a detailed description of the corpus), and the differences in type frequency between the two language stages are highly significant (Pearson Chi-square, $p < .000$). There are examples of ditransitive verbs in the Old Norse-Icelandic material (2a), which in Modern Icelandic can only occur with a prepositional phrase (2b):[1]

(2) a. *… ef þú skyldir skera <u>Vésteini   bróður   mínum</u>*
            if you should cut   Vesteinn.DAT brother my

      skyrtuna.
      shirt-the.ACC

      '… if you were to make my brother Vésteinn the shirt.'
                                          (Gísla saga Súrssonar 1987: 859–860)

      b. *Ef þú ættir að skera skyrtu   handa <u>Vésteini</u>*
            if you were to cut   shirt.ACC for   Vésteinn.DAT

      <u>*bróður   mínum*</u>.
      brother my

      'If you were to make a shirt for my brother Vésteinn.'

One would, however, not expect novel verbs to occur in the ditransitive construction in Icelandic if the language is or has been changing from synthetic to analytic. This is nevertheless the case, as the following two documented examples with *e-maila* 'email' and *sms-a* 'text' show (cf. Barðdal 2003, 2008: Ch. 5):

(3) a. *… ég reyndi að e-maila þér   munstrið   en boxið*
            I   tried   to email   you.DAT pattern-the.ACC but box-the

      þitt   er fullt.
      yours is full

      '… I tried to email you the pattern but your inbox is full.'
                                          (www.handavinna.is/spjall/read.php?f=14&t=77&a=1)

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1. The following abbreviations are used: NOM = Nominative, ACC = Accusative, DAT = Dative, GEN = Genitive, OBL = Oblique, 1P = First Person, 3P = Third Person.

    b.   … *og   bað   hana   um   að   sms-a   mér   svefntöflu.*
        and   asked   her   about   to   text   me.DAT   sleeping-pill.ACC
        '… and asked her to text me a sleeping pill.'

                       (drherdis.blogspot.com/2004_01_01_drherdis_archive.html)

In fact, one would expect Icelandic to have the least restrictive ditransitive construction, while the languages that have lost morphological case should have a more restricted ditransitive. This prediction is not borne out. What is more, facts seem to be exactly the opposite:

(4)   a.   *I'll throw you the ball.*   English
       b.   **Ég   hendi   þér   boltann/ boltanum.*   Icelandic
          I   throw   you.DAT   ball-the.ACC/ball-the.DAT

The examples in (4) show that verbs of throwing, for instance, can occur in the ditransitive construction in English while they cannot occur in it in Icelandic (cf. Barðdal 2007). Some verbs of obtaining and making, for instance, are not as acceptable in the ditransitive construction in Icelandic, as they are in English:

(5)   a.   **Get   ég   keypt   þér   glas   af   víni?*   Icelandic
          can   I   buy   you.DAT   glass   of   wine
       b.   *Can I buy you a glass of wine?*   English

(6)   a.   **Ég   skal   hrista/blanda   þér   smá   sallad.*   Icelandic
          I   will   toss/mix   you   little   salad
       b.   *I'll toss you some salad.*   English

It is also a fact that it was not until after the breakdown of the case system in English that the ditransitive construction became productive, being extended to all kinds of verbs that had not occurred in it earlier (cf. Visser 1963: 629). Hence, morphological case and analytic/synthetic structures are not necessarily in complementary distribution in the Germanic languages, which again undermines the validity of an explanation based on the synthetic–analytic dichotomy.

    With regard to the last prediction in (1) above, that dative direct objects should have been replaced with prepositional objects, there are examples that seem to confirm this. Consider the following:

(7)   a.   *Þórgunna   vildi   <u>engum   mat</u>*   Old Norse-Icelandic
         Thórgunna   wanted   no   food.DAT

         bergja   um   kveldið.
         taste   around   evening

         'Thórgunna didn't want to eat anything in the evening.'

                            (Eyrbyggja saga 1987: 603)

b. *Ég hafði bergt á <u>hreinu og tæru</u>* Modern Icelandic
   I had tasted on clean.DAT and clear.DAT

   <u>vatninu</u> …
   water-the.DAT

   'I had tasted the crystal clear water … '

   (www.sigurfreyr.com/krishnamurti.html)

In Old Norse-Icelandic the verb *bergja* 'taste' could either occur with a direct object or with a prepositional object, whereas in Modern Icelandic only the prepositional variant exists. This seems to suggest that dative objects have been replaced with prepositional objects. However, the reverse is also found in the history of Icelandic, since verbs which could occur with a prepositional object in Old Norse-Icelandic only select a dative direct object in Modern Icelandic. One such verb is *heilsa* 'greet':

(8) a. *Hann heilsaði <u>á konung.</u>* Old Norse-Icelandic
       he greeted on king.ACC
       'He greeted the king.'
       (Óttars þáttur svarta 1987: 2205–2206)

   b. *Hann heilsaði <u>konungi</u>/*á konung* Modern Icelandic
      he greeted king.DAT/on king.ACC
      'He greeted the king.'

It is thus not at all evident that dative direct objects have been replaced with prepositional objects. In fact, it seems that some verbs selecting for dative direct objects can now only select for prepositional objects, and vice versa, i.e., that verbs selecting for prepositional objects earlier can now only select for dative objects.

A development from a synthetic to analytic stage would also entail that new verbs in Icelandic should not select for dative objects. This is, however, far from being true. In a recent study (Barðdal 2006a), I have shown that borrowed verbs assign dative case to their objects in approximately 37% of the cases (cf. also Barðdal 2001a: 124, 2008). The exact numbers are given in Table 2. The productivity of the dative object construction has also been documented in 15th century Icelandic (cf. Barðdal 1999). This

Table 2. The assignment of NOM-ACC and NOM-DAT to borrowed verbs in Icelandic.

	N	f
NOM-ACC	68	63.6%
NOM-DAT	39	36.4%
Total	107	100.0%

evidence further illustrates that a change from a synthetic to an analytic stage does not provide a fruitful explanatory model for the development of case in Germanic.

To summarize, in this section I have discussed and rejected the predictions of the hypothesis that there has been a development from synthetic to analytic in the Germanic languages. First, there are restrictions found on the ditransitive construction in Icelandic which are not found with the ditransitive construction in English, in spite of the fact that Icelandic has maintained morphological case whereas English has not. Second, the ditransitive construction became extremely productive in the history of English after the case system broke down. Third, there is no evidence that dative direct objects have consistently been replaced with prepositional objects in the history of Icelandic. Fourth and finally, one would not expect new verbs to assign dative case to their objects, which is exactly what approximately 37% of borrowed verbs in Icelandic do. The predictions of the synthetic-to-analytic hypothesis are thus not borne out in Germanic.

4.   Case and word order

It is a widely assumed hypothesis, ever since at least Falk and Torp (1900: 283), that there is an inherent causal relation between word order and case morphology (Sapir 1921; Venneman 1974; Kemenade 1987; Lehmann 1985; Neeleman & Weerman 1999). That is, the more morphological cases the freer the word order, and the fewer (or no) morphological cases the more fixed the word order is in a language. Many scholars have suggested that the loss of case marking in Mainland Scandinavian is related to the word order becoming more fixed in these languages (Anward & Swedenmark 1997; Askedal 2001; Faarlund 2001). On this analysis one can expect the following correlating changes:

(9)   – The word order becomes more fixed
       – Morphological case is lost

There are, however, two languages within the Germanic language family that pose serious problems for such an account and these are Icelandic and Dutch. Icelandic has certainly undergone a change from Old Norse-Icelandic to Modern Icelandic, similar to the other Scandinavian languages, in that the word order has become more fixed, despite the fact that Icelandic has not lost its case system. This change is most clearly manifested in lack of ov word order in Modern Icelandic and a lesser prominence of discontinuous phrases (Rögnvaldsson 1995; Barðdal & Eythórsson 2003a). Dutch, however, has a much freer word order than Icelandic, as it has for instance retained ov, discontinuous phrases and various scrambling possibilities that are non-existent in Modern Icelandic. Dutch has nevertheless lost its case system. My conclusion is,

therefore, that while there may well be a typological tendency for case languages to have freer word order than non-case languages, there is, however, no direct causal relation here. Hence, the development of more fixed word order in Scandinavian is not a feasible explanation for the breakdown of the morphological case system.

5.   Case and the definite article

It has also been proposed that the loss of morphological case in Scandinavian is related to the emergence of the definite article (Holmberg 1994; Anward & Swedenmark 1997). This hypothesis is partly based on the typological fact that many case languages do not exhibit a definite article, like the Finno-Ugric languages, and partly on the fact that the emergence of the definite article in Scandinavian seems to have taken place at the same time as case marking disappears. Hence, on this analysis, the following correlating changes are expected:

(10)   – A definite article emerges
        – Morphological case is lost

There are, however, two languages within the North Germanic language family that pose a serious problem for this analysis, namely Icelandic and Faroese. Both these languages have acquired a definite article, presumably at roughly the same time as the definite article was acquired in Mainland Scandinavian. Therefore, the emergence of the definite article seems to be a common Scandinavian innovation. However, neither Icelandic nor Faroese have lost their case system. Thus, it cannot be assumed that there is a direct causal relation between the emergence of the definite article and the breakdown of the case system in Mainland Scandinavian, despite the fact that these changes seem to occur at approximately the same time in these languages.

6.   Structural vs. lexical case

Many scholars have argued that the breakdown of the case system in Germanic is a manifestation of structural case replacing lexical case (see Delsing 1991 and Falk 1997 for Swedish, Allen 1995 and Lightfoot 1999 for English, Askedal 2001 for Scandinavian, Eythórsson 2000, 2002 for Icelandic, and Barnes 1986 and Jónsson & Eythórsson 2005 for Faroese). Structural case is nominative on subjects and accusative on objects, assigned on the basis of the structure of the sentence (henceforth given with capitals, for ease of disposition, in this section). All other case marking of direct arguments is regarded as lexical, i.e., assigned more or less idiosyncratically by individual lexical verbs, and hence word-bound (henceforth given with lower-level letters). The predictions of

the lexical-to-structural-case analysis should manifest itself in the following changes (either one or the other):

(11)   – Loss of morphological case
       – Structural case forms replace lexical case forms:
         ACC/DAT/GEN subjects > NOM subjects[2]
         DAT/GEN objects > ACC objects

---

2.   It has been generally assumed in the linguistic literature, ever since Andrews (1976), that Modern Icelandic (and Modern Faroese) has syntactic subjects in all its four morphological cases, i.e., nominative, accusative, dative and genitive (see Table 3 below). This entails a definition of subjecthood which is not based on morphological criteria, like nominative case and agreement, but on syntactic criteria, i.e., first position in declarative clauses, inverted position in questions, first position in subordinate clauses, subject-to-subject raising, subject-to-object raising, conjunction reduction, control infinitives, clause-bound reflexivization, and long distance reflexivization. With regard to these syntactic properties, it is systematically the leftmost argument of the argument structure in Icelandic which shows this behavior, irrespective of whether this argument is in the nominative or some other morphological case. This has been heavily discussed in the international literature on Icelandic and the Germanic languages in general, of which the latest contribution can be found in Barðdal (2006b) where Modern Icelandic and Modern German are compared. This syntactic, as opposed to morphological, approach to grammatical relations also entails that rightmost arguments of the argument structure in Icelandic, which are case marked in the nominative, are analyzed as objects. Syntactic properties of objects in Icelandic are their position to the right of the main verb in declarative clauses and their ability to undergo object shift. The nominative arguments in Icelandic which behave in this way are the nominatives of DAT-NOM predicates (see again Table 3 below). In all the respects listed above, syntactic subjects and syntactic objects differ in their distributional and syntactic behavior, and given these syntactic criteria it is clear that morphological case marking and grammatical relations do not coincide in Icelandic. It has also been shown that at least for the Germanic language family, which is in focus in this article, that there are structures containing subject-like obliques in Old Norse-Icelandic, Old Swedish, Early Middle English and Modern German that call for a subject analysis, i.e., structures where an object analysis does not give a satisfactory account of the data (Eythórsson & Barðdal 2005). Hence, it seems as oblique or non-nominative subjects are a Germanic inheritance.

   I emphasize, however, that the analysis of the development of case in Germanic, presented in this article, does not hinge upon the reader agreeing on the subject analysis of oblique subjects or the object analysis of nominative objects. The analysis on the development of case, presented here, is an analysis of argument structure constructions and the alignment of morphological case across these, and how changes in this alignment have taken place. There is no disagreement in the literature that DAT-NOM argument structure constructions are DAT-NOM argument structure constructions, and that the dative argument is the leftmost argument while the nominative argument is the rightmost argument of the argument structure, irrespective of grammatical relations. A reader who has conceptual problems with the idea that syntactic subjects can be in another case than the nominative and that syntactic objects can be in the nominative case should just read *oblique subject* as meaning 'non-nominative

The replacement of lexical case with structural case can involve a complete break-down of the morphological case system, with case distinctions, at best, only present in pronouns. This has happened in English, Dutch and Mainland Scan-dinavian. It can also result in nominative becoming the subject case, accusative becoming the object case, dative becoming the case for indirect objects and geni-tive the case for nominal attributes, which is approximately what has happened in standard German.

The predictions in (11) above are, however, not borne out for Icelandic. There are plenty of examples in the history of Icelandic of accusative subjects changing into not NOMINATIVE subjects but dative subjects, i.e., the so-called dative substitution (see Svavarsdóttir 1982; Halldórsson 1982; Rögnvaldsson 1983; Svavarsdóttir et al. 1984; Smith 1994; Eythórsson 2000, 2002; Barðdal 2001a: 134–138, 2004, 2008: Ch. 6, Jónsson & Eythórsson 2005):

(12) Mig   langar > Mér   langar
      me.ACC   longs   > me.DAT   longs

There are also examples of NOMINATIVE subjects changing into dative subjects:

(13) Ég   hlakka   til   > Mér   hlakkar   til
      I.NOM   look.1P forward   > me.DAT   looks.3P forward

Dative substitution is also well known from the history of English, German and Swedish (see Sections 7.1–7.3 below and the references there).

The example in (12) illustrates that a lexical accusative is being replaced with a lexical dative with the verb *langa* 'long for'. The one in (13) exemplifies struc-tural NOMINATIVE being replaced with lexical dative with the verb *hlakka til* 'look forward'. Therefore, with regard to subject case marking, the predictions of the lexical-to-structural-case hypothesis are far from being borne out in Icelandic, as lexical case is not being replaced with structural case but another lexical case (12), and structural case is in fact being replaced with lexical case (13).

It is a well-known fact, however, that dative substitution only targets experiencer-based predicates, which in turn has given rise to yet another dichotomy within the generative tradition, namely the thematicity–idiosyncraticity dichotomy (Zaenen, Maling & Thráinsson 1985; Jónsson 2003; Jónsson & Eythórsson 2005). Changes in case marking, as in (12–13), are assumed to take place on the basis of the semantics of these predicates, hence the term 'thematic'. Other non-structural case marking, and changes in case marking, not based on semantic factors, are considered 'idiosyncratic'. Hence, in order to rescue the case assigning mechanism based on the structural–

subject-like argument' and *nominative object* as 'nominative object-like argument' in the remainder of this article.

lexical dichotomy, additional auxiliary devices, like a dichotomy between thematic and idiosyncratic case, must be invented (for a further critical view of these dichotomies, cf. Barðdal 2009).

Turning to objects, there are verbs that could occur with either ACCUSATIVE or dative objects in Old Norse-Icelandic, which can only occur with dative objects in Modern Icelandic (14), and conversely, verbs that could occur with either ACCUSATIVE or dative objects in Old Norse-Icelandic can only occur with ACCUSATIVE objects in Modern Icelandic (15), (see Jónsson, this volume, for more examples):

(14) a.   *… en fyrir því að … glataði*   Old Norse-Icelandic
           but for it that lost

         hann höfuð sitt …
         he head.ACC his.ACC

         '… but because of that … he lost his head … ' (Physiologus 1991: 46–48)

     b.   *Hann hafði glatað höfði sínu/*   Modern Icelandic
           he had lost head.DAT his.DAT

         *höfuð sitt.
         head.ACC his.ACC

(15) a.   *… að enginn riddari stenst honum.*   Old Norse-Icelandic
           that no knight withstands him.DAT

         ' … that no knight is his equal.' (Ívens saga 1979: 95–99)

     b.   *Enginn riddari stenst hann/*   Modern Icelandic
           no knight withstands him.ACC

         *honum.
         him.DAT

In (15) a lexical dative is being replaced with a structural ACCUSATIVE with the verb *standast* 'withstand', whereas (14) is an example of structural ACCUSATIVE being replaced with lexical dative with the verb *glata* 'lose', which is unexpected on the lexical-to-structural-case account. In addition, dative objects should not be a productive category in Icelandic, as dative objects are lexically case marked (cf. Barðdal 2001a: 119–121, 2008: Ch. 3), but as already discussed in Section 3 above, 37% of transitive verbs borrowed into Icelandic assign dative case to their objects.

In a (1993) article I pointed out that it is very common that verbs of motion assign dative case to their objects in Icelandic. This observation has gradually led to a redefinition of dative objects within the generative paradigm, and now dative case on objects in Icelandic is generally regarded as being dividable into thematic and idiosyncratic case

assignment, i.e., thematic case assignment with motion verbs and idiosyncratic case assignment with other dative object verbs (Jónsson 2005: 384ff.). This of course raises the more general question of whether the whole dichotomy between thematic and idiosyncratic case may simply be a consequence of lack of research on case assignment of low-level verb-subclass-specific constructions.

On the lexical-to-structural-case account, moreover, it is expected that genitive objects be replaced with ACCUSATIVE objects because genitive on objects is regarded as lexical whereas accusative on objects is regarded as a spell out of structural case assignment. Such cases exist; examples like those in (16) with the verb *þurfa* 'need' are well known from the history of Icelandic.

(16) a.　… *og*　*þarf*　*Hersteinn*　*nú*　*þinna*　　　Old-Norse Icelandic
　　　　　and　needs　Hersteinn　now　your.GEN

　　　　heillaráða.
　　　　good-advice.GEN

　　　　'… and Hersteinn is now in need of your good advice.'
　　　　(Hænsna Þóris saga 1987: 1427)

　　b.　*Ég*　*þarf*　*alla*　*athyglina*　*hjá*　*pabba*　　　Modern Icelandic
　　　　I　need　all.ACC　attention.ACC　at　father

　　　　mínum　*líka.*
　　　　mine　too

　　　　'I need all my father's attention too.'
　　　　(barnaland.mbl.is/barn/19508/vefbok/8)

However, it is not expected on the lexical-to-structural-case account that genitive objects change into NOMINATIVE objects. Such a change is also found from Old Norse-Icelandic to Modern Icelandic. Consider the verb *batna* 'recover (from)' which selected for a genitive object in Old Norse-Icelandic (17a) but selects for a NOMINATIVE object in Modern Icelandic (17b):

(17) a.　*Þormóði*　　*batnaði*　*þá*　*skjótt*　　　Old Norse-Icelandic
　　　　Thormod.DAT　got-better　then　swiftly

　　　　augnaverkjarins　*og* …
　　　　eye-pain-the.GEN　and

　　　　'Thormod then swiftly recovered from the eye pain … '
　　　　(Fóstbræðra saga 1987: 802)

　　b.　… *og*　*Steinunni*　*batnaði*　*veikin.*　　　Modern Icelandic
　　　　and　Steinunn.DAT　got-better　illness-the.NOM

　　　　' … and Steinunn recovered from the illness.'
　　　　(www.snerpa.is/net/thjod/fellsend.htm)

On a lexical-to-structural-case account it is expected that a lexical genitive on objects changes into a structural ACCUSATIVE (cf. Falk 1997: 77–78), but that is not the case in the history of Icelandic with all genitive object verbs, as (17) shows. Hence, the predictions of the lexical-to-structural-case account are clearly not borne out in Icelandic.

It must be pointed out that the existence of NOMINATIVE objects has been dealt with within generative grammar (cf. Yip, Maling & Jackendoff 1987; Sigurðsson 1989 and subsequent work, Jónsson 1996), which is needed as the case assigning mechanism originally postulated within this framework predicts that NOMINATIVE objects should not exist, since nominative is supposed to be the structural case for subjects and accusative to be the spell out of structural case for objects. Yip, Maling and Jackendoff's modified account is based on the idea that structural case is assigned to the first argument in the clause which is not lexically case marked, in this case the object, as the subject is already case marked with a lexical dative. Thus, in order to account for the existence of NOMINATIVE objects, the original concept of structural case being divided into NOMINATIVE on subjects and ACCUSATIVE on objects has been abandoned. Yip, Maling and Jackendoff (1987: 224) make a note of this themselves. The problem, however, with their modified account is that it then predicts that predicates with lexically case-marked subjects should assign structural NOMINATIVE to their objects instead of the structural ACCUSATIVE case which is documented with these predicates in Middle English, Old Swedish and Modern Faroese:

(18) *for þi   ðat him   areowe ow*   Middle English
for that that him.OBL pity   you.OBL
'so that he would pity you' (Allen 1995: 238)

(19) *Honom   thykte   sik   wara j   enom*   Old Swedish
he.OBL   thought   himself.OBL be   in a
lystelikom   stadh
pleasing   place
'He felt as if he was in a pleasant place.' (Falk 1997: 77)

(20) *Mær   dámar   væl   hasa   bókina.*   Modern Faroese
I.DAT   like   well   this   book.ACC
'I like this book.' (Barnes 1986: 33)

The verbs in (18–20) above are all originally DAT-NOM verbs and yet there has been a change from NOMINATIVE objects to ACCUSATIVE objects, i.e., from one structural case to another.[3] On Yip, Maling and Jackendoff's account, this should not happen,

_____

3.   All existing Old Swedish examples of *thykia* 'feel, seem' together with a small clause are ambiguous between a nominative and accusative form of the pronoun of the lower argument, thus it is not given that *thykia* was a DAT-NOM verb when selecting for small clauses in

as structural NOMINATIVE should be assigned here and not structural ACCUSATIVE, because of the lexical case marking of the subject. Hence, the original case assigning mechanism, that objects receive ACCUSATIVE case, must be invoked to account for this change. In other words, the original case assigning mechanism which was used to account for the changes in object case marking of *þurfa* in (16) makes wrong predictions about the object case marking of *batna* in (17), hence it needs to be modified. However, this modified case assigning mechanism makes wrong predictions about the 'blended' construction in the history of Germanic (18–20), hence the original case assigning mechanism must be invoked again. Clearly, there-fore, these two case assigning mechanisms are simply derivatives of case marking facts in Germanic instead of being predictive. I return to the case marking of the 'blended' construction in Section 7.5 below where I argue that the change in case marking is motivated by differences in type frequency between NOMINATIVE and ACCUSATIVE objects.

To summarize the content of this section, I have shown that the predictions of the lexical-to-structural-case account are not borne out for Icelandic. Both structural and lexical case on subjects have been replaced by lexical case (dative substitution). This has given rise to a dichotomy of case assigning mechanism based on the notion of thematic vs. idiosyncratic case. There are also changes from ACCUSATIVE to dative on objects in the history of Icelandic, unexplained and unexpected, as structural object case must then have been replaced with lexical object case. Finally, genitive objects have changed into NOMINATIVE objects, which is also unexpected on the lexical-to-structural-case account, but can be explained by a modified case mechanism which assumes that an object gets structural NOMINATIVE if the subject is already lexically case marked. However, this modified case assignment mechanism does not explain the change from NOMINATIVE objects to ACCUSATIVE objects in the history of English, Swedish and Faroese, although the original case assigning mechanism that ACCUSATIVE case is assigned to objects does. Hence, generative grammar must make use of several different auxiliary mechanisms to account for case marking in Icelandic and changes in case marking in the history of Germanic, in addition to the original mechanism that NOMINATIVE and ACCUSATIVE are assigned on the basis of their structure in the sentence. Clearly, these auxiliary mechanisms are simply derivatives of case marking facts in Germanic instead of being predictive. As such they are of limited explanatory value.

Old Swedish. However, since the cognate of *thykia* in the earliest period of the other Germanic languages was a DAT-NOM verb it is reasonable to believe that this is a common Germanic inheritance, which has already been lost, or is in the process of being lost, at the time of the oldest Swedish examples.

7.   A usage-based constructional approach

In construction grammar *constructions* are the basic units of language, central to all linguistic descriptions and theories of language (Goldberg 1995, 2005; Barðdal 2001a–b, 2004, 2006a–b, 2008; Croft 2001; Michaelis & Ruppenhofer 2001; Boas 2003; Croft & Cruse 2004; etc.). Constructions are form–meaning correspondences, found at all linguistic levels, including the sentence level. The meaning of a construction is either general, i.e., derivable from the meaning of the parts, or specific, i.e., not derivable from the meaning of the parts (cf. Tomasello 1998: 481–482; Croft & Cruse 2004: 253–254). The ordinary transitive construction is an example of the former, while more idiomatic constructions, like the *What's* X *doing* Y? construction (found in examples like *What's that fly doing in my soup?*, cf. Kay & Fillmore 1999), are examples of the latter. On the constructional approach advocated here, all linguistic objects count as constructions, as all linguistic objects are form–function correspondences of some sort. This means that not only idiomatic expressions are regarded as constructions of their own, but also ordinary argument structure constructions with different case frames.

A usage-based constructional account differs from non-usage-based constructional accounts in that it takes the frequency of constructions to be central to their status in the language system (cf. Barlow & Kemmer 2000; Berg-Olsen this volume, Eckhoff this volume). On a usage-based account the language system is an emerging and dynamic system, based on non-linguistic experience, sensitive to and shaped by the frequency of the input. This language system can change and evolve during the life span of a speaker. The focus here is first and foremost on type frequency, both absolute type frequency (dictionary frequencies) and relative type frequency (type frequencies based on occurrences in texts) (see, furthermore, Barðdal 2008 on the interrelation between type and token frequency for productivity).

Morphological case is an indistinguishable part of argument structure constructions in languages with case morphology (Barðdal 2001a: 33–39; Fried 2005), and different case frames are only one of the formal features of argument structure constructions. Table 3 gives an overview of the case constructions of one and two-place predicates (aligned in the table according to the case marking of the subject) documented in the history of Icelandic, and as no other case constructions seem to be inherited from Proto-Germanic, Table 3 should accurately represent the case constructions common for the Germanic language area before the breakdown of the case system in the individual languages. By *case construction* I refer to the argument structure constructions in Germanic which are marked by the case frames in Table 3.

With regard to the semantics of the various argument structure constructions, it is a fact that there is a substantial overlap between the different constructions in Icelandic (Barðdal 2001a: 35–36, 2008). The nominative subject construction (which includes both one- and two-place predicates) is the construction highest in type

Table 3. Case constructions in earlier Germanic.

NOM	ACC	DAT	GEN
NOM	ACC	DAT	GEN
NOM-ACC	ACC-NOM	DAT-NOM	GEN-NOM
NOM-DAT	ACC-ACC	DAT-GEN	GEN-PP
NOM-GEN	ACC-GEN	DAT-PP	GEN-S
NOM-PP	ACC-PP	DAT-S	
NOM-S	ACC-S		

frequency and semantically the most open construction, as verbs from all semantic classes can have a nominative subject, i.e., both agentive and non-agentive verbs. The oblique-subject constructions, however, differ from the nominative subject construction in that they can only be non-agentive; The genitive subject construction (10–15 types) is mostly instantiated by predicates denoting ontological or perceived states (cf. Barðdal 2001a: Appendix B):

(21) *Þess   varð   vart   í   gömlum   textum.*   Genitive subject
it.GEN   was   susceptible in   old   texts
'This could be discerned in old texts.'

The accusative (200 types) and dative (700 types) subject constructions, however, are instantiated in part by stative and inchoative experience-based predicates (ex. 22 below) and in part by anti-causative intransitives (ex. 23 below), i.e., intransitive variants of causative verbs where the object of the causative is the subject of the corresponding intransitive (cf. Barðdal 2001b, 2004).

(22) a. *Mig   svíður   í   handlegginn.*   Accusative subject
me.ACC   itches   in   arm-the
'I itch on the arm.'

b. *Mér   brá.*   Dative subject
me.DAT   got-startled
'I was startled.'

(23) a. *Bátinn   rak   á   land.*   Accusative subject
boat-the.ACC drifted on   shore
'The boat drifted ashore.'

b. *Henni   skaut upp á   stjörnuhiminninn*   Dative subject
her.DAT shot   up   on   star-heaven-the

á   einni   nóttu.
on   one   night
'She became a star overnight.'

This means that there is a semantic overlap between the accusative and the dative subject constructions. These two, in turn, overlap with the nominative subject construction, as the nominative subject construction is the semantically most open construction. Figure 1 is given as a tentative representation, where the Nominative subject construction, at the top of the figure, stretches over the entire semantic field, because it is semantically open and highest in type frequency. As the type frequency of the Accusative, Dative and Genitive subject constructions is much lower, they only cover a fraction of the semantic field that the nominative covers. Moreover, there is substantial semantic overlap between the Accusative and the Dative subject constructions, as these were instantiated by verbs from the same semantic classes in the individual Germanic languages. Hence, they partly occupy the same semantic space in Figure 1. The genitive subject construction does not overlap with the Accusative and the Dative subject constructions, hence it is located elsewhere in semantic space. All three oblique subject constructions, however, overlap with the Nominative subject construction, as experience-based predicates, anti-causative intransitives, ontological and perceived states can also be instantiated by the Nominative subject construction. Hence their corresponding spaces in Figure 1 all overlap with the space for the Nominative subject construction. This is the reason that the four different subject constructions were partly synonymous in Earlier Germanic.

Observe that Figure 1 does not lay out the relevant semantic dimensions. It is only meant to graphically illustrate the semantic overlap in relation to the type frequencies of each construction. For a more detailed account of the semantic overlap between the individual case constructions, I refer the interested reader to Barðdal (2001a) for an account in terms of thematic roles, and to Barðdal (2004, 2008) for an account in terms of lexical semantic verb classes.

It is a well-known fact in linguistics that languages have a tendency to avoid synonymous grammatical forms (see Goldberg 1995: 67, and the references cited there). The loss of morphological case in the individual Germanic languages can be regarded as a consequence of this, since the various case constructions are partly synonymous

```
NOM |-------------------------------------------------------------------------|


DAT                                        |-----------------|


ACC                                      |------|


GEN              |--|
```
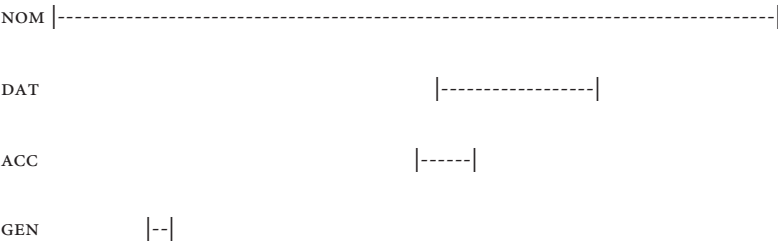
Figure 1. The semantic overlap between the nominative, dative, accusative and genitive subject constructions.

with each other (cf. also Luraghi 1987; Barðdal & Kulikov 2009). Given that, there are logically two ways for languages to evolve:

(24)   – The morphological case distinctions disappear with a subsequent "merging"
          of the argument structure constructions
       – High type frequency constructions attract verbs from low type frequency
          constructions, thereby gradually causing low type frequency constructions to
          fall into disuse

As is discussed below, Mainland Scandinavian, English and Dutch seem to have evolved in the former way, as the case constructions have disappeared in these languages, whereas German, Icelandic and Faroese have moved along the latter path, with the case constructions highest in type frequency being generalized at the expense of the other constructions lower in type frequency.

According to a usage-based constructional approach to productivity (cf. Bybee 1995), productivity is a function of type frequency and coherence. In this particular case it is a question of syntactic productivity, and I have argued elsewhere that the coherence at issue for the productivity of argument structure constructions is semantic coherence, with the term *semantic coherence* refering to the internal semantic consistency between the relevant predicates. It follows from this approach that productivity is a function of the type frequency of an argument structure construction and its semantic coherence, and an inverse correlation between the two (cf. Barðdal 2006a, 2008). This can be modeled as in Figure 2 below:
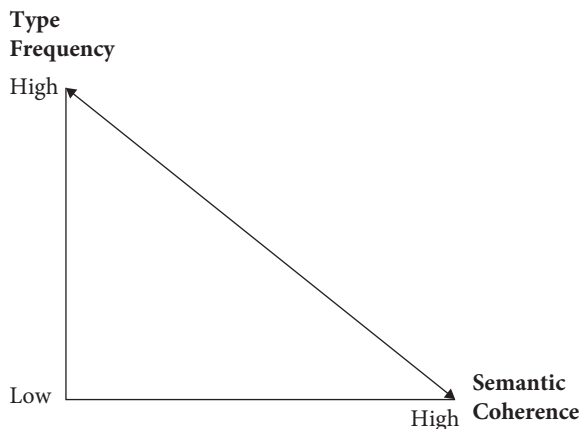
Figure 2. The inverse correlation between type frequency and semantic coherence.

As high type frequency constructions (top of figure) are also semantically open and non-restricted (left of figure), they are expected to attract new verbs entering the

language, resulting in high type frequency constructions increasing in frequency. Low type frequency constructions (bottom of figure) are usually more restricted semantically (right of figure) and are expected to gradually disappear unless they are high in token frequency, in which case they might be preserved as verb-specific lexically-filled constructions. If low type frequency constructions attract new verbs, this should be on the basis of high degree of similarity. High type frequency constructions can also attract verbs from low type frequency constructions, resulting in low type frequency constructions decreasing in frequency. Moreover, if two low type frequency constructions exchange verbs between themselves, it is expected that the construction lower in type frequency will lose verbs to the construction higher in type frequency.

On this approach it is predicted that a rapid change in the vocabulary may speed up the development, precisely because the bulk of new verbs will be attracted by the high type frequency constructions, thereby lowering the proportional type frequency of the low type frequency constructions, increasing the chances of them becoming extinct. It has been noted by various scholars that morphological case seems to have been lost at the same time as massive lexical borrowing is found, due to contact situations. This is discussed for Old English by Allen (1995), for Old Swedish by Wessén (1929, 1992), and for Scandinavian in general by Jahr (1995). Wessén argues that the case system was lost because the loan words could not easily adjust to the inflectional system. This has, however, been argued against by Norde (1994) who shows that the morphophonemic structure of the loan words cannot have constituted a problem for the noun inflection. It is nevertheless a fact that the breakdown of the case system in both English and Scandinavian coincides in time with massive lexical borrowings and that the correlation between loss of morphological case and the contact situation has so far not been appropriately included in the account of the development of case in Germanic. On the present account, it is expected that massive lexical borrowings will favor high type frequency constructions and disfavor the ones low in type frequency, and as will become evident below, this is borne out in Germanic. Therefore, the correlation between language contact and loss of morphological case is not an anomaly anymore but is satisfactorily accounted for on the present approach.

To sum up, the predictions of a usage-based constructional account of the development of case and argument structure constructions are the following:

(25)   – High type frequency constructions will attract new verbs and verbs from low type frequency constructions
   – In the course of time low type frequency constructions will decrease in their proportional type frequency since they do not attract new verbs, precisely because of their low type frequency and their restricted semantics
   – If a low type frequency construction attracts new items, it will be on the basis of high degree of similarity
   – The construction lowest in type frequency will disappear first
   – Rapid changes in the vocabulary will speed up the development

I will now consider the development of case in the Germanic languages in the light of the predictions of a usage-based constructional account. I begin with Swedish (7.1), then I examine the development in English (7.2), next German (7.3) and subsequently I discuss the changes in frequency from Old Norse-Icelandic to Modern Icelandic (7.4). Finally, I present a usage-based constructional approach to the emergence of the 'blended' construction in Germanic (7.5).

7.1   Swedish

In the Mainland Scandinavian languages the argument structure constructions have merged and the case morphology disappeared. The genitive subject construction, for instance, is not documented in Old Swedish at all. This is also the construction lowest in type frequency in Modern Icelandic (cf. its marginal status in Table 3 above, evident by the fact that it subsumes many fewer subconstructions than the other case constructions). According to Delsing (1991) the first construction to disappear in Swedish was the infrequent genitive object construction. This had already taken place before 1350. Next to disappear is the now lowest type frequency accusative subject construction. That happens before 1400 (Falk 1997: 14–15). Around 1450 all case endings have been lost, which entails that the case distinction between nominative and dative subjects is lost for nouns, and the case distinction between accusative and dative objects as well. At this point in time, then, Swedish only exhibits two case forms on pronouns, i.e., nominative and non-nominative (or oblique). The only case frames that are now left in Swedish are the nominative subject construction and the former dative, now oblique, subject construction, although this is only visible on pronouns.

According to Falk (1997: 187–188) the number of different verbs occurring in the oblique subject construction is as low as 38 (compared to 700 dative subject predicates in Icelandic). These verbs have either become associated with the nominative subject construction or fallen into disuse during the 16th and the 17th centuries. The last verb class to become associated with the nominative subject construction is the class of ditransitive verbs occurring in the oblique passive construction (where the indirect object has been promoted to subject). That happens around 1800.

It is interesting to note, however, that despite the low type frequency of the oblique subject construction, there are still documented cases of it being mildly productive during medieval times (cf. Barðdal 2008 on gradient productivity). Falk (1997: 51) reports on such examples:

(26) *Än sidhan honom   iäfwadhe tok   han til   at sionka*   (ca. 1420)
      but since   him.OBL doubted took he   to   to sink
      'But since he doubted he started sinking'

(27) *ty   ær thz sa   som mik   tænker*   (ca. 1500)
      therefore is that such as   me.OBL   thinks
      'That is why it is as I think'

The verbs *iäfwa* 'doubt' and *tænka* 'think' are conventionally associated with the nominative subject construction in Old Swedish. That these verbs occur in the oblique subject construction is presumably due to their lexical meaning, and the fact that their semantics is compatible with the semantics of the oblique subject construction.

To sum up, Swedish and Mainland Scandinavian in general have dealt with synonymous argument structure constructions by merging them, with a subsequent loss of the morphological case system. Moreover, according to the predictions of a usage-based construction grammar, the constructions lowest in type frequency should be the ones in most danger of disappearing. This prediction is borne out in Swedish, in that the most infrequent constructions disappeared first and the least infrequent constructions disappeared last.

7.2   English

According to Allen (1995: 211–220) the first case construction to disappear in English was the genitive object construction. That happened in two stages: first the genitive of the impersonal ACC-GEN and DAT-GEN disappeared, then the genitive of the NOM-GEN construction. This is identical to the development in Icelandic (see 7.4 below) where the DAT-GEN construction has already disappeared while the NOM-GEN has decreased in frequency from Old to Modern Icelandic. Allen (1995: 218–219) makes a point of the fact that genitive objects disappear in two stages, which on her generative approach is interpreted as if there may be a structural difference between these two types of genitive objects. On the present approach, however, it is predicted that ACC-GEN and DAT-GEN disappear before NOM-GEN because of the differences in type frequency found between these constructions in Germanic. This prediction is also borne out.

Second, the distinction between accusative and dative case is completely lost at the end of the 13th century for nouns. It is, however, maintained for pronouns. Third, the oblique passive construction of ditransitives becomes infrequent in the late 14th century. Finally, the active oblique subject construction (as opposed to passives of ditransitives) remains in use until the 14th century, starts declining in the 15th century and is completely lost in the 16th century.

The productivity of the oblique subject construction has been amply documented in Middle English (see Seefranz-Montag 1983; Allen 1995), in that the construction attracts both borrowed and already existing verbs. Allen (1995: 250) reports on a modal verb occurring in the oblique subject construction instead of the conventionalized nominative subject construction:

(28) *Wherefore   us   oghte …   have   pacience.*   (Middle English)
      why   us.OBL   should   have   patience
      'Why we should … have patience.'

Table 4. Case constructions in Modern English and Mainland Scandinavian.

NOM
NOM
NOM-ACC
NOM-PP
NOM-S

The internal order of distinctions being lost is the same in English as in Swedish, which is consistent with an overall assumption that the type frequency of the different verb classes may have been relatively similar in the different Germanic languages, with some minor deviations to be expected.[4]

Compared to the case constructions in earlier Germanic (Table 3 above), the situation in both Swedish and English, after the loss of the morphological case, can be summarized as in Table 4, which shows that only the nominative subject construction, i.e., the construction highest in type frequency in Germanic, still exists. All the low type frequency constructions have disappeared from the two languages.

7.3 German

German differs from Swedish and English in that it has maintained its morphological case, exactly like Icelandic and Faroese, although it has clearly developed in the

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4. There is one difference between the development of case in Swedish and English, namely the internal order of the loss of the oblique subject construction as opposed to the oblique passive construction of ditransitives. In Swedish the loss of the oblique subject construction precedes the loss of the oblique passive construction while the order is reversed in English (this reverse order of events has also been reported by Knudsen 1956: 36–41 for Danish). On a usage-based account this is expected to be a manifestation of differences in type frequency and semantic coherence between oblique subject predicates and ditransitives in the two languages, in that the oblique passive construction had higher type frequency than the oblique subject construction in Swedish as opposed to English, and vice versa. This might be because the vocabulary may not have been renewed at the same rate in the two languages. Obviously, extensive borrowing will increase the type frequency of the most productive construction, and hence reduce the type frequency of other less productive constructions. Another explanation for differences in type frequency of constructions in different languages is that verbs may be borrowed or coined in a particular language for one semantic field at a higher rate than for another semantic field, which in turn may result in differences in type frequency between constructions. However, as neither Falk (1997) nor Allen (1995) gives any numbers for the ditransitives they investigate, the matter cannot be determined here and now (although Falk explicitly states that she bases her analysis of the perseverance of the ditransitive construction on the fact that it is high in type frequency).

direction that the constructions lowest in type frequency have disappeared from the language, and the remaining low type frequency constructions have become even lower in type frequency in German.

The NOM-ACC, NOM-DAT and NOM-GEN constructions still exist in Modern German, but the NOM-DAT construction is only instantiated by approximately 100 verbs, while the corresponding figure for Modern Icelandic is 750 verbs (Maling 2002: 31).[5] The NOM-GEN construction is instantiated by ca. five predicates in Modern High German language use.

According to Seefranz-Montag (1983: 171–189) the genitive object of the ACC-GEN and DAT-GEN constructions, as well as the genitive subject of genitive subject predicates, merged with NOM/ACC forms in the 13th century. Furthermore, most of the verbs occurring in the accusative and dative subject constructions have either fallen into disuse in German or been attracted by the nominative subject construction. However, during the Middle High German period there was a considerable variation between the different constructions, in that impersonal verbs could readily occur in the accusative, dative and the nominative subject construction. The dative subject construction attracted many verbs from the accusative subject construction, and the accusative subject construction has, likewise, attracted (somewhat fewer) verbs from the dative subject construction (1983: 162–163). That verbs were so easily exchanged between the accusative and dative subject constructions is a consequence of the fact that these constructions were very similar in meaning (see Section 7 above). Finally, German has maintained the dative passive construction. This is parallel to the Swedish situation in that the oblique subject construction disappears before the oblique passive construction of ditransitives.

Compared to the case constructions in earlier Germanic (Table 3 above), the remaining case constructions in Modern High German are given in Table 5. The situation in Modern High German is such that the accusative/dative subject construction has more or less fallen into disuse, except with some DAT-NOM predicates, a few ACC-NOM predicates, and intransitive adjectival predicates of the type *mir ist kalt* (me is cold). Thus, most subjects in German are in the nominative case, most objects are in the accusative case, indirect objects are in the dative case and nominal attributes are in the genitive case. Hence, all the high type frequency case constructions have

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5.   Maling counts 140 dative object predicates. However, around 40 of these are DAT-NOM predicates where the dative has traditionally been regarded as an object (for arguments against an object analysis of the dative in DAT-NOM constructions in Germanic, cf. Barðdal and Eythórsson 2003b, Eythórsson and Barðdal 2005; Barðdal 2006b, Barðdal and Eythórsson 2006). I exclude these 40 from the present number of dative object predicates as I am first and foremost counting DAT-NOM predicates here and not DAT-NOM predicates.

Table 5. Case constructions in Modern High German.

NOM	ACC	DAT
NOM	ACC	DAT
NOM-ACC	ACC-NOM	DAT-NOM
NOM-DAT	ACC-PP	DAT-PP
† NOM-GEN	ACC-S	DAT-S
NOM-PP		
NOM-S		

been maintained in Modern High German, at the expense of the low type frequency constructions which have either disappeared or are only instantiated by a few predicates in the modern language.

7.4 Icelandic

The construction lowest in type frequency in Old Norse-Icelandic is presumably the DAT-GEN construction, as I only know of two verbs which instantiate it, i.e., *batna* 'get better' and *létta* 'abate (of illness)'. This construction is also the only case construction that has disappeared. Not surprisingly, *batna* and *létta* were subsumed by the more common DAT-NOM construction which was much higher in type frequency (a count of alternating DAT-NOM/NOM-DAT predicates in Modern Icelandic reveals 111 predicates, cf. Barðdal 2001b). This is a natural development as the two case constructions are similar in both form and meaning. That is, both constructions are two-place constructions with a dative subject, and all the predicates shared by them are experience-based. Therefore, the DAT-GEN construction can be regarded as a proper subconstruction of the more general dative subject construction, as shown in Figure 3.
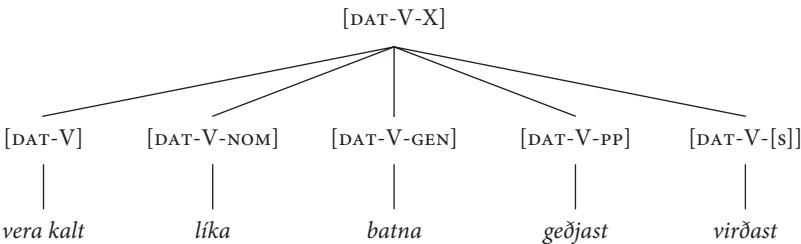
Figure 3. The Dative subject construction and its subconstructions.

Examples of the verb-specific constructions in Figure 3 are given in (29) below:

(29) a. *Það   var   daginn   sem   öllum   var   kalt …*
          it   was   day-the   which everybody.DAT   was   cold
          'It was the day everyone was cold …'   (privat.bloggar.is/blogg/77623)

      b. *Mér   líkar   þessi   vinna   rosalega   vel…*
          me.DAT   likes   this   work.NOM   exceedingly   well
          'I really like this job …'
                                        (torleifur.blogspot.com/ 2005_08_01_torleifur_archive.html)

      c. *Þormóði   batnaði   þá   skjótt … augnaverkjarins*
          Thormod.DAT   got-better then   swiftly   eye-pain-the.GEN
          'Thormod then swiftly recovered … from the eye pain … '
                                                        (Fóstbræðra saga 1987: 802)

      d. *Mér   geðjaðist   að   hugmyndinni   um   hugleiðslu.*
          me.DAT   liked   at   idea-the   of   meditation
          'I liked the idea of meditating.'
                                        (www.al-anon.is/hlekkurinn.asp?Frettir_ID=9501)

      e. *Mér   virðist   sem   að   fæstir   þeirra   hafi   tíma   til   að   hlusta …*
          me.DAT   seems   as   if   fewest   them   have   time   for   to   listen
          'It seems to me that the fewest of them have time to listen … '
                                        (www.doktor.is/grein/efni/ grein.asp?id_grein=3366&flokkur=16)

In contemporary Icelandic the DAT-GEN construction does not exist; Therefore a figure like Figure 3 for Modern Icelandic would not contain the DAT-GEN construction. Both *batna* and *létta* are now DAT-NOM predicates. It is also a fact that verbs which occur in one of the subconstructions in Figure 3 readily occur in some of the other. The verb *líka* 'like' is one example; It can occur in all three subconstructions of the dative subject construction:

(30) a. *Mér   líkar   þessi   vinna   rosalega   vel …*   DAT-NOM
          me.DAT   likes   this   work.NOM   exceedingly   well
          'I really like this job … '
                                        (torleifur.blogspot.com/ 2005_08_01_torleifur_archive.html)

      b. *Mér   líkar   við   þig   en …*   DAT-PP
          me.DAT   likes   with   you.ACC   but
          'I like you but …'   (frontpage.simnet.is/united/TE_stelpur_segja.htm)

      c. *… mér   líkar   að   hann   sé   með   gras   í   kjaftinum.*   DAT-S
          me.DAT   likes   that   he   is   with   grass   in   mouth-the
          '… I like that it has grass in its mouth.'
          (www.ljosmyndakeppni.is/resultimage.php?imageid=1314&challengeid=70)

This analysis, based on the higher type frequency of the DAT-NOM construction as opposed to the DAT-GEN construction and their similarity in form and meaning, makes the prediction that an alleged lexical genitive object will change into an alleged

structural nominative object in the history of Icelandic, a change which is unexpected on the lexical-to-structural-case account, as on that account one would expect the object to change into accusative and not nominative (see Section 6 above). Since the DAT-NOM construction is higher in type frequency than the DAT-GEN construction (at least 111 predicates vs. two), it attracts verbs from the DAT-GEN construction, gradually causing it to fall into disuse. The change from genitive objects to nominative objects is thus not an anomaly on the current approach. The same factors are responsible for the change from genitive objects to accusative objects with verbs like *þurfa* 'need' in (15) above. As mentioned in Section 6, *þurfa* was originally a NOM-GEN verb, but the NOM-GEN construction was and is a low type frequency construction. The NOM-ACC, in contrast, is the highest in type frequency of all transitive constructions in Icelandic. Because of that, it attracts verbs from the NOM-GEN construction.

Another change in case marking in Icelandic, subject to considerable attention in the literature, is dative substitution, a change which entails that verbs conventionally occurring in the accusative subject construction have started occurring more and more in the dative subject construction. This was shown in (12) above, repeated here for convenience:

(12) Mig   langar > Mér   langar
      me.ACC longs   > me.DAT longs

This change has also been documented in the history of German (see Section 7.3 above). In Icelandic it started in the late 19th century (Halldórsson 1982), and it is expected on a usage-based constructional approach, as the accusative subject construction is much lower in type frequency than the dative subject construction (see Table 6 below), and the two constructions overlap semantically. It is also expected that accusative experience-based predicates be attracted by the dative subject construction and not the nominative subject construction, as the dative subject construction is much more restricted in its semantics, and semantically much closer to the accusative subject construction than the nominative subject construction which is a semantically open construction, instantiated by verbs from all semantic fields.

Let us now compare frequency figures for subjects and objects in Old Norse-Icelandic and Modern Icelandic texts (see Section 3 above for information about the corpus). Table 6 gives the number of subjects in different case forms in both language stages.[6] The table shows first and foremost that the type frequency of nominative subjects has gone up on a per/word basis of ca. 9%. It also shows that the type frequency

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6.   For ease of counting, Table 6 only specifies nominative subject case for two-place predicates, i.e., NOM-ACC, NOM-DAT and NOM-GEN, leaving out intransitive verbs with nominative subjects.

of dative subjects has gone down from 72 to 48 types in the text corpus, a reduction of approximately 8%. Accusative and genitive subjects, however, have remained stable in type frequency between the two periods of Icelandic. A closer look at the accusative and genitive subject constructions reveals that some of the predicates instantiating them in Old Norse-Icelandic have fallen into disuse and some are shared across the two language stages (see Appendix B in Barðdal 2001a). This last fact suggests that the two constructions have been maintained in Icelandic, because the few lexical items instantiating them have not fallen into disuse. However, it is possible that the accusative and genitive subject constructions have gone down in type frequency, although the present text corpus is not large enough to capture this.

Consider now Table 7 on object frequency which illustrates that the NOM-ACC construction is proportionally higher in type frequency in the Modern Icelandic texts than in the Old Norse-Icelandic texts. The difference is around 6%, i.e., from 52.1 to 58.4%. It is interesting in this context that the dative object construction has not only remained stable from Old Norse-Icelandic to Modern Icelandic but that there has also been a slight increase in the type frequency of NOM-DAT predicates, i.e., of ca. 3%. This may suggest that the minimum type frequency needed for a category to be stable is around 30% of the types, although more research is needed to establish that beyond

Table 6. Subject frequency in Old Icelandic and Modern Icelandic.

	Old Icelandic		Modern Icelandic	
	N	f	N	f
NOM	299	76.3%	395	85.0%
ACC	14	3.5%	15	3.2%
DAT	72	18.4%	48	10.3%
GEN	7	1.8%	7	1.5%
	392	100%	465	100%

Table 7. Object frequency in Old Icelandic and Modern Icelandic

	Old Icelandic		Modern Icelandic	
	N	f	N	f
DAT-NOM	33	10.0%	11	2.7%
NOM-ACC	173	52.1%	237	58.4%
NOM-DAT	105	31.6%	141	34.7%
NOM-GEN	21	6.3%	17	4.2%
	332	100%	406	100%

doubt. The increase in the type frequency of NOM-ACC and NOM-DAT has happened at the cost of verbs selecting for nominative and genitive objects, since their type frequency is drastically reduced.

These tables show that the constructions highest in type frequency have increased their type frequency, i.e., the nominative subject, accusative object and dative object constructions, and the ones lowest in type frequency have gone down in frequency, i.e., the dative subject and the genitive object constructions. Two constructions are at the same size, the accusative and genitive subject constructions, although they may also have gone down in type frequency, not detectable here because of the smallness of the corpora. Table 8, thus, presents the case constructions in Modern Icelandic.

As evident from Table 8, there are four case constructions, marked with †, which have either disappeared in Icelandic or gone drastically down in type frequency (the relevant predicates have either fallen into disuse or been attracted by other case constructions higher in type frequency). The ACC-NOM, ACC-GEN and GEN-NOM are only instantiated by one to four predicates each (cf. Barðdal 2008: Ch. 3). These are also the case constructions which were lowest in type frequency in Old Norse-Icelandic. Hence, of the four languages discussed here, Icelandic has changed the least from Proto-Germanic and maintained most of the case constructions common to the Germanic language area.

Icelandic also differs from the three other Germanic languages discussed above in that a large degree of the vocabulary has been maintained from Old Norse-Icelandic to Modern Icelandic (cf. Kvaran 1996; Rögnvaldsson 1997). A comparison of the predicates occurring in the present corpus with a list of the 100 most frequent predicates in Modern Icelandic (Pind 1991) reveals that of the 91 most frequently occurring transitive predicates in Modern Icelandic language use, 83 predicates occur in the Modern Icelandic texts and 82 in the Old Norse-Icelandic texts. This suggests more than a 90% overlap in the verbal vocabulary between the two language stages. This is furthermore in accordance with my hypothesis that there is a correlation between the rate of the vocabulary replacement and the development of case in Germanic, shown in Table 9.

Table 8. Case and argument structure constructions in Icelandic.

NOM-subject	ACC-subject	DAT-subject	GEN-subject
NOM	ACC	DAT	GEN
NOM-ACC	†ACC-NOM	DAT-NOM	†GEN-NOM
NOM-DAT	ACC-ACC	†DAT-GEN	GEN-PP
NOM-GEN	†ACC-GEN	DAT-PP	GEN-S
NOM-PP	ACC-PP	DAT-S	
NOM-S	ACC-S		

Table 9. The correlation between language contact and loss of case.

Vocabulary Replacement:	English < Swedish < German < Icelandic
Development of Case:	English < Swedish < German < Icelandic

This correlation is predicted on a usage-based constructional approach, which takes type frequency as its point of departure. That is, English leads the development with the most extensive borrowings of all the languages considered here, beginning in the 11th century. Swedish has also been involved in much language contact, with massive Low German influence beginning in the late 13th century. German has not had the extensive replacement of the vocabulary found in both English and Swedish, but it has nevertheless been more influenced than Icelandic, which is the least influenced language of the four. Obviously, the faster the vocabulary is renewed, the sooner the high type frequency constructions will increase in type frequency, and the sooner the low-frequency constructions will decrease in their type frequency, as the renewal of the vocabulary favors the construction highest in type frequency and disfavors the ones lower in type frequency. Therefore, on a usage-based constructional approach it is predicted that the language that has been subject to most foreign influence will lead the development, and that the least influenced language will lag behind. That prediction is borne out for Germanic, as English leads the development and Icelandic lags behind.

In sum, the predictions of a usage-based constructional approach to changes in case are borne out for Icelandic, as the high type frequency constructions have gained in type frequency while the low type frequency constructions have lost in type frequency. Changes in case marking of individual verbs or verb classes, like the change from genitive objects to either nominative objects or accusative objects, and the change from accusative subjects to dative subjects, are motivated by both the type frequency of the relevant constructions and the similarities in form and meaning between them. The breakdown of the case and alignment system has gone furthest in English, then Swedish, then German, and shortest in Icelandic. The development correlates with language contact, as rapid changes in the vocabulary will speed up the process. Indeed, the breakdown of the case system in the individual Germanic languages correlates, not only with the density of the contact, but also with the time span of the breakdown and the loss of the particular case constructions.

7.5   The 'Blended' construction

In the process of the breakdown of the case system, many Germanic languages have developed the so-called '*blended*' construction. This means that the nominative object of the former DAT-NOM construction, realized as OBL-NOM at this point in the development, turns up in the accusative, and is hence realized as OBL-OBL. Examples (18–20)

above from Middle English, Old Swedish and Modern Faroese illustrate this (repeated here for convenience):

(18) *for   þi   ðat   him   areowe   ow*   Middle English
      for   that   that   him. OBL   pity   you.OBL
      'so that he would pity you' (Allen 1995: 238)

(19) *Honom   thykte   sik   wara   j   enom*   Old Swedish
      he.OBL   thought   himself.OBL   be   in   a

      lystelikom   stadh
      pleasing   place
      'He felt as if he was in a pleasant place.' (Falk 1997: 77)

(20) *Mær   dámar   væl   hasa   bókina.*   Modern Faroese
      I.DAT   like   well   this   book.ACC
      'I like this book.' (Barnes 1986: 33)

Allen reports that traditionally this blend has been regarded as an accident in the prevalent language material. She argues, however, and quite convincingly so in my opinion, that the blend deserves a better explanation than that. Given that the blend seems to arise independently in the Germanic languages, it certainly does not seem like an accident, but requires a systematic explanation. Allen herself argues that the blend emerges when her postulated case-marking hierarchy disappears. However, she also argues that the case-marking hierarchy disappeared on the basis of the existence of the blend, thus her account is not independently motivated. Falk (1997: 77–78), however, argues that the blend is a consequence of a change from lexical case to structural case on objects.

The problem with both these analyses is that they do not address the question of why only the object should become 'structurally' case marked and not the subject. In other words, why should oblique subjects retain their non-canonical case marking longer than nominative objects in a system which is otherwise in the process of falling apart? That is, since the case of the subject and the object does not change at the same time, why does not a NOM-NOM construction emerge instead of an OBL-OBL? This is a legitimate question as it is not *a priori* given that the object must change its case form first and the subject later. It is equally plausible and equally logical that the subject changes its case form before the object, but that does not happen in Middle English, Old Swedish and Modern Faroese. On the usage-based constructional account laid out here, it is predicted that subjects will become nominative and objects accusative because of the high type frequency of nominative subjects and accusative objects, and that the case form higher in type frequency will resist the change longer because it is more entrenched in the system. As I have already outlined for Icelandic above, the nominative object is most prevalent in the DAT-NOM constructions whereas dative

subjects can select for different types of complements. The dative subject construction comprises around 700 predicates (see the discussion around Table 3 above) while the DAT-NOM subconstruction comprises approximately 111 (alternating) predicates in Modern Icelandic (Barðdal 2001b: 54–55). Hence, the dative subject construction is much higher in type frequency than the nominative object construction and is thereby predicted to maintain its case form longer. That prediction is borne out for the 'blended' construction in the history of the Germanic languages, which in turn sustains the validity of the present usage-based constructional model.

8.   Summary

In this article I have given an overview of five existing hypotheses on the development of morphological case in Germanic. First, I have examined the claim that loss of case is due to phonological erosion of unstressed syllables, which turns out to be problematic since the erosion does not target verbal inflection to the same degree as nominal inflection, for instance in Swedish. Assuming a development from synthetic to analytic is also problematic for Germanic, as there are restrictions found on the Ditransitive in Icelandic, a case language, which are not found in English, a non-case language. A development from synthetic to analytic also predicts that the ditransitive construction should not be productive in Germanic, nor the dative object construction in Icelandic. Neither of these predictions is borne out. I have also discussed hypotheses that assume that the loss of morphological case in Scandinavian/Germanic is due to the word order becoming more rigid and hence taking over the function of signaling grammatical relations. However, I have found that the predictions of this hypothesis are not borne out either, since Icelandic and Dutch do not conform to the predicted pattern. I have, then, investigated whether the loss of morphological case may be due to the emergence of the definite article in Scandinavian and have found that both Icelandic and Faroese constitute counterexamples to such a claim. All these approaches, however, are based on specific domains of grammar, i.e., cross-linguistic patterning or co-occurrence of certain typological features. In contrast, the approach that loss of case is due to lexical case being replaced with structural case is a specific theory-internal explanation which is not borne out either for Icelandic, as there are documented changes in case assignment of verbs in both directions, i.e., lexical case seems to replace structural case and structural case seems to replace lexical case in the history of Icelandic. This, in turn, severely undermines the whole distinction between lexical and structural case.

Instead, I have outlined a usage-based constructional approach to the loss of morphological case which accords with all the facts and all the relevant data. I have presented an analysis of the development in four Germanic languages: Icelandic, Swedish, English and German. The analysis is based on the idea that the original case

constructions were either synonymous or very similar in meaning, and that logically there are two ways for languages to eliminate this synonymy: either (i) by high frequency constructions attracting verbs conventionally occurring in the less frequent constructions, thereby causing less frequent constructions to fall into disuse, or (ii) by merging synonymous argument structure constructions, with a subsequent loss of morphological case. English, Dutch and Mainland Scandinavian have taken the latter alternative, while Icelandic, Faroese and German have gone the former way. Also, German has developed much farther in this direction than Icelandic.

There is, moreover, a clear correlation between the rate of the vocabulary renewal and the development of case, which is predicted on a usage-based constructional approach relying on the type frequency of the constructions in question. English leads the development with the most extensive borrowings of all the languages being considered here, beginning in the 11th century. Swedish has also been involved in much language contact, with massive Low German influence beginning in the late 13th century. German has not had the extensive replacement of the vocabulary found in both English and Swedish, but it has nevertheless been more influenced than Icelandic, which is the least influenced language of the four. Obviously, the faster the vocabulary is renewed, the sooner the high type frequency constructions increase in type frequency, and the sooner the low-frequency constructions decrease in their type frequency. Thus, on a usage-based constructional approach it is predicted that the language which has been subject to most foreign influence will lead the development, and the language that has been least influenced will lag behind. That prediction is borne out for Germanic.

Finally, I have discussed the emergence of the 'blended' construction in the history of the Germanic languages, a construction which is formally a mixture of the DAT-NOM and NOM-ACC constructions. Hitherto, the explanations offered in the literature for the blend have either assumed that it is an accident in the prevalent language material, or that it demonstrates that 'lexical' case is being replaced by 'structural' case. These analyses, however, have not offered any systematic explanation as to why the case of the object should be replaced first instead of the subject case. I have proposed a usage-based constructional analysis which predicts that the more entrenched argument, i.e., the one highest in type frequency, will resist the change longer. This prediction is borne out for the blend in the history of Germanic, thus sustaining the validity of a usage-based construction grammar.

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A usage-based approach to change

Old Russian possessive constructions

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This article explores the usefulness of a usage-based constructional approach to syntactic change. Case constructions are particularly interesting data in this respect, because of their prominent semantic features. A corpus study of the history of Old Russian possessive constructions is taken as an example of a change involving syntactic constructions which is difficult to describe well within established models of diachronic syntax and cannot feasibly be classified as grammaticalisation. Instead, the changes are best viewed as an interlocking set of schematisations and deschematisations, accompanied by extensions and narrowings of the meanings of several of the constructions within the possessive semantic field.

1.   Introduction

A basic tenet of usage-based, constructional approaches to language is that all linguistic units have a semantic as well as a formal side. That is, not only lexical items, but also morphological markers and grammatical constructions have meanings, and these meanings are organised in essentially the same way. Like other linguistic units, complex, grammatical constructions – i.e., what is usually thought of as *syntax* – are typically polysemous, radial categories. Morphological case is a prime example of a "grammatical" phenomenon with rich, polysemous meanings. This is one of the reasons why syntactic change involving case constructions is often difficult to handle with the more established frameworks for analysing syntactic change. In this article, I will demonstrate how a usage-based constructional approach can give a better and more in-depth account of changes involving case constructions and related constructions, analysing the history of a group of possessive constructions in Old Russian.

Section 2 gives an outline of the usage-based model. Section 3 presents the Old Russian possessive constructions as attested in the earliest texts. Section 4 is a usage-based constructional analysis of the diachronic development of Russian possessive adjective and genitive constructions, respectively, throughout the period 1000–1700. Section 5 is the conclusion.

2.   The usage-based model

The usage-based model, as developed by Bybee (e.g., 1985, 1995), is fundamental to Langacker's Cognitive Grammar (Langacker 1987, 1991) and the construction grammars of e.g., Croft (2001) and Goldberg (1995, 2006). The usage-based model assumes linguistic knowledge to be organised in schematic networks, which emerge through actual language use and experience, and generalisations over this input. The networks are bottom-up; much linguistic knowledge is assumed to be completely specific, or to consist of lower-level generalisations in the shape of partially specific schemas. Generalisations on higher levels – fully schematic constructions – are also assumed to exist, but only when motivated by high type frequency. The level of generalisation and the strength of each node is deemed to be an empirical question – it depends on the construction's actual usage frequency (Langacker 1987: 46; Croft 2001: 28; Barðdal 2006, this volume).

This brings us to the important notions of *type frequency* and *token frequency*. When a schema has a large number of different instantiations, such as the English past-tense schema in *-ed,* the schema has high type frequency and is deeply entrenched (Figure 1, heavier lines indicate higher degree of entrenchment). When a schema only has a few different instances, and those instances are very frequent and highly entrenched themselves, the instances have high *token frequency*, and the schema will
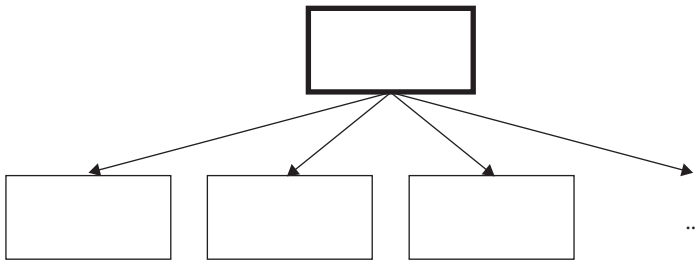
Figure 1. Schema with high type frequency (Taylor 2002: 276).
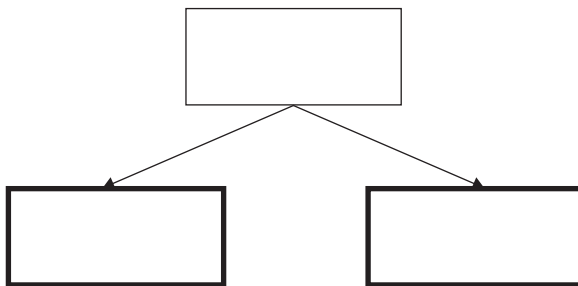
Figure 2. A weak schema with strongly entrenched instances (Taylor 2002: 276).

normally not be very strong (Figure 2). This is the case for many English strong verbs, for instance. The pattern in *swim – swam – swum* and *sing – sang – sung* is a typical weak schema with a few very frequent and highly entrenched instances.

In the usage-based model type frequency, token frequency and differences in entrenchment between instance and schema are most commonly used to describe productivity (e.g., Bybee 1995). However, these notions are also highly important when it comes to describing syntactic change in construction grammar terms, as we shall see in Section 4 (cf. also Barðdal's forthcoming work on syntactic productivity and its role in diachronic processes). Since constructions at all levels of complexity are expected to be essentially the same type of units, complex syntactic constructions are also expected to display frequency effects and vacillating levels of entrenchment in diachronic change.

The usage-based model, then, is dynamic and flexible. It has proved itself to be useful both in synchronic descriptions of grammar and in descriptions of language aquisition. It has also been important in work on grammaticalisation. My aim in this article is to show how it can be used to describe types of syntactic change which cannot be viewed as instances of grammaticalisation. Such changes are not necessarily easily analysed within established models for analysing syntactic change, e.g., the mechanisms of change advocated by Harris and Campbell (1995), particularly when the polysemy and synonymy of constructions is important to their history. The Harris and Campbell model of diachronic syntax offers a non-generative and reasonably functionally oriented approach. Nonetheless, it has quite a narrow view of syntax, and consequently also of the mechanisms and causes involved in syntactic change. In a construction grammar account of diachronic syntax, changes can be seen both in terms of changes to the schematicity/specificity of the nodes in the schematic networks and in terms of the birth of new nodes, but also in terms of the narrowing or widening of the meanings of individual constructions. The long-standing terminological apparatus for analysing syntactic change (reanalysis, analogical extension) may well be reformulated in usage-based terms, thus enabling us to describe synchrony and diachrony with the same set of tools.

3.   Possessive constructions in 11th–14th century Old Russian

My specific example is an analysis of the development of a group of Old Russian possessive constructions from the 11th to the 17th century, which has long occupied scholars of Slavic.[1] The analysis is based on data from a balanced corpus of 11th–17th century

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1.   The subject has been dealt with from the earliest days of Slavistics (cf. e.g., Buslaev 1881/1959: 421–422, 459–460, 464; Potebnja 1899/1968: 383–390) and is mentioned in most more recent general works on Russian historical grammar and syntax (Borkovskij & Kuznecov

Old (and Middle) Russian narrative, religious and legal texts, which yielded 4,581 instances of possessive constructions.[2]

The changes occurring to the Old Russian possessive constructions could not feasibly be classified as grammaticalisation, and would be quite poorly described using the mechanism of extension as defined by Harris and Campbell (1995). These changes are best viewed partially as an interlocking set of schematisations and deschematisations, accompanied by extensions and narrowings of the meanings of several of the constructions within the possessive semantic field. In this article I shall focus on the schematisation and deschematisation processes.

In the earliest attested Old Russian, we find competition between genitive (1), dative (2) and adjective constructions (3).

(1)   *ašte poidu vъ domъ   otca   svoego*
      if   I-go   to house-ACC father-GEN REFL.GEN
      'If I go to my father's house' (SBG 30/10, 12th century[3])

(2)   *bjachu bo serdca   ich   aky serdca   lvomъ*
      were   for hearts-NOM their like hearts-NOM lions-DAT
      'for their hearts were like the hearts of lions' (ŽAN 170/11, 13th century)

1963: 422–432; Ivanov 1990: 380–381; Lomtev 1956: 438–440, 453–470, 474–478; Sprinčak 1960: 118–122, 131–140; Borkovskij 1968: 79–89, 164–178, 197–204 and 1978: 149–159). It is also an issue in the literature on Common Slavic grammar/syntax and literature dealing with the historical branching of Slavic (Miklosich 1883: 7–17, 447–474, 605–611; Vondrák 1928: 229–234, 319–320; Meillet 1934/2000: 374–375; Vaillant 1958: 595–605 and 1977: 51–52, 87–88) and Old Church Slavic grammar and syntax (Flier 1974; Huntley 1984, 1993: 176–180; Večerka 1993: 186–216). There are also several special works on possession and related issues in Slavic in general (Comrie 1976; Corbett 1987; Ivanov 1989), and in an Indo-European perspective (Wackernagel 1908; Uryson 1980; Ivanov 1989; Marojević 1989). A number of more specialised works each focus on a specific facet of the history of possessive constructions in Russian: Bratishenko (1998, 2003, 2005) on the synchronic interrelationship between the adnominal genitive and denominal adjectives in the earliest texts; Marojević (1983a and 1983b) on the category of possession; Makarova (1954) on the development of the possessive genitive up to 1700; Widnäs (1958) on the development of the possessive genitive in the 18th and 19th centuries; Pravdin (1957) on the place of the possessive dative; Zverkovskaja (1986) on the formation of derived adjectives; Nilsson (1972) on the syntax of deverbal nouns; Richards (1976) on the historical development of possessives; Uryson (1980) on the formation and function of denominal adjectives in the *Uspenskij sbornik*.

2.   The corpus was compiled by myself and all occurrences of possessive-like constructions were manually excerpted and organised in a database. The corpus and database are described in detail in Eckhoff (2007: Ch. 3 and Appendix).

3.   The texts are dated by the time of creation, not by the date of the manuscript, which may in many cases be much later. For a discussion of this practice, see Eckhoff (2007: 59–61).

(3) *povarъ* […] *Glěbovъ*
     cook-NOM   Gleb-ov-NOM
     'Gleb's cook' (PVrL 136/20–21, 12th century)

These constructions could all have possessive meanings in the sense that they could all be used to express *reference point situations* (following the analysis of the English [NP's N] construction given by Langacker (1991): 167–180), as illustrated in Figure 3: The reference point is used to access a less available entity; a conceptualiser (speaker) first establishes mental contact with the possessor entity, which then serves as a reference point (RP) for the identification of the target entity (T), i.e., the possessee. Thus, e.g., the father in example (1) is more available in the discourse than the house, and is used as a reference point to access it.

All the constructions are polysemous, in that none of them express reference point situations only, but have additional, related meanings as well. Reference point situations are central to some of them (one of the groups of adjective constructions in particular), but peripheral to others (notably the possessive dative construction). To deal with this situation of varying degrees of polysemy within constructions, and partial synonymy between constructions, I will employ Croft's (2001: 92–96) notion of conceptual space: "Conceptual space is a structured representation of functional structures and their relationships to each other" (2001: 93). That is, various functions are clustered together in conceptual space according to how they pattern with constructions in different languages. Change is expected to follow connected paths in conceptual space. I will argue that virtually all of the meanings of the Old Russian possessive constructions could be placed on a simple map (Figure 4) of the relevant section of conceptual space, where two very schematic
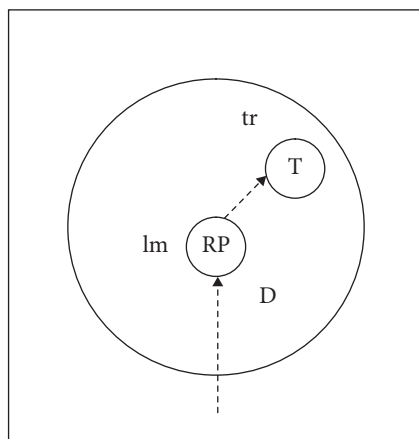
Figure 3. Langacker's reference point analysis of POSS (as cited by Taylor 1996:136).*

* D stands for *domination*, i.e., the set of entities accessible from that particular reference point; lm stands for landmark and tr for trajector.
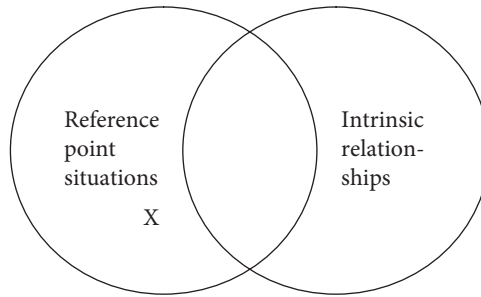
Figure 4. The possessive semantic field.

meanings overlap: reference point situations and intrinsic relationships.[4] Intrinsic relationships (Langacker 2000: 73–90) are found where an entity X cannot be conceptualised without reference to some other entity/entities. X is then conceptually dependent, and there is an intrinsic relationship between X and the other entity/entities, as in *the reading of the manuscript* or *the roof of the house*. Typically, the head nouns in such constructions are *relational*, e.g., they cannot be understood without reference to other entities, and they have elaboration sites to be filled with information about this necessary reference: *Reading* clearly has an object elaboration site, and a roof must always be the roof of *something*, and has an elaboration site for that entity (Taylor 1996: 239; Stefanowitsch 2003: 428).

As mentioned, the two schematic meanings overlap considerably, as many constructions express a reference point situation and an intrinsic relationship at the same time, as in *Anna's sister* or *the house's roof*. This is illustrated in Figure 4.

If we are to place possession in a strict sense, where a specific person has a legal ownership of a concrete object (cf. the possessive gestalt outlined in Taylor 1996: 340), on the map in Figure 4, it is found to the left, marked by an X, since prototypical possessors are always natural reference points, and prototypical possessions are inanimate and non-relational, and thus there is no intrinsic relationship involved.

The Old Russian genitive and adjective constructions had a very special interrelationship: In the meanings closest to possessivity in a strict sense, constructions where a reference point situation is involved, adjective constructions are preferred if they are at all possible to form. There exist several groups of possessive adjective constructions with somewhat different distributions. In this article, I shall look at only one of the subclasses of adjective constructions, and compare its history with the history of the genitive construction.

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4. For a much more elaborate version of the map, see Eckhoff (2007: 97).

   The group of constructions in question involved a set of adjectives often referred to as possessive adjectives (PA).[5] These adjectives are derived from nouns which nearly always denote a person, and are often personal names, with a small group of suffixes (-*j*-, -*ov*-, -*in*- and -*ьn'*-).[6] A person who is known to the conceptualiser and even referred to by name, as in example (4), is certainly a prototypical possessor.

   (4)   *poslanii   jaša korabl'   Glěbovъ*
         envoys-NOM   took boat-ACC Gleb-ov-ACC
         'the envoys took Gleb's boat' (PVrL 136/17–18, 12th century)

When it is not possible to form such an adjective (or a denominal adjective from another group), the genitive construction is used instead, primarily in cases of possessors that consist of more than one word or which are expressed by bare adjectives or participles. Normally, a possessive adjective cannot be formed from a complex NP or from another adjective.[7]

   (5)   *pavla   ap_sla   domъ*
         Paul-GEN   apostle-GEN house-NOM
         'Paul the Apostle's house' (ChID 25v/4, 11th century[8])

However, genitive constructions are hardly ever used in these meanings when the possessor is expressed by one word only. That is, there is a strong restriction on this genitive construction, in that it does not allow genitive-marked bare nouns if a denominal adjective may be formed from that same noun. In other words, this is not a fully

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5.   As opposed to "relative adjectives" in traditional Russian grammatical terminology. In the following, I shall use the term "possessive adjectives" to denote one particular group of denominal adjective constructions, although I am critical of the possessive-relative opposition because the terms entail too much about the functions of the adjectives and are rather misleading, cf. Eckhoff (2007: 28–31), see also Zverkovskaja (1986: 88).

6.   The adjective *božii* "God's" was also included in this group due to its distribution, although it is strictly speaking derived with the suffix -*ьj*-. It was also marginally possible to derive adjectives from animal stems with the suffixes -*j*-, -*ov*-, -*in*- and -*ьn'*-, but they would hardly ever denote possession in any strict sense, rather categorial relationships. In Modern Russian, the possessive adjectives are restricted to human possessors in an intimate setting, and to animal possessors (cf. Kopčevskaja-Tamm & Šmelev 1994).

7.   There is, however, a limited possibility of forming constructions involving denominal adjectives even when the possessor is complex, e.g., constructions with a denominal adjective accompanied by a genitive apposition (Borkovskij 1968: 164; Bratishenko 1998: 95; Corbett 1987: 324; Eckhoff 2007: 165–167; Richards 1976: 262).

8.   Underlined letters indicate superscript letters or letters with abbreviation marks (*titlo*) in the manuscript.

schematic construction; it is partially specific, in that it carries a restriction on the form of the genitive-marked NP. In the following it will therefore be referred to as *the restricted genitive*.

At the same time, adnominal genitive constructions are used freely in some meanings in what may be called the outskirts of the possessive semantic field, meanings that involve an intrinsic relationship, but no reference point. This is particularly the case when the construction's head noun is relational. As mentioned, relational nouns are nouns that always invoke a relationship to another entity, they have an elaboration site in the noun's semantic profile which will force a specific interpretation on any modifier filling it (Taylor 1996: 239; Stefanowitsch 2003: 428). Such free use of adnominal genitive constructions is very typical with constructions denoting the relationship between deverbal nouns and their "objects" (6), as well as in partitive constructions headed by relational nouns denoting inherent parts of wholes (7). In this case, then, we are dealing with a fully schematic construction, without any restrictions on the form of the genitive-marked NP. The construction's *meaning*, however, borders closely on that of the restricted genitive construction. I shall call this construction *the free genitive*.

(6)   *v   otpuštenie   grěchovъ*
      for   forgiving-ACC   sins-GEN
      'for the forgiving of sins (in order to have his sins forgiven)'

                                                              (PVrL 121/3, 12th century)

(7)   *množstvo   zmii*
      multitude-ACC snakes-GEN
      'a multitude of snakes' (PVrL 39/23, 12th century)

4.   Diachrony

The delicate balance between adjective and genitive constructions has disappeared in Modern Russian, which has a dominating and schematic genitive construction which covers the entire possessive semantic field, adjective constructions with strong restrictions, and no possessive dative. My corpus study shows that the free genitive construction started expanding quite late, probably not until the 18th–19th centuries. Thus, it took a long time before the strong restriction on the genitive disappeared in and around the core possessive meaning.

4.1   Deschematisation of the adjective constructions

Looking at the adjective constructions, on the other hand, we find that the constructions' schematic networks started changing as early as in the 15th century. In this subsection

I will show that constructions on a lower level were strengthened at the expense of the more general schemas, and stronger restrictions appeared on the types of possessors that could occur in the adjective constructions. This meant that the adjective constructions became increasingly difficult to use as substitutes for the genitive constructions. This must have prepared the ground for the much more schematic genitive construction that was to appear several centuries later.

The situation in the earliest attested Old Russian can be illustrated as in Figure 5. The weight of the borders indicate the degree of entrenchment. There was a fairly strong and quite schematic possessive adjective construction with reasonably high type frequency. True, there was a strong restriction on the formation of possessive adjectives, in that the possessor normally had to be a specific human being, and preferably free and adult. Within that category, however, adjectives were apparently formed without much restriction, as demonstrated in Table 1.

96 different adjectives appear in the 395 PA constructions with reference point semantics found in the 11th–14th century texts. The most frequent subgroup consisted of constructions where the adjective was formed from some kind of religious noun (such as God, Christ, Jesus, the Lord). This group is special, in that only five different adjectives appear in the 183 constructions, and that it to some extent involves frequently occurring, formulaic expressions, such as (8).

(8) *jazъ* *chudyi* *grěšnyi* *rabъ* *bžii*
    I   bad-NOM sinful- NOM servant-NOM God-ъj- NOM
    'I, God's miserable, sinful servant' (DSG 94/1, 14th century)

The group of adjectives formed from ordinary proper nouns (personal names), as in example (4), was more frequent than the group of adjectives formed from common nouns (denoting persons) (9).
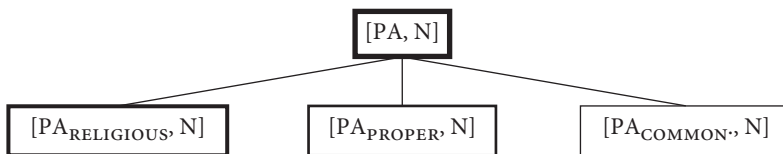
Figure 5. Incomplete schematic network for the possessive adjective construction, 11th–14th century.

Table 1. Frequency of stem types in Old Russian possessive adjective constructions with reference point semantics, 11th–14th centuries.

Religious stems		Proper nouns		Common nouns		Total
183	46.3 %	150	38.0 %	62	15.7 %	395
(5 adjectives)		(70 adjectives)		(21 adjectives)		

(9)   *cěluja*   *desnicou*   *ep̱s̱klju*
      kissing   right-hand-ACC   bishop-j-ACC
      'kissing the bishop's right hand' (ŽSP 17/12, 14th century)

Both groups had many different adjectives represented and did not involve fixed expressions to any great extent.

In the 17th century texts we find that substantial changes have taken place. The overall frequency of PA constructions does not change (the share of PA constructions in the possessive semantic field is stable at about 20% in the 17th century as well as in the earliest attested Old Russian[9]), but nevertheless several changes in the construction's distribution combine to weaken the top schema posited in the schematic network for the 11th–14th century data. The changes involve either a strengthening of a partially specific subschema, or the increased entrenchment of fully specific constructions with increasing token frequency. This accords with Barðdal's (forthcoming) view of syntactic productivity: type frequency is not the best predictor of productivity, but each construction's highest level of schematicity. The PA construction clearly becomes less productive overall, and the topmost schema, never fully general in the first place, is weakened considerably, even though several of its more specific subschemas actually *increase* in type frequency.

In the 11th–14th century network, we saw that constructions involving adjectives formed from religious nouns were more frequent than those involving adjectives derived from other proper or common nouns, and that some of the occurrences were quite fixed, recurring expressions. In the 17th century, we find that this tendency has become much stronger: constructions containing adjectives formed from religious nouns have become much more frequent, as seen in Table 2. The choice of adjective in the constructions is thus less free than it used to be, and it is reasonable to posit a subschema for constructions with religious possessive adjectives.

Furthermore, much of the increased frequency of PA constructions with adjectives derived from religious stems is due to a group of lexically fully specific constructions with meanings like *God's will, the fear of God* constituting an ever-growing share of the PA constructions. In fact, the fully specific construction in (10) accounts for as much as 25 out of the 99 occurrences of PA constructions with adjectives formed from religious stems in the 17th century material, whereas another 14 are occurrences of the construction *volja Božija* "God's will".

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9.   The other major group of adjective constructions and the genitive constructions also remained quite stable, each at about 35% of all possessive constructions throughout the period under consideration. The remaining share of constructions are mostly dative constructions, which decreased from about 7% in the earliest texts to about 2% in the 17th century texts, and various kinds of "mixed" construction types which increased from about 1% in the earliest texts to about 9% in the 17th century texts.

Table 2. Subtypes of PA constructions with reference point semantics, 11th–14th century and 17th century.

	11th–14th centuries		17th century	
Religious stems	183 (5 adjectives)	46.3 %	99 (4 adjectives)	59.6 %
Proper stems (outside the patronymic construction)	150 (70 adjectives)	38.0 %	10 (8 adjectives)	6.0 %
Common stems	62 (21 adjectives)	15.7 %	34 (17 adjectives)	20.5 %
Patronymic construction	0	0 %	23	13.9 %
Total	395		166	

(10) *mlṣtъ   Bžija*
grace-NOM   God-ьj-NOM
'God's grace' (GG a: 11, 17th century)

That is, we find strongly entrenched, fully specific constructions with high token frequency at the very bottom of the schematic network.

A third development weakening the general construction is the sharp rise of patronymics of the type [PA N$_{SON/DAUGHTER}$] (11) in the 16th and 17th century texts. As seen in Table 2, these constructions were not found at all in the 11th–14th century material.

(11) *Ivanъ   Fedorovъ   synъ   Klimovъ*
Ivan-NOM   Fedor-ov-NOM   son-NOM   Klimov-NOM
'Ivan Fjodor's son Klimov' (PGMK 358/18, 17th century)

Again, we have a strongly entrenched partially specific construction subschema appearing under the more general constructions. At the same time, adjectives formed from personal names with the suffixes *-ov-/-in-* become increasingly common as surnames, such as *Klimovъ* in example (11). Interestingly, outside this partially specific construction, and apart from the surname use, the share of adjectives formed from personal names drops sharply. Such adjectives, which constituted a considerable share of the 11th–14th century occurrences of the general possessive adjective construction (4), have become quite rare by the 17th century. The strength of the patronymic construction and the surname use of such adjectives apparently make the [PA$_{PROPER}$, N] subschema much less useful for other purposes.[10]

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10.   Another reason for the sinking frequency of such constructions is the fact that by the 17th century people were normally referred to by more than one name (Christian name, patronymic, surname) in a public setting and certainly in writing. Hence, the genitive construction would normally be used instead of the PA construction. This is probably one of the

Figure 6 gives a tentative schematic network for the state of this group of adjective constructions in the 17th century. The schematic network representation illustrates how the strongly entrenched and quite specific patronymic construction seems to weaken the schema for possessive adjective constructions with ordinary proper nouns quite considerably. Outside the patronymic construction, PA constructions with adjectives derived from proper noun stems have become quite rare, which means that the more general [PA$_{\text{PROPER}}$, N] schema must be less type frequent and less entrenched than the more specific patronymic construction. We also see that the topmost PA construction is weakened: The number of different adjectives involved in the attested PA constructions has decreased considerably (cf. Table 2), and the upper construction must therefore be much less type frequent and entrenched than it was in the earliest attested Old Russian. Only with adjectives formed from common noun stems does the construction still seem to be in reasonably free use with a range of different adjective types (12).

(12) *z   gsdrvymi   lošedmi*
       with   sovereign-ov-INSTR   horses-INSTR
       'with the sovereign's horses' (GG ž: 8, 17th century)

Consequently, by the 17th century, the possessive adjective construction has become much less productive than it used to be, in the sense that there is at best a weak schema generalising over all the subtypes of PA constructions.
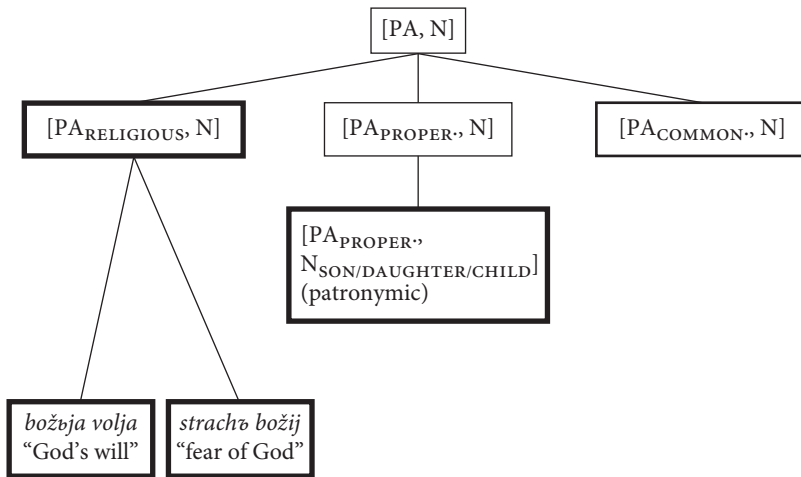
Figure 6. Incomplete schematic network for the possessive adjective construction, 17th century.

reasons why the PA construction in Modern Russian is relegated to the intimate sphere where people call each other by one name only.

4.2   Schematisation of the genitive constructions

Previous works on possessive constructions have had quite varying views on when the possessive genitive started expanding. Some scholars consider the expansion of the bare adnominal genitive a very late and externally motivated change (Uryson 1980; Widnäs 1958), while other scholars consider the restructuring of the interrelationship between the possessive constructions a slower and more gradual change, which can be discerned earlier and is at least partially internally motivated (Borkovskij 1968: 166). Generally, these claims are not backed up with quantitative data. The corpus study in Eckhoff (2007), however, makes it clear that a real change in the distribution of the genitive constructions is not found until the changes to the adjective construction outlined in the previous section have made the possessive adjective construction considerably less productive. In the same period, two other constructions within the possessive semantic field, another group of adjective constructions and the possessive dative, have narrowed their semantics considerably, and are less and less able to express reference point situations (Eckhoff 2007: Ch. 7). These three processes all overlap in time. This means that the genitive's competitors in the possessive semantic field are considerably weakened.

Figure 7 is a tentative schematic representation of the relationship between the free and the restricted genitive constructions in the earliest Old Russian.[11] As we see, it is doubtful whether there was a schema generalising over the free and the restricted genitive constructions in the 11th–14th century material. Constructions with bare genitives are usually only found when an intrinsic relationship is involved, with or (much more frequently) without a reference point (RP) situation involved, such as in (13).
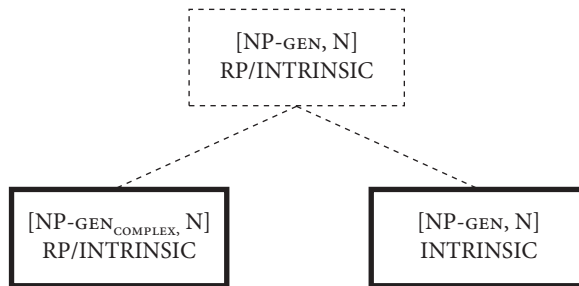
Figure 7. Tentative schematic representation of the relationship between the restricted genitive construction (bottom left) and the free genitive construction (bottom right), 11th–14th centuries.

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11.   Together, they account for 33.9% of all possessive constructions in the 11th–14th century material, and 33% of all possessive constructions in the 17th century material.

(13) *k skončanьju vremenъ*
      to ending-DAT times-GEN
      'to the end of time' (PBKL 446/4, 13th century)

Constructions with complex genitives, on the other hand, are found both with and without reference point semantics. The distribution is illustrated in Diagram 1.

In the 17th century material, we see that things have changed, but that constructions with complex and bare genitives still have markedly different distributions, as seen in Diagram 2. Nonetheless, a closer inspection of the 17th century data reveals some signs that there might be a general schema over the restricted and the free genitive construction. The most important difference between the 17th century data and the 11th–14th century data is not that the share of constructions with bare genitive-marked nouns denoting reference point situations has increased much, but that the range of genitive-marked nouns allowed in such constructions has changed: In the earliest data, such nouns were always inanimate, and mostly abstract (14).
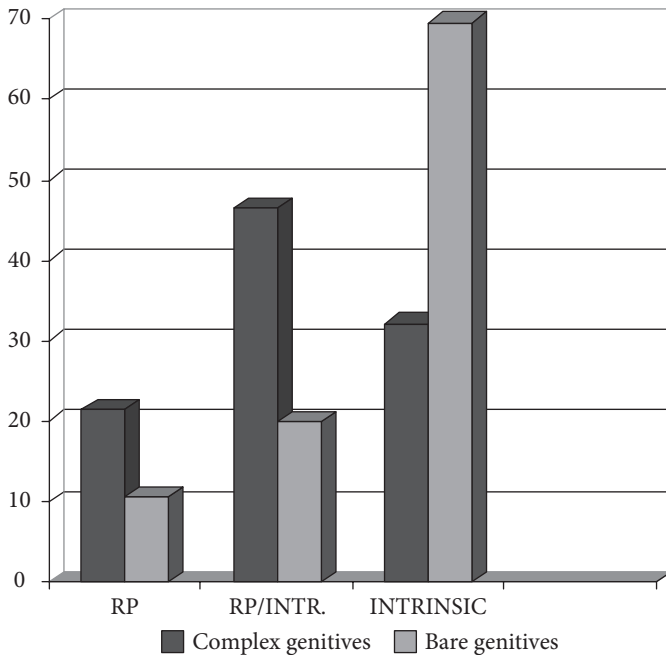
Diagram 1. Constructions with complex genitives (N = 576) and bare genitives (N = 141) as distributed on the main types of schematic semantics in the 11th–14th century texts. Per cent.
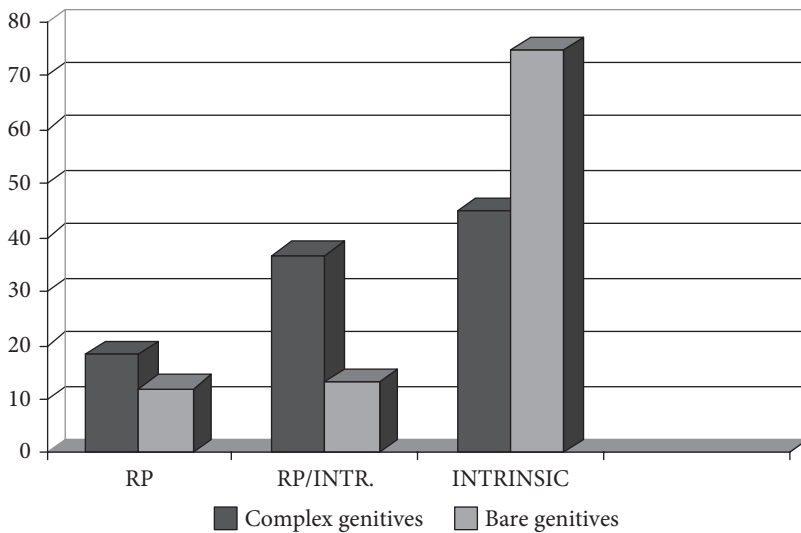
Diagram 2. Constructions with complex genitives (N = 247) and bare genitives (N = 83) as distributed on the main types of schematic semantics in the 17th century texts. Per cent.

(14) *vъ denь   že   toržestva*
      on   day-ACC PARTICLE triumph-GEN
      'on the day of triumph' (ŽD 363/12, 14th century)

They were thus maximally far from prototypical possessors, and the relationships expressed by the constructions were far from possession in any strict sense, even though they *were* reference point situations. In the 17th century material, on the other hand, we also find animate genitive-marked nouns denoting specific persons, i.e., prototypical possessors, the kind of noun stems that appear in the possessive adjective construction. We can even see examples of apparently free variation between genitive constructions and possessive adjective constructions with the same possessor in the same text (15, 16).

(15) *vo obiteli   čjudotvorca*
      in   monastery-LOC miracle-performer-GEN
      'in the miracle-performer's monastery' (SAP 130/19, 17th century)

(16) *u čjudotvorcovy   raki*
      by miracle-performer-ov-GEN coffin-GEN
      'by the miracle-performer's coffin' (SAP 134/18, 17th century)

Nevertheless, as seen in Diagram 2, the occurrences of genitive constructions with complex genitive-marked NPs and constructions with bare genitive-marked nouns still have markedly different distributions. A schematic representation of the relationship between the free and the restricted genitive construction in 17th century Russian
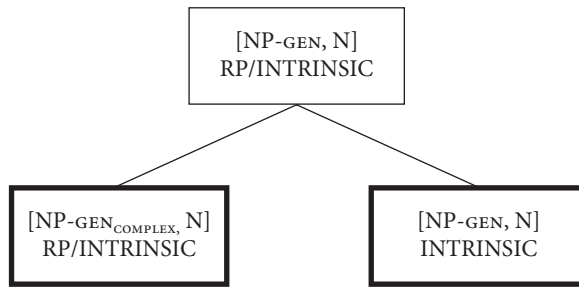
Figure 8. Tentative schematic representation of the relationship between the restricted genitive construction (left) and the free genitive construction (right), 17th century.

might look something like like that in Figure 8. The marked difference in distribution between the two lower-level schemas, the free and the restricted genitive, indicates that they are still much more entrenched than the general schema. Not until the 19th century do we find a situation that is starting to resemble the distribution of possessive constructions in Modern Russian, with a general, fully productive genitive construction covering the entire possessive semantic field.

5.   Summary and conclusions

In this article, a much-discussed, but quite poorly understood syntactic change in the history of Russian has been analysed in usage-based constructional terms. As seen in Section 4, the decline of the possessive adjective construction was a gradual deschematisation: From the earliest attested texts to the 17th century, the most general construction for this construction family must have been considerably weakened, whereas more specific constructions lower down in the hierarchy became more type frequent and more entrenched, and a number of fully specific, formulaic constructions came to have very high token frequency and consequently strong entrenchment. Not until this deschematisation had happened, along with the semantic narrowing of two other constructions in the possessive semantic field, did we see the beginnings of a construction generalising over the two apparently separate genitive constructions in the possessive semantic field. The eventual outcome was the completely general genitive construction in Modern Russian, which covers the entire possessive semantic field.

We have seen that a usage-based constructional approach can account neatly for changes occurring to a group of grammatical constructions with richly polysemous and partly overlapping semantics. It is highly characteristic of changes affecting case construc-

tions that they both involve semantic processes, such as narrowing and extension, and changes in combinatory properties, such as the eventual loss of the restrictions on the use of genitive constructions in the possessive semantic field in Russian. By combining the use of semantic maps with a usage-based network representation of the changes, one can account for both simultaneously, where a more traditional model of diachronic syntax might force one to disregard or underestimate the semantic side of the changes.

Thus, the usage-based model can be used for much more than grammaticalisation phenomena in historical linguistics. Established mechanisms of syntactic change may be formulated in a usage-based terminology, the same terminology that is used to describe synchronic phenomena. In this case the mechanism would be that of (analogical) extension. At the same time, one can give a clearer picture of issues that the established mechanisms do not focus on at all, such as deschematisation or loss of syntactic productivity, and the purely semantic changes that complex, schematic constructions may undergo to the same extent as atomic, specific ones.

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Lacking in Latvian

Case variation from a cognitive and constructional perspective

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This article examines two construction families used with the Latvian verb *(pie)trūkt* 'lack, miss', employing usage-based construction grammar and Cognitive Grammar. Focusing on type frequency, I conclude that the NOM constructions, characterised by the lacking entity appearing in the nominative and showing verbal agreement, have a higher degree of entrenchment than the GEN constructions, where the lacking entity is in the genitive and verbal agreement is absent. Although diachronic data indicate a long history of coexistence between the families, I hypothesise that if one of them were to be ousted, it would be the one with the lowest degree of entrenchment (cf. Barðdal 2001: Ch. 6). This is consistent with a larger shift involving the Latvian genitive and conforms with tendencies in other North European languages.

1.   Introduction

In this article I will analyse some data from Modern Latvian that lend themselves particularly well to an explanation along the lines of usage-based construction grammar, as presented in Croft (2001) and Goldberg (2006) and Cognitive Grammar as presented e.g., by Langacker (1987, 1991) and Taylor (2002).[1] My point of departure will be the Latvian verb *(pie)trūkt* 'lack' and the different constructions in which this verb occurs. While it might be tempting at first glance to analyse the situation witnessed by the data as competition between *cases*, I aim to show that it is more consistent with the available data to speak about competition between *argument structure constructions*. I will also show that the constructional patterns found with *(pie)trūkt* form part of a larger system within the language and demonstrate how the complex constructions

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1.   As remarked both by Langacker (2005) and Goldberg (2006: 220–225), usage-based construction grammar and Cognitive Grammar share many central tenets concerning the structure of language. Despite certain points of disagreement between adherents of the two frameworks, I consider them broadly compatible, and will combine elements from their respective theoretical apparatuses here.

themselves, as well as their parts, are motivated to different degrees in the grammar of speakers of Latvian. In line with Bybee (1995) I will assume that the degree of motivation correlates with the type frequency of each construction. I will argue that the observed synchronic variation is likely to be a sign of diachronic change, and that the replacement of one construction type with another in the case of *(pie)trūkt* is in line with a large ongoing shift in the semantics of the Latvian genitive case. Finally, I will look at this development in a broader, areal-typological perspective, exploring the possibility of viewing prevalence of personal constructions over impersonal ones as a trait of a (North) European linguistic area.

2.   The constructions

I take the term *construction* to mean any conventionalised pairing of form and function. Although the term encompasses linguistic units of different complexity, down to the level of words and morphemes, I am here primarily concerned with argument structure constructions on a clause or sentence level.

The Latvian simplex verb *trūkt* has two etymologically and semantically related senses. In what is presumably the historically primary sense, the verb means "tear, snap, break", while in the other sense it means "lack, miss". When the verb is prefixed, the two senses are distinguished by the use of different prefixes: *pār-* in the first sense, *pie-* in the second.[2] The different senses typically also occur in different argument structure constructions, as illustrated in (1) and (2):

(1a)   *Aukliņa   (pār-)trūka.*
         string   (PREF-)snapped
         'The string snapped.'

(1b)   *Aukliņa pietrūka.*
           *'The string snapped.'
         (only possible interpretation: 'The/a/some string was lacking.')

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2.   Latvian has a number of verbal prefixes that can be combined with simplex verbs to form prefixed verbs with a more specific semantic profile; the largest standard grammar (MLLVG I: 345) lists ten such prefixes in current use. Most prefixes have several senses that are not necessarily closely related. Sometimes the semantic contribution of the prefix approaches that of purely perfectivising prefixes, although the category of aspect is not grammaticalised in Latvian. While I do not consider the prefixed verb *pietrūkt* to be semantically fully equivalent to the simplex *trūkt,* there is no need to distinguish between them for the purposes of this article.

(2a) *Man   aukliņas   (pie-)trūka.*
　　 me.DAT string.GEN (PREF-)lacked
　　 'I lacked string.'

(2b) *Man   aukliņas   pārtrūka.*
　　 *'I lacked string.'
　　 (only possible interpretation: 'The/some strings snapped on me.')

(1) and (2) illustrate that the verb is typically used with one argument in the first sense and with two arguments in the second sense, but it should be noted that these are only tendencies. Moreover, while the prefix *pie-* is incompatible with the "snap" sense and the prefix *pār-* is incompatible with the "lack" sense, the a) examples are perfectly normal also if the verb is taken to have the other sense. This is due to three facts: 1) that *(pie)trūkt* can also be used in constructions where the thing that is lacking (henceforth called the *lackee*) appears in the nominative, 2) that the person or persons lacking something can remain unexpressed if recoverable from the context or given an indefinite interpretation and, finally, 3) that the noun *aukliņa* 'string' belongs to one of the two noun classes where the genitive singular and the nominative plural forms are homophonous.[3] In the following I will focus exclusively on the "lack" sense exemplified in (2), expressed by the simplex verb *trūkt* and its prefixed partner *pietrūkt*.

　　(Pie)trūkt is in Modern Latvian used in several constructions, which differ according to the number of arguments they encompass as well as to case-marking and agreement properties. It is possible to group the constructions into two families according to the case-marking of the lackee (which appears in either the genitive or the nominative) and the presence or absence of verbal agreement with the lackee. Thus, the four constructions under A below all belong to one family, characterised by genitive marking of the lackee and absence of verbal agreement. In the following, these will be referred to as GEN constructions. Those under B share the nominative marking of the lackee and the presence of verbal agreement, and will be referred to as NOM constructions. The difference between the two families is also one between impersonal (GEN) and personal (NOM) constructions.[4]

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3. In other words, examples such as (2a) are ambigious between a reading where the thing that is lacking is a genitive singular and a reading where it is a nominative plural. This ambiguity could clearly play a role in the diachronic development of the constructions in question, although it should be pointed out that there are large noun classes where no such ambiguity is observed.

4. I use the term *impersonal constructions* to cover such complex constructions that do not include a nominative-marked NP accompanied by verbal agreement and to which such an

A. GEN constructions:
1. [NP_DAT *(pie)trūkt* NP_GEN]
2. [NP_LOC *(pie)trūkt* NP_GEN]
3. [NP_DAT NP_LOC *(pie)trūkt* NP_GEN]
4. [*(pie)trūkt* NP_GEN]

B. NOM constructions:
1. [NP_DAT *(pie)trūkt* NP_NOM]
2. [NP_LOC *(pie)trūkt* NP_NOM]
3. [NP_DAT NP_LOC *(pie)trūkt* NP_NOM]
4. [*(pie)trūkt* NP_NOM]

Constructions A1 and B1 respectively might be viewed as the most prototypical of the four variants, because they contain not only the lackee, but also a dative-marked entity – typically a person – who is the one lacking something. But it is not uncommon to conceptualise a situation where something is lacking in a particular place (A2, B2), or to express both the person(s) lacking something and the location to which the absence of the lackee applies (A3, B3). Finally, as already hinted at, Latvian arguments need not always be expressed if they are recoverable from the context or given an indefinite interpretation. In constructions A4 and B4, neither the person(s) nor the location is expressed.[5] I will argue that the two construction families represent two different ways of conceptualising a situation in which something is lacking, although each distinct construction within the two families contains additional elements that contribute to their respective semantics.

Examples (3) and (4) illustrate the different properties of the two families of constructions when it comes to case-marking (but not verbal agreement). Note that the verb form in both of these examples is the simple present (*vienkāršā tagadne*).

(3)   GEN construction: [NP_DAT *(pie)trūkt* NP_GEN]
       Viņai   trūkst pieredzes.
       her.DAT lacks   experience.GEN
       'She lacks experience.'

NP cannot be added without rendering the construction ungrammatical or clearly changing its meaning.

5.   One could also ask whether the lacking entity might be left unexpressed, resulting in a construction consisting only of a form of the verb *(pie)trūkt*. This is indeed possible, and examples of this can be found, but are quite infrequent. In the terms of Cognitive Grammar, the semantic profile of *(pie)trūkt* contains both a schematic lackee and a schematic lacker, but the lackee is more intrinsic to the semantics of the verb and will thus be less prone to be left unexpressed.

(4)   NOM construction: [NP$_{DAT}$ *(pie)trūkt* NP$_{NOM}$]
  Viņai trūkst pieredze.
  her.DAT lacks experience.NOM
  She lacks experience.'

Judging by (3) and (4), it might seem plausible to analyse the competition between the GEN and NOM constructions simply as an instance of competition between two cases. However, the identity between (3) and (4) in all but the case-marking of the lackee is only due to the fact that the third person verbal form, which shows agreement with the nominative-marked NP in (4), also functions as the default form, occurring when there is no verbal agreement with a certain NP in the sentence. This is the case in (3). The different properties of the two constructions become apparent when one instead contrasts examples where the verb form is a complex one, i.e., consisting of an auxiliary and a participle that is declined for number and gender. Complex verb forms must be used because no simple verb form distinguishes between the singular and the plural in the third person. This leaves the first and second person, where contrasting examples with simple tenses are indeed possible, but not very frequent; although it is possible to say that oneself or one's conversation partner is lacking, such examples are rare. In (5) and (6) the verb form used is the complex present tense (*saliktā tagadne*), comparable in form and meaning to the English perfect tense.

(5)   GEN construction: [NP$_{DAT}$ *(pie)trūkt* NP$_{GEN}$]
  Viņai ir trūcis pieredzes.
  her.DAT is lack.PAAP.M experience.GEN.(F)
  'She has lacked experience.'

(6)   NOM construction: [NP$_{DAT}$ *(pie)trūkt* NP$_{NOM}$]
  Viņai ir trūkusi pieredze.
  her.DAT is lack.PAAP.F experience.NOM.(F)
  'She has lacked experience.'

The complex present tense combines the auxiliary *būt* 'be' and a past active participle, which in (5) occurs in the default, masculine nominative singular form, but in (6) displays agreement with the NP *pieredze*. *Pieredze* happens to be a feminine noun, and the participle accordingly appears in the feminine singular. Note that the contrast observed between (5) and (6) would not occur if the lackee were a masculine noun in the singular. The properties of the two families of constructions can be summarised as follows:

  The GEN constructions contain a genitive-marked NP expressing the lackee and a verb form of *(pie)trūkt* that does not display agreement with this NP nor with any other NP in the sentence. *The NOM constructions* contain a nominative-marked NP expressing the lackee and a verb form of *(pie)trūkt* that displays agreement with this nominative-marked NP. *Constructions in both families* may contain other NPs,

typically a dative-marked NP expressing the person(s) experiencing the lacking and/or a locative-marked NP expressing the location to which the lacking pertains.

3.   Variation and frequency

The official norms of the language as expressed in Latvian grammars and dictionaries prescribe that *(pie)trūkt* should be used with the lackee in the genitive case, i.e., in GEN constructions (MLLVG I: 395 and II: 284; Ceplīte & Ceplītis 1991: 16; LLVV VI$_1$: 154 and VII$_2$: 648). However, in actual language it is not difficult to find instances of the competing NOM constructions. Not unexpectedly, perhaps, there is a clear difference between styles: The prescribed GEN constructions dominate in written genres, such as newspaper texts, while the NOM constructions become gradually more frequent as one moves from formal to informal styles and from written to colloquial spoken language.

I have performed several surveys to measure the frequency of competing constructions in Latvian, including, but not restricted to, the constructions used with *(pie)trūkt*. In 1998 I analysed a corpus of newspaper texts (consisting of eight newspapers from randomly selected dates) and a corpus of spoken language (recorded interviews with 24 persons, 12 women and 12 men, of different age groups). The spoken corpus was extended in 2001–2002 to recordings of both interviews and spontaneous group conversations involving in all 14 speakers between 15 and 30 years.[6] Although *(pie)trūkt* is a relatively frequent verb, the mentioned spoken and written corpora were not large enough to render more than a limited number of examples with this verb (25 in the 1998 newspaper corpus, 15 in the 1998 spoken corpus and 12 in the 2001–2002 spoken corpus). In order to obtain a larger number of occurrences, I performed an Internet search on 10 August 2006, using the search engine Google.lv. I searched for the strings *trukst* and *pietrukst* and registered the first occurring example containing these forms in the first 100 hits for each of the two verbs. The macron in the two word forms was omitted, as searches for the strings *trukst* and *pietrukst* rendered hits both

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6.   A central part of the method used during the interviews, both in 1998 and 2001–2002, was to try to elicit instances of the relevant constructions, with the interviewer at the same avoiding the use of these constructions himself. In the case of *(pie)trūkt*, this could e.g., be done by using the noun *trūkumi* 'lacks, deficiencies' instead of the verb. This method was succesful at least up to a certain point. As for the narrower age distribution in the latter survey, this is a consequence of the fact that no clear differences between the age groups were detected in the first survey. For details on the method used in the 1998 survey cf. Berg-Olsen (1999: 106–108 and 117–123) and for the 2001–2002 survey cf. Berg-Olsen (2005: 27–31).

Table 1. Usage of GEN and NOM constructions with the verb *(pie)trūkt* in four corpora of Latvian.

	Newspapers (1998)	Google corpus (2006)	Spoken corpora (1998 + 2001–2002)
GEN const.	25	149	13
NOM const.		35	12
Ambiguous forms		16	2
Total	25	200	27

with and without the macron. The data from all the mentioned corpora are presented in table 1, where the figures from the two spoken corpora are presented jointly.

The table reveals that the prescribed GEN constructions dominate completely in newspaper texts, while in the spoken corpora the NOM constructions are about just as frequent as the GEN constructions. The Google corpus displays a situation where the GEN constructions dominate, but the NOM constructions are still found relatively often. This reflects the large variety of texts that are published on the Internet and registered by the Google search engine. Examining the instances from the Google corpus, one discovers that there is a disproportionate number of instances with NOM constructions among the search hits from pages written in an informal style close to spoken language, as found e.g., in Internet forums. Thus, (7) and (8) – both taken from such forums – show features of non-standard language use: the borrowed slang word *fīlings* 'feeling' in (7) and non-standard punctuation in (8).

(7) *mazliet pietrūkst tas   drūmais   fīlings […].*
a.bit   lacks   that.NOM gloomy.NOM.DEF feeling.NOM
'[…] [I] miss that gloomy feeling a bit […]'.
(http://www.gamez.lv/index.php?pg=28&group_id=13573, 10 August 2006)

(8) *Pašlaik   lietoju   Adobe Photoshop Starter Edition. bet*
currently use.1SG Adobe Photoshop Starter Edition but
šķiet   ka   kaut kas   pietrūkst..⟨smiley⟩
seems   that   something.NOM   lacks
'I'm currently using Adobe Photoshop Starter Edition. but it seems that
something's lacking..⟨smiley⟩'
(http://www.bmwpower.lv/viewtopic.php?topic=3490&forum=48&start=980,
10 August 2006)

Given this, it seems safe to conclude that the two construction families are in a situation of competition and that, while in written, formal styles the GEN constructions dominate, in the colloquial language the two alternatives are approximately equally frequent. An important question to which I will return, is whether this synchronic

variation reflects an ongoing change. At this point, however, I will turn to the question of how the different constructions and their parts are motivated in Latvian grammar and look at how the GEN and NOM constructions can be used to construe a situation in slightly different ways.

4.   Motivation and construal

As was shown in the preceding sections, in all constructions with *(pie)trūkt* where the person(s) lacking something is expressed, the lackee appears in the dative. It seems uncontroversial to classify the lackee as an experiencer, i.e., "a person engaged in mental activity (be it intellectual, perceptual, or emotive)" (Langacker 1991: 285). The Latvian dative is commonly used to mark experiencers in many different constructions across the language, some of which are exemplified in (9)–(13). Many of these have a very high token frequency, e.g., the construction with *patikt* 'like' in (11).

(9)   *Man   slāpst.*
      me.DAT   is.thirsty
      'I am thirsty.'

(10)   *Mums   gribas   aizlidot.*
       us.DAT   feels.like   away.fly
       'We feel like flying away.'

(11)   *Viņai   patīk   Tokija.*
        her.DAT   likes   Tokyo.NOM
        'She likes Tokyo.'

(12)   *Jau   agrā   bērnībā   viņam   nomira   māte.*
        already   early.LOC   childhood.LOC   him.DAT   died   mother.NOM
        'His mother died already during his early childhood.'

(13)   *Man   šķiet,   ka   viss   ir   kārtībā.*
        me.DAT   seems   that   all.NOM   is   order.LOC
        'It seems to me that everything is all right.'

Haspelmath (2001) notes that dative-experiencer constructions such as the Latvian ones in (9)–(13) are not uncommon in European languages, at least not in what he deems to be the more peripheral languages in a tentative European linguistic area.[7] In

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7.   A plausible hypothesis seems to be that the dative marking of experiencers is an old common Indo-European trait that has been preserved only in some of the modern languages. Dative-experiencer constructions are, however, also relatively common in non-Indo-European languages. Onishi (2001: 26–27) quotes examples from the Indo-European languages Punjabi

the more central languages, termed Standard Average European (SAE), experiencers are predominantly marked in the same way as agents. Latvian has both types of marking, and sometimes speakers have at their disposal two or more alternative constructions with different marking of the experiencer; (14) can be compared with (9) and (15) with (13):

(14) *Es   gribu   dzert.*
      I.NOM   want.1SG   drink
      'I want to drink.'

(15) *Es   domāju,   ka   viss   ir   kārtībā.*
      I.NOM   think.1SG that all.NOM   is   order.LOC
      'I think that everything is all right.'

The main difference between constructions with dative experiencers on the one hand and constructions with nominative experiencers on the other is often one of *construal*. Dative-marked experiencers are conceptualised as passive undergoers unable to control the mental impression that they experience. In examples such as (9), the feeling of being thirsty is perceived as something external to the experiencer that (s)he has no way of avoiding. By contrast, nominative-marked experiencers as those in (14) and (15) are more agent-like in that they are perceived to exert control over the mental impression. This is confirmed by Lokmane (2002), who, commenting on verbs that may be used either with a dative or a nominative experiencer, remarks that a nominative-marked experiencer is characterised by a more agent-like meaning. These two construals of the experiencer archetype can be regarded as related to two competing folk models of the mind, termed by Dąbrowska (1997: 77) *the mental arena model* and *the craftsman model*, respectively. In the mental arena model, the mind is perceived as a container for ideas that are not easily manipulable, while in the craftsman model, ideas are conceptualised as objects that can be manipulated by the experiencer.

As for the constructions with *(pie)trūkt*, one may note that the dative-experiencer construal, motivated by the mental arena model, is the only possible one if one wishes to express an experiencer (in other words, both in GEN and NOM constructions the lackee must be dative-marked). This places the constructions used with *(pie)trūkt* on a par with other constructions that have a related semantics; thus, the dative construal is for instance the only possibility also in the Latvian possessive construction, with which the constructions used to express lacking have a close semantic affinity (to lack something is at least in some senses very close to not having something). The Latvian possessive construction with a dative-marked possessor is exemplified in (16).

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and Bengali (as well as Icelandic), but also from Kannada and Tamil. Hansen (2004: 316–317) provides examples from Japanese and Korean. Dative experiencers are examined in a typological perspective and further subcategorised by Næss (2007: 185–208).

(16) *Man   ir liela   māja.*
me.DAT is big.NOM house.NOM
'I have a big house.'

4.2 Genitive-marked NP denoting a whole in the GEN constructions

I will argue that the genitive-marked NP used in the GEN constructions denotes *a whole as viewed in contrast to its subparts*, and that this meaning is expressed by the Latvian genitive in a number of different constructions, all of which however are in competition with other constructions. Examples of such GEN constructions are given in (17)–(21); (19) was given as (3) earlier, but is repeated here.

(17) *Mums ir daudz draugu.*
us.DAT is many friends.GEN
'We have many friends.'

(18) *[L]aivā   skalojās jau   tā kāds spainis ūdens.*
boat.LOC flowed   already so some bucket water.GEN
'Already a bucketful of water was flowing in the boat.'
(http://snow.shulcs.lv/laivas/8, 14 September 2004)

(19) *Viņai   trūkst pieredzes.*
her.DAT lacks   experience.GEN
'She lacks experience.'

(20) *Man   nekad nav   bijis   mašīnas.*
me.DAT never not.is be.PAAP.M car.GEN.(F)
'I've never had a car.'

(21) *Es   nekā   nezinu.*
I.NOM nothing.GEN not.know.1SG
'I don't know anything.'

In (17) the genitive *draugu* 'friends' denotes the totality of friends of which a subset – in this case an unspecified large quantity – is set apart by the quantifier *daudz* 'many'. Constructions of this kind are found with indeclinable numerals (e.g., *desmit* 'ten', *divpadsmit* 'twelve', *simt(s)* 'hundred') and indeclinable quantifiers (e.g., *daudz* 'much, many', *maz* 'little, few', *cik* 'how much, how many') when the phrase as a whole appears in a position where a bare noun would be marked with the nominative (as in 17), the accusative or the genitive. When the phrase appears in a position normally associated with the nominative, the genitive constructions meet competition from alternative constructions with the nominative, while in positions normally associated with the accusative, there are competing constructions with the accusative.

As shown in (18), also with nouns denoting quantity the genitive can be used to indicate totality; here speakers may use an alternative construction with the preposition

ar 'with' and the accusative, which implies a somewhat different construal from the genitive construction. Thus, the phrase *spainis ūdens* 'a bucket water.GEN' in (18) primarily refers to a quantity of water, while the prepositional phrase *spainis ar ūdeni* 'a bucket with water.ACC' in (22) does not evoke the concept of quantity to any salient degree (cf. Berg-Olsen 2005: 194–195).

(22) *Ierobežotā   teritorijā   atrodas   spainis   ar   ūdeni   un*
     confined.LOC territory.LOC is.located bucket with water.ACC and

     lupata […].
     rag.NOM

     'In a confined territory there is a bucket with water and a rag […].'
     (http://www.omvua.lv/php_/nestandarta/spele/pielikums.htm, 14 September 2004)

The genitive-marked NPs in (19)–(21) all represent borderline instances of the meaning of a whole, in that the subpart that the whole is contrasted with is an empty set. In other words, (19)–(21) all involve the negation of the existence of a subset. The view that the genitive used in constructions with a negation constitutes a subtype of the genitive denoting a whole has earlier been expressed by several scholars of Indo-European (e.g., Miklosich 1883: 498 and Brugmann 1911: 611–612).

   The construction with *(pie)trūkt* exemplified in (19) and the one with the negated existential verb exemplified in (20) are structurally similar, and both constructions meet competition from constructions where the lackee appears in the nominative and is accompanied by verbal agreement, cf. (23):

(23) *Man   nekad nav   bijusi   mašīna.*
     me.DAT never not.is be.PAAP.F car.NOM.(F)
     'I've never had a car.'

The usage patterns of the two constructions with the negated existential verb are quite similar to those found with *(pie)trūkt*; only the construction with the genitive is allowed by the prescriptive norms of the standard language, but in the colloquial language and informal styles the two constructions are used with more or less the same frequency (Berg-Olsen 2005: 186–187). The constructional pattern seen here is restricted to three verbs; in addition to *(pie)trūkt* and the negated existential *nebūt*, it is also found with *pietikt* 'suffice'.

   The genitive NP in (21) is the complement of a negated transitive verb, which when not negated is always used with an accusative-marked complement. Indeed, the construction exemplified in (21) meets competition from a construction where the accusative is used also when the verb is negated. In modern standard Latvian, the accusative construction dominates, and the use of the genitive is restricted to instances where the negation is emphasised in some way, as well as to certain fixed expressions (Berg-Olsen 2005: 191–192).

Interestingly, there is historical evidence that certain constructions where the genitive denoted a whole have at some point become obsolete and been replaced by constructions without the genitive. This is the case with the use of the genitive to denote the indefinite quantity of an object (24).

(24) *Nāc,   es   tev   došu   siera.*
     come.IMP I.NOM you.DAT give.FUT.1SG cheese.GEN
     'Come, I'll give you some cheese.' (Quoted in MLLVG I: 394)

In the modern standard language, indefinite quantities in such contexts cannot be expressed simply by putting the object in the genitive case; the default accusative object case does not signal either definiteness or indefiniteness. In a brief practical grammar, Ceplīte and Ceplītis (1991: 16) mention this use of the genitive, but remark that it is practically obsolete. This certainly does not mean that the indefiniteness in sentences such as (24) cannot be expressed in Modern Latvian; this is done by other means, e.g., by using a quantifier such as *mazliet* 'a little'.

Grammars from the 20th century also mention that the verb *vajadzēt* 'need' could be used with the needed entity in the genitive, i.e., in a construction parallel to the GEN construction still used with *(pie)trūkt*. An example of this is given in (25).

(25) *Vajag tikai drošas   galvas   un   nesalaužamas*
     needs only daring.GEN head.GEN and unbreakable.GEN

     gribas,   tad   visu   var.
     will.GEN then everyhting.ACC can

     'One only needs a daring head and an unbreakable will, then one can
     do everything.' (Quoted in MLLVG I: 395–396)

Again, Ceplīte and Ceplītis (1991: 16) mention the possibility of using the genitive with *vajadzēt*, at the same time stating that the accusative is more common. This seems to be an understatement, as the genitive construction is completely absent both from the modern written standard language and the colloquial language, at least as spoken in the capital Riga and the surrounding area, where *vajadzēt* is exclusively used with an accusative object.

To sum up, the genitive-marked NP in the *(pie)trūkt* constructions is motivated by the use of this case with a similar semantics across a range of different constructions. The GEN constructions used with *(pie)trūkt* have a very low type frequency, in that these exact patterns are used only with three verbs in all. It should be noted, however, that one of these, the negated existential verb *nebūt*, has a very high token frequency. Thus, my 1998 and 2001–2002 spoken corpora together included 207 instances of genitive constructions with *nebūt*, compared to 13 instances of such constructions

with *(pie)trūkt*.[8] The high token frequency of the *nebūt* construction probably does not make the GEN constructions more productive; following Bybee (1995: 437), the particularly high token frequency of a unit may in fact decrease the productivity of the construction in question, as high token frequency typically leads to that particular frequent unit being stored separately.

The impression that the GEN constructions with *(pie)trūkt* may be losing ground to the NOM constructions should be viewed in connection with the low type frequency of these constructional patterns, as well as the general tendency that constructions in which the genitive denotes a whole are meeting competition and may be on the decline across the board.

4.3   Nominative-marked NP in the NOM constructions

As mentioned, in the NOM constructions the lackee appears in the nominative and is accompanied by verbal agreement. These two properties – nominative case marking and verbal agreement – are characteristic of subjects in both transitive and intransitive clauses in Latvian. However, the nominative-marked lackee in the NOM constructions is at least not a typical subject. Firstly, the nominative-marked lackee tends to be inanimate; out of the 35 instances of NOM constructions in the 2006 Google corpus, only four (11%) had animate lackees. Secondly, there is a tendency for the nominative-marked lackee not to be topical, which is reflected in that it typically occurs after the verb; of the mentioned 35 instances, 21 (60%) had postposed lackees. By contrast, prototypical subjects are both animate and topical.[9] As for other possible subject properties, such as the ability to control reflexives and omitted coreferential NPs, it is difficult to find authentic examples with the constructions under analysis, while constructed examples tend to be pragmatically strange.

Although the nominative-marked lackee in the NOM constructions is not a typical member of the Latvian subject category, I will argue that speakers by using the NOM constructions construe the lackee as *the source of a mental impression*, which potentially affects an experiencer. The conceptualisation of the lackee as the source of an impression is close to that found in the transitive construction, where the nominative-marked

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8.   The two corpora together included a total of 441 occurrences of *nebūt;* 201 of these were instances of NOM constructions, while in 33 occurrences the form was ambiguous. The total number of occurrences of *(pie)trūkt* in the two corpora was 27; 12 of these were instances of NOM constructions, while in two occurrences the form was ambiguous.

9.   Dative-marked experiencers in the NOM constructions tend to be animate and topical. Constructions where more than one argument have some subject properties are quite compatible with the principles of Cognitive Grammar, cf. for instance the analysis of German impersonal constructions of the type *Es ist ihm kalt* in Smith (2002).

subject is typically the instigator of an action. The construal implied by the NOM constructions is different from that found in the GEN constructions: The presence of the genitive here emphasises the partitive aspect of the situation, the fact that a subset of a larger whole is involved. By contrast, the use of the nominative (accompanied by verbal agreement) in the NOM constructions emphasises the role of the lackee as the source of the mental impression of lacking. The different construals may be illustrated as in figures 1 and 2. In both figures, the oval labelled PS represents the personal sphere of the dative-marked NP (which is typically a person). The personal sphere may be defined as the region that "comprises the persons, objects, locations, and facts sufficiently closely associated with an individual that any changes in them are likely to affect the individual as well" (Dąbrowska 1997: 16). The dative-marked NP (which, as seen earlier, may be omitted) is potentially affected by a mental impression, and this element of affectedness is symbolised by the exclamation mark. In Figure 1 the dotted circle represents the empty subset of the whole expressed by the genitive, while the double line linking the subset with the whole symbolises the intrinsic relationship that exists between these two. An intrinsic relationship may be defined in the following way: If in order to conceptualise an entity X one necessarily has to refer to some other entity or entities, X is conceptually dependent, and there is an intrinsic relationship between X and the one or more entities that must be referred to when conceptualising X. The concept of intrinsic relationship is central e.g., in Langacker's (2000: 73–90) semantic analysis of the English preposition *of*.
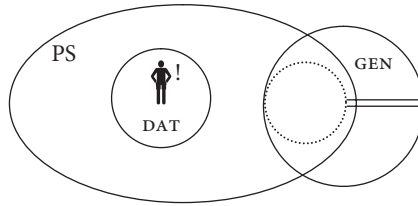
Figure 1. The construal implied by a GEN construction as in *Viņai trūkst pieredzes*.
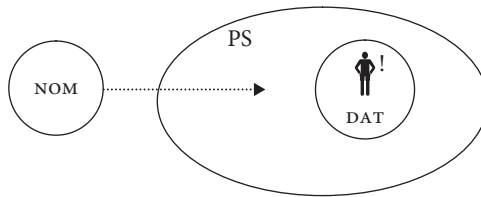
Figure 2. The construal implied by a NOM construction as in *Viņai trūkst pieredze*.

The NOM constructions used with *(pie)trūkt* have close parallels with several other verbs, two of which are exemplified in (26)–(27): Also here we have a dative-marked experiencer as well as a nominative-marked NP accompanied by verbal agreement and conceptualised as the source of a mental impression.

(26) *Viņai   ir ļoti iepatikusies   Tokija.*
      her.DAT is very get.fond.PAAP.F Tokyo.NOM.(F)
      'She has got very fond of Tokyo.'

(27) *Man   nekad nav   garšojušas   kūkas.*
      me.DAT never not.is like.PAAP.F.PL cakes.NOM.(F)
      'I've never liked cakes.'

This construction type is, however, not limited to a specific set of verbs; a dative-marked NP denoting an experiencer can appear in any sentence to express affectedness if the sentence can be conceptualised in such a way that someone could be affected by what happened. One example of this was given in (12); another is quoted here as (28).

(28) *Mums notiek   regulāras   nodarbības pie […] instruktora*
      us.DAT take.place regular.NOM classes.NOM at   instructor
      'We have regular classes with […] an instructor'
      (http://www.dogs.lv/board/viewtopic.php?p=163298&sid=29856c37550ed7982
      7561b41febbd513, 15 June 2008)

Constructions where a dative-marked NP is (potentially) affected in some way by a mental impression originating in a nominative-marked NP, clearly have a relatively higher type frequency than the GEN constructions found with *(pie)trūkt*. What is more, nominative-marked arguments accompanied by verbal agreement as such are highly frequent in the language, as they occur in the ubiquitous transitive and intransitive constructions. Supposing that the present situation of variation between GEN and NOM constructions is a sign of an ongoing change, a plausible hypothesis would be that if one of the construction families were to disappear, it should be the GEN constructions.

Another factor that could contribute to such a change, is if the difference in construal between the two construction families is no longer felt by the speakers; also in this situation one would expect the family with the highest type frequency to prevail. Barðdal (2001) proposes that semantic similarity between the low-frequent DAT-GEN construction and the more frequent DAT-NOM construction in Old Icelandic led to the ousting of the first in favour of the second (the DAT-GEN construction is no longer present in Icelandic today). The role of semantic overlap in the development of the case systems in Germanic is also discussed in Barðdal (this volume).

Finally, one cannot exclude that the homonymy encountered between the genitive singular and the nominative plural in certain noun classes (cf. section 2) also could

play a role in the change, with speakers avoiding potential ambiguity between a singular and a plural reading by consistently choosing one of the construction types.

5.   An ongoing change?

To recapitulate, the verb *(pie)trūkt* is in Modern Latvian used in two different types of constructions, one with the lackee in the genitive and without verbal agreement, and the other with the lackee in the nominative and with verbal agreement. As demonstrated by the figures in table 1, each of the two types is encountered in about 50% of the instances in informal styles, while in formal styles the GEN constructions dominate, in accordance with the prescriptive norms of the language. Both construction families are motivated by the existence of formally parallel constructions with related semantics, but the NOM constructions are more strongly motivated than the GEN constructions. By contrast, the constructions where the genitive is used to denote a whole, as in the GEN constructions, are meeting competition from other constructions across the board, indicating that this constructional type may well be on the defensive. To shed more light on this question, I will in this section investigate historical data from Latvian, also drawing on data from the closely related Lithuanian.

5.1   Early texts

Regrettably, the available evidence for earlier stages of Latvian is not of the quality and size that one might have wished. Firstly, the earliest written sources of the language are relatively late compared with most other European languages – the first preserved texts are from the 16th century. Secondly, with a few possible exceptions, all the texts from the 16th and 17th as well as the majority of those from the 18th century are written by non-native speakers of Latvian, whose command of the language seems to have varied greatly. There is no doubt that the language of the early texts, including the syntax, displays a considerable degree of foreign influence, mainly German, but it is difficult to say what effects this might have had for the constructions used with *(pie)trūkt*.[10] The only certain conclusion to be drawn from the inspection of a small corpus of early

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10.   One could expect German influence on Latvian to have favoured the NOM constructions, as German lacks parallels to the GEN constructions. Ambrazas (2006: 234–235) reports that in Lithuanian dialects spoken from the 18th to the early 20th century in and close to Lithuania Minor (which at that time had an increasingly predominant German-speaking population), the genitive marking of complements of negated verbs to some extent was replaced by accusative marking.

texts (Berg-Olsen 1999: 58–59) is that examples of both construction families occur in texts from the 17th and 18th century, cf. (29) with a GEN construction and (30) with a NOM construction.

(29) *behrnam   luſtes   truhkſt*
child.DAT desire.GEN lacks
'the child lacks desire' (Stender 1789: 5, quoted in Beitiņa 1968: 59)

(30) *Woi mehs   warretum dſihwont, kad mums jeb gaiśs,   jeb*
Q   we.NOM   could   live   if   us.DAT or   air.NOM   or

ſemme,   jeb uhdens,   jeb ugguns, jeb augļi,
earth.NOM or   water.NOM/GEN or   fire.NOM   or   crops.NOM

jeb lohpi,   jeb   daudſ zittas   waijadſibas   truhktu?
or   animals.NOM or   many   other.NOM necessities.NOM lacked

'Could we survive if we lacked air or earth or water or fire or crops or animals or many other necessities?' (Stender 1776: 191, quoted in Beitiņa 1968: 102)

Searches performed for instances of *trūkt* and *pietrūkt* in a corpus of 45 texts from the 16th, 17th and 18th centuries available on the Internet (http://www.ailab.lv/senie/) show that constructions with the lackee in the nominative are more numerous than those with the lackee in the genitive. Of a total of 73 relevant examples found, 42 (58%) were of the NOM type, while 31 (42%) were of the GEN type. In addition, in 22 of the 31 instances of GEN constructions one and the same lexical item occurred, namely *ne nieka* 'nothing', while this item never occurred in the NOM constructions. Thus, it seems that the evidence from early texts does not support the hypothesis formulated above; if the variation observed in Modern Latvian were a sign of the gradual replacement of an older construction type (GEN) by a newer construction type (NOM), one would expect that the older type should dominate in early sources. To what extent these early texts reflect the actual spoken Latvian at the time remains somewhat unclear, but at least it seems safe to conclude that the NOM constructions were not unknown in the Latvian of the 16th, 17th and 18th centuries.

5.2 The situation in Lithuanian

Latvian and Lithuanian are the only extant Baltic languages today, and these two close relatives together constitute the East Baltic subgroup within Baltic. Generally, Lithuanian is considered the more conservative of the two, having preserved a number of archaic phonological, morphological and syntactic traits that are not found in Latvian. This is traditionally explained by the historical contact situation in the northern part of the East Baltic territory, corresponding approximately to the territory of present-day

Latvia, where Baltic speakers lived and continue to live side by side with speakers of Balto-Finnic languages. A Balto-Finnic substrate in Latvian can e.g., explain the generalisation of word-stress on the first syllable, while Lithuanian (excluding certain dialects close to the Latvian border) retains a system with so-called free and mobile stress. An indication of the extensive contact between Latvian and Balto-Finnic languages is also the number of Balto-Finnic loanwords, which is approximately 100 in the standard language and 500 if dialects are included, as opposed to less than 20 Balto-Finnic loanwords in Lithuanian (Zinkevičius 1984: 179–183).

Given that Lithuanian is generally more conservative than Latvian (although there are certainly exceptions to be found), it is interesting to notice that Lithuanian constructions where the genitive is used to denote a whole are both more widespread and more stable than their Latvian counterparts. Many of these constructions do not meet any competition from constructions without the genitive, and in those instances where there is competition, the genitive clearly dominates (Berg-Olsen 1999: 137–147). In addition to this, Lithuanian has retained some constructions with the genitive that have been lost in Latvian. The perfectly normal Lithuanian examples (31) and (32) may be compared with the obsolete Latvian examples (24) and (25).

(31)   *Aš   tau   duosiu   pinigų.*
       I.NOM   you.DAT give.FUT.1SG money.GEN
       'I'll give you some money.'

(32)   *Viską   galima   pakeisti,   reikia   tik   noro   ir*
       all.ACC possible change   needs   only will.GEN and
       atkaklumo.
       perseverance.GEN
       'It's possible to change everything, one only needs the will and the perseverance.'
       (http://www.vlkk.lt/diskusijos/tema.1225.1.html, 16 June 2008)

It is tempting to interpret the Lithuanian data as speaking in favour of the hypothesis that the GEN constructions where the genitive denotes a whole are the original ones in Latvian, and that the competing constructions, among which are the NOM constructions with *(pie)trūkt*, are due to innovation. In Slavic, which is closely related to Baltic, GEN constructions parallel to the Baltic ones are attested from the very earliest Old Church Slavic texts, and the use of the genitive in these constructions is widely taken to be a common Balto-Slavic (and thus quite ancient) trait. On the other hand, the fact that competing constructions with other cases are attested also in Slavic from an early date could indicate that the state of variation is equally ancient. As mentioned in section 4.1, the use of the dative to mark experiencers and the dative–nominative case frame is hardly an innovation in an Indo-European perspective, cf. also Barðdal and Eythórsson (forthcoming).

In light of the available data one can only conclude that both construction families must have coexisted for quite some time in Latvian, probably at least for the last 500 years. This would then be an example of how two construction types expressing

different construals of the same situation can remain more or less stable side by side for an extensive period of time. It might serve as an example of the phenomenon known as *layering* in grammaticalisation theory (cf. Hopper 1991: 22–24; Hopper & Traugott 2003: 124–126).

A completely different question, albeit one that is probably no easier to present a definitive answer to than the one concerning the historical development, is what will happen in the years to come. I would argue that a highly probable line of development in the case of *(pie)trūkt* is the gradual replacement of the GEN constructions with NOM constructions, based on the following considerations: 1) It has been observed that constructions where the genitive denotes a whole, as it does in the GEN constructions, meet competition and seem to be under pressure from other constructions across the board, and that in some instances such genitive constructions have become obsolete. 2) A change involving *(pie)trūkt* would thus form part of a larger shift involving the semantics of the genitive, with those functions of this case that involve the meaning of a whole becoming weaker. Note that this shift does not involve the other meanings expressed by the genitive case, which remain stable (Berg-Olsen 2005). 3) The replacement of GEN constructions with NOM constructions would be motivated by the type frequency of the respective construction types.

6.   A broader perspective

The constructional variation and possible change observed in Latvian and discussed in the previous sections have parallels in other European languages. Thus, Eythórsson (2000) refers to instances of variation between impersonal constructions (with no nominative-marked argument and without verbal agreement) and personal constructions (where one argument is nominative-marked and accompanied by verbal agreement) in Modern Icelandic, Faroese and German. Eythórsson also presents examples of how impersonal constructions have been replaced by personal ones e.g., in the history of English. In all the instances exemplified it is the originally oblique-case marked *experiencer* that has acquired the typical subject properties of nominative marking and verbal agreement. Also Haspelmath (2001: 75–79) notes the tendency in European languages for the non-canonical (i.e., oblique) marking of experiencers to be replaced by agent-like marking, and postulates that agent-like marking of experiencers is a salient property of Standard Average European (SAE) languages. In light of the data presented here, it is clear that Latvian does exhibit variation between impersonal and personal constructions, and it also displays examples of impersonal constructions that have been replaced by personal ones. Considering the case of *(pie)trūkt*, however, Latvian (along with Icelandic, cf. Barðdal 2001: 197–198) does not conform to the pattern recurring in most other European languages, as the dative marking of the experiencer remains constant. Instead, here it is the *theme* argument, the lackee, that

vacillates between genitive and nominative case-marking. This is in line with the view that Latvian is not a typical SAE language. If we were to take a different tack on the matter and consider as a typical SAE trait (or, alternatively, a trait of a North European linguistic area) the increasing preference for personal constructions over impersonal ones, this would clearly extend also to Latvian, albeit, interestingly, not to Lithuanian.

7.   Conclusions

The Latvian verb *(pie)trūkt* 'lack, miss' appears in two distinct construction families distinguished by the case-marking of the NP denoting the lackee and the presence or absence of verbal agreement with this NP. The GEN constructions, with genitive marking and presence of agreement, are the ones prescribed by the norms of the language, and they dominate in formal styles. In informal styles the NOM constructions, with nominative marking and absence of agreement, are about just as frequent. The GEN constructions were shown to be more weakly entrenched than the NOM constructions; not only do the former instantiate a construction type with lower type frequency than the latter, but constructions where the genitive has the same semantics as it has in the GEN constructions meet competition across the board, and some of them have become obsolete. The weaker degree of entrenchment of the GEN constructions would seem to indicate that if any of the two construction families with *(pie)trūkt* were to be ousted in the future, it should be the GEN family. When historical data from early texts are examined, the picture becomes less clear, as these data point to the two families coexisting over an extended period of time. Still, in the light of the Lithuanian (and possibly Slavic) data, I would postulate that the NOM constructions represent an innovation. In a (North) European perspective, Latvian follows a widespread pattern in displaying a tendency for replacing impersonal constructions with personal ones.

Abbreviations used

1	first person	M	masculine
ACC	accusative	NOM	nominative
DAT	dative	PAAP	past active participle
DEF	definite	PL	plural
F	feminine	PREF	prefix
FUT	future	PS	personal sphere
GEN	genitive	Q	question particle
IMP	imperative	SG	singular
LOC	locative		

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Verb classes and dative objects in Insular Scandinavian*

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It is well-known cross-linguistically that some classes of transitive verbs are more likely than others to have dative objects. Thus, verbs whose object participant is active independent of the actions of the subject participant have a strong tendency to take dative objects. In this article, I show how this is reflected in the Insular Scandinavian languages, especially Faroese, where verbs whose objects are furthest away from the dative prototype have been the prime targets of dative loss with two-place verbs. By contrast, verbs that are semantically closest to the dative prototype seem to be the most resistant to dative loss.

1. Introduction

Dative case in Insular Scandinavian (Icelandic and Faroese) exemplifies a fairly complicated relation between syntax and lexical semantics. Thus, monotransitive verbs selecting dative objects in Icelandic fall into various semantic classes and many of these classes also contain verbs with accusative objects (Maling 2002). The same is true of Faroese although the number of two-place dative verbs in that language is much smaller than in Icelandic. The reason is that dative objects of many verbs have been replaced by accusative objects in the history Faroese and this process is still ongoing.

Despite the complexities surrounding dative case selection in Insular Scandinavian, it is clear that some lexical semantic features are more strongly associated with dative case than others. This is also true cross-linguistically as can be seen by comparing two-place dative verbs across languages. Blume (1998) claims that there is a strong

cross-linguistic tendency for verbs to take dative objects if they denote events in which the object participant is active independent of the actions of the subject participant. The object of such verbs, labelled interaction verbs by Blume (1998), does not have any proto-patient properties such as being created, affected or manipulated by the subject participant. Verbs of this kind include the Icelandic dative verbs *fylgja* 'follow', *heilsa* 'greet', *hjálpa* 'help' and *samsinna* 'agree with'. For convenience, we can refer to verbs like these as prototypical DAT-verbs.

The relevance of lexical semantics for the selection of dative objects can also be seen in the historical development of two-place verbs, e.g., in a language like Faroese that is in the process of losing dative objects. In such a language more resistance to dative loss is expected, the more the object behaves like an active participant in the event denoted by the verb and the fewer patient properties it displays. I will show with numerous examples that this expectation is borne out, using data from Faroese as well as comparative evidence from Icelandic.

The paper is organized as follows. Section 2 provides some background information on dative loss in Faroese, both concerning the historical evidence for this change and the wider context of dative loss in Faroese. Section 3 presents an overview of monotransitive DAT-verbs in Icelandic, followed by a more detailed discussion of motion verbs and change-of-state verbs. Monotransitive DAT-verbs in Faroese are the topic of Section 4 where it is argued that dative loss has mostly affected verbs whose objects display proto-patient properties, i.e., motion verbs and change-of-state verbs. This section concludes with a brief discussion of the use of PPs for dative indirect objects. Finally, the main conclusions of the paper are summarized in Section 5.

2.   Some basic facts about dative loss

2.1   Historical sources

For lack of written sources before 1800, it is difficult to determine when dative objects started to disappear in Faroese, but clear examples of this change are already attested in the Faroese ballads which were composed in the period 1400–1800. For instance, the verb *kasta* 'throw' is found with both dative (1a) and accusative (1b) objects in the ballads whereas dative is obsolete with this verb in Modern Faroese (2a), except for a few idiomatic expressions (see Thráinsson et al. 2004:430).[1]

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1.   The abbreviation Hamm. refers (here and elsewhere) to Hammershimb's (1891) *Færøsk Anthologi.* Volume I of that work contains texts and a grammar but volume II is a dictionary of Faroese.

(1) a. *Sjúrður kastar reyðum skildri   niður á dökka fold* (Hamm. II., 145)
         Sjúrður throws red.DAT shield.DAT down to dark   ground
         'Sjúrður throws a red shield to the dark ground'

     b. *Kastar   hann   svørð   og   herklæði*   (Hamm. II., 145)
         throws   he   sword.ACC and armour.ACC
         'He throws his sword and his armour'

(2) a. **Tað   var   Viktoria,   sum   kastaði   steininum*
         it   was   Victoria   who   threw   stone-the.DAT
         'It was Victoria who threw the stone'

     b. *Tað   var   Viktoria,   sum   kastaði   steinin*
         it   was   Victoria   who   threw   stone-the.ACC
         'It was Victoria who threw the stone'

Since *kasta* is a very common verb in Faroese, there are numerous examples with *kasta* in the ballads, both with dative and accusative objects. I have e.g. found more than twenty examples in the first volume of Hammershaimb (1891). Hence, there is very strong evidence within Faroese for dative loss with that particular verb. Unfortunately, this state of affairs seems to be the exception rather than the rule. For many monotransitive verbs in Faroese, the main evidence for dative loss is comparison to its cognates in Old Icelandic, on the natural assumption that they give a very good indication of the original object case for individual verbs in Faroese. For other verbs, there is no historical evidence at all about the original object case in Faroese. If Faroese and Icelandic differ with respect to object case with such verbs, no firm conclusions can be drawn about the directionality of the change.

The uncertainty in the dating and authenticity of individual ballads makes it nearly impossible to determine the finer details of dative loss in the history of Faroese. Thus, I will not attempt to describe anything more than the basic outlines of dative loss with two-place verbs. Still, it is quite clear that the domain of dative case selection has shrunk significantly in Faroese and supporting evidence for that can also be found in older stages of the other Scandinavian languages (see Reinhammar 1973 and references cited there). The fact that Modern Icelandic has far more monotransitive DAT-verbs than Modern Faroese is also a clear indication of dative loss in Faroese (see Sections 3 and 4 below).

2.2   An overview of dative loss

The main focus of this paper is on monotransitive DAT-verbs in Insular Scandinavian. Nevertheless, it is useful to see how the development of DAT-verbs in Faroese compares

to dative loss in general. An overview of the history of datives in Modern Faroese is provided in (3):

(3)   The development of various classes of datives in Faroese
a.   adjuncts (e.g. in comparatives)   lost
b.   theme/patient subjects of verbs   lost
c.   subjects of adjectives   lost
d.   subjects of passives[2]   disappearing
e.   experiencer subjects of verbs[3]   disappearing
f.   direct objects of verbs   losing ground
g.   indirect objects of verbs   well preserved
h.   objects of prepositions   well preserved

Dative objects of adjectives are not included in this overview because I have very little information about them. Henriksen (2004: 71) lists various adjectives that take dative objects in Faroese. Some of these adjectives are commonly used with dative objects in Modern Faroese, e.g., *líkur* 'similar to' and *ólíkur* 'dissimilar from', but others usually take PP complements, e.g., *trúgvur* 'faithful to' and *skaðiligur* 'harmful to' (Hjalmar P. Petersen p.c.). Since the cognates of these adjectives take dative objects quite freely in Icelandic, it seems that dative objects of adjectives have lost ground in Faroese but this clearly merits further investigation.

The complete loss of the dative types in (3a–c) is exemplified below where Faroese is contrasted with Icelandic which has preserved dative in all these cases:[4]

(4)   a.   *Íslendski marknaðurin er seks <u>ferðir</u>   størri enn tann føroyski* (Far.)
          Icelandic market-the   is six   times.ACC bigger than the   Faroese
          'The Icelandic market is six times bigger than the Faroese market'

      b.   *Íslenski   markaðurinn er sex <u>sinnum</u>   stærri en   sá færeyski* (Ice.)
          Icelandic market-the   is six   times.DAT bigger than the Faroese
          'The Icelandic market is six times bigger than the Faroese market'

(5)   a.   *Vit bíðaðu eftir at   <u>kuldin</u>   linnaði*   (Faroese)
          we   waited for   that cold-the.NOM subsided
          'We waited for the cold weather to subside'

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2.   These are passives of monotransitive verbs that take dative objects. As discussed by Thráinsson et al. (2004: 266–269), such passives often require nominative subjects corresponding to dative objects in the active.

3.   For further discussion of the status of dative experiencer subjects in Modern Faroese, see Petersen (2002); Eythórsson & Jónsson (2003) and Jónsson & Eythórsson (2005).

4.   I use the term "preserve" here because these datives are found in Old Icelandic. However, I am not aware of any evidence within Faroese that these datives existed in earlier stages of the language.

     b.   *Við   biðum   eftir   at   <u>óveðrinu</u>   linnti*   (Icelandic)
         we   waited for   that storm-the.DAT subsided
         'We waited for the storm to subside'

(6)   a.   <u>*Eg*</u>   *verði   ikki   kaldur*   (Faroese)
         I.NOM will.be not   cold
         'I will not be cold'

     b.   <u>*Mér*</u>   *verður ekki   kalt*   (Icelandic)
         I.DAT   will.be not   cold
         'I will not be cold'

Dative loss has been quite systematic in the history of Faroese as shown by the overview in (1). Moreover, there are very strong similarities here between Faroese and the Norwegian and Swedish dialects that have retained morphological dative case. For example, indirect objects have resisted dative loss more than direct objects in these dialects (Reinhammar 1973: 242–243) and objects of prepositions have proven even more resilient in that some dialects only have dative case with prepositions (Reinhammar 1973: 71). These dialects have also preserved dative experiencer subjects (or subject-like DPs) but datives with theme/patient subjects have completely disappeared. I conclude this from examples of the relevant verbs in Reinhammar (1973) even if this point is not explicitly made in that work.

    I assume that dative loss in Faroese and the Scandinavian dative dialects is the result of imperfect learning during the critical period of language acquisition. The role of language acquisition in dative loss is fairly obvious where morphological evidence for dative case is weak as in the Scandinavian dative dialects. In these dialects, special dative forms are mostly confined to nouns with the definite suffix and some pronouns (Reinhammar 1973: 28–70). The role of imperfect learning is less obvious in Faroese where dative case is very well preserved morphologically, not only in nouns and pronouns, but also in adjectives, numerals and determiners (see Lockwood 1977 and Thráinsson et al. 2004).[5]

    I take it that direct influence from Danish is not a factor here, but the bilingual situation in the Faroes in past centuries may have made it more difficult for Faroese children to acquire certain aspects of the grammar, including dative case. Indirect influence from Danish may also explain why Faroese has generally been more innovative than Icelandic in its syntax and inflectional morphology (see Thráinsson et al. 2004: 407–444 for an overview of syntactic and morphological changes in Faroese; see also Petersen 2006 for a recent discussion of Danish influence in Faroese).[6]

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5. Genitive case, by contrast, is more or less lost in Modern Faroese (see Thráinsson et al. 2004: 433–434 and references cited there).

6. It seems that external factors do not play much of a role in case loss across languages. Thus, Boas (this volume) claims that dative loss in Texas German is mostly due to internal

If language acquisition is crucially involved in dative loss, datives should be more resistant to diachronic change, the more learnable they are. The overview in (3) suggests that this view is well-founded. It is clear e.g., that the best preserved datives in Faroese, datives with prepositions and dative indirect objects, are more learnable than other datives. The first class because most prepositions have a very high token frequency and the second class because there is a general rule linking dative case to indirect objects in Insular Scandinavian.[7] Dative with direct objects is less learnable than dative with indirect objects because it is less predictable. However, as will be discussed in Section 4.2 below, not all monotransitive DAT-verbs in Faroese are equal in this respect. Lexical semantics play a role as some verb classes are more vulnerable to dative loss than others, i.e., verbs with patient objects. The role of lexical semantics can also be seen in the diachrony of dative subjects in Faroese, as dative is still preserved with experiencer subjects but not theme/patient subjects (see Eythórsson & Jónsson 2003).

To successfully account for the diachronic development of monotransitive DAT-verbs in Faroese, the imperfect learning approach requires that children have some universal expectations of how likely a particular semantic class of verbs is to take dative objects. For instance, learning that the Icelandic verb *hjálpa* 'help' takes a dative object should be easier than learning that *kasta* 'throw' takes a dative object because *hjálpa* is a prototypical DAT-verb but kasta is *not*. (The object of *hjálpa* takes some part in the helping event along with the subject whereas the object of *kasta* is controlled by the subject participant.) I do not know if this prediction has been tested in child language research but it would certainly be interesting to do so.

3. Dative objects in Icelandic

Two-place DAT-verbs in Icelandic are the topic of this section. Since there is little to say about the diachronic development of dative objects in Icelandic, I will focus on those aspects of DAT-verbs in Modern Icelandic that are most relevant for a proper understanding of dative loss in Faroese.

Modern Icelandic has a very high number of DAT-verbs, or almost 800 according to Maling (2002), including 250–300 ditransitive verbs. Moreover, DAT-verbs have been

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factors; see also Barðdal (this volume) for a usage-based constructional approach to the loss of case morphology in the Germanic languages.

7. See Jónsson (2000) for a discussion of this in Modern Icelandic. In present-day Faroese, there are only three verbs that have accusative indirect objects, *biðja* 'ask', *læra* 'teach' and *spyrja* 'ask' (Thráinsson et al. 2004: 263).

very stable diachronically. This can be seen by comparing Maling's (2002) discussion of DAT-verbs in Modern Icelandic and Nygaard's (1906) discussion of the same class in Old Icelandic.[8] Only a handful of verbs have shifted from accusative to dative object or the other way around, e.g., *hegna* 'punish' where dative has replaced accusative and *skora á hólm* 'challenge to a duel' where accusative has replaced dative.[9] This is shown below where Old Icelandic (7) is contrasted with Modern Icelandic (8).

(7) a. *Jafnt   hegndi   hann   <u>ríka</u>   og   <u>óríka</u>*   (Heimskringla, 320)
    equally   punished he   rich.ACC   and   poor.ACC
    'He punished rich and poor alike'

  b. *Munt   þú   þá   skora   <u>mér</u>   á   hólm*   (Brennu-Njáls saga, 192)
    will   you   then challenge me.DAT   to   duel
    'You will then challenge me to a duel'

(8) a. *Hann   hegndi   <u>þeim</u>   sem   brutu   reglurnar*
    he   punished those.DAT   who   broke   rules-the
    'He punished those who broke the rules'

  b. *Enginn   vill   skora   <u>mig</u>   á   hólm*
    noone   wants   challenge me.ACC to   duel
    'Noone wants to challenge me to a duel'

The high number of monotransitive DAT-verbs in Icelandic strongly suggests that dative with direct objects cannot be purely idiosyncratic. If dative objects had to be learned on a verb-to-verb basis, a child learning the language would face a daunting task. In fact, the results by Sigurðardóttir (2002) suggest that dative objects are acquired before dative subjects and only slightly later than accusative objects. Dative is also used productively with new verbs in Icelandic (Barðdal 2001: 137–139, 269) and it is currently spreading at the expense of accusative with some verbs of motion, e.g., *kaffæra* 'duck', *keyra* 'drive' and *skalla* 'head (a ball)' (Barðdal 1993).

On the other hand, it is very difficult to formulate rules that specify precisely which verbs take dative direct objects in Icelandic. Thus, although monotransitive DAT-verbs can be divided into reasonably coherent semantic classes (see 3.1 below), many of these classes also contain verbs with accusative objects (Maling 2002).

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8. By contrast, verbs with genitive objects have been less stable in the history of Icelandic (see Jónsson & Eythórsson 2007).

9. Strictly speaking, the original case is not known since both these verbs displayed variation between accusative and dative object in Old Icelandic. It is only clear that dative was lost with *skora á hólm* and accusative disappeared with *hegna*.

3.1   Semantic classes

DAT-verbs in Icelandic fall into various semantic classes (Maling 2002) and this is shown in (9)–(11) below. These lists are far from exhaustive but they are intended to be fairly representative of what kinds of verbs take dative objects in Icelandic. As a caveat, it should be noted that the boundaries between some of these classes are unclear, e.g., (10a) and (10b), and some of the distinctions shown here may be irrelevant for dative case selection in Icelandic.

(9)   Stative verbs

a. Psych-verbs:
kvíða 'dread', *treysta* 'trust', *trúa* 'believe', *unna* 'love', *vantreysta* 'distrust', *vorkenna* 'feel sorry for'

b. Verbs of comparison or connection:
líkjast 'be similar to', *nema* 'amount to', *samgleðjast* 'be happy for', *samrýmast* 'be consistent with', *tengjast* 'be connected to', *tilheyra* 'belong to'

(10)   Atelic (non-stative) verbs

a. Verbs of helping or harming:
bjarga 'save', *bjóða* 'invite', *eira* 'spare', *forða* 'get out of danger, prevent', *fylgja* 'follow, accompany', *hegna* 'punish', *hjálpa* 'help', *hjúkra* 'nurse', *hlífa* 'spare', *hlýða* 'obey', *klappa* 'stroke', *klóra* 'scratch', *leiðbeina* 'instruct', *liðsinna* 'assist', *misþyrma* 'torture', *óhlýðnast* 'disobey', *skemmta* 'entertain', *þjóna* 'serve', *þyrma* 'spare'

b. Verbs of attitude or interaction:
andmæla 'protest', *álasa* 'blame', *bölva* 'curse', *fagna* 'welcome', *hafna* 'reject', *hallmæla* 'speak badly of', *hampa* 'dandle', *heilsa* 'welcome, greet', *hrósa* 'praise', *hæla* 'praise', *kenna um* 'blame for', *mótmæla* 'protest', *úthýsa* 'refuse to give shelter to' *þakka* 'thank'

c. Verbs of grooming (if the object is animate):
greiða 'comb', *þurrka* 'dry', *þvo* 'wash'

d. Verbs of dominance or organizing:
beina 'direct', *haga* 'arrange', *raða* 'arrange, line up', *stilla* 'keep within limits', *stjórna* 'run, govern', *stýra* 'steer, direct'

e. Verbs of transportation:
aka 'drive', *bakka* 'back', *fljúga* 'fly', *ríða* 'ride', *róa* 'row', *sigla* 'sail'

f. Verbs of ballistic motion:
fleygja 'throw', *grýta* 'fling', *henda* 'throw', *kasta* 'throw', *skjóta* 'shoot', *sparka* 'kick', *varpa* 'throw', *þeyta* 'fling'

g. Other verbs of motion:
blaka 'flap, tip', *dingla* 'dangle, wag', *dýfa* 'dip', *dæla* 'pump', *feykja* 'blow away', *fleyta* 'float', *hella* 'pour', *hrinda* 'push', *lyfta* 'raise', *mjaka* 'move slightly', *pumpa* 'pump', *rugga* 'rock', *skella* 'slam', *skvetta* 'splash', *smeygja* 'slip', *snúa* 'turn', *sveifla* 'swing', *velta* 'roll', *ýta* 'push', *þrýsta* 'push, squeeze'

h. Verbs of emission:

blása 'blow', *gjósa* 'erupt, spew', *gubba* 'vomit', *leka* 'leak', *míga* 'pee', *pissa* 'pee', *rigna* 'rain', *skíta* 'shit', *snjóa* 'snow', *æla* 'puke'

(11) Telic verbs

a. Change-of-state verbs:

breyta 'change', *bylta* 'revolutionize', *fjölga* 'add', *fækka* 'reduce in number', *glata* 'lose', *hvolfa* 'capsize', *hætta* 'stop', *kollvarpa* 'turn upside down', *linna* 'stop', *ljúka* 'finish', *loka* 'close', *læsa* 'lock', *slíta* 'put an end to', *spilla* 'spoil', *splundra* 'shatter', *sundra* 'split, divide', *sökkva* 'sink', *tapa* 'lose', *tvístra* 'take apart, shatter', *týna* 'lose', *umturna* 'turn upside down'

b. Verbs of killing:

bana 'slay', *eyða* 'spend, destroy', *farga* 'kill, destroy', *fórna* 'sacrifice', *granda* 'destroy, kill', *kála* 'kill', *lóga* 'slaughter', *slátra* 'slaughter', *tortíma* 'annihilate', *útrýma* 'exterminate'

c. Verbs of connection:

giftast 'marry', *kvænast* 'marry (a woman)', *sameinast* 'unite with', *samgleðjast* 'rejoice with', *trúlofast* 'become engaged to'

These lists indicate that most two-place DAT-verbs in Icelandic are atelic, i.e., they denote actions that do not have a natural endpoint.[10] The atelic DAT-verbs include verbs of helping or harming (10a), verbs of attitude or interaction (10b) and various verbs of motion (10e–g). Among the verbs listed in (10a) and (10b) there are many that belong to the class of prototypical DAT-verbs. Very few stative verbs take dative objects (9) and the number of telic DAT-verbs is also rather low (11) compared to the number of ACC-verbs in that class (see 3.3 below on change-of-state verbs).

In the following two subsections we will briefly discuss two classes of DAT-verbs in Icelandic that are particularly relevant for the discussion of dative loss in Faroese in Section 4: motion verbs (3.2) and change-of-state verbs (3.3).

3.2 Motion verbs

Although some of the basic motion verbs take accusative objects, e.g., *færa* 'move', *flytja* 'move', and *hreyfa* 'move', most transitive motion verbs in Icelandic select dative objects. In fact, within some subclasses of motion verbs, such as verbs of ballistic motion, only dative is possible. Verbs of emission, which are semantically quite close to motion verbs, are also interesting in that they only occur with dative objects in Icelandic (Maling 2002):

(12) a. *Nautið*   *meig*   *þá*   <u>*öllu*</u>   <u>*vatninu*</u>
     bull-the   urinated   then   all.DAT   water-the.DAT
     'Then the bull urinated all the water'

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10. This can also be seen by inspecting the extensive list of dative verbs in Maling (2000).

b. *Eldfjallið   gaus   mikilli   ösku*
volcano-the spewed   much.DAT   ash.DAT
'The volcano spewed a lot of ashes'

Since emission verbs are rarely used as transitives, it would be difficult for children to acquire the dative with these verbs on an item-by-item basis. The dative here is arguably acquired as part of a more general rule about dative case. For Svenonius (2002), that rule concerns the event structure of the predicates in question: Dative is used whenever the verb denotes two subevents that do not overlap temporally. This is clearly illustrated with verbs that alternate between accusative and dative objects, where accusative is used for physically affected objects but dative for objects undergoing motion (Barðdal 1993). One such verb is *sópa* 'sweep':

(13) a. *Jón   sópaði   gólfið*
John   swept   floor-the.ACC
'John swept the floor'

b. *Jón   sópaði   snjónum   burt*
John   swept   snow-the.DAT   away
'John swept the snow away'

The dative in (13b) signals that the subevent associated with the agent need not last for the duration of the movement subevent as the action of the agent does not completely determine the outcome of the second subevent. By contrast, the accusative is used when the two subevents are temporally indistinguishable, as in (13a). In other words, the action of the agent in (13a) cannot be teased apart from the effects on the object.

Svenonius' (2002) claim is correct in that all transitive verbs that clearly involve two temporally distinct subevents take dative objects in Icelandic. However, this is only a one-way correlation, since verbs denoting an event that cannot be broken into subevents may select dative objects in Icelandic. This is clearly seen with verbs of accompanied motion that take dative objects, e.g., *ýta* 'push' and *lyfta* 'raise'. It is also worth noting that despite the validity of Svenonius' (2002) claim for Icelandic, motion verbs have been the prime targets of dative loss in Faroese along with change-of-state verbs (see 4.2. below). Thus, it appears that cross-linguistic forces concerning a dative prototype have been stronger than language-specific rules in the diachronic development of dative objects in Faroese.

3.3   Change-of-state verbs

The DAT-verbs listed in (11a) are only a small subclass of transitive change-of-state verbs in Icelandic; by inspecting the extensive lists of change-of-state verbs in Jóhannsdóttir (1996) it can easily be verified that most verbs in this class take accusative objects. Moreover, the DAT-verbs are systematically restricted in ways which the

ACC-verbs are not.[11] First, none of these DAT-verbs are related to adjectives whereas many of the ACC-verbs are adjective-related:

(14)　　　Verb　　　　　　　Related adjective

　　　a.　*bleyta*　'wet'　　　*blautur*　'wet'
　　　b.　*deyfa*　'numb'　　　*daufur*　'numb'
　　　c.　*fylla*　'fill'　　　　*fullur*　'full'
　　　d　*herða*　'harden'　　*harður*　'tough'
　　　e.　*lengja*　'lenghten'　*langur*　'long'
　　　f.　*þynna*　'dilute'　　　*þunnur*　'thin'

Second, many of the ACC-verbs are of variable telicity as they denote an event that may but need not have a designated endpoint.[12] One of these verbs is *dýpka* 'deepen':

(15)　a.　*Jón　dýpkaði　holuna　í　40　mínútur*　　　　　　　(atelic)
　　　　　John　deepened　hole-the　for　40　minutes
　　　　　'John deepened the hole for 40 minutes'

　　　b.　*Jón　dýpkaði　holuna　á　40　mínútur*　　　　　　　(telic)
　　　　　John　deepened　hole-the　in　40　minutes
　　　　　'John deepened the hole in 40 minutes'

The accusative object of *dýpka* "measures out" the progress of the event, i.e., the bigger the hole is, the further the event of deepening the hole has progressed. However, since there is no designated endpoint for such an event, it is not very natural to use *dýpka* with temporal phrases like *á 40 mínútum* 'in 40 minutes' that force a telic reading. Therefore, (15b) sounds strange unless a measure phrase like *um tvo metra* 'two meters' is added or the sentence is uttered in a context where there is some prespecified depth for the hole.

　　The examples in (15) show that *dýpka* is basically an atelic verb that may receive a telic interpretation in certain contexts. I am not aware of any DAT-verb that is like *dýpka* in this respect. For instance, most of the DAT-verbs listed in (11a) are strictly telic; the ones that may be atelic can also be telic without any special context, thereby contrasting with (15b).

4.　Dative objects in Faroese

The number of two-place DAT-verbs is much lower in Modern Faroese than in Modern Icelandic. *Føroysk orðabók* (1998) (henceforth, FO) lists almost 200 monotransitive

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11.　As far as I know, this is a novel observation.

12.　These are the "degree achievements" of Dowty (1979). For further discussion of such verbs, see Hay, Kennedy and Levin (1999).

DAT-verbs but only about half of them are still part of everyday language. Many of these verbs have either become obsolete or restricted to very formal registers. By comparison, monotransitive DAT-verbs in active use in Icelandic are between 400 and 500 to judge by the verbs listed by Maling (2000).[13] This difference between Icelandic and Farose is a clear indication that many of the original DAT-verbs have shifted to accusative case in Faroese (see further in 4.2 below).

4.1   Monotransitive DAT-verbs

The following lists give an overview of monotransitive DAT-verbs that are still in regular use in contemporary Faroese.[14] Since these lists are mostly based on a search through the electronic version of FO, I cannot be sure that they are exhaustive. Verbs that are shown with accusative as well as dative in FO are marked (ACC/DAT) and verbs whose Icelandic cognates select accusative objects are underlined.[15] The classification here is slightly simplified compared to the Icelandic lists in (9)–(11).

(16)   Stative verbs

hoyra til 'belong to', *líkjast* 'be similar to', *líta (væl) til* 'think (highly) of', *mistrúgva* 'suspect, not respect', *rúma* 'hold, have capacity for', *standa nær* 'belong to', *tekkjast* 'please' (ACC/DAT), *trúgva* 'believe, trust', *viðvíkja* 'concern'

(17)   Atelic (non-stative) verbs

a. Verbs of helping or harming:
ambæta 'take care of (animals)', *ansa* 'take care of', *basa* 'beat, prevent', *bjarga* 'save', *bjóða* 'invite', *eftirlíka* 'give in to', *eira* 'spare', *forða* 'get out of danger, prevent', *forfylgja* 'persecute', *fylgja* 'follow', *fyribyrgja* 'prevent', *gnígga* 'rub', *hindra* 'obstruct', *hjálpa* 'help', *hyggja at/eftir* 'check, take care of', *hýsa* 'house, give shelter to', *kína* 'caress', *klappa* 'stroke', *kláa* 'scratch', *klóra* 'scratch', *leiðbeina* 'instruct' (ACC/DAT), *líva* 'spare, shield', *lívbjarga* 'provide for', *níta* 'cause pain', *rugga* 'rock (a child)', *siga til* 'guide', *skeinkja* 'pour a drink', *skemta* 'entertain', *skriða* 'scratch, protect', *steðga* 'stop', *strúka* 'caress, touch', *studda* 'support', *stuðla* 'support' (ACC/DAT), *stuttleika* 'entertain', *tarna* 'delay, stop' (ACC/DAT), *tálma* 'obstruct', *tæna* 'serve', *undirvísa* 'teach', *vagga* 'rock (a child)'

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13.   Note that the numbers for Icelandic and Faroese do not include two-place DAT-verbs that require reflexive dative objects.

14.   There are some non-agentive verbs in Faroese, such as *eydnast* 'succeed', where the dative argument seems to vacillitate between subject and object. Verbs of this kind are not included here.

15.   As discussed in 4.3 below, the variation between accusative and dative objects is much more widespread than FO indicates.

b. Verbs of attitude or interaction:

avráða 'discourage', <u>*eggja*</u> 'incite' (ACC/DAT), *fagna* 'welcome', *forláta* 'forgive', *fortelja* 'tell', *havna* 'reject', *heilsa* 'welcome, greet', *mótmæla* 'protest', *mótsiga* 'contradict', *rósa* 'praise', *siga ímóti* 'protest', *svara* 'reply to', *takka* 'thank', *útihýsa* 'refuse to give shelter to, exclude', *øna* 'reply to'

c. Verbs of grooming (if the object is animate):

<u>*baða*</u> 'bathe', *brúsa* 'wash', *greiða* 'comb', *kemba* 'comb', <u>*klippa*</u> 'cut (sby's hair)', <u>*raka*</u> 'shave', *skoyna* 'wipe (sby's ass)', <u>*sleikja*</u> 'lick, flatter', *turka* 'dry', *vaska* 'wash'

d. Motion verbs:

knógva 'carry with great difficulty' (ACC/DAT), *lyfta* 'raise' (ACC/DAT), *lætta* 'raise (slightly)' (ACC/DAT), *vika* 'move' (ACC/DAT)

e. Other verbs:

arga 'anger' (ACC/DAT), *bíða* 'wait for', <u>*boða*</u> 'summon', *boðsenda* 'send for', *halda* 'hold, keep', *herberga* 'store, preserve', <u>*mjólka*</u> 'milk', *møta* 'meet', *nærkast* 'approach', *ráða* 'control', *ríða* 'ride', *siga frá* 'tell about', *siga upp* 'fire', *stevna* 'summon, subpoena', *stjórna* 'run, control', *stýra* 'govern, control'

(18) Telic verbs

benda 'overturn', *endavenda* 'turn upside down', *forkoma* 'destroy, ruin', <u>*gloypa*</u> 'swallow', *koma* 'bring', *koppa* 'capsize', *lofta* 'catch', *náa* 'reach', *røkka* 'reach', *snúgva* 'turn', *stoyta oman* 'throw down', *venda* 'turn'

The subclasses in (17) should not be taken too literally, but the important point here is that many of the verbs listed in (17) are prototypical DAT-verbs. On the other hand, there are very few verbs whose objects display proto-patient properties, e.g., motion verbs and change-of-state verbs. In fact, all the motion verbs listed in (17d) vary between accusative and dative objects according to FO. In Section 4.2 below, we will take a closer look at motion verbs and change-of-state verbs and illustrate how much dative loss has affected these two verb classes.

Some of the Faroese DAT-verbs listed above take accusative objects in Icelandic. This is exemplified below with the verbs *gloypa*/*gleypa* 'swallow', *hýsa* 'give shelter to' and *mjólka* 'milk':[16]

(19) a. *Harrin   læt stóran fisk gloypa   <u>Jónasi</u>*   (Faroese)
        lord-the let big   fish swallow Jonas.DAT
        'The lord made a big fish swallow Jonas'

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16. Reinhammar (1973: 216–218) points out that extending dative case to the object of *mjólka* is common in the Scandinavian dative dialects, especially those that have preseved dative case with verbs of grooming. Thus, it seems like *mjólka* in these dialects, as well as in Faroese, is treated like a verb of grooming.

b. *Bygningurin hýsir fimm <u>deildum</u>*
building-the houses five   departments.DAT
'The building houses five departments'

c. *Vit eru til reiðar at mjólka <u>kúnni</u>*
we   are ready   to milk   cow-the.DAT
'We are ready to milk the cow'

(20) a. *Drottinn lét stóran fisk gleypa <u>Jónas</u>*   (Icelandic)
lord-the   let big   fish swallow Jonas.ACC
'The lord made a big fish swallow Jonas'

b. *Byggingin hýsir fimm <u>deildir</u>*
building-the houses five   departments.ACC
'The building houses five departments'

c. *Við erum tilbúnir að mjólka <u>kúna</u>*
we   are   ready   to milk   cow-the.ACC
'We are ready to milk the cow'

For some of the Faroese DAT-verbs corresponding to Icelandic ACC-verbs the directionality of change is unclear. However, evidence from Old Icelandic suggests that the dative with all the verbs exemplified above is innovative in Faroese and with the verb *eggja* 'incite'. On the other hand, Icelandic may have innovated with *raka* 'shave' and *boða* 'summon' as both of these verbs select dative objects in Old Icelandic.

Four of the DAT-verbs in Faroese corresponding to ACC-verbs in Icelandic are verbs of grooming: *baða* 'bathe', *klippa* 'cut (sby's hair)', *raka* 'shave' and *sleikja* 'lick, flatter'.[17] This is hardly a coincidence as dative seems to be productive with this verb class in Faroese. As Victoria Absalonsen (p.c.) has pointed out to me, dative is used with two new grooming verbs in Faroese, both of which concern hair styling: *trimma* 'trim' and *skinna* 'clean-shave'. I don't know of any other new verbs in Faroese with dative direct objects but the existence of these two verbs is still important because it supports my claim that the diachronic development of dative objects is sensitive to lexical semantics.

Note that verbs of grooming are not prototypical DAT-verbs as defined by Blume (1998) since the object participant is not active independent of the actions of the subject participant. However, the object participant is sentient and typically understood as a beneficiary of the event denoted by the verb. In this respect, the object participant has some independence from the subject participant even if it is inactive. Hence, one could argue that verbs of grooming are at least semantically close to prototypical DAT-verbs.

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17. To this list we might also add *skoyna* 'wipe (sby's ass)', because its Icelandic cognate *skeina* 'wipe (sby's ass)' varies between accusative and dative object in Modern Icelandic.

4.2   Dative loss with motion verbs and change-of-state verbs

I am aware of eight motion verbs that are attested with dative objects in the ballads but have shifted to accusative case now: *bregða* 'move quickly, draw', *droypa* 'bow', *kasta* 'throw', *leggja* 'place, park', *rinda* 'push', *skjóta* 'shoot', *stíga* 'step' and *varpa* 'throw'. We have already seen this exemplified with *kasta* in (1). Two additional examples, with *droypa* and *leggja*, are provided in (21):

(21)   a.   *Allir   droyptu <u>hövdi</u>   niður, / eingin tordi   tala*   (Hamm. I., 139)
            everyone bowed   head.DAT down   noone dared speak
            'Everyone was downcast and did not dare to speak'

     b.   *Atli legði   <u>skipum   sínum</u> / eystur millum fjarða*   (Hamm. I., 66)
            Atli placed   ships.DAT self.DAT east   between fjords
            'Atli berthed his ships east between the fjords'

The verb *droypa* is very rare in present-day Faroese but in so far as it is used, the object must be accusative (22a). There is also a slight complication with *leggja* which no longer has exactly the same meaning as in (21b). Still, the meaning of (22b) is close enough to (21b) so that the shift from dative to accusative could not be attributed to changes in lexical semantics.[18]

(22)   a.   *Allir   droyptu   <u>hövdið</u>*
            everyone bowed   head-the.ACC
            'Everyone was downcast'

     b.   *Atli legði   <u>skip   síni</u>*
            Atli put.away ships.ACC self.ACC
            'Atli retired his ships'

There are many transitive motion verbs that seem to have lost dative case to judge by comparative evidence from Old Icelandic (see also Thráinsson et al. 2004: 430). These verbs include: *kippa* 'pull, jerk', *loypa* (*hleypa*) 'let go', *oysa* (*ausa*) 'scoop, ladle', *rógva* (*róa*) 'row', *ryðja burtur/burt* 'clear away', *sigla* 'sail', *sláa* (*slá*) 'hit', *sleingja* (*slengja*) 'sling, throw', *sópa* 'sweep', *stinga* 'stick, slip' and *verpa* 'lay (eggs)'.[19] This is exemplified below with the verbs *kippa* and *sigla* where Old and Modern Icelandic are contrasted with Modern Faroese.

(23)   a.   *Hann snarast við   og kippti í brott <u>spjótinu</u>*   (Gull-Þóris saga, 1140)
            he   reacts quickly and pulled away spear-the.DAT
            'He reacted quickly and removed the spear'

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18.   Moreover, the Icelandic cognate *leggja* selects a dative object in both uses.

19.   The Icelandic cognates of these Faroese verbs are shown in brackets in cases where the infinitive form in these two languages differs.

b. *Faðirinn   kippti   <u>drengnum</u>   til   sín*   (Modern Icelandic)
    father-the pulled   boy-the.DAT   towards self
    'The father pulled the boy towards him'

c. *Faðirin   kipti   <u>drongin</u>   til   sín*   (Modern Faroese)
    father-the pulled   boy-the.ACC   towards himself
    'The father pulled the boy towards him'

(24) a. *Sigldi   Kolbeinn <u>þessu</u>   <u>skipi</u>   til   Noregs* (Brennu-Njáls saga, 345)
         sailed   Kolbeinn this.DAT   ship.DAT   to   Norway
         'Kolbeinn sailed this ship to Norway'

     b. *Þeir   sigla   <u>bátnum</u>   upp   á   land*   (Modern Icelandic)
         they   sail   boat-the.DAT   up   to   shore
         'They sail the boat up to the shore'

     c. *Teir   sigla   <u>bátin</u>   upp   á   land*   (Modern Faroese)
         they   sail   boat-the.ACC   up   to   shore
         'They sail the boat up to the shore'

As for change-of-state verbs, there seem to be very few examples of such verbs with dative objects in the ballads. Still, the verbs *søkkja* (*sökkva*) 'sink', *læsa* 'lock' and *týna* 'lose, kill' are attested:

(25) a. *Hann   sökkir   <u>oss</u>   <u>öllum</u>   niður*   (Hamm. I., 76)
         he   sinks   us.DAT   all. DAT   down
         'He will sink us all'

     b. *það   kann   <u>öllum</u>   <u>lásum</u>   læsa*   (Hamm. II., 258)
         it   can   all.DAT   locks.DAT   lock
         'It can lock all locks'

     c. *skuldi   eg   týnt   <u>tær</u>   av   lívi*   (Hamm. I., 71)
         should   I   deprived you.DAT   of   life
         'I would have killed you'

In Modern Faroese, the dative has been replaced by accusative with all these verbs. This is shown in (26):

(26) a. *Tað   er   vanligt   at   søkkja   <u>gomul</u>   <u>skip</u>*
         it   is   usual   to   sink   old.ACC   ships.ACC
         'It is usual to sink old ships'

     b. *Tit   skulu   læsa   <u>dyrnar</u>*
         you   should lock   door-the.ACC
         'You should lock the door'

     c. *Tørvur   kann   verða   á   at   týna   <u>skaðadjór</u>*
         need   can   become   on to   kill   vermins.ACC
         'It may become necessary to kill vermins'

Comparative evidence from Old Icelandic suggests that the following change-of-state verbs in Faroese have lost an older dative: *broyta* (*breyta*) 'change', *hvølva* (*hvolfa*) 'capsize', *lúka* (*ljúka*) 'finish', *spilla* 'spoil' and *tapa* 'lose'. All these verbs take accusative objects in Modern Faroese. This is shown below with the verbs *broyta* and *spilla*:

(27) a. *svo breyta <u>öllu</u>   sem þú segir fyrir*   (Grettis saga, 1093)
         then change everything.DAT as   you dictate
         'then change everything as you dictate'

      b. *Unga fólkið   reyndi að breyta <u>gömlum</u> <u>sið</u>*   (Modern Icelandic)
         young people-the tried   to change old.DAT custom.DAT
         'Young people tried to change an old custom'

      c. *Ungdómurin   royndi at broyta <u>gamlan</u> <u>sið</u>* (Modern Faroese)
         young.people-the tried   to change old.ACC custom.ACC
         'Young people tried to change an old custom'

(28) a. *Aldrei skal hún spilla <u>okkru</u>   <u>vinfengi</u>* (Brennu-Njáls saga, 161)
         never   shall she spoil our.DAT friendship.DAT
         'She shall never spoil our friendship'

      b. *Sumir halda að tökuorð spilli   <u>málinu</u>*   (Modern Icelandic)
         some   think that loanwords corrupt the.language.DAT
         'Some people think that loanwords corrupt the language'

      c. *Teir halda, at tøkuorðini spilla   <u>málið</u>*   (Modern Faroese)
         they think   that loanwords-the corrupt language-the.ACC
         'They think that the loanwords corrupt the language'

It is clear from Reinhammar's (1973) discussion of motion verbs and change-of-state verbs that these verb classes have also suffered heavy losses in the Scandinavian dative dialects. The reason is presumably the same as in Faroese: the objects of these verbs are patients and quite different from the more active objects of prototypical DAT-verbs.

4.3   Variation between dative and accusative in Modern Faroese

Dative loss is not just a fact about the history of Faroese; it is an ongoing process that is quite evident in present-day Faroese. This can be seen in the widespread variation between between accusative and dative objects with many two-place verbs that took only dative objects in older Faroese, especially verbs that are not proto-typical DAT-verbs. For instance, the four native speakers I consulted accept the following examples where innovative accusative case is used with *náa* 'reach', *útihýsa* 'exclude' and *gloypa* 'swallow':

(29) a. *Vilt   tú   náa   <u>toppin</u>?*
         want   you reach top-the.ACC
         'Do you want to reach the top?'

  b. *Menningin útihýsir ikki <u>fortíðina</u>*
    progress-the excludes not   past-the.ACC
    'Progress does not exclude the past'

  c. *So gloypa tit <u>tað</u> sum absoluttan sannleika*
    then swallow you it.ACC as   absolute   truth
    'Then you (PL.) swallow it as an absolute truth'

All the examples above were found on the web. With all these verbs, the original dative is more common than accusative:

(30) a. *Vilt tú náa <u>toppinum</u>?*
     want you reach top-the.DAT
     'Do you want to reach the top?'

  b. *Menningin útihýsir ikki <u>fortíðini</u>*
    progress-the excludes not   past-the.DAT
    'Progress does not exclude the past'

  c. *So gloypa tit <u>tí</u> sum absoluttan sannleika*
    then swallow you it.DAT as   absolute   truth
    'Then you (PL.) swallow it as an absolute truth'

I have also found on-line examples of innovative accusative case with the verbs *mótmæla* 'protest', *møta* 'meet' and *stýra* 'direct', e.g., the examples in (31) below. As with the verbs shown above, dative is more common than accusative (32).

(31) a. *Onnur 7 hava mótmælt <u>framferðarháttin</u> hjá kommununi*
     other   7   have protested policies-the.ACC by   the.county
     'Seven others have protested against the policies of the county'

  b. *Tá møtti eg <u>ongan</u>   <u>annan</u>   enn Drew Barrymore*
    then met I noone.ACC other.ACC than Drew Barrymore
    'Then I met no other than Drew Barrymore'

  c. *Trýstið   liggur á teimum at stýra <u>liðið</u>   á*
    pressure-the lies   on them   to lead team-the.ACC to

    sigursgøtuna
    victory-the

    'The pressure is on them to get the team winning'

(32) a. *Onnur 7 hava mótmælt <u>framferðarháttinum</u> hjá kommununi*
     other   7   have protested policies-the.DAT   by   the.county
     'Seven others have protested against the policies of the county'

  b. *Tá møtti eg <u>ongum</u>   <u>øðrum</u>   enn Drew Barrymore*
    then met I noone. DAT other. DAT than Drew Barrymore
    'Then I met no other than Drew Barrymore'

c. *Trýstið   liggur á   teimum at stýra liðinum   á*
   pressure-the lies on them   to lead team-the.DAT to

   sigursgøtuna
   the.victory

   'The pressure is on them to get the team winning'

Opinions are divided among my four informants on the use of accusative here: (31a) and (31c) are accepted by three of them but (31b) is accepted by only one. Thus, it seems that the verb *møta* 'meet' preserves dative better than the other verbs exemplified in (29)–(32). This is not surprising since *møta* is presumably the only prototypical DAT-verb here as the event described by this verb involves independent action by the object. As discussed by Blume (1998: 267), in the context of the German verb *begegnen* 'meet', a meeting event can be viewed as the crossing of the paths of two independently moving objects. By contrast, little or no independent object activity is entailed by the other verbs in (29)–(32).

4.4   Double objects

As discussed in Section 2.2, indirect objects are a stronghold for dative case in Faroese. This is shown by two facts: (i) the number of ditransitive verbs with dative indirect objects in Faroese is approximately 250, which is about the same number as in Icelandic, (ii) dative with indirect objects is never replaced by accusative in Faroese, even if double accusative objects are possible. However, it appears that dative indirect objects are giving way to PPs as Faroese may be moving from the double DP construction to the DP-PP construction. This is shown by the results of a recent survey of 243 speakers in six different localities in the Faroe Islands.[20] In this survey, two ditransitive verbs were tested: *selja* 'sell' and *geva* 'give'. The test sentences are given in (33) and (34). The percentages in brackets show how many of the participants accepted these test sentences.

(33) a. *Hann   seldi   konuni   bilin* (81,0%)
        he   sold   woman-the.DAT car-the.ACC
        'He sold the woman the car'

     b. *Hann seldi húsini   til Jógvan* (93,0%)
        he   sold   house(s)-the.ACC   to   Jógvan
        'He sold the house(s) to Jógvan'

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20.   This was a general survey of syntactic variation in Faroese, carried out by Victoria Absalonsen and Helena á Løgmansbø with assistance from the linguists at Fróðskaparsetur Føroya. This survey is part of a research project on Faroese that I have worked on in collaboration with Höskuldur Thráinsson (principal investigator) and Thórhallur Eythórsson.

(34) a. *Hon   gav   <u>Turið</u>   bókina* (97,1%)
      she   gave Turið.DAT book-the.ACC
      'She gave Turið the book'

   b. *Hon   gav   troyggjuna   <u>til</u>   <u>Mariu</u>* (54%)
      she   gave shirt-the.ACC   to   Mary
      'She gave the shirt to Mary'

These results show that the DP-PP construction is widely accepted with *selja* (33b) but less so with *geva* (34b), a contrast already noted by Thráinsson et al. (2004: 264). It is not clear why these two verbs differ, but it may have to do with the fact that *geva* is more common than *selja*. It is also important to note that the DP-PP construction is highly restricted in Icelandic, where examples like (33b) and (34b) are impossible:

(35) a. *Hann   seldi   <u>konunni</u>   bílinn*
      he   sold   woman-the.DAT   car-the.ACC
      'He sold the woman the car'

   b. **Hann   seldi   húsið   <u>til</u>   <u>Jóhanns</u>*
      he   sold   house-the.ACC   to   Jóhann
      'He sold the house to Jóhann'

(36) a. *Hún   gaf   <u>Þuríði</u>   bókina*
      she   gave Þuríður.DAT book-the.ACC
      'She gave Þuríður the book'

   b. **Hún   gaf   skyrtuna   <u>til</u>   <u>Maríu</u>*
      she   gave shirt-the.ACC   to   Mary
      'She gave the shirt to Mary'

In view of this contrast between the two languages, it is tempting to relate the emergence of the DP-PP construction in Faroese to the general loss of dative case. In fact, this is not the only example of PPs replacing dative DPs in Faroese; this can also be seen with objects of adjectives (cf. the discussion below (3) in Section 2) and also a handful of verbs, e.g., *giftast* 'marry', which used to take a dative object but is now more often found with the preposition *við* 'with'.

5.   Concluding remarks

In this paper, verbs with dative objects in Insular Scandinavian have been discussed, with special emphasis on the loss of dative objects with two-place verbs in Faroese. There is much less to say about Icelandic which has been very stable with respect to dative objects. The main points of the paper are summarized in (I)–(IV) below:

   I. Dative case has been eroding syntactically for many centuries in Faroese and has affected all kinds of datives, except dative indirect objects and datives with prepositions.

This can be illustrated with data from the Faroese ballads as well as comparative evidence from Old Icelandic.

II. Dative loss in Faroese has been quite systematic and strikingly similar to dative loss in the Norwegian and Swedish dative dialects. Thus, verbs whose objects display proto-patient properties, i.e., motion verbs and change-of-state verbs, have been the prime targets of dative loss with monotransitive DAT-verbs in Faroese.

III. Dative objects of two-place verbs continue to give way to accusative objects in contemporary Faroese and prototypical DAT-verbs seem to be more resistant to this change than other verbs. Moreover, the double DP construction appears to be giving way to the DP-PP construction, thereby weakening the status of dative indirect objects.

IV. Despite the general loss of datives in Faroese, there are sporadic examples where dative objects have replaced accusative objects in Faroese and dative objects may still be productive with verbs of grooming.

Needless to say, many issues concerning the diachrony of dative objects in Insular Scandinavian need to be explored further, empirically as well as a theoretically. I intend to tackle some of these issues in future work.

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Transitive adjectives in Japanese*

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This article is a descriptive study of the alternation between the NOM-ACC and the NOM-NOM sentence pattern with a class of adjectives in Japanese. The analysis of data collected online and through two surveys has revealed that (a) the alternation does not seem to be triggered by a single factor, but by a host of syntactic, lexical and pragmatic factors, and (b) the main consequence of the alternation is the restructuring of the paradigm consisting of the adjective, the morphologically related active verb form and the corresponding passive form, with the adjective coming to replace the active verb form.

1. Introduction

Adjectives are normally associated with one argument, unlike verbs, which frequently have two or even three core arguments. The adjectives requiring two arguments are far less common, and those that exist are normally associated with non-canonical sentence patterns, that is, the two arguments are not marked with nominative and accusative case like the two arguments of a transitive verb. Japanese has a relatively large number of adjectives that take two core arguments. These adjectives are associated with the two non-canonical sentence patterns in (1).

(1) a. NP1-*ga* NP2-*ga* ADJ
     b. NP1-*ni* NP2-*ga* ADJ

In structure (1a) the two arguments are marked with -*ga*, the nominative particle, while in (1b) the first argument bears the dative particle -*ni*.[1] The two patterns are

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1. The -*ga* marking almost never appears on the first argument, being normally replaced with the topic marker -*wa*. The particle -*ga* surfaces only in questions and in embedded structures. The tendency to use the topic marker on the subject is a general feature of Japanese,

referred to in the literature as the double nominative pattern and the dative subject pattern, respectively. I will henceforth use this terminology to refer to the structures in (1) for ease of reference, with no commitment to a particular syntactic analysis. Most of the two argument adjectives in Japanese alternate between the two sentence patterns in (1).

A small number of the two argument adjectives, such as *suki(da)* 'like' *kirai(da)* 'dislike' *hoshii* 'want' *nikui* 'hateful,' can mark the second argument with the accusative particle *-wo*, thus appearing in sentences of the form canonically associated with the transitive verbs in the language.[2] Irrespective of the sentence pattern encoding them, the adjectives *suki(da)* 'like' *kirai(da)* 'dislike' and *hoshii* 'want' are semantically close to verbs, a fact reflected in the translations used throughout this paper. The NOM-ACC sentence pattern is not the preferred encoding option for the adjectives; the alternative recommended by prescriptive grammar is the double nominative pattern.

(2)   a.   %*sensei-ga*   *Mari-wo*   *suki-da.*[3]
            teacher-NOM   Mari-ACC   like-COP

      b.   *sensei-ga*   *Mari-ga*   *suki-da.*
            teacher-NOM   Mari-NOM   like-COP
            'The teacher likes Mari.'

I will refer to the phenomenon by which an adjective can mark its second argument either with the nominative or with the accusative case as the NOM-NOM/NOM-ACC

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not limited to the structures analyzed in this paper. Since the focus of this paper is the second argument, I will follow convention and use the label 'double nominative pattern' although the actual form used is 'NP-*wa* NP-*ga*'.

2.   Japanese adjectives can be divided into two morpho-syntactic subclasses; *keiyooshi* and *keiyodooshi*. The first term, *keiyooshi*, is generally translated as 'adjective' and the second, *keiyodooshi*, as 'nominal adjective'. The two subclasses differ with respect to the possibility of functioning as a predicate alone, and in terms of the choice of inflection in adnominal and adverbial position. Adjectives-*keiyooshi* can form a predicate without the help of the copula, end in *-i* in adnominal position, and in *-ku* when they function as adverbials. The *keiyoodooshi* 'nominal adjective' class require the use of the copula *da* to form the predicate, ending in *-na* when they modify nouns, and in *-ni* when used as adverbs. The adjectives discussed in this article belong to both classes. The distinction is not relevant to the case alternation phenomenon and will be ignored henceforth.

3.   The following abbreviations are used: ACC=accusative; ADJ=adjective; ADNOM=adnominal marker; ADV=adverbial; COMP=complementizer; COND=conditional; COP=copula; DAT=dative; DESID=desiderative; DPRT=discourse particle; GEN=genitive; INCH=inchoative; MOD=modal auxiliary; NEG=negative; NMLZ=nominalizer; NOM=nominative; PASS=passive; POT=potential; PRS=present; PROG=progressive; Q=question particle; QUOT=quotative; TOP=topic.

alternation. Only adjectives that do not allow the dative subject pattern participate in this alternation.

The alternation is not limited to adjectives, but can be observed with other stative predicates. The class of alternating predicates includes, besides adjectives, the verbs *wakaru* 'understand' and *dekiru* 'be able to', as well as complex predicates formed through the affixation of potential suffix *-eru* or the desiderative suffix *-tai* to transitive verb roots, illustrated in example (3). The NOM-ACC variant is perfectly acceptable for these predicates. Unlike adjectives, these predicates can also appear in the dative subject sentence pattern.

(3) a. *watashi-ga* *eig-ga/wo* *hanas-eru.*
         I-NOM   English-NOM/ACC speak-POT
         'I can speak English.'

     b. *watashi-ga* *eigo-ga/o* *hanasi-tai.*
         I-NOM   English-NOM/ACC speak-DESID
         'I want to speak English.'

     c. *watashi-ga* *eigo-ga/o* *wakaru-koto*
         I-NOM   English-NOM/ACC understand-NMLZ
         'I understand English.'

There is a major difference between the alternation illustrated in (2) and the alternation presented in (3) above. The difference regards the nature of the predicates involved. Whereas all the structures in (3) contain verbal predicates at some level, there are no verbs in (2).[4]

There is a considerable amount of literature devoted to the non-canonical sentence patterns and to the alternations involving them. Most studies are concerned with giving an account of the occurrence of the non-canonical structures. The presence of the NOM-ACC pattern is an issue only in so far as it represents an alternative encoding for the predicates that accept the non-canonical sentence patterns, otherwise the transitive structure is the expected case-marking option for two argument verbs. The situation is reversed in the case of adjectival predicates where the NOM-ACC pattern is a less likely encoding option than the double nominative structure. Existing accounts of the accusative alternation deal with the issue from the viewpoint of verbal predicates. For this reason, the accounts do not apply naturally to structures involving adjectival predicates.

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4. The desiderative forms derived through *-tai* suffixation are adjectives, but the base predicate is a verb. The NOM-ACC pattern is available only when the base verb is a transitive verb.

The aim of this article is to clarify the status of the transitive sentence pattern with adjectival predicates in Japanese. The article is organized as follows. Section 2 presents a short literature review. Given the scarcity of information on the subject, investigation was carried out in two stages. Section 3 describes the pilot stage of the investigation, in which I collected online information and data regarding the use of the pattern. A search using the Google search engine was conducted for a number of two argument adjectives in order to verify the frequency of occurrence for the two alternating case patterns. The pilot stage also included a small-scale survey designed to probe speakers' perceptions and attitudes regarding the construction. The information gathered during this stage was used to construct the later questionnaires.

Section 4 reports on the results of the main survey, the Passive Survey. The Passive Survey had the goal of testing the strength of the relation between the accusative assigning adjectives and the passive form of the morphologically related verb. One beneficial side product of the survey was a corpus of spontaneously produced sentences with the adjectives in the NOM-ACC sentence pattern. A follow up survey was conducted with the aim of verifying the more intriguing results of the Passive Survey.

In general, the results of the surveys were consistent with the tendencies observed in the data retrieved through the Google search engine, indicating that the NOM-ACC sentence pattern is used with higher frequency than the marginal status attributed to it in the linguistic literature would lead one to believe. However, both the search using the Google engine and the Passive Survey indicate that the NOM-ACC pattern is not evenly spread across lexical items, but shows a bias towards specific items, and towards specific syntactic structures.

The conclusions are summarized in Section 5, namely that the spread of the NOM-ACC sentence pattern to adjectives results from the interplay of a number of distinct factors. The pilot survey suggested a possible connection between the spread of the accusative case with adjectives and the loss of the active form of the morphologically related verb where the passive form survives. The results of the survey showed that the situation is more complex. Although a correlation between the adjective and the passive form of the morphologically related verb appears to be established, this relation cannot be taken as the main factor triggering the spread of the NOM-ACC case pattern with adjectives, but rather as a piece in a complex mosaic of syntactic, semantic and pragmatic factors.

2.   Previous studies

The literature on non-canonical constructions and case alternation phenomena in Japanese is vast. In spite of the great interest generated by these topics, there is no literature devoted exclusively to the NOM-NOM/NOM-ACC alternation with adjectives. The

studies on non-canonical case marking patterns discuss the NOM-NOM/NOM-ACC alternation focusing mainly on complex predicates or verbs (see Dubinsky 1992; Kuno 1973; Kuroda 1978; Morikawa 1993; Saito 1982; Shibatani 1977, 1986, 1999; Sugioka 1986; Takezawa 1987; Ura 1999). The main challenge is to explain the rise of the non-canonical case arrays in a principled manner. I will not present any of these proposals in detail because the analysis of the double nominative structure is not directly relevant to the topic of this article, namely the alternation with the NOM-ACC pattern.

Theoretical framework aside, the studies on the NOM-NOM/NOM-ACC alternation basically agree in regarding the NOM-ACC pattern as the default case marking option for two-argument verbal predicates. The various proposals differ mainly in the analysis of the non-canonical case patterns and with regard to the mechanisms responsible for allowing the default option to surface.

As mentioned in the previous section, it is less natural to assume that the NOM-ACC case-marking pattern is inherently associated with adjectives. For these predicates the relation marked/unmarked is reversed, with the non-canonical pattern becoming the unmarked option. Whatever the analysis of the sentences with non-canonical case marking, with the exception of Sugioka (1986), existing accounts of the emergence of the NOM-ACC case array offer different explanations in the case of adjectives than in the case of verbal predicates. Sugioka (1986: 161) proposes an extension of the analysis in terms of complex predicates to adjectives arguing that *suki(da)* 'like' and *kirai(da)* 'dislike' are complex items derived through the affixation of the morpheme *-i* to the verbal roots *suk-* and *kiraw-*. The account is not convincing. Apart from the idiosyncratic nature of the morphological process, limited to this case, it cannot explain the presence of the accusative with adjectives like *hoshii* 'want' and *nikui* 'hateful', which belong to a different morphological sub-class; while *suki(da)* 'like' and *kirai(da)* 'dislike' are *keiyodooshi* 'nominal adjectives', *nikui* 'hateful' and *hoshii* 'want' are *keiyoshi* 'adjectives', see Note 3.

The issue of accusative assigning adjectives, when mentioned at all, is treated as an exception, some authors noting the marked character of the structure (see Dubinsky 1992; Saito 1982; Shibatani 1999). The existing literature on case alternation and non-canonical sentence patterns does not provide answers to basic questions regarding the number and type of predicates participating in the alternation, the syntactic and semantic differences associated with two structures, the relative frequency of the two patterns, the conditions of use, etc.

Among the few accounts that address the problem of the NOM-NOM/NOM-ACC alternation with adjectives directly and attempt to uncover the factors triggering it are Makino (1996), Mano (2004), Saito (1982), Shibatani (1999), and Dubinsky (1993). Dubinsky differs from the other authors in focusing mainly on socio-linguistic factors. The first four studies propose semantic factors for the alternation. Although the suggested triggering factor is different in each case, the proposals in Makino (1996), Mano (2004), and Shibatani (1999), are similar in assuming that the case marking

option is determined by greater similarity, or greater divergence from the semantic transitive prototype. Saito does not specify the semantic factors involved.

Makino (1996: 96) identifies controllability as the semantic feature determining the choice of object case. He argues that a nominative marked object will be preferred when the event expressed is spontaneous, that is, not under the control of the protagonist, as in (5).

(5)   *boku-wa   kimi-ga/?o   suki-de,   suki-de   tamaranai.*
      I-TOP   you-NOM/?ACC   like-COP, like-COP bear-NEG
      'I really, really like you.' (Makino 1996, ex.18b)

Here the repetition of the predicate is taken as the expression of an emotional state, and this, presumably, implies less control by the experiencer.

Mano (2004: 98) acknowledges that controllability is relevant for the choice between the double nominative pattern and the NOM-ACC pattern, but only when associated with a categorial distinction, as in the case of morphologically related verb/ adjective pairs in (6) below.

(6)   a.   *Ken-wa   wazato   Mari-o   kiratta/nikunda/urayanda.*
           Ken-TOP   willfully Mari-ACC   disliked/hated/resented
           'Ken disliked/hated/resented Mari on purpose.'

      b.   **Ken-wa   wazato   Mari-ga   kiraidatta/nikukatta/urayamashikatta.*
           Ken-TOP   willfully Mari-NOM   disliked/hated/envied
           (Mano 2004, ex. 38–39)

She distinguishes two other factors that influence the choice of syntactic pattern: time stability and the number of participants. The time stability factor triggers the use of the non-canonical nominative construction with adjectives, but *suki(da)* 'like' and *kirai(da)* 'dislike' are exceptional in requiring two arguments even in their adjectival form. As a consequence of their unusual argument structure, they are optionally associated with the transitive construction. The obligatoriness of two core arguments is the defining property of a prototypical transitive predicate.

Shibatani (1999) observes that there is a correlation between the use of the accusative case on the second argument of the relevant adjectives and the animacy features of the respective argument. Arguments situated high on the animacy scale are more likely to appear with accusative case marking than arguments with low animacy features. Shibatani explains the correlation in terms of closeness of the structures involving high-animacy arguments to the transitive semantic prototype.

Saito (1982: 67–68) states that the alternation has a semantic basis without offering further details. His main concern is to account for the distribution of the nominative case in what appears to be the object position. His hypothesis is that the nominative

case is associated with two functions, subject and focus, and that the so-called nomi-native objects are actually focus-marked objects. He regards the alternation between nominative and accusative as evidence for this position. He points out that although some predicates, such as *suki(da)* 'like', normally disallow the accusative marking on their object, as illustrated in (7a), there are some cases, like (7b) and (7c) below, where the object marking surfaces (Saito 1982; ex. 19–21).

(7)   a.   *John-wa   Mary-ga/*o   suki-da.*
           John-TOP   Mary-NOM/ACC   like-COP
           'John loves Mary.' (Saito 1982, ex.19).

      b.   *John-wa   Mary-no-koto-ga/?o   suki-datta-rashii.*
           John-TOP   Mary-GEN-NMLZ-NOM/ACC   like COP MOD
           'It seems that John was in love with Mary.'

      c.   *John-o/?ga   suki-ni-nat-te   nani-ga   warui-no.*
           John-NOM/ACC   like-ADV-become-ING   what-NOM   bad-Q
           'What's wrong with my falling in love with John?'

He attributes the difference between the unacceptable (7a) and the acceptable (7b) and (7c) to the overall meaning of the sentences, without explaining what the semantic feature involved is.

  In spite of the lack of an explanation, Saito's discussion is interesting because the acceptable examples in (7) exhibit properties that coincide with the findings of this article. The analysis of the data presented in sections 2–4 will show that the presence of the animacy marker *no-koto* and the presence of the inchoative form of the predicate are among the features most frequently associated with the use of the accusative mark-ing on the second argument of the relevant adjectives.

  Dubinsky (1996: 899) compares the properties of the adjectives *suki(da)* 'like' and *hoshii* 'want' with those of the stative predicates like *iru* 'need' and the potential *-eru*. He remarks that the former are set apart by two syntactic properties; the inability to mark their first argument with the dative, and the capacity to assign accusative case to the second argument. Although Dubinsky does not suggest any syntactic or semantic factor triggering the use of the accusative case, he comments on the socio-linguistically marked status of the structure. He claims that the acceptability of the accusative vari-ant correlates with the age of the speaker, with older speakers rejecting the structure and attributes the variation to an ongoing process of diachronic change. He notes that no similar variation among speakers is found with any of the other predicates that exhibit the same case marking alternation.

(8)   %*Tanaka-ga   sushi-o   suki-da.*
       Tanaka-NOM   sushi-ACC   like-COP
       'Tanaka likes sushi.' (Dubinsky 1996, ex. 60c)

None of these authors offers evidence for the proposed analysis beyond their own intuitions on the subject. Not even Dubinsky, in his discussion of "generational dialectal variation," presents any empirical support for his observations.

This leads me to another issue concerning the existing literature on the NOM-NOM/NOM-ACC alternation with adjectives, namely the acceptability of the construction. Different authors present conflicting judgments for the same type of structure. For instance, Makino judges the NOM-ACC construction in (9) as equally acceptable as the accusative pattern with complex predicates.

(9) a. *kanojo-wa   dooryo-no   Yoshikawa-kun-ga/o*
         she-TOP   co-worker-GEN Yoshikawa-Mr-NOM/ACC

         suki-na-yoo-da
         like-ADNOM-MOD-COP

         'She appears to like her colleague Yoshikawa.' (Makino 1996, ex. 12b)

A structure identical in all respects to (9) above is judged ungrammatical by Saito, as illustrated in (7a) above.

Mano (2004) offers different judgments on the same type of sentence. Thus, the use of the accusative is marked with a question mark in the first occurrence of the structure (10a), but is treated as equally acceptable as the nominative in the second occurrence (10b).

(10) a. *Ken-ga   Mari-ga/?wo   kirai-na-koto*
          Ken NOM   Mari NOM/?ACC   hate-ADNOM-NMLZ
          '(The fact that) Ken hates Mari.' (Mano 2004, ex. 36a)

      b. *watashi-ga Ken-ga/wo   {suki/kirai-na}-koto.*
          I-NOM   Ken-NOM/ACC   love/hate-ADNOM-NMLZ
          '(The fact that) Ken loves/hates Mari.' (Mano 2004 ex. 43b)

As the brief review of the linguistic literature has shown, the alternation between the double nominative case marking pattern and the NOM-ACC pattern with adjectives is very poorly understood. What is most apparent is the lack of studies regarding the actual use of the accusative structure. The following sections of this article will attempt to supplement the lack of information in this area.

3.   The pilot survey

It is difficult to uncover the factors triggering the NOM-ACC alternation with adjectives without obtaining a better understanding of the way the two alternating patterns are actually used. The existing literature on the topic discusses the marginal status of

the NOM-ACC structure, but does not offer any details about its frequency. Semantic properties, such as higher controllability (Makino 1996) or animacy of the second argument (Shibatani 1999), have been suggested, but without any evidence apart form the authors' intuition. This section will present two surveys conducted with the aim of obtaining initial information on (a) speakers' perceptions of the construction and (b) usage facts, such as the frequency of the NOM-ACC sentence pattern compared to the NOM-NOM pattern, the distribution of the two patterns with several adjectives, and the existence of any syntactic or semantic properties distinguishing them.

3.1 Speaker's perceptions

As part of the preliminary investigation, I conducted an informal survey to test speakers' perceptions of the NOM-ACC sentence pattern. A group of nine university professors, one in the early 30's, the remaining eight having an average age of 50, were presented with the structure in (11) below and asked to complete a short questionnaire with the following questions:

(11) X-*wa/ga* Y-*wo* *suki-(da)*
  a. Do you use this construction?
  b. Have you heard this construction used by others?
  c. Who would use the construction?
  d. In your opinion, is this construction grammatical?

Additionally, the participants were asked to provide an example of the construction. The results of the survey are in keeping with Dubinsky's assessment of the sociolinguistic status of the structure in previous literature. There was a sharp contrast between the judgments of the younger speaker and those of the speakers from the higher age group. The younger speaker judged the structure as perfectly grammatical and admitted to using it in normal conversation. As a matter of fact, the speaker was not even aware of the focus of the questionnaire, i.e., the use of the accusative case with the second argument, and discussed instead the use of the nominative particle with the first argument. The speakers belonging to the higher age group, on the other hand, gave mixed judgments that reflect well the marked status of the structure. Only two out of eight speakers admitted using the structure, although six of eight said that they had heard it used.

There was no consensus regarding the identity of the speakers using the structure: novelists, television, young people were suggested. One speaker attributed the spread of the accusative case to foreign language influence. Although ideas differ, they have one feature in common: speakers detect some otherness in the construction. Interestingly, four university students, asked to complete the same questionnaire, identified the users of the construction as primary school students or kindergartners.

The grammaticality judgments were split equally: four speakers found the structure grammatical, four declared it ungrammatical and one speaker suspended

judgment. The speakers who found the structure ungrammatical suggested the use of nominative case on the theme argument or replacing the adjective with a semantically equivalent verb as ways of improving its grammaticality.

The examples and comments offered by the participants reveal awareness of a fact to be discussed in this article, namely that the use of the accusative case is preferentially associated with certain morphological and syntactic structures. Speakers noticed, for instance, that the pattern does not sound very acceptable if used predicatively in the present indicative form.

To conclude this brief discussion, the results of this simple survey supported Dubinsky's assessment concerning the use of the NOM-ACC pattern with adjectives. It is a novel, socio-linguistically marked construction, which does not yet fit into the black and white mould of linguistic convention.

3.2   Online survey

As a first step in the quest for answers regarding the use of the NOM-ACC pattern I performed a search for data online. Although results obtained through the Google search engine cannot be taken as an indicator of overall frequency, a comparison among figures can offer a fairly accurate image of tendencies in the language. In what follows I will present the image of the NOM-NOM/NOM-ACC alternation in Japanese as it emerges from a Google search conducted on July 20, 2007. Japanese is an agglutinative SOV language with postpositions. A search for the string consisting of the case marking particle of the second argument and the predicate is easy to perform and yields fairly reliable results. The results for some of the most common double nominative adjectives are presented in Table 1.

The figures indicate a high incidence of accusatives with the nominal adjectives *suki(da)* 'like', *kirai(da)* 'dislike' and *hoshii* 'want'. The figures drop significantly for the

Table 1. Frequency of the two patterns.

Adjective	NOM−NOM	NOM−ACC
suki 'like'	3,230,000	2,420,000
kirai 'dislike'	3,480,000	1,170,000
hoshii 'want'	3,060,000	809,000
nikui 'hate'	398,000	20,200
joozu-da 'good at'	170,000	8,940
joozu-ni-naru 'become good at'	144,000	8,160
heta-da 'bad at'	222,000	4,340
heta-ni-naru 'become bad at'	12,300	1

other three adjectives in the table. A look at the first 100 usage examples for each adjective shows that the contrast is even sharper than the raw figures suggest. The adjectives *nikui* 'hateful', *joozu(da)* 'be good at' and *heta(da)* 'be bad at' are found almost exclusively in embedded structures such as (13).

> (13) *jibun-wo joozu-da-to   omou-na!*
> self-ACC   good-COP-COMP   think-NEG
> 'Don't think you are good!'
> (www.geocities.co.jp/Hollywood-Miyuki/7927/wataru16.html)

In example (13) the accusative case is assigned by the main clause predicate, the verb *omou* 'think', and not by the embedded adjective. Even one argument adjectives can appear in this structure, as illustrated by example (14), where the adjective *kirei* 'beautiful' only selects for the argument *hana* 'flower'. One argument predicates never assign the accusative case in Japanese under normal circumstances.

> (14) *hito-wa   dooshite hana-wo   kirei-da-to   omou-daroo?*
> people-TOP why   flower-ACC beautiful-COP-COMP think-MOD
> 'Why do people think flowers are beautiful?' (bokunohikari.jugem.jp/?eid=381)

No similar tendency was observed with *suki(da)* 'like', *kirai(da)* 'dislike' and *hoshii* 'want'. Even making allowance for error, the proportion of accusative marked themes is significantly higher with the adjectives *suki(da)* 'like', *kirai(da)* 'dislike' and *hoshii* 'want'. What is setting these adjectives apart from the rest? In the following sections I will consider a number of factors distinguishing among the two argument adjectives.

3.2.1 *Animacy*

Among the semantic features suggested as triggers for the spread of the NOM-ACC pattern with adjectives is the animacy of the second argument (Shibatani 1999). The figures in Table 1 seem to argue against this proposal; some of the adjectives are, by virtue of their meaning, more likely to require an animate second argument. This is the case for *nikui* 'hateful'. Hatred is, prototypically, an emotion directed towards human targets. However, this adjective is less frequently used in the NOM-ACC pattern than *suki(da)* 'like', *kirai(da)* 'dislike' and *hoshii* 'want', which do not place any semantic constraints on their second argument.

   An examination of the first 100 online examples with *suki(da)* 'like' in the two constructions supports Shibatani's claim. Not only does more than a half of the NOM-ACC examples involve animate themes, but as the frequency of the NOM-ACC construction goes up, the higher the NP_2 is on the animacy scale, as illustrated in Table 2. As can be observed, the accusative marked argument is more frequently used with a human argument than it is with animal arguments both in the case of *suki(da)* 'like' and *kirai(da)* 'dislike'. The frequency of accusative marked arguments referring to speech

Table 2. The relation between the animacy and case pattern.

	suki 'like'		*kirai* 'dislike'		*hoshii* 'want'	
	N-N	N-A	N-N	N-A	N-N	N-A
Speech participant	1.03	29.16	3	35.4	0	1.2
Human	12.37	34.7	16.6	22.9	22.5	12
Animal	7.2	2.7	1	4.1	0	5
Inanimate	79.38	33.3	79	37.5	77.5	81

participants is high in the case of both predicates. A closer look at the arguments referring to speech participants offers further evidence for this tendency. More than half of the arguments referring to speech participants are reflexive forms for both *suki(da)* 'like' and *kirai(da)* 'dislike'. This situation contrasts with the one we find in the NOM-NOM construction. The proportion of arguments having inanimate referents is much higher for this construction for both *suki(da)* 'like' and *kirai(da)* 'dislike'. The number of arguments taking speech participants for referents decreases dramatically. The tendency was not observed, however, in the case of the adjective *hoshii* 'want'. No relation seems to hold in the case of this predicate between the animacy of the second argument and the choice of case marking. This suggests that animacy alone is not the answer.

3.2.2 *Preferred configurations*

A striking contrast between the NOM-NOM and the NOM-ACC constructions concerns their morpho-syntactic properties. The overwhelming majority of examples in the NOM-NOM structure involves the use of the adjective as main clause predicate, 92 out of 97 examples, and usually in its bare form without the copula *da*, as illustrated in (15).

(15) a. *doyoobi-ga   suki.*
         Saturday-NOM   like
         '(I)like Saturday.' (blog.goo.ne.jp/orakuji/)

     b. *yappari   inu-ga   suki.*
         indeed   dog-NOM   like
         '(I)do like dogs.' (www5.airnet.ne.jp/wan/)

     c. *neko-wa   kudamono-ga   suki.*
         cat-TOP   fruit-NOM   like
         'Cats like fruit.' (homepage1.nifty.com/nekonosuzu)

The structure in (15) was not found in any of the NOM-ACC sentences in the sample, as these sentences are associated most frequently with the inchoative form of the

predicate illustrated in (16). This type of structure accounts for 49 of the 72 examples in the sample.

(16) a. *mazu-wa jibun-o   suki-ni-naru-koto   ne.*
      first-TOP   self-ACC like-ADV-INCH-NMLZ DPRT
      'First, you must learn to like yourself.'
           (channel.goo.ne.jp/wedding/love/kaitai/renaisoudan/20060702.html)

    b. *tannin-o   suki-ni-nattari …*
      other-ACC like-ADV-INCH
      '(You) get to like someone … '
                  (blogs.yahoo.co.jp/pcscd431/13158915.html)

    c. *watashi-no-koto-o   suki-ni-natte-morai-taku-nai.*
      I-GEN-NMLZ-ACC   like-ADV-INCH-receive-DES-NEG
      'I don't want to become liked.'
              (www.cmn.hs.h.kyoto-u.ac.jp/cmn10/kato-review.html)

A smaller, but still significant, proportion of the accusative arguments are found in adnominal constructions, either relative clauses as in (17a) or complex NPs as in (17b). This type of construction occurred 15 times in the 72 sentence sample.

(17) a. *hoomumeido kefia-o   suki-na   kata-no-tame …*
      homemade   kefir-ACC like-ADNOM person-GEN-for
      'for people who like home made kefir …' (www.nakagaki.co.jp/blog.htm)

    b. *watashi-ga chichi-o   suki-na   riyu …*
      I-NOM   father-ACC like-ADNOM reason
      'the reason why I like my father …'
             (fujoshi.moe-nifty.com/chizu/2004/05/post_18.html)

When the nominative case is used, the construction is frequently presented as a list, as in (18). This type of structure is uncommon with accusative themes.

(18) a. *kono machi-ga   suki, hito-ga   suki.*
      this   town-NOM like, people-NOM like
      'I like this town, I like people.' (blogs.yahoo.co.jp/mizukami935)

    b. *sora-ga   suki, umi-ga   suki, hito-ga   suki.*
      sky-NOM like   sea-NOM like people NOM like
      'I like the sky, I like the sea, I like people.'
           (misorayukutukinnohikarini.ti-da.net)

The same tendency was observed in the case of *kirai(da)* 'dislike', but not in the case of *hoshii* 'want'. A Google search for the inchoative form in the NOM-NOM pattern and in the NOM-ACC pattern yielded the results in Table 3. for the adjectives *suki(da)* 'like', *kirai(da)* 'dislike' and *hoshii* 'want'. As can be noticed, the proportion of accusative examples is very high for *suki(da)* 'like' and *kirai(da)* 'dislike', but drops in the case of *hoshii* 'want'.

Table 3. Inchoative forms.

Adjective	NOM–NOM	NOM–ACC
suki-ni-naru 'come to like'	553,000	982,000
kirai-ni-naru 'come to dislike'	83,400	79,500
hoshiku-naru 'come to want'	583,000	12,100

The more common list use of the NOM-NOM construction draws attention to an important semantic fact. Different syntactic configurations are associated with different senses of the predicate. The predicates *suki(da)* 'like' and *kirai(da)* 'dislike' are vague, and can be used to describe a wide range of psychological conditions. The bare predicate examples where the theme is marked with nominative case generally describe preferences, sometimes involving several items. In contrast, in most of the instances figuring the accusative construction and the inchoative form of the predicate, the adjective was used in the sense of romantic interest. Unfortunately, this is not enough to allow us to assume a relation between the two sentence patterns and two different senses of the predicate, as most of the adnominal constructions where the theme bears accusative case illustrate the 'prefer' sense of the predicate. Avoidance of ambiguity is a plausible explanation of the high proportion of adnominal constructions with accusative marked themes, particularly if the themes have animate reference.

The survey of the data retrieved through the Google search engine suggests that, in the case of the NOM-NOM/NOM-ACC alternation with adjectives, we are not dealing with an alternation where particular semantic features trigger the use of different syntactic structures, as in the case of Japanese causative constructions, where the use of the accusative case to mark the causee is associated with coercive causation while the use of the dative expresses permissive causation (see Kuno 1973 & Shibatani 1976). The NOM-NOM pattern and the NOM-ACC pattern are each associated with different morpho-syntactic structures. Sometimes, as in the case of *suki(da)* 'like' and *kirai(da)* 'dislike', there is a clear correlation between syntax and semantics. Thus, the use of the inchoative form of these predicates is associated with the NOM-ACC sentence pattern, and with the semantic domain of love and hate, while the plain form of the adjective, particularly in its bare form, tends to occur with the NOM-NOM sentence pattern and be associated with the semantic domain of preference. Such correlations cannot be made for all the lexical items, as demonstrated by the behavior of *hoshii* 'want', and, even for the adjectives *suki(da)* 'like' and *kirai(da)* 'dislike', are limited to certain structures.

3.2.3 *Morphologically related forms*

Another search through the Google engine, performed on July 21st, 2007, this time extending the search to morphologically related predicates, reveals a factor that has

never been discussed in the linguistic literature on the NOM-NOM/NOM-ACC alternation. Like many Japanese adjectives, *suki(da)* 'like', *kirai(da)* 'dislike', *hoshii* 'want', *nikui* 'hateful' (but not *joozu(da)* 'good at' and *heta(da)* 'bad at'), are morphologically related to transitive verbs: *suku* 'like', *kirau* 'dislike', *hoshigaru* 'seem to want', *nikumu* 'hate'. The verbs have passive forms obtained through attachment of the suffix *-(r)are*: *sukareru* 'be liked', *kirawareru* 'be disliked', *hoshigarareru* 'be wanted', *nikumareru* 'be hated'. It turns out that there is a correlation between the relative frequency of adjectival, verbal and passive forms and the frequency of the accusative construction with a particular adjectival predicate. The relevant figures are presented in Table 4.

What is striking about the figures in Table 4 is the high proportion of the passive form relative to the active form for the verbs *suku* 'like' and *kirau* 'dislike'. Passive constructions are normally marked compared to the corresponding active constructions, and are consequently less frequent. A look at the relative frequency of active and passive forms with other Japanese verbs supports this claim. Table 5 presents the frequency of active and passive constructions for three major stative predicates, *aisuru* 'love', *omou* 'think' and *shitau* 'respect'. Although there are differences among verbs, determined by their particular semantics, the active form is always considerably more frequent than the passive form.

If we take into account the high frequency of the adjectives *suki(da)* 'like' and *kirai(da)* 'dislike', we realize that the frequency of the passive forms is not unusually high; it is the lower than expected frequency of the active forms that makes it appear so.[5] The verb *suku* 'like' is rarely used in the active form. Although we do not find

Table 4. Frequency of morphologically related forms.

predicate	ADJ (NOM–ACC)	V (active)	V (passive)
suk- 'like'	2,420,000	281,000	1,170,000
kiraw- 'dislike'	1,170,000	2,060,000	1,990,000
hoshi- 'want'	809,000	1,210	888
niku- 'hate'	20,200	704,000	65,800

Table 5. Active to passive ratio for stative verbs.

predicate	active	passive
aisuru 'love'	25,400,000	5,550,000
omou 'think'	219,000,000	44,800,000
shitau 'respect'	629,000	226,000

5. Mano observed the low frequency of the active form of the verb *suku* 'like', but did not comment on the high frequency of the passive.

a similar reversal of the active/passive ratio in the case of the verb *kirau* 'dislike', the roughly equal frequency of active and passive forms for this verb represents a deviation from the tendency of the active forms to outnumber the passive forms. The high frequency of the passive becomes intriguing when we compare the verbs *suku* 'like' and *kirau* 'dislike', on the one hand, with *hoshigaru* 'want' and *nikumu* 'hate', on the other. The latter exhibit the normal ratio of active to passive, that is, the active forms are far more frequent than the passive ones. At the same time, the adjectives *suki(da)* 'like' and *kirai(da)* 'dislike' are more frequently associated with the accusative pattern than the adjectives *nikui* 'hateful', *joozu(da)* good at' and *heta(da)* 'bad at' and even *hoshii* 'want'.

None of the semantic or syntactic generalizations that hold for the adjectives *suki(da)* 'like' and *kirai(da)* 'dislike' seem to apply to the adjective *hoshii* 'want', the third item on the list of adjectives occurring with the NOM-ACC pattern with fairly high frequency. A possible explanation for the high incidence of the NOM-ACC sentence pattern could be the fact that the adjective *hoshii* 'want' is frequently used in structures such as (19), where it heads a complex predicate.

(19) *burogu-wo   honto-ni   kaite-hoshii   hito.*
      blog-ACC   really-ADV   write-want   people
      'People who really want to write blogs.'   (www.ma-mate.com/log/eid449.html)

When the base verb is transitive, it marks its object with the accusative case. The structure is very similar to the desiderative *-tai* structure discussed in the introductory section. The two differ only with respect to the relation experiencer–speaker. The use of V-*tai* requires experiencer–speaker identity, while in the case of *V-te hoshii* 'want to V', the two tend to be distinct. The use of *hoshii* 'want' as a complex predicate and the semantic similarity with *-tai* might be among the factors contributing to the spread of the NOM-ACC sentence pattern with the adjective *hoshii* 'want'.

In the case of the predicates *suki(da)* 'like' and *kirai(da)* 'dislike' the investigation through the Google search engine has revealed examples, such as (20), where adjective and passive verb forms are used together to express shifts in perspective.

(20) *suk-are-tai-nara   minna-wo suki-ni-nar-eba   ii.*
      like-PASS-DES-COND   all-ACC   like-ADV-INCH-COND   good
      'If you want to be liked, you should get to like everybody.'
                                                (blogs.yahoo.co.jp/mizukami935)

It seems plausible to assume that the adjective is regarded by speakers as the active counterpart of the passive verb form. Could there be a connection between the low frequency of the verb and the high frequency of the accusative construction with the adjective?

The data retrieved through the search engine Google seem very clear regarding the high frequency of the accusative construction, suggesting the existence of some

tendencies such as the preferential association between each case pattern and certain syntactic constructions, as well as some semantic bias. The following section will investigate the possibility of a connection between the adjective–passive verb form relation on the one hand, and the spread of the NOM-ACC sentence pattern with the adjectives on the other hand.

4. The passive survey

This section will report on a survey carried out with the aim of verifying the hypothesis suggested by the relative frequency of morphologically related forms for the adjectives *suki(da)* 'like' and *kirai(da)* 'dislike', namely that the association between the adjective and the passive form of the verb is somehow responsible for the spread of the NOM-ACC sentence pattern with the adjective.

4.1 Procedures

A questionnaire consisting of 18 sentences, 11 having the passive form *sukareru* 'be liked' for predicate and seven the form *kirawareru* 'be disliked', was administered to a total of 91 university students from two universities in Hokkaido. The students were instructed to write the corresponding active forms of the sentences. They were allowed to supply arguments when they felt it was necessary, but only to the extent that it did not affect the synonymy relation between the stimulus sentence and the target sentence. Examples were provided. Nothing was mentioned with respect to the form of the predicate. All the input sentences were based on actual examples collected online, examples that were deemed fairly representative in terms of participant features and situation described. The list of sentences used in the questionnaire is available in Appendix 1.

   The prescriptive grammar solution to the task would involve sentences having the verbs *suku* 'like' and *kirau* 'dislike' as predicates. If the association adjective–passive is a factor behind the spread of the NOM-ACC sentence pattern with adjectives, the frequency of the NOM-ACC pattern would rise proportionally with the use of adjectives in the answers.

4.2 Results

The experiment yielded a number of 1524 output sentences out of the expected 1638. The results of the survey met the expectations regarding the association between the adjective and the passive. The task presented some difficulties for the participants, to be expected if the association between active and passive form of the verb is disintegrating and a new type of association is in the process of becoming established. The

participants used a number of distinct strategies to overcome the difficulty. Only four out of 91 participants used the verbs *suku* 'like' and *kirau* 'dislike' in all their answers. This gives support to the observation that the verbs are not felt by speakers to represent the active counterpart of the passive forms anymore. A total of 69 participants used adjectival forms in some or all of their answers, and in many cases the adjectives were presented in the NOM-ACC construction. The proportion of adjective constructions represented 31% of the total number of answers. The proportion of verbal active constructions was slightly higher, at 44%. These figures are quite different for each of the two predicates, as discussed below.

Apart from the alternative of using adjective constructions, the participants employed a number of other strategies as well in order to overcome the challenge. These were: using the passive form with a different word order, using another predicate (in the case of *sukareru* 'be liked', this was most frequently the verb *konomu* 'prefer', which is written using the same Chinese character), or simply leaving a blank space. Examples of the different types of answers are presented in (21).

(21) a. *doo   su-reba   isei-ni   suk-arer-no-ka?*
          how do-COND opposite.sex-DAT like-PASS-COMP-Q
          'What can one do to be liked by the opposite sex?'

      b. *isei-ni   suk-areru-ni-wa   doo   su-reba yoi-no-ka?*
          opposite.sex-DAT like-PASS-ADV-TOP how do-COND good-COMP-Q
          'To be liked by the opposite sex, what can one do?'

      c. *doo   su-reba   isei-wa   (jibun-o) suku-no-ka?*
          how do-COND opposite.sex-TOP self-ACC like-COMP-Q
          'What can be done for the opposite sex to like one?'

      d. *doo   su-reba   isei-wa   (watashi-o) konomu-no-ka?*
          how do-COND opposite.sex-TOP I-ACC   prefer-COMP-Q
          'What can I do to obtain the favor of the opposite sex?'

      e. *doo   su-reba   isei-wa   (jibun-o) suki-ni-naru-ka?*
          how do-COND opposite.sex-TOP self-ACC like-ADV-INCH-Q
          'What can I do to make the opposite sex come to like me?'

Sentence (21a) is the input passive sentence. In sentence (21b) word order is scrambled, but the predicate appears in the passive form. This type of response appears in Table 6 under the heading 'Passive'. Sentence (21c) represents the prescriptive grammar answer, in which the active form of the verb *suku* 'like' is used. Answers of this type are labeled 'Verb'. In sentence (21d) a semantically (and graphically) related verb is used, the verb *konomu* 'like', a strategy referred to in Table 6 as 'Synonyms'. Finally, sentence (21e) contains the adjective *suki(da)* 'like' used in the NOM-ACC sentence pattern, the 'Adjective' row in Table 6. The void answers were considered meaningful as the participants

Table 6. Strategies used by participants in the Passive Survey.

	S*	V	Passive	Void	Synonyms	Adj
kirawareru	1	73	10	3	0	5
'be disliked'	2	73	12	1	0	5
	3	77	7	1	0	6
	4	73	6	2	0	10
	5	65	7	0	0	19
	6	70	8	3	0	10
	7	68	12	3	0	8
sukareru	8	21	11	4	26	29
'be liked'	9	14	16	2	18	41
	10	21	14	6	12	38
	11	26	4	8	12	41
	12	26	5	3	10	47
	13	22	5	20	11	33
	14	15	4	13	10	51
	15	19	4	16	9	43
	16	21	2	4	20	44
	17	15	5	14	17	40
	18	20	3	11	19	38

*'S' refers to the input sentence number.

usually marked the respective place with a question mark and answered the following questions. The empty slots represented 7% of the total answers. The choice of strategy was heavily influenced by the type of situation described in the passive sentence and the choice of predicate. The results of the survey are presented in Table 6.

The proportion of verb and adjective constructions is different for the two predicates. The tendency to associate the passive form with the adjective is far more pronounced in the case of *sukareru* 'be liked' than in the case of *kirawareru* 'be disliked'. Figure 1 shows the proportion of adjectival constructions in the output sentences and the frequency of the NOM-ACC pattern among the adjectival constructions. For *kirawareru* 'be disliked', verb constructions were produced with a frequency of 78% while adjective constructions accounted for only 9.9% of the answers. The proportion of accusative constructions within adjective constructions was 20%. The situation is different in the case of *sukareru* 'be liked' where the proportion of adjective constructions (45%) is more than the double of that of verb constructions (22%), and the proportion of accusative constructions is 37% of the adjective constructions and 11% of the total observations.
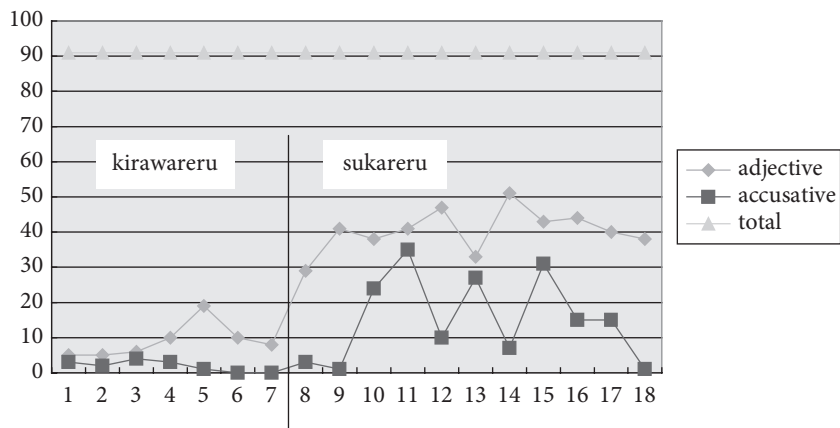
Figure 1. The proportion of adjectival constructions.

The discrepancy between the behavior of the passive form *kirawareru* 'be disliked' and that of *sukareru* 'be liked' is not surprising given the semantics of the verbs *suku* 'like' and *kirau* 'dislike'. Whereas *suku* is practically synonymous with the nominal adjective *suki(da)* 'like', the verb *kirau* 'dislike', particularly in the progressive form *kiratteiru* 'dislike', is closer in its behavior to the transitive verbs associated with other emotion predicates; it describes a physical reaction of the experiencer, such as avoidance of the stimulus, or display of disgust. Given the semantic distinction between the verb and the adjective, the verb *kirau* 'dislike' does not show signs of becoming obsolete like the verb *suku* 'like' and the tendency to use the adjective instead is correspondingly lower. The fact that the adjective is used at all instead of the verb suggests that there is some process at work, driving the spread of the adjective construction.

The strength of the association between the passive construction and the adjective construction is vividly illustrated by the answers to Sentence (8). This is the first time the passive form *sukareru* 'be liked' was presented to the participants, as the first seven sentences were with the verb *kirawareru* 'be disliked'. This example is interesting, as the sentence followed seven other sentences that triggered mainly verb construction responses. This did not prevent the frequency of the verb construction and adjective construction to be reversed in the answers to sentence (8). The verb *suku* 'like' featured in 21 of the answers (23%), while the adjective *suki(da)* 'like' appeared in 29 answers (25%). The proportion of adjective constructions increases further in the subsequent responses, reaching a proportion of 58%, compared to only 12% of verb constructions in the responses to Sentence (14).

Some of the results of the survey were, however, unexpected. The working hypothesis had been that the displacement of the verb by the adjective as the counterpart of the passive might be one of the factors behind the spread of the accusative

case pattern with the adjective, a reasonable hypothesis considering the fact that passive constructions are normally associated with NOM-ACC assigning predicates, like the displaced verb *suku* 'like' itself. The results of the survey appear to contradict the hypothesis. Although the number of adjective constructions was high in the responses, and although a considerable proportion of these adjectives appeared in the accusative construction, the proportion of accusative constructions does not raise proportionally with that of adjective constructions. The situation is quite the opposite, in fact, as can be seen from Figure 1. The questions that yielded the highest number of adjective constructions show the lowest number of accusative constructions, and the highest proportion of accusative constructions is found in the responses to questions that elicited a comparatively lower incidence of adjectival constructions.

Indeed, the largest number of adjective constructions was elicited by sentence (14), but the proportion of accusative constructions among the adjectival constructions is fairly low, only seven examples from a total of 51. It could be argued that the proportion of accusative constructions in the responses to sentence (14) is not as low as it appears at first sight. A large number of participants, i.e., 13, suggested constructions similar to (22) below. What is special about this example is that the nominal theme is topicalized. Since the topic marker *wa* does not co-occur with the accusative or the nominative marker, the case assigned by the predicate cannot be ascertained. However, even if we exclude these cases, the proportion of NOM-ACC constructions remains fairly low.

Although the number of adjectival constructions is much lower, the same tendency can be observed in the case of *kirawareru* 'be disliked' and *kirai(da)* 'dislike'. There is a lack of parallelism between the frequency of the adjectival use and the frequency of NOM-ACC construction. Sentence (5) yielded nine adjectival constructions, which was the highest score in the *kirawareru* 'be disliked' lot, but the accusative pattern was used only once.

(22) *aisukuriimu-wa [dore-kurai minna-ga suki-na]   dezaato-na-no-ka?*
      ice.cream-TOP how.much all-NOM   like-ADNOM desert-ADNOM-COMP-Q
      'To what extend is ice cream a desert everyone likes?'

Some of the input sentences elicited a large number of responses involving the NOM-ACC pattern with the adjectival predicate. The highest number of adjectives used in the NOM-ACC patterns, i.e., 35, was found in the responses to Sentence (11), where the total number of adjective sentences produced was only 41. The lowest number of adjective responses for *sukareru* 'be liked', was obtained in the answers to Sentence (13). The proportion of NOM-ACC structures, however, was high, i.e., 27 NOM-ACC sentences from a total of only 33 adjective sentences. In the case of *kirawareru* 'be disliked' too, high accusative rate was not associated with high frequency of adjectival responses.

The most obvious difference between the sentences which yielded a high proportion of adjectival constructions but a relatively small number of NOM-ACC responses

and the sentences where the frequency of responses with the NOM-ACC pattern was high among the adjectival constructions is the animacy of the theme argument. The input sentences that yielded a high number of NOM-ACC responses had an animate noun phrase in second argument position. Animacy of the second argument was not a condition for the production of sentences with adjectival predicates, as illustrated by the fact that the second argument in sentence (14), the input sentence which elicited the highest number of adjectival responses, was inanimate.

This might suggest that animacy is the determining factor behind the choice of case pattern in the adjective construction. Yet, animacy in itself does not play the decisive role. The second largest frequency of adjectives was obtained in the responses to sentence (12), quoted below as example (23a). The responses to this sentence contained 47 adjectival uses. The proportion of accusative constructions among the adjectival constructions was low, only ten examples, in spite of the high animacy of the theme. This is shown in example (23b).

(23)   a.   *Yuriko-chan-wa*   *kodomotachi-kara*   *suk-are-teiru.*
           Yuriko-Miss-TOP   children-from   like-PASS-PROG
           'Miss Yuriko is liked by the children.'

      b.   *kodomotachi-wa*   *Yuriko-chan-ga*   *suki.*
           children-TOP   Yuriko-Miss-NOM   like
           'The children like Miss Yuriko.'

Observe that the sense of the predicate may play a role here. In sentences (11) and (13) the adjective *suki(da)* 'like' is used with the sense 'love' while in sentences (14) and (10) it has the sense 'prefer'. This confirms the conclusion based on the data retrieved through the Google search engine, that the sense of the predicate, rather than animacy is the relevant feature for case marking. High accusative rate is associated with the 'love/ hate' sense of the predicate, but drops when the predicate is used in the 'prefer' sense.

The relation between the adjective and the passive construction does not appear to boost the use of the accusative construction directly. As a matter of fact, the passive–adjective association appears to be slightly lower for the 'love' sense of *suki(da)* 'like' than for the 'prefer' sense. Also in the case of *kirai(da)* 'dislike', adjectival use dropped in the love/hate domain, although the polysemy of *kirai(da)* 'dislike' is less clear-cut. This is a puzzling result. The 'prefer' sense of the predicate is associated with the NOM-NOM sentence pattern. A double nominative construction is a priori less likely to have a corresponding passive construction than a transitive construction. A follow up survey was carried out in order to throw light on these results. The significance of the data obtained in this survey will be discussed again, in the light of the results to the follow up survey. Before describing the follow up survey, however, I will comment on another fact that was revealed by the Passive Survey.

In the presentation of the Google data in section 3.2 above, I mentioned the association between the accusative case pattern and the inchoative form of the adjective.

None of the 18 input sentences in the survey had an inchoative form of the verb as a predicate. However, semantically, some of them were highly compatible with the use of the inchoative in the active form. Sentence (10), repeated below as example (24a), is the best illustration of this situation. Many participants suggested example (24b) as the active counterpart.

(24) a. *doo su-reba   isei-ni   suk-areru-no-ka?*
          how do-COND opposite.sex-DAT like-PASS-COMP-Q
          'What can you do to be/become liked by the opposite sex?'

      b. *doo su-reba   isei-wa   (watashi-o) suki-ni-naru-no-ka?*
          how do-COND opposite.sex-TOP I-ACC   like-ADV-INCH-COMP-Q
          'What can I do to make the opposite sex come to like me?'

Sentence (24b) represents an appropriate solution to the task, as the input sentence can receive an inchoative interpretation. Other input sentences were compatible with an inchoative interpretation, although they did not command it with the same strength as sentence (10). Sentence (7), repeated below as example (25a), illustrates such a case. Both the inchoative response (25c) and the non-inchoative (25b) are semantically appropriate as active counterparts for the passive sentence.

(25) a. *onna-ni   kiraw-areru onna.*
          woman-DAT dislike-PASS woman
          'Women disliked by other women.'

      b. *onna-ga   kirai-na   onna*
          woman-NOM dislike-ADNOM woman
          'Women that other women dislike.'

      c. *onna-ga   kirai-ni-naru   onna*
          woman-NOM dislike-ADV-INCH woman
          'Women that other women come to dislike.'

The really surprising results were obtained for a third type of input sentences, those which excluded an inchoative interpretation. The best example of this is input sentence (13). It contains uses the progressive form of the predicate, which refers here to a resulting state, and embeds this stative content under the nominal *kankaku* 'sensation, feeling' which further emphasizes the final state, rather than the process leading to it. In spite of the semantic incompatibility with an inchoative reading some of these input sentences elicited inchoative responses. The number of inadequate inchoative responses is not high, but the distribution is interesting. The phenomenon occurs only in the *sukareru* 'be liked' sentences. There are six passive sentences that clearly exclude an inchoative reading, namely sentences (9), (11), (12), (13), (14) and (15). The unexpected inchoative examples are found in responses to sentences (11) and (13), but not in the responses to the other sentences. Sentences (11) and (13), quoted below as (26a) and (27a) respectively, are precisely the sentences which also

elicited large numbers of accusative responses. The inchoative predicates appeared in the accusative construction.

(26) a. *anata-wa   dare-ni   suk-are-teiru?*
            you-TOP   who-DAT   like-PASS-PROG
            'Who are you liked by?'

      b. *anata-o   dare-ga   suki-ni-naru?   aa?*
            you-ACC   who-NOM   like-ADV-INCH   aah
            Who would ever come to like you, aah?

(27) a. *jibun-ga   dareka-toriwake   isei-ni*
            self-NOM   someone namely opposite.sex-DAT

            suk-are-teiru-to-iu   kankaku.
            like-PASS-PROG-QUOT-COMP   sensation
            'The sensation of being liked by someone – namely by the opposite sex.'

      b. *dareka-toriwake   isei-ga   watashi-o*
            someone namely opposite.sex NOM   I-ACC

            suki-ni-naru-to-iu   kankaku.
            like-ADV-INCH-QUOT-COMP   sensation
            'The sensation that someone comes to like me.'

This fact suggests that the accusative case pattern in association with the inchoative form of the adjective is becoming an entrenched construction. This point is important for understanding the newly established relation among the various morphologically related predicates, adjective, verb, and passive, as a step towards explaining the case alternation facts.

    Sentence (15), quoted below as example (28a), and the responses it elicited is another puzzle. The input sentence is idiomatic and does not have a corresponding active form. Many speakers were aware of this fact, as demonstrated by the second largest proportion of null responses in the survey. What is intriguing is the large number of adjectival responses, and especially the high proportion of accusative constructions among them, with 31 accusative constructions for 43 adjectival sentences.

(28) a. *doomo, ame-ni   sooto suk-are-teiru-no-kamoshirenai.*
            well   rain-DAT quite like-PASS-PROG-COMP-MOD
            'Well, it seems as if I might be really attracting the rain.'

      b. *doomo, ame-wa   watashi-o sooto suki-no-no-kamoshirenai.*
            well   rain-TOP I-ACC   quite like-ADNOM-COMP-MOD
            'It seems as if the rain quite likes me.'

Two explanations come to mind. The first is that participants responded with a humorous extension of the idiom. This possibility is somehow unlikely, for cultural reasons.

The second possibility is that participants answered mechanically, ignoring the semantics. If this is true, sentence (15) acquires a new import, as an expression of the strength of the association among passive form, adjectival predicate and the NOM-ACC sentence pattern. It implies that the construction associated with the passive by default is the NOM-ACC adjectival construction.

To sum up, although the survey did not confirm the hypothesis concerning the effect of the association between adjective and passive on the spread of the accusative construction, it did provide valuable information about an array of phenomena that can help understand the NOM-NOM/NOM-ACC alternation. Tendencies observed in the Google data appeared in the answers to the survey: the dissolution of the active passive paradigm with the verb *suku* 'like', the association between the passive construction and the adjective construction, the higher frequency of the accusative alternation with *suki(da)* 'like', the association of the accusative construction with the 'love/hate' sense of the predicates, and the emergence of a new construction, the accusative-inchoative pattern.

4.3 Follow-up survey

Some of the results of the passive test were surprising, particularly the comparatively low incidence of adjective structures in the responses to input sentences from the love/hate domain. In spite of the informality of the topic, the participants responded with formal language, using the structure recommended by prescriptive grammar. A follow-up interview was conducted in order to determine the cause of this.

A group consisting of 57 university students, who had not been involved in the passive survey, were asked to judge seven sentences for grammaticality and naturalness. Participants were also instructed to underline on the questionnaire the word(s) that caused them discomfort. The seven sentences to be judged were chosen from among the responses to the input sentences in the Passive Survey. Sentences (1), (3), (6) and (7) illustrate the 'prefer' sense of the predicates while sentences (2), (4) and (5) illustrate the 'love/hate'. The input sentences are given in Appendix 2.

The task presented difficulty and the number of responses was too low for the acceptability judgments to have statistical value. It is interesting, however, that the sentences illustrating the 'love/hate' sense of the predicate were judged as having lower acceptability than the rest of the sentences. The comments offered by the participants were more revealing than the numerical evaluation because they singled out the problem-creating element. The comments confirmed the fact that the verb *suku* 'like' is becoming obsolete while *kirau* 'dislike' is not, and they shed light on the mysteriously low incidence of adjective sentences in the responses to some of the entries on the passive questionnaire.

A number of 19 participants offered comments on Sentence (1), and 15 of them indicated the verbal predicate *suku* 'like' as the source of discomfort. The comments

reveal the confusion caused, probably, by the low frequency of the verb. Speakers are no longer familiar with the verb and, appear to be unable to remember its exact status according to prescriptive grammar. The same observation is valid for the responses to the other *suku* 'like' sentence, sentence (6). Half of the 18 respondents pointed at *suku* 'like' as the cause of low acceptability, but there was no agreement regarding the exact way in which the sentence is deviant.

These comments contrast with the responses given to sentence (2), where the predicate was the verb *kirau* 'dislike'. In the case of the verbal/adjectival pair *kirau* 'dislike' and *kirai(da)* 'dislike', there seems to be a clear correlation between the acceptability of the NOM-ACC sentence pattern with the adjective and the availability of the verb. The sentence having the verb as predicate was judged as more acceptable than the sentence with the adjectival predicate. The verb *kirau* 'dislike' was not selected as a main factor responsible for the lower acceptability. The use of the accusative construction with the adjective, on the other hand, was. The 15 of the 17 the participants who provided comments indicated the adjective or the accusative particle as the principal source of the problem in sentence (7). This brings us to the issue of explaining the low acceptability of sentences (4) and (5), where the predicate *sukareru* 'be liked' was used in the 'love' sense. Understanding the cause for the low acceptability of these sentences may cast light on the results of the Passive Survey.

In terms of acceptability judgments, the sentences (4) and (5) with the adjective *suki(da)* 'like' in the NOM-ACC sentence pattern obtained lower ratings than the sentences with the verb *suku* 'like', in spite of the fact that the examples had the properties prototypically associated with the NOM-ACC pattern: the sense of the predicate, high animacy participants, use of the inchoative form of the adjective. This result contradicts observed usage facts, as reflected in the data retrieved through the Google search engine.

The participants' comments indicate that what prompted the low acceptability judgments was not the choice of the case pattern with the adjective, but the pragmatic features of the sentences. In the case of Sentence (4), 17 out of 22 commented on the first argument, and only two on the relevant accusative marker on the second argument. Out of these 17 comments, eight pointed to the word *isei* 'opposite sex' as problematic, and three found the use of the topic marker on that nominal unacceptable. In the case of sentence (5), 21 out of 27 comments designated the question form or the punctuation as the cause of unfavorable judgment, and only three the accusative case marking. One participant suggested sentence (29) below as an alternative to sentence (5), commenting that the negative form makes the sentence sound more natural. Sentence (5) is an ironic rhetorical question, and has an aggressive tone, likely to offend the addressee. This is a situation most Japanese speakers would try to avoid. Notice that the suggested improved sentence features the NOM-ACC sentence pattern with the adjectival predicate.

(29) *daremo*   *anata-no-koto-o*   *suki-dewa-nai.*
      nobody   you-GEN-NMLZ-ACC   like[ADJ]-COP-NEG
      'Nobody likes you.'

A cultural explanation is in order. Japanese universities encourage a formal climate. Topics like love and sex would not figure in a discussion between students and educators. The surveys were administered during class time, and by the class teacher. It is very likely that the participants did not feel comfortable with some of the topics, and the language with which they are normally associated. This could account for both the low grading of the relevant sentences in the follow-up survey, and the effort to avoid the use of the respective constructions in the Passive Survey. These results suggest that the frequency of the NOM-ACC sentence pattern might be even higher than the results of the Passive Survey would lead one to believe. Further investigation is necessary in order to confirm this.

5.   Conclusions

This study has confirmed through data analysis some of the intuitive observations regarding the NOM-NOM/NOM-ACC alternation made in the previous literature, and has revealed some issues that have passed unnoticed so far. The socio-linguistically marked status of the NOM-ACC pattern mentioned in Dubinsky (1992) was reflected directly in the answers to the preliminary survey, and was a factor shaping the responses to the Passive and the Follow-up Surveys. Despite its 'low' status, the accusative construction is robust, as shown by its high online frequency and by its high rate of occurrence in the surveys.

The quest for a unique factor responsible for the alternation was not equally successful. The surveys conducted offered partial support for the initial hypothesis regarding the relation between the spread of the accusative construction and the new role played by the adjective in the active–passive paradigm. The observation that the adjective has acquired a new function, replacing the verb as the active counterpart of the passive form, has received ample support, which however does not preclude the role of other factors in the use of the adjective in the transitive sentence pattern. The clearest finding regarding the factors behind the spread of the construction seems to be that the search for a unique factor is ill advised. Instead, the study has revealed a host of semantic, syntactic, morphological and socio-cultural aspects that combine to give the accusative construction its dynamics. Similar conspiracies of grammatical, semantic and discourse factors behind alternating sentence patterns were noted elsewhere in this volume. Meakins, for instance, distinguishes five syntactic and semantic variables associated with the appearance of the optional ergative marker in the Australian language Gurindji Kriol.

The unifying factor behind the phenomena discussed in this article seems to be the restructuring of the paradigm of adjectival emotion predicates (see Bybee: 1985 for a discussion of paradigm restructuring with verb inflection). The old paradigm is gradually splitting into two paradigms, as illustrated in Figure 2. The process of paradigm restructuring is centered around the *suk-* 'like', with *kiraw-* 'dislike' following closely. Whether the root new paradigm will be extended to predicates sharing the morpho-syntactic properties of these two elements is an open question.

The old paradigm consisting of morphologically related adjective–verb pairs describing emotions is being restructured into two paradigms, each associated with different modes of representing emotions. The paradigm having the adjective *suki(da)* 'like' at its center is reserved for predicates describing emotions as relations, while the second paradigm presents emotions as occurring episodes. Predicates in the latter class are adjectives that do not take part in the NOM-NOM/NOM-ACC alternation, although they are associated with the NOM-NOM/NOM-DAT alternation. The morphologically related transitive verbs have a clear semantic function, namely that of describing the display of emotion, and are very rarely used in the passive construction. These predicates have causative forms with unusual syntactic properties (see Caluianu 2002 for details regarding the semantic classes of Japanese emotion predicates).

The predicates taking part in the NOM-NOM/NOM-ACC alternation lack causative forms. The emergence of the new paradigm with these predicates seems to depend crucially on the gradual loss of the active form of the verb, not accompanied by a similar loss of the passive form. The spread of the NOM-ACC pattern with the double Nominative adjectives occurs within this larger process.

At the present stage in the process, there are two factors driving the spread of the accusative pattern. The first is the semantic split of the predicate. The 'love/hate' sense of the nominal adjectives *suki(da)* 'like' and *kirai(da)* 'dislike' is becoming independent. This sense is associated mainly with the accusative construction. The second factor is the association between the accusative marking and certain types of syntactic and temporal/aspectual constructions. It is associated preferentially with the inchoative form of the adjective when used predicatively, and with the non-inchoative form in its ad-nominal use. This latter fact is the complicating factor, for while the association between inchoative predicate and the accusative construction can be readily accounted for in semantic terms, this is not possible for adnominal constructions. However, some of the facts discussed in Section 3 suggest that, as the association between the NOM-ACC case pattern and the inchoative form of the predicate becomes stronger, the 'fall in love' interpretation of the latter tends to fade. In ad-nominal constructions, on the other hand, the semantic distinction between nominative case marking and accusative case marking is less clear, and the use of accusative themes seems to be only a syntactic strategy for avoiding ambiguity.
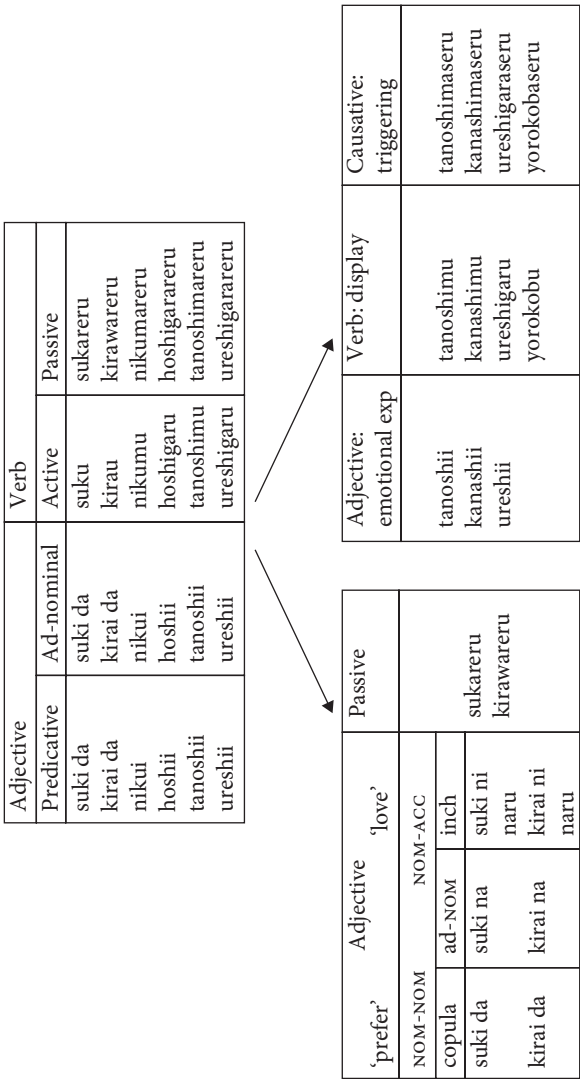
Figure 2. Paradigm Restructuring.

Adjective		Verb	
Predicative	Ad-nominal	Active	Passive
suki da	suki da	suku	sukareru
kirai da	kirai da	kirau	kirawareru
nikui	nikui	nikumu	nikumareru
hoshii	hoshii	hoshigaru	hoshigarareru
tanoshii	tanoshii	tanoshimu	tanoshimareru
ureshii	ureshii	ureshigaru	ureshigarareru

Adjective: emotional exp	Verb: display	Causative: triggering
tanoshii	tanoshimu	tanoshimaseru
kanashii	kanashimu	kanashimaseru
ureshii	ureshigaru	ureshigaraseru
	yorokobu	yorokobaseru

'prefer' 'love'	Adjective NOM-NOM copula	NOM-ACC ad-NOM	NOM-ACC inch	Passive
suki da	suki na		suki ni naru	sukareru
kirai da	kirai na		kirai ni naru	kirawareru

To sum up, the analysis of the accusative alternation has revealed several phenomena: semantic split, constructional bias, changes in the lexicon resulting in Paradigm Reconstruction, a tendency to neutralize the semantic split within the new paradigm. The study has focused on the linguistic factors driving the spread of the accusative construction. Besides these, there are numerous extra-linguistic factors that play an important role.

The single most important non-linguistic factor behind the spread of the accusative case marking with the nominal adjectives *suki(da)* 'like' and *kirai(da)* 'dislike' is technological advancement. Wide access to computers and cell-phones with mail option has created new types of discourse, such as online chat and blogs, which feature linguistic material situated between the written and the spoken language. The form of communication available is both intimate and anonymous, a fact that makes discussion on sensitive topics easier. These factors may have an impact on language use in general and on the NOM-NOM/NOM-ACC alternation in particular. A search through the Google engine performed in July 2004 for *suki(da)* 'like' yielded 2,980,000 hits with the nominative pattern sequence and 331,000 with the accusative pattern. The same search performed in 2007 produced 3,230,000 nominative results and 2,420,000 with the accusative pattern. Although the figures may reflect improvements in software technology, as well as a growth in the number of users, the difference in the relative growth of the two numbers is worth noticing. It seems reasonable to assume that this surge in numbers implies that more speakers are coming into contact with the construction, if not actively producing it. The effect of this situation on language use remains to be seen.

Appendix 1: List of sentences used as input in the Passive Survey.

(1)   *kare-ni   kiraw-are-ru-no-ga   kowai.*
he DAT   dislike-PASS-PRES-COMP-NOM   afraid
'I'm worried about being hated by him.'

(2)   *jibun-wa   yahari   subete-no   hito-ni   kiraw-are-teiru.*
self-TOP   indeed   all-GEN   people-DAT   dislike-PASS-PROG
'Just as I thought, everybody dislikes me.'

(3)   *waga-ko-wa   tannin-no   sensei-ni*
own.child-TOP   homeroom-GEN   teacher-DAT

kiraw-are-teiru-yoo-desu.
dislike-PASS-PROG-MOD-COP

'It seems that my child is disliked by the homeroom teacher.'

(4) *kareshi-no   tomodachi-ni kiraw-are-teiru-kamo.*
     boyfriend-GEN friends-DAT   dislike-PASS-PROG-MOD
     'It's possible my boyfriend's pals hate me.'

(5) *doomo,   semi-wa   josei-ni   kiraw-are-teiru-rashii.*
     well   cicada-TOP women-DAT   dislike-PASS-PROG-MOD
     'Well, it appears that cicadas are disliked by women.'

(6) *sekaijuu-ni   kiraw-are-teiru   minzoku.*
     worldwide-DAT   dislike-PASS-PROG   nation
     'A nation disliked all over the world.'

(7) *onna-ni   kiraw-are-ru   onna.*
     woman-DAT   dislike-PASS-PRES   woman
     'Women disliked by women.'

(8) *keieisha-ni   suk-are-ru   eigyooman-no   himitsu.*
     employer-DAT   like-PASS-PRES   salesman-GEN   secret
     'The secret of salesmen who are liked by their employers.'

(9) *sakura-wa   korai-kara   nihonjin-ni   mottomo   suk-are-teiru*
     cherry-TOP   past-from   Japanese-DAT   most   like-PASS-PROG

     hana dewa-nai-daroo-ka?
     flower COP-NEG-MOD-Q

     'Hasn't the cherry blossom been the most beloved flower of the Japanese since
     times immemorial?'

(10) *do   sur-eba   isei-ni   suk-are-ru-no-ka?*
     how   do-COND   opposite.sex-DAT   like-PASS-PRES-COMP-Q
     'What can one do to be liked by the opposite sex?'

(11) *anata-wa   dare-ni   suk-are-teiru!?*
     you-TOP   who-DAT   like-PASS-PROG
     'Who are you liked by?'

(12) *Yuriko-chan-wa   kodomotachi-kara   suk-are-teiru.*
     Yuriko-Miss-TOP   children-from   like-PASS-PROG
     'Miss Yuriko is liked by the children.'

(13) *jibun-ga   dareka   toriwake isei-ni*
     self-NOM   someone   especially opposite.sex-DAT

     suk-are-teiru-to-iu   kankaku.
     like-PASS-PROG-QUOT-COMP   sensation

     'The sensation of being liked by someone- that is, someone of the opposite sex.'

(14) *aisukuriimu-ga   dore-kurai   minna-ni   suk-are-teiru*
ice.cream-NOM   how much   all-DAT   like-PASS-PROG
dezaato   na-no-ka-na?
desert   ADNOM-COMP-Q-PRT
'To what extend is ice cream a desert liked by everyone?'

(15) *doomo,   ame-ni   sooto   suk-are-teiru-no-kamoshirenai.*
well   rain-DAT   quite   like-PASS-PROG-COMP-MOD
'Well, it seems as if I might be really attracting the rain.'

(16) *naze-ka   kare-wa   inu-ni   suk-are-ru.*
why-Q   he-TOP   dog-DAT   like-PASS-PRES
'For some reason, dogs like him.'

(17) *aite-ni   suk-are-ru   kyorikan.*
partner-DAT   like-PASS-PRES   distance
'A distance that makes you agreeable to the other person.'

(18) *buka-ni   suk-are-ru   joshi to-wa?*
subordinate-DAT   like-PASS-PRES   boss QUOT-TOP
'Bosses liked by subordinates?'

Appendix 2: List of sentences used as input in the Follow-up Survey.

(1) *sakura-wa   korai-kara   nihonjin-ga   mottomo   sui-teiru*
sakura-TOP   past-from   Japanese-NOM   most   like[V]-PROG
hana   dewa-nai-daroo-ka?
flower   COP-NEG-MOD-Q
 'Isn't sakura the flower Japanese have always liked most?'

(2) *kare-ga   watashi-o   kirau-no-ga   kowai.*
he-NOM   i-ACC   dislike[V]-COMP-NOM   afraid
'I'm afraid he might dislike me.'

(3) *kodomotachi-wa   Yuriko-chan-ga   suki-da.*
children-TOP   Yuriko-Miss-NOM   like[ADJ]-COP
'The children like Miss Yuriko.'

(4) *doo sur-eba   isei-wa   watashi-o   suki-ni-naru-no-ka-na?*
how do-COND   opposite.sex-TOP   I-ACC   like[ADJ]-ADV-INCH-COMP-Q-PRT
'What can I do to make the opposite sex come to like me?'

(5) *Dare-ga   anata-o   suki-na-no-ka?*
who-NOM   you-ACC   like[ADJ]-ADNOM-COMP-Q
'Whoever likes you?'

(6) *naze-ka inu-wa   kare-o   suku.*
     why-Q   dog-TOP   he-ACC   like[V]
     'I don't know why, dogs like him.'

(7) *kareshi-no   tomodachi-ga watashi-o kirai-kamo.*
     boyfriend-GEN friend-NOM   I-ACC   dislike[ADJ]-MOD
     'Maybe my boyfriend's pals dislike me.'

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Case syncretism motivated by syntax, semantics or language contact

Patterns of development, patterns of syncretism of relational morphology in the Bodic languages

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In this paper, I present the results of an examination of the relational morphology in 76 Tibeto-Burman languages, primarily from the Bodic section of Tibeto-Burman. I will discuss a set of etymons used to express relational functions and show how the meanings of the reflexes of these etymons have evolved. I will then go on to discuss overall patterns of syncretism of relational markers in these languages. Finally, the relation between the observed overall patterns of syncretism and the evolution of the reflexes of the etymons will be discussed.

1. Introduction

In this paper, I will present the results of a study of relational morphology from 76 Tibeto-Burman languages primarily from the Bodic section of Tibeto-Burman.[1] By relational morphology I mean both markers of grammatical function and location, collectively referred to as 'relational functions': the forms that express these relational functions are referred to as 'relational markers'. In the grammatical descriptions of these languages, these markers have been variously analyzed as adpositions, particles, case clitics, and case affixes. I will consider all these forms together and will not be concerned here with their grammatical status but only with their function as relational markers: etymologically related forms have been analyzed as belonging to all of these grammatical classes.

   The method employed in this study involves 1) looking at the reflexes of individual etymons and noting how they are used to express an array of relational functions, and 2) examining overall patterns of syncretism in the expression of those relational

functions. These two approaches yield somewhat different results, shedding light on how the evolution of individual forms relates to the overall patterns one observes in a given speech area. Other studies have looked at relational morphology in Tibeto-Burman (e.g., DeLancey 1984 and LaPolla 1995, 2003, 2004) but no previous study has focused on Bodic and surveyed as many relational markers.

In Section 2, the sample of languages used in this study will be discussed, while Section 3 will be concerned with the modes of relational marking employed in Tibeto-Burman languages. Section 4 deals with the meaning of the term 'syncretism' as it is used in this paper. In Sections 5 and 6, I will discuss a set of commonly occurring etymons used for relational functions in the sample, while in Section 7 I will discuss overall patterns of syncretism for the relational functions independent of the particular etymons that happen to encode them. Section 8 deals with relational marker compounding, while Section 9 deals with the connection between the two major themes of this paper, namely patterns of syncretism found with the individual etymons and the overall patterns of syncretism. Some general conclusions are discussed in Section 10.

2.   Sample

As noted, the sample of languages used in this paper are drawn from a set of 76 languages,[2] mostly from the Bodic section of Tibeto-Burman. As with most things concerning the Sino-Tibetan family, the assignment of languages to the Bodic section is controversial. The sample of Bodic languages is reasonably comprehensive: only East Bodish, generally assigned as a branch of the Tibetan Complex,[3] is unrepresented. The non-Bodic languages in the sample are a heterogeneous set included mostly to determine if the patterns and etymons found in Bodic are also found outside this group. The languages in the sample are listed in Appendix 1, which includes also a tree diagram presenting the assumed relationships among those languages taken here

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2.   The sample actually contains more than 76 entries since there are three cases where dialects of a single language having distinct sets of relational markers are represented separately. It's probably worth noting here that the distinction between 'language' and 'dialect' is often more reflective of socio-cultural considerations than linguistic ones. Considerations like mutual intelligibility are often not considered: for example, in Nepal some of the Kham 'dialects' are not mutually intelligible, whereas some Tamangic 'languages' are.

3.   The East Bodish languages, along with Tshangla, are members of the Tibetan Complex that are not descended from the language whose literary form is called Classical Tibetan: those that are are referred to as the Central Bodish languages.

to be included in the Bodic section.[4] The non-Bodish languages are provided only a single-node classification.

3.   Relational marking in Tibeto-Burman

The Tibeto-Burman languages are generally treated as being either agglutinative or isolating in their morphological structure.[5] Relational markers for either sort are postposed, following the noun phrases whose grammatical or locational/directional status they mark. In the descriptions of these languages, or at least for those in the Bodic languages, these relational markers are usually referred to as *case markers*, though some are described as postpositions. Given the goals of this study, I will not distinguish between case markers and postpositions, referring to both sorts as relational markers.

Relational markers in Tibeto-Burman may occur singly or may combine in a construction that can be referred to as *relational marker compounding* (RMC): the RMC construction is also found with some other languages in the Central Asian speech area, for example the Mongolic languages. By RMC, I mean the combination of relational markers, usually by simple juxtaposition, to form complex semantic units. These combined forms may become grammaticalized and then enter into evolutionary paths and

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4.   It is far from clear that the three subdivisions of Bodic – Central Himalayish, Bodish, and rGyalrong – should be grouped exclusively under a single genetic node. Further, it isn't clear that Central Himalayish represents a genetic grouping at all as opposed to a geographic assemblage of TB languages that have been in contact in the sub-Himalayan region of Nepal for a long period. rGyalrong was traditionally not assigned to Bodic, but LaPolla (2003) suggests that this group should be grouped together with a number of Central Himalayish languages in a newly defined 'Rung' family. Apropos of this study, Bodish and rGyalrong show interesting similarities in their relational morphology, much more than either group does with Central Himalayish – or, indeed, many Central Himalayish subgroups do with each other. The basic groundwork that would establish or contradict the relationships proposed in Appendix 1 within the three subdivisions of Bodic or within Central Himalayish has simply not been done.

5.   The treatment of these languages as either agglutinative or isolating has often been dependent on the background of the scholars describing these languages: those whose training or interests lie within the Sinitic tradition have tended to treat them as isolating, while those whose training or interests lie within the Indic (or Indo-European) tradition have tended to treat them as agglutinative. This is not to say that there are no substantive differences between isolating and agglutinative languages, even (or especially) in Tibeto-Burman, but only that the issue of whether a given language should be treated as one or the other is typically not discussed explicitly in the grammatical descriptions of these languages. In any case, the distinction is not relevant for our limited purposes here.

evolve into morphologically and conceptually simplex forms; they may also combine in an *ad hoc* way.[6] An example of RMC from the Tamangic language Chantyal can be seen in (1):

(1) *dhuŋ-phyaraŋ-mar-gəmsə*
     tree-SUBESSIVE-CIRCUMLATIVE-ABLATIVE
     'from down around the roots of the tree' (= 'from around beneath the tree')

It turns out that all three of the relational markers in (1) are themselves complex in origin, containing at least one other relational marker compounded with one or two additional etymons. While some languages make more use of RMC than others do, the fact that the construction exists has to be taken into account in any discussion of relational markers in Bodic. There will be a brief discussion of RMC in Section 8.

4.   Syncretism

The term *syncretism* is used here to refer to a situation where a given relational marker is used to mark more than one relational function. The set of relational functions considered here includes the following set, determined on the basis of functions which may be given independent morphological expression in Bodic languages:

(2) ablative: 'from'
     adessive: 'near, around, in the vicinity of'
     allative: 'to, toward'
     circumlative: 'around, around within'
     comitative: 'with, together with, accompanied by'
     comparative: 'than'
     dative: indirect object or primary object[7]
     elative: 'out of'

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6.   See Noonan (2009) for a typology of case-compounding and a discussion of case-compounding within the Bodic languages.

7.   Many of the languages in our sample use a relational marker labelled *dative* to mark 'primary objects' in the sense of Dryer 1986. These datives frequently also mark experiencer arguments generally. Few languages in our sample have distinct *accusative* markers that are not also datives (=primary object markers).

ergative:	marker of the A argument in transitive clauses, or marker of agents[8]
genitive:	possessor
inessive/illative:	'in, into'
instrumental:	'with, by means of'
locative:	when used in opposition to other, more specific names, refers either to the 'unmarked locative' (*i.e.,* it has a generic locative sense, including allative, static locative, and perhaps other senses), or to a case indicating static location ('at', 'on')
path:	'along, via, through'
subessive/sublative:	'under'
superessive/superlative:	'over'

Where a language marks more than one of these relations with the same marker, I will consider that an instance of syncretism. So, for example, the ergative and instrumental may be marked by different forms in Bodic languages, e.g., in Sherpa and Pattani; in Chantyal the clitic *-sə* marks for both ergative and instrumental senses and thus is taken as an instance of syncretism.

One difficulty one encounters in working with relational functions such as these in a large sample of languages is that most descriptions are relatively inexplicit about just what functions a given marker expresses. So, for example, a data source might note a relational marker X and label it 'locative', with perhaps an example or two illustrating its use. These examples and the accompanying description may be inadequate to determine whether or not the form has dynamic locative (i.e., allative) or only stative locative senses. Another difficulty is that some data sources provide markers only for a few relational functions (typically ergative, instrumental, ablative, genitive, dative, and locative) and neglect to say how the other relational functions are expressed. These problems limit the sorts of conclusions one can draw from a language sample like the one assembled for this paper.

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8. Almost all the languages in our sample (including all the Bodic ones) have been analyzed as either consistently ergative or split-ergative, though in a few cases the languages have been analyzed as having an 'agentive' case, which can be used in some intransitive clauses. Here, I interpret true ergatives and agentives as ergatives. With either sort of language, the absolutive is invariably unmarked. In split-ergative languages, when the ergative construction is not found in transitive clauses, the A and the U arguments are in the absolutive, i.e., there is no special nominative case. In the sole accusative language in this sample, Apatani, the nominative is unmarked, while the U argument in transitive constructions is marked with the *dative marker*, which doubtless functions as a marker of primary object (Dryer 1986).

5.   Etymons

Reflexes of a number of etymons with relational marker senses were examined for this paper. Some of these are commonly found throughout Bodic; some are limited to specific subgroups. The forms examined in this paper are listed in (3):

(3)   *ka   *ki   *(g-)lam   *na   *naŋ   *nyampo
       *Vŋ   *r/la   *ri   *sV

The forms are listed in (3) in their presumed proto-forms (so far as can be determined[9]), though the level in the genetic hierarchy at which these forms can be reconstructed varies with each etymon. Some might go back to Proto-Tibeto-Burman; others clearly do not. The level at which they should be reconstructed and the precise form that the reconstruction should take is not directly relevant to this study. More relevant is the identification of the reflexes of these etymons in the languages of the sample, and here a number of difficulties present themselves, particularly since the details of the lines of phonetic development in most branches of Tibeto-Burman are so poorly worked out. No doubt, misidentifications were made in assembling the data for this paper, but my hope is that by using a relatively large sample of languages, the problems of identification would not have serious consequences. Some of the problems in identifying reflexes are discussed with the individual etymons below.[10]

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9.   For the reconstructions, see Benedict (1972), DeLancey (1984), LaPolla (2003, 2004), Matisoff (2003), and some other sources cited below. The precise form of the reconstructions is not the issue we are concerned with here. Note that though many of these forms may be reconstructed back to Proto-Tibeto-Burman, they may not necessarily have expressed relational meanings at that stage. Further, no claims are made here concerning the antiquity of case-marking in Tibeto-Burman languages, a controversial issue that is beyond the scope of this paper. It is clear, however, that case-marking is widespread in the family at this stage in its history and that relational marking, broadly defined, must have been a feature of Proto-Tibeto-Burman, as it is, one presumes, in all languages.

10.   One potential difficulty is the problem of borrowing of specific forms. Borrowing is especially difficult to identify among related languages, particularly in families like Tibeto-Burman where the lines of phonetic development are poorly understood. It is clear that borrowing of relational markers is not uncommon in Bodic languages, and this is especially easy to identify when the source is from outside Sino-Tibetan, e.g., from Indo-European Nepali. The dative/primary object marker (along with the syntax of primary object marking) and the comparative marker are the most commonly borrowed forms. Published grammars, sketches, dictionaries, and wordlists tend to underreport such borrowings when the source is not Tibeto-Burman, but even so examples of such borrowings are not uncommon in the sample.

6.   Patterns of syncretism with individual etymons

Each of the etymons I am considering here has a characteristic profile *vis-à-vis* the relational functions. In Appendix 2, the array of relational functions found with the reflexes of the etymons are laid out numerically. Below, the core relations (enclosed within double lines) and the main non-core relations (enclosed within single lines) are presented, along with comments on the distribution of the reflexes among the languages of the sample and a discussion of the origin of the etymon where it is possible to make an informed guess.

*ka   │ GEN   ABL   LOC │

Attested: In all branches of Bodic, as well as Apatani.
Origin: Unknown.
General comments: As shown in Appendix 2, the reflexes of **ka* are well distributed among the relational functions, though they center on genitive, ablative and locative.

The reflexes of **ka* and **ki* are sometimes difficult to distinguish.

*ki   │ GEN │   ERG   INST │

Attested: This is found in Bodish, widely if the phonological developments described below are correct. It is also likely present in Baric.
Origin: Benedict (1972) proposes that this is the only nominal-relational particle that might be reconstructable to Proto-Tibeto-Burman. DeLancey (1984) disputes this, claiming a large number of particles are so reconstructable. DeLancey (1984), following Thurgood (1981), suggests that **ki* may have derived from a nominalizer: for a discussion of attributives and nominalizations, see Noonan (1997).
General comments: There is evidence, particularly from the Tibetan Complex, that the reflexes of **ki* have undergone a series of phonological developments: *ki> či>yi>ye/i.* If this is the case, then the reflexes of **ki* could well be widely distributed in Bodic, well beyond what is shown in Appendix 2. Even including those presumed to have undergone this phonetic development, **ki* centers on genitive, with ergative and instrumental constituting the main non-core uses.

*(g-)lam   │ ABL   PATH │

Attested: In Tamangic this is a fairly recent grammaticalization which is found only in Chantyal and Dhankute Tamang (Poudel 2005). Outside Tamangic, is certain only in Kiranti.

Origin: Ebert (1994) proposes that the Kiranti forms in **lam* derive from **lam* 'road'. (Matisoff (2003) posits **lam* 'road' for Proto-Tibeto-Burman.) The Chantyal form, which is likely an independent development given the physical distance that separates the Chantyals from the Kiranti region, derives from a prefixed form of the root **(g-)lam,* which Watters (2002) gives as protoform for all of Bodic.[11]

The semantic development is as follows: 'road' together with an instrumental or comitative marker is juxtaposed to a place name resulting in a construction meaning 'by means of/with the road (of) X'. Path senses are primary, with ablative senses developing from these.

General comments: It is possible that Dzongkha ABL *-lä* attests this development; most likely Dolokha Newari ABL *-lān* does too.

*na	ABL	ERG	INST

Attested: This is found in Bodish (Ghale, Tibetan Complex, West Himalayish), Newari, Baric, Mishmi, and Akha.

Origin: LaPolla (2004) claims that this is the only nominal-relational particle reconstructable to Proto-Tibeto-Burman. (This statement contradicts DeLancey (1984); it is in line with Benedict's (1972) claim that such morphology was not part of the grammatical system of Proto-Tibeto-Burman, though Benedict does posit one relational marker, **ki,* for Proto-Tibeto-Burman, but not **na.*)

Peterson (*ms*) suggests **s-naak* 'side' which could account for a set of forms with relational senses, in particular ergative senses, in Chin languages. He provides evidence for a noun with this meaning in Chin, evidence for an ergative case marker in **naa(k)*, and crosslinguistic evidence for the development of such a noun into a case marker. See also Hartmann (2001). In Bodish, **s-na* means 'inside, interior' with suffixed relational etymon **Vŋ* (see below). Matisoff (2003) reconstructs **ʔ-nam* 'side, rib' for Proto-Tibeto-Burman.

General comments: As seen in Appendix 2, this form is found with a large number of relational functions, though the core is clearly ablative, with ergative and instrumental as common non-core meanings.

*naŋ	INES	COM

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11.   It should be noted that only the Tamangic group, to which Chantyal belongs, attests the prefix. Mazaudon posits **^Bgjam* for Proto-Tamangic 'road', but within this group Nar-Phu attests a form with **l, kḟilâm,* which suggests that **kl* in Tamangic became /ky/ everywhere except Nar-Phu.

Attested: This is found throughout Bodish, also in Thangmi, Hayu, rGralrong, and Ao.

Origin: As noted in the discussion of **na* above, **naŋ* likely derives from **s-na* 'inside, interior' with suffixed relational etymon **Vŋ*.[12] **naŋ* also appears throughout Bodish as a noun meaning 'inside, interior'; as a relational marker it is frequently, though not invariably, combined with a locative, as in Chantyal inessive *-nɦaŋ-ri.*

General comments: The basic sense here is inessive, with comitative a not-too-common non-core sense.

*nyampo	COM	INST

Attested: Found only in the Tibetan Complex and Western Himalayish (though the Western Himalayish forms might have been borrowed from Tibetan). If Newari *nāpa* is cognate, then it is found in Central Himalayish too.

Origin: This might be **naŋ* plus *-po.*

General comments: This is essentially a comitative which has occasionally developed into an instrumental. In many of the western languages within the Tibetan Complex, it occurs after **naŋ* (see above) in the combination *naŋ -nyampo,* which usually has a comitative sense. In some languages, however, it occurs uncompounded.

* Vŋ	ABL	DAT	LOC	COM	ADES	SUPER

Attested: Found throughout Bodish and sporadically elsewhere, e.g., in Kham-Magar. Peterson (*ms*) finds it in Kuki-Chin also.

Origin: The distribution in Tamangic would indicate that **Vŋ* is an earlier locative which was replaced by the **r/la* and **ri* forms and is retained there only in relic forms. Peterson reconstructs **iŋ* for Kuki-Chin, though the vowel in Bodic is not easily reconstructable.[13]

General comments: May be present in **naŋ* (see above). Peterson (*ms*) characterizes **iŋ* as a 'generalized oblique case marker'. Its uses in Bodic provide more evidence for this characterization since there is no obvious basic sense other than this.

*r/la	DAT	LOC	ALL	COM	INES

Attested: Found throughout Bodish. Likely also in Qiangic, Baric, and Loloish, and possibly in Kham (Central Himalayish).

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12.   Starostin and Pejros (*n.d.*) reconstruct *naŋ/*nak 'inside' for Proto-Sino-Tibetan.

13.   Starostin and Pejros (*n.d.*) reconstruct *ʔăn 'in, inside' for Proto-Sino-Tibetan. If this is cognate, the evolution of /n/ to /ŋ/ would have to be explained.

Origin: Unknown.

General comments: Found in both ⟨r⟩ and ⟨l⟩ forms, though never in the same language (except Classical Tibetan).

*ri

LOC ALL	DAT

Attested: Definitely attested only in Tamangic. Dura -*re* might be from **ri*, as might Pattani -*rə*-/-*re*.

Origin: **ri* perhaps is **r/la* followed by another affix. It only exists in an ⟨r⟩ form, unlike **r/la* which is found in both ⟨r⟩ and ⟨l⟩ forms even within the same grouping. If this is connected with **r/la*, the lack of an ⟨l⟩ form suggests that **r/la* is older. This suggestion is reinforced by its distribution, since it is only definitely attested in the Tamangic group.

General comments: This seems to have originated as a locative, and is just developing into a dative.

*sV

ERG INST ABL	COM

Attested: Abundantly throughout Bodish and sporadically elsewhere.

Origin: DeLancey (1980, 1984) claims that this derives from the Proto-Tibeto-Burman verb **sa* 'go, leave'.[14]

General comments: In the Tibetan Complex, this form is often suffixed to **ki, *na,* and **r/la*. This could be taken to imply that **sV* is newer, at least in these functions. However, in other members of the Tibetan Complex, and in Tamangic and Western Himalayish, the form occurs independently with ergative and instrumental meaning.

7.   Overall patterns of syncretism

Here I will consider overall patterns of syncretism for the relational functions independent of the particular etymons that happen to encode them. Because of the limitations of the sample noted in Section 4, I will be concerned here only with some relational

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14.   Matisoff (2003) doesn't reconstruct such a verb for PTB, but Starostin and Pejros (*n.d.*) reconstruct Proto-Sino-Tibetan **śak* 'go, go away'. Derivation of a relational marker with this profile from a verb would seem to require that the verb had assumed the form of a sequential converb, at least given the syntax of the contemporary Bodic languages. Syntactic markers for sequential converbs vary throughout Bodic, but in the Bodish group, in which **sV* is best attested, the sequential converb suffix is probably reconstructable as **si*. The reflexes of **sV*, however, show no evidence of a suffixed **si* or any alternative converbal affix.

functions, the ones that were most reliably noted in the data sources. Relational markers that were (almost) always noted were:

(4)   ergative, instrumental, ablative, genitive, dative, locative

Additional markers that were noted with a high degree of regularity were:

(5)   allative, comitative, inessive

Both sets will be considered in what follows, though it should be kept in mind that those in (5) are not as reliably reported in the data sources as those in (4).

In (6) are listed all the instances of syncretism found in the sample among the nine relational functions listed in (4) and (5): the entries record the most inclusive set and show the number of languages which instantiate that set. In order to count as an instance of syncretism, the relational markers for the functions have to be identical: if relational markers share a morpheme but are otherwise not identical (as in cases of RMC), they are not counted. It should also be noted that in some languages a particular relational function may be expressed by more than one relational marker: I will still count such cases as instances of syncretism as long as a given relational marker is used for more than one relational function.

It should be noted at the outset that the numbers associated with the instances of syncretistic sets in (6)–(8) should not be taken as more than suggestive of the syncretistic patterns found in these languages because of the nature of the sample, which was a convenience sample based on all the materials available to the author at the time of writing and not on any scientific sampling procedure. Still, the number of languages sampled was large (76 languages) and fairly inclusive, so the numbers given below provide a reasonable impression of the relative frequency of the sorts of syncretistic sets observable in these languages.

(6)

Syncretistic Sets	Number Attested	Syncretistic Sets	Number Attested
ERG, INST, ABL, LOC, ALL	1	DAT, LOC, ALL, ABL	1
ERG, INST, ABL, COM	1	DAT, LOC, ALL	21
ERG, INST, GEN, INES	1	DAT, LOC, GEN	1
ERG, INST, ABL	15	DAT, ALL, ABL	1
ERG, INST, GEN	8	DAT, LOC	3
ERG, INST, LOC	2	DAT, ALL	3
ERG, INST	34	DAT, GEN	1
ERG, ABL	3	LOC, ALL, GEN	2
ERG, GEN	1	LOC, ALL, ABL	1
INST, ABL, GEN, COM, INES	1	LOC, ALL	20
INST, COM, GEN	1	LOC, ABL	1
INST, COM, ABL	1	LOC, GEN	1
INST, ABL, LOC	1	ALL, ABL	1
INST, COM	1	INES, ALL	1
INST, ABL	2	INES, GEN	1
DAT, LOC, ALL, COM, INST	1		

From the data in (6), commonly occurring sets of three relational functions can be extracted by combining all instances in (6) where the three cooccur. These are listed in (7):

(7)   ERG, INST, ABL   17
      ERG, INST, GEN   9
      DAT, LOC, ALL   23

In (8) are listed all instances of pairings of relational functions in syncretism, in order of frequency:

(8)   ERG, INST   62   LOC, ALL   46   DAT, ALL   27
      DAT, LOC   27   INST, ABL   22   ERG, ABL   20
      ERG, GEN   10   INST, GEN   10   INST, COM   6
      LOC, ABL   5   ALL, ABL   4   LOC, GEN   4
      ERG, LOC   3   INES, GEN   3   ABL, COM   3
      ABL, DAT   2   ALL, GEN   2   DAT, GEN   2
      GEN, COM   2   INST, INES   2   ABL, GEN   1
      ABL, INES   1   ALL, INES   1   COM, ALL   1
      COM, INES   1   COM, LOC   1   DAT, COM   1
      ERG, COM   1   ERG, INES   1

The non-occurring pairings are listed in (9):[15]

(9)   ERG, DAT   ERG, ALL   INST, DAT
      INST, LOC INST, ALL DAT, INES
      LOC, INES

The more robust pairings in (8) suggest relationships among the relational functions that are represented graphically in (10):

(10) a.

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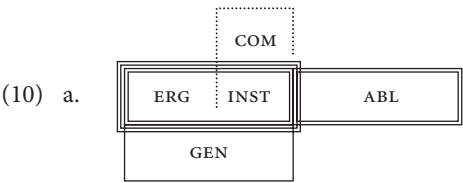
15.   It should be noted that there were no exceptions in the data to Blansitt's (1988) 'functional contiguity hypothesis', which states that the relations OBJECT–DATIVE–ALLATIVE–LOCATIVE form a continuum such that if a single marker codes object and allative in a language it will always code dative; if it codes dative and locative with a single marker it will also code allative; and if it codes object and locative with the same marker, it will code dative and allative with that marker also.

(10) b.

LOC ALL	DAT

The relationships between the ergative and instrumental, and the locative and allative, are very strong and are symbolized by triple lines. Each has a weaker, but still strong relationship with another relational function: ablative in the case of the ergative and instrumental, and dative in the case of the locative and allative.[16] The ergative and instrumental in turn have a weaker relationship to the genitive, but this relationship is not shared by the ablative: there was only one ablative-genitive syncretic pairing in the sample. The instrumental, however, has a relatively weak relation with the comitative which is not shared by the ergative.

The virtual lack of connection between the ablative and the genitive and the weak relationship between the instrumental and comitative are surprising given the strong connection between these functions found in other speech areas, e.g., Western Eurasia: Romance *de* and English *of*, both of which developed genitive senses from original ablatives; English *with*, Spanish *con*, German *mit*, etc., which have both instrumental and comitative senses. This suggests that certain syncretisms are areally favored, an hypothesis supported by data presented in Noonan and Mihas (*ms*), which showed areal patterns in the syncretistic sets participated in by ablatives and genitives in Eurasia.

8. Relational marker compounding

Broadly, RMC in the Bodic languages occurs under three conditions (see Noonan (2008) for more discussion and exemplification):

(11) 1. COMPLEX TRAJECTORIES: By 'complex trajectories', I refer to instances like those illustrated in (1), which describe a trajectory involving more than one reference point.
2. ENTRY POINT FOR ETYMONS: When etymons first enter the set of relational markers, they may be accompanied by an already established relational marker. So, for example, **naŋ*, which derives from a noun meaning 'inside, interior', is initially accompanied by a locative, as it still is in the Chantyal inessive *-nɦa-ri*, which consists of **naŋ* followed by locative *-ri*; the locative may eventually be lost as in the Nar-Phu inessive *-nɦaŋ*.

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16. Since relational markers referred to here as dative are routinely used as markers of 'primary object', datives have the potential to develop into direct object markers. This possibility is not discussed further here since the languages in our sample are primary object, not direct object, languages.

3. REINFORCING NEW RELATIONAL MEANINGS: When the reflexes of an etymon acquire new relational senses, compound markers may be employed to reduce potential ambiguity of the now polysemous marker. These compound forms may be grammaticalized for the expression of particular relational functions. So, for example, in the West Himalayish languages, the historic ergative-instrumental-ablative derived from *sV* is often replaced by a form derived from *ki*. The ablative function seems to be the entry point for *ki* into these new functions, but as the form has come to be the usual marker for ergative and instrumental functions along with others, the ablative may be reinforced, as in Chhitkuli (Sharma 1992), which now marks the ablative with *-da-či* (*-či* < *ki*; *-da* appears to derive from a genitive).

9. Syncretism and historical development

It remains now to connect the two parts of this paper: the patterns of syncretism found with the individual etymons and the overall patterns of syncretism. How are the overall patterns of syncretism observed in the previous section related to the historical development of the reflexes of the individual etymons discussed in Section 6 and displayed in Appendix 2?

First, a few of the etymons have reflexes centering on the main loci of syncretic patterns displayed in (10): the ergative-instrumental nexus in (10a) and the locative-allative nexus in (10b). Of the ten etymons considered, five have profiles that center, more or less, on one or the other nexus, based on the distributions of their reflexes as displayed in Appendix 2. These are listed in (12):

(12) Ergative-instrumental nexus: *ki, *na, *sV*
Locative-allative nexus: *r/la, *ri*

The remaining five either have no strong set of core relations, or have one centering on some other set of relational functions.

Even among those etymons having reflexes within both the ergative-instrumental nexus and the locative-allative nexus, within any given language there is a strong tendency to have reflexes in one or the other, with little or no overlap. This is reflected in the low frequency pairings in (8) and the non-occurring pairings in (9), which essentially reflect the unlikely syncretism of forms within these two sets. In other words, even with etymons like *ka*, whose reflexes span both sets in (10), the reflexes in any given language would tend to conform to the general patterns observed in Section 7. The reason for this may reside in the considerable possibility for contextual disambiguation within either set, but not across the sets. When an etymon evolves senses that span the two sets – and there are a number of pathways through which this can happen – there would be a strong tendency to remove the potential for

disambiguation through any of the available mechanisms: introduction of new etymons, semantic evolution of old ones, and RMC.

An additional factor is the historical 'point of origin' of the etymon into the set of relational functions, resulting in a locus with a very individual profile. In only a few cases is the point of origin known with reasonable certainty. Two such cases are *naŋ and *(g-)lam, both derived from nouns still current in their respective languages. In the case of *naŋ, this etymon entered into the set of relational functions with the meaning 'inside', having derived from a noun meaning 'interior, inside(s)' as noted above. The chain of developments in the various languages was likely similar to the following:

(13) 'inside' → 'within/among' → 'with'   → 'by' → 'at' → 'to'
      INESSIVE   COMITATIVE LOCATIVE   ALLATIVE
                                       ↓
                                  INSTRUMENTAL
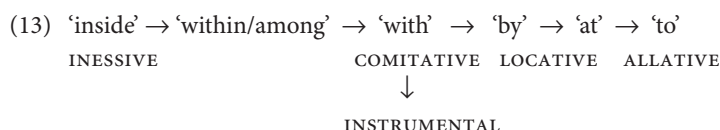
Attestations of these stages are found in (14):

(14) _Meaning_   _Attestation_
      'inside'   widely attested with this meaning throughout Bodish and in
                       other languages as well, e.g., Lepcha *nóŋ* 'interior'.
      inessive   Nar-Phu *-nñaŋ*
      comitative   Ladakhi *-nəŋ*
      instrumental   Ladakhi *-nəŋ*
      locative   Hayu *-noŋ* (also comitative)
      allative   Central Monpa *-naŋ* (also inessive)

(g-)lam, derived from the noun 'road', has not yet evolved beyond its original path/ ablative senses.[17]

The last factors I will discuss here are specifically areal factors. These are of two sorts: 1) the development of areally favored relational functions (e.g., ergative markers and dative-primary object markers in the Himalayan region), and 2) locally favored syncretisms such as the ablative-genitive relation in Western Eurasia and the instrumental-ablative relation in Bodic. This last reflects a tendency to reproduce form/ function alignments in relational markers where there is longstanding bilingualism, a tendency which may even cross genetic lines as in the realignment frequently observed in the relational markers of Tibeto-Burman languages toward those of Indo-European Nepali in Nepal.

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17.   Shobhana Chelliah has pointed out to me that *(g-)lam* has developed into a perfect and then an indirect evidence marker in Meithei (Chelliah 1997: 221–224).

These factors may be summarized in (15):

(15) 1. Preference for syncretisms where specific senses can be contextually disambiguated.
      2. Areal preferences, even micro-areal preferences.
      3. The specific meaning of the etymon when it enters the set of relational functions, particularly where this meaning can be recovered from cognate forms within the language.
      4. Semantic extensions, which may follow well-documented tendencies.[18]

10.   Conclusions

In this paper, I've tried to document patterns of syncretism of individual etymons involved in the expression of relational meanings and connect them with overall patterns of syncretism within the Bodic languages. Perhaps the most striking finding in this paper for those not familiar with other studies of this sort is the amount of semantic territory a single etymon may come to express over time.[19] Patterns of grammaticalization of individual etymons are well documented, for example in Heine and Kuteva (2002), though how a single etymon may evolve in different directions in different languages is only now being studied, especially when cognate languages are under different areal influences. Over a sufficiently long period of time and within a large and dispersed language family such as Tibeto-Burman, a given etymon may eventually come to express a wide variety of relational meanings, as the results of this paper show. The consequences of this sort of semantic development for historical and genetic linguistics, as well as for contact linguistics, will need to be worked out over the next few years.

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18.   DeLancey (1984); Heine & Reh (1984), Heine & Kuteva (2002).

19.   Other studies showing significant semantic diversity among relational markers include Stolz (1996); Koptjevskaja-Tamm (2001), and Noonan & Mihas (*ms*).

Appendix 1

Bodic

- Central himalayish
  - Newari
    - Classical N.
    - Dolakha N.
    - Jyapu Newari
    - Kathmandu N.
  - Kham-magar
    - Gam Kham
    - Maikot Kham
    - Nishi Kham
    - Sheshi Kham
    - Takale Kham
    - Kaike
    - Magar
    - Raji
  - Hayu-chepang
    - Chepang
    - Hayu
    - Sunwar
  - Thangmi-baraam — Thangmi
  - Kiranti
    - Athpare
    - Bantuwa
    - Belhare
    - Camling
    - Dumi
    - Khaling
    - Limbu
    - Thulung
  - West himalayish
    - Byangsi
    - Chaudangsi-Byangsi
    - Chhitkuli
    - Darmiya
    - Gahri
    - Kanashi
    - Kinnauri
    - Marchha
    - Pattani
    - Tinnani
    - Old Zhangzhung
    - New Zhangzhung
- Bodish
  - Tibetic
    - Ghale — Ghale
    - Tamangic
      - Chantyal
      - Gurung
      - Manange
      - Nar-Phu
      - Tamang
      - Tangbe
    - Tibetan complex
      - Central bodish
        - Balti
        - Central Monpa
        - Classical Tibetan
        - Dura
        - Dzongkha
        - Jad
        - Jirel
        - Ladakhi
        - Leh
        - Lhasa Tibetan
        - Nubra
        - Nyam-Kad
        - Purki
        - Sham/Purik
        - Sherpa
        - Spiti
        - Tod
      - Tshangla — Tshangla
- Rgyalrong
  - Cogtse Gyarong
  - Caodeng rGyalrong

Figure 1. Proposed genetic relationships within the Bodic section of Tibeto-Burman.

Lepcha	Baric	Chin	Abor-miri-dafla	Loloish	Mishmi	Rawang	Qiangic
Lepcha	Angami Ao Meithei Sema	Hakha Lai Mizo	Apatani	Akha	Mishmi	Dulong	Qiang Tangut
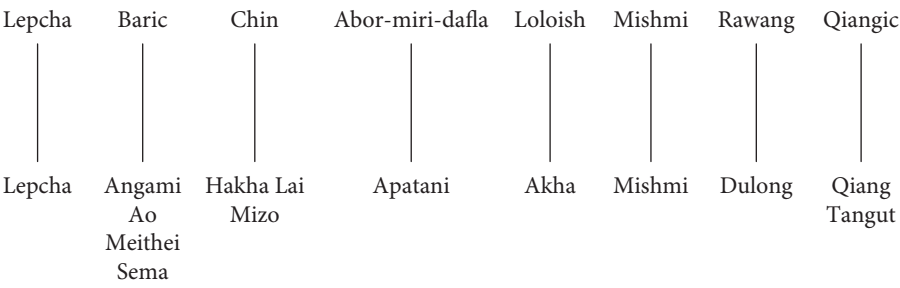
Figure 2. Non-Bodish Languages in sample.

Appendix 2: Distribution of the Reflexes of Selected Etymons.

*ka	Erg	Inst	Abl	Gen	Dat	Loc	All	Com	Comp	Circ	Ines	Ades	Elat	Sub	Super	Path
overall usage	1	3	11	12	4	19	3	2	1	1	2	1	1	2	1	5
uncompounded	1	1	1	8	3	14	2			1		1			1	1
*ki	Erg	Inst	Abl	Gen	Dat	Loc	All	Com	Comp	Circ	Ines	Ades	Elat	Sub	Super	Path
overall usage	9	7	3	14	1						1		2		1	
uncompounded	7	6	1	13	1										1	
*(g-)lam	Erg	Inst	Abl	Gen	Dat	Loc	All	Com	Comp	Circ	Ines	Ades	Elat	Sub	Super	Path
overall usage			6													6
uncompounded			1													1
*na	Erg	Inst	Abl	Gen	Dat	Loc	All	Com	Comp	Circ	Ines	Ades	Elat	Sub	Super	Path
overall usage	8	11	19	4	2	6	2	7	2		1					1
uncompounded	7	9	10	4	1	5	1	4			1					
*naŋ	Erg	Inst	Abl	Gen	Dat	Loc	All	Com	Comp	Circ	Ines	Ades	Elat	Sub	Super	Path
overall usage		1				1	1	6			23		2	1		
uncompounded		1			1	1	1	3			13			1		
*nyampo	Erg	Inst	Abl	Gen	Dat	Loc	All	Com	Comp	Circ	Ines	Ades	Elat	Sub	Super	Path
overall usage		2						10								
uncompounded								4								

(Continued)

Appendix 2: (Continued)

*Vŋ	Erg	Inst	Abl	Gen	Dat	Loc	All	Com	Comp	Circ	Ines	Ades	Elat	Sub	Super	Path
overall usage	1	9	1	5	4			6	3		1	5		3	6	1
uncompounded		3		2	4						1	5				

*r/la	Erg	Inst	Abl	Gen	Dat	Loc	All	Com	Comp	Circ	Ines	Ades	Elat	Sub	Super	Path
overall usage		2	6	3	24	19	14	9	3	1	10	1	1	1	3	
uncompounded		1	3	3	21	14	13	1			6				1	

*ri	Erg	Inst	Abl	Gen	Dat	Loc	All	Com	Comp	Circ	Ines	Ades	Elat	Sub	Super	Path
overall usage			1		3	8	6				3	1	1	1		
uncompounded			1		3	8	6									

*sV	Erg	Inst	Abl	Gen	Dat	Loc	All	Com	Comp	Circ	Ines	Ades	Elat	Sub	Super	Path
overall usage	33	28	22	2		3	4	11	3		1		1			2
uncompounded	28	25	15	2		2										

Numbers refer to the number of languages having a reflex of a given etymon with a given relational function.

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The evolution of local cases and their grammatical equivalent in Greek and Latin

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The Indo-European languages attest to a PIE system with three local cases: locative, ablative, and (allative) accusative. I will focus on the system of local cases in Ancient Greek and in Latin. Both languages have a reduced number of case distinctions with respect to the PIE system; in the field of spatial relations, they display interesting differences. In Ancient Greek the locative has merged with the dative, the ablative has merged with the genitive, and the accusative is retained as such. The three cases can be reinforced with all types of nouns with three different prepositions, *en*, *ek*, and *eis* and express basic spatial relations. Thus, a connection continues to exist between cases and spatial semantic roles, as shown by the fact that a fourth preposition, *pará*, could take all three cases and express adessive, ablative, and allative meanings. In Latin the locative and the ablative merged; as a result, location and source could no longer be distinguished through case marking alone. Some toponyms retained the locative case until the end of the Classical period. Consequently, Latin displays a sub-system with three case distinctions for this group of toponyms. Within prepositional phrases, only two cases occur in Latin, i.e., the ablative and the accusative. Source is expressed through the ablative with a special set of prepositions, while location and direction are both expressed with the same set of prepositions. Consequently cases became increasingly disconnected from the semantic roles they used to express.

1.   Introduction

The aim of my paper is to show how reduction of case systems can lead to quite different results in genetically related languages. I will argue that a central role in this development is played by the semantics of cases and by the frequency of their occurrence in certain syntactic functions.

In particular, I will concentrate on the expression of the three basic spatial relations in Ancient Greek and Latin: location, direction, and source. In both languages, prepositionless cases can express spatial relations to some extent; more frequently, cases occur with prepositions. In this paper, I will show that the contribution of cases

to the meaning of prepositional phrases was different in the two languages, and that, even within prepositional phrases, Ancient Greek preserved to a larger extent the original sub-system of local cases that are traditionally reconstructed for Proto-Indo-European, through exploitation of grammatical cases for spatial relations. In Latin, grammatical cases did not acquire a similar function, and the burden of expressing the meaning of prepositional phrases rested to a larger extent on prepositions, while cases tended to lose their independent meaning faster, at least in the field of spatial relations. As I will argue, this difference between the two languages is remarkable, because, at least with certain lexemes, Latin cases retained non-prepositional usage to a larger extent than Greek cases, but, in spite of this, their connection with the semantic roles they could express was weaker.

The paper is organized as follows. In Section 1 I will briefly describe the Proto-Indo-European case system, with special reference to cases that are reconstructed as occurring in spatial expressions. In Section 2 I will review the Greek evidence, starting with case syncretism; I will also show how plain cases and prepositional phrases expressed spatial semantic roles in Homeric Greek and in later prose. In Section 3 I will discuss the Latin data, again starting with case syncretism, and proceeding to the occurrence of plain cases and prepositional phrases in spatial expressions. In Section 4 I will summarize the evidence and contrast the Greek with the Latin data. Section 5 contains the conclusions.

2.   The Proto-Indo-European case system

The case system traditionally reconstructed for Proto-Indo-European consisted of eight cases: nominative, accusative, genitive, dative, instrumental, locative, ablative, and vocative. Leaving aside the vocative, the remaining cases are traditionally divided into a group of 'grammatical' cases, i.e., those that mostly express grammatical relations, and a group of 'concrete' cases, i.e., those that mostly do not.[1]

Grammatical cases include the nominative, which indicates the subject, the accusative, which indicates the direct object, the genitive, which indicates nominal dependency, and the dative, which indicates the indirect object.[2] In the Indo-European

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1.   The terms 'grammatical' and 'concrete' cases go back to Kuryłowicz (1949); see also Blake (2001: 31–33). In this paper I am going to use this terminology without further discussing it. It goes without saying that I am well aware of the fact that grammatical cases could also have 'concrete' functions while concrete cases could also have grammatical functions, as has even been shown by Kuryłowicz (1949).

2.   Obviously, these cases also had other functions: this is a generalization that only serves the purposes of the present discussion. The complete list of functions of each case in

languages, these cases mostly occur with NPs that are required by the verbal valency; the genitive mostly indicates that an NP depends on another NP. The genitive also has several adverbial uses that I will not include in the present discussion, and in various languages including Greek it can be used as a partitive.[3]

Concrete cases include the instrumental, the locative, and the ablative, and mostly occur with NPs that are syntactically adverbials. Because such NPs (i.e., NPs that are syntactically adverbials) are not required by the verbal valency, their semantic role cannot be understood from the meaning of the verb. Very often in the Indo-European languages the occurrence of prepositionless cases in such NPs is conditioned by their lexical features: lexemes with unexpected referents may require extra marking and occur with adpositions. Thus, for example nouns with human referents with the function instrument are usually marked differently from nouns with inanimate concrete referents (see Luraghi 2003: 33–36).[4]

2.1   Case syncretism

The history of the Indo-European languages attests of an ongoing process of simplification of the case system, whereby concrete cases tended to be reduced, while grammatical cases were more likely to be retained. This process (i.e., simplification) is called case syncretism; it affected the case systems of virtually all Indo-European languages, albeit to different extents. As remarked, the general tendency in all the Indo-European languages was for grammatical cases to be retained longer than concrete cases: this tendency is in accordance with the stronger likelihood that cases code grammatical relations, rather than semantic roles (see Luraghi 1991).

The word 'syncretism' implies that cases are not simply lost, but rather 'mixed', in such a way that the functions of a case that has disappeared are taken over by some other case. In fact, this happened to different extents in different languages, as we will see in Latin and Greek. In some languages, the functions of cases that disappeared were taken over by adpositions, rather than by other cases. As will become clear in the course of the discussion, the likelihood that one or the other paths are followed is not dependent on the number of cases that were retained.

Proto-Indo-European is clearly far beyond the scope of this paper. For further discussion see Delbruck (1901).

3.   The relevance of the partitive genitive for the development of Ancient Greek prepositional phrases is discussed at length in Luraghi (2003); see further below § 2.

4.   In this respect Comrie (1986: 104) speaks of a 'correlation between linguistic markedness and situational markedness … those constructions that involve less formal markedness linguistically correspond to those extralinguistic situations which … are more expected'.

Traditional treatments of syncretism, such as classic Delbrück (1907) (but see further Meiser 1992) mostly assume that merger of different cases was partly brought about by phonological erosion, and was enabled by some sort of semantic similarity between them. In Luraghi (1987) I have shown that the similarity does not need to be semantic, but it can also consist in the fact of sharing the same syntactic function. Thus, one can distinguish between semantically based syncretism, and syntactically based syncretism. In such a framework, I have shown that case syncretism operated in quite different ways in Greek, where it was mostly semantically based, and in Latin, in which it was rather based on syntactic features of the cases involved. In particular, Latin cases that usually occurred with NPs that were syntactically adverbials all merged together and resulted in the so-called ablative. In other words, case syncretism in Latin, which involved merging of the Indo-European ablative, locative, and instrumental, was based on the frequency of these cases with adverbial NPs.[5]

In the discussion of the evidence that I will survey in the next Sections, we will see how these two different types of syncretism affected the local meaning of cases.

2.2 The sub-system of local cases

Local cases, i.e., cases that express spatial relations, such as location and source,, are widely attested in the case systems of a variety of genetically unrelated languages. Local cases indicate the relative position of a trajector with respect to a landmark, and indicate whether the trajector is in motion or not.[6] In many languages local cases can be viewed as constituting a sub-system within the wider frame of the case system of the specific language, because of the consistency among the semantic roles they express.

Among languages that display a big number of local cases we find, for example, Hungarian with nine cases that indicate both the position of the trajector, inside, near, or in contact with the surface of the landmark, and if the relation is static, or the trajector is in motion. Thus, in Hungarian there are three series of local cases, combining relative position and motion as shown in Table 1:

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5. Note that adverbials are not all semantically similar: typical semantic roles of adverbials include cause, instrument, time, location, etc.

6. This terminology is typical of Cognitive Grammar, see among others Taylor (1993) and Luraghi (2003).

Table 1. Local cases in Hungarian.

		Location	Direction	Source
1	Interior	inessive	illative	elative
2	Proximity	adessive	allative	ablative
3	Contact	superessive	sublative	delative

Other languages may display even more elaborate sub-systems of local cases, as shown in Stolz 1992 or Hjelmslev 1935.

As we will see, Ancient Greek developed a system for which the first two groups of relations (involving interior and proximity) were expressed with specific devices, but the first group relied on more distinctions.

Proto-Indo-European also had a sub-system of local cases that we can regard as 'basic': it consisted of three cases expressing the core spatial relations of location, direction and source, i.e., the locative, the accusative and the ablative respectively. From the distribution of prepositionless cases and cases with prepositions in Greek and Latin, one can argue that at least in these two languages – but this really seems to hold for the Indo-European languages in general – basic spatial relations correspond to the first group of local cases in Hungarian, i.e., inessive, illative, and elative. In other words, the default way of conceiving a spatial relation of a trajector with respect to a landmark was that in which the trajector was located relative to the landmark's interior (see Luraghi 2004a for a discussion of Homeric Greek in this respect).

According to Stolz (1992), who describes the system of local cases in several languages, the three spatial relations mentioned above are the ones that are most often encoded by cases: Stolz speaks of 'threefold' (*dreigliedrig*) systems of local cases as being basic. The fourth most frequently attested local case, the perlative, which expresses path, is less frequent. In Proto-Indo-European, the instrumental case had a marginal function as perlative, but this function is only relevant to a limited extent for Latin and Greek (for further discussion see Luraghi 2003: 20–27 and forthcoming).

Above, I have listed the accusative among grammatical cases and said that its function was mainly to indicate the direct object. The fact that grammatical cases could also have 'concrete' functions has been pointed out by several scholars, and I am not going to discuss the whole issue here; however, it must be remarked that, at least in the reconstructed system, the accusative was the only grammatical case that had such an important function in the sub-system of local cases. Simplifying, we can reconstruct the following system for Proto-Indo-European:[7]

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7. I leave out the vocative, which did not have the function of expressing a semantic role or one of the core gramnmatical relations. Roles in parentheses are marginal with respect to other roles.

Table 2. The reconstructed case system of Proto-Indo-European.

	Nominative	Accusative	Genitive	Dative	Instrumental	Locative	Ablative
Grammatical relation	subject	direct object	nominal modifier	indirect object			
Spatial semantic role		direction			(path)	location	source
Non-spatial semantic role			partitive	beneficiary purpose	instrument comitative		(cause)

This table is by no means intended to be exhaustive. What I want to highlight with it is only that the accusative was the only grammatical case that had a clear and relevant role in the sub-system of cases expressing spatial relations.

3. Case syncretism in Ancient Greek

The Ancient Greek case system consists of five cases: nominative, accusative, genitive, dative, and vocative.[8] At first sight, since all the cases I have listed in the 'concrete' group have disappeared, one could think that Greek cases were limited to the indication of grammatical relations, but this does not tell the whole story. On the one hand, it is true that Classical Greek heavily relied on prepositions, especially for spatial semantic roles, but on the other, as I will show below, grammatical cases were used in the place of concrete cases to a much larger extent than in the reconstructed system.

3.1 Locative

At a very early time, most likely before the earliest written sources, the dative merged with the locative in Greek.[9] Note that this merger, as well as the merger of the dative-locative with the instrumental, illustrated in § 2.2, is clearly attested not only by the subsequent use of the dative, but by the origin of its morphological exponents as well. The endings

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8. Throughout the paper, I use Ancient Greek (or simply Greek) when I refer to all Greek varieties attested in antiquity, and Classical Greek only when I refer to the literary language of the 5th and 4th centuries BCE.

9. See Delbrück (1907) and Luraghi (1987) on the semantic motivation for this merger.

of the dative case in Ancient Greek partly correspond to the endings of the dative, the instrumental, and the locative in the other Indo-European languages, thus attesting the morphological merger.[10]

In Homeric Greek, the dative can express location with certain types of inanimate NPs, i.e., toponyms (mostly city names), as in (1):

(1) *Lakedaímoni   naietaṓsēi.*
     Sparta:DAT   live:PART.PRS.DAT.SG.F
     'to her, living in Sparta.' (Hom. *Il.* 3.387)

and further with nouns denoting portions of space, such as *agrôĭ* 'in the field', *póntōĭ* 'in the sea', and nouns denoting social location, such as *trápezēi* 'at the table', and *mákhēi* 'in battle'as in example (2). (See Chantraine 1953. On the concept of social location, see Luraghi 2003: 66).

(2) *geínato   eîo   khéreia   mákhēi*
     generate:AOR.MID.3SG DEM.GEN.M   inferior:ACC battle:DAT.F

     agorêi   dè   t'   ameînō.
     assembly:DAT.F   PTC   PTC   better:ACC

     '(the son that) he generated is worse than he in battle, though in the place of gathering he is better.' (Hom. *Il.* 4.400).

Example (2) also shows that the plain dative can have a locative meaning even in occurrences in which the NP in the dative is an adverbial, i.e., when its semantic function is not in some way specified by the verb.

Most often, and even as early as Homer, the dative is associated with the preposition *en* when it expresses location, both with the types of NP above, and with others:

(3) *en Lakedaímoni aûthi phílēi   en   patrídi   gaíēi.*
     in   L.:DAT   there dear:DAT.F in   homeland:DAT.F   earth:DAT.F
     'there in Sparta, in their native land.' (Hom. *Il.* 3.244).

In post-Homeric prose, virtually all types of NP regularly take *en* in location expressions.

3.2   Instrumental

I will briefly illustrate the development that involved the instrumental case, because it is relevant for the rest of the discussion, as will become apparent in this Section.

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10. On the origin of the Greek dative endings see Chantraine (1961); see further Hajnal (1995) on the possibility that a separate locative was still attested in Mycenean.

The instrumental case was retained in Greek at least until the end of the second millennium BCE. In the Mycenaen tablets (around 1150 BCE) there are clear traces of a separate ending for this case in most paradigms (see Hajnal 1995 & Luraghi 2004b). However, in the centuries that separate Mycenaean Greek from the next written sources, i.e., the Homeric poems, the instrumental case merged with the dative.[11]

The Indo-European dative had a limited use to express purpose with inanimate nouns; in general, however, the dative was most frequently associated with animate NPs, both in its grammatical (indirect object with trivalent verbs), and in its concrete function (beneficiary, so-called 'free dative'). The association of the dative with animacy was so relevant, that even some bivalent verbs that typically took animate second arguments, such as 'help', usually occur with the dative in the Indo-European languages.[12]

In Greek the dative of purpose is only marginally attested (see Schwyzer 1965: 139–140). Most inanimate NPs in the dative express instrument, or some other types of semantic role related to instrument, such as cause or manner, without further need of being specified by prepositions (unless they denote a portion of space, as shown in § 2.1; see further Luraghi 2003: 63–72, where I also discuss the semantic motivation for the merger of the instrumental with the dative-locative). Examples are *lógōi* and *érgōi* in (4):

(4)   *oúte*   *lógōi*   *oúte*   *érgōi*   *éblapsa*   *oudéna*
      neither word:DAT   nor   deed:DAT damage:AOR.1SG none:ACC

      tôn   *katēgoroúntōn.*
      ART.GEN.PL accuser:GEN.PL

      'I did not damage any of my accusers, either with my words or with my deeds.'
                                          (Lys. 9.14).

3.3   The allative accusative

In Homeric Greek, some of the NPs that can occur in location expressions with the dative and do not need to be specified by prepositions (mostly nouns with spatial reference rather than toponyms) may also occur in direction expressions with the accusative, again without prepositions:[13]

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11.   The semantic motivation for this merger lies in the affinity between the instrumental and the locatival value of the dative, see Luraghi (2003: 51–52, 66–67).

12.   The association of the dative with animacy has long been acknowledged, see for example Havers (1911) for an early reference.

13.   City names and some other toponyms occur in direction expressions with the prepositionless accusative mostly accompanied by the directive suffix *-de*, a particle that was productively used only in Homeric Greek, see Chantraine (1953).

(5) *hikṓmetha   dṓmata   patrós.*
     go:SUBJ.AOR.1PL.M/P   palace:N/A.PL   father:GEN
     'let's go to the father's palace.' (Hom. *Od.* 6.296).

As seen for the dative, the accusative also tended to be specified by a preposition, *eis*. This was already true in Homeric Greek; the preposition was also used regularly after Homer:

(6) *apébesan   eis   Marathṓna.*
     disembark:AOR.3PL   in   *M.*:ACC
     'they went ashore in Marathona.' (Lys. 2.21).

3.4   The prepositions *en* and *eis*

The preposition *en* is one of the most widely attested adpositions/preverbs of the Indo-European languages, and it is cognate with English *in* among others.[14] In Homeric Greek, as well as in Classical Greek, *en* could only take the dative. Clearly, this was a heritage of the ancient Indo-European locative that, as seen above, had merged with the dative.

In the other Indo-European languages, however, cognates of *en* could also take the accusative and express direction. The alternation between location and direction, indicated by the accusative and the locative (or the case that replaced it), is quite typical of the Indo-European languages, and is still present for example in German (see below, § 3, for Latin *in*):

(7) *Hans   wohnt   in   der   Stadt.*
     Hans   lives   in   the:DAT   town
     'Hans lives in the town.'

(8) *Hans   fährt   in   die   Stadt.*
     Hans   drives   in   the:ACC   town
     'Hans drives into town.'

Besides being attested to in the most widespread literary dialects, i.e., Ionic and Attic, Ancient Greek is also known to us from a variety of sources, in large part epigraphic, written in different vernaculars. Some of them attest to the use of *en* (or the cognate *in*) with both the dative and the accusative. This is the case in Arcado-Cypriot, where the same preposition *in* can take the dative and express location, or the accusative and express direction, i.e., in connection with case alternation, it has both the function of Attic-Ionic *en* and the function of Attic-Ionic *eis*. Other dialects in which *en* occurs

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14.   Preverbs consitute a separate word class in the Indo-European languages, see Delbrück (1901). In Proto-Indo-European, they could function as independent adverbs, verbal prefixes, and adpositions (mostly prepositions). The three-fold usage was still preserved in Homeric Greek, see Chantraine (1953: 82–86).

with both cases and expresses both location and direction are Thessalian, Beotian, Northwest Greek, and Elean.

The preposition which is commonly spelled *eis* (or *es* in Ionic) derives from *en* through the addition of *-s*. The form *ens* is also attested in the dialect of Crete; elsewhere the nasal has disappeared, determining compensatory lengthening of the vowel (the spelling *ei* stands for [e:]). Even in literary Attic-Ionic we find traces of the original situation, in which only *en* existed: for example, as a verbal prefix *en-* often occurs with motion verbs (for further details on the development of *en* and *eis* see Schwyzer (1965: 454–457)).

The newly created preposition *eis* only occurred with the accusative and denoted direction. I am going to discuss further the effect of this development below, in § 2.6, but before doing so I will illustrate the destiny of the Indo-European ablative.

3.5   Ablative

Contrary to cases seen so far, the ablative has a limited distribution in the Indo-European languages. As an independent case, with specific endings, it is only attested in Indo-Iranian and Anatolian. Latin also has a case commonly known as ablative, but, from the point of view of its function, this case is rather related to the Indo-European instrumental, as we will see below, § 4.1.[15] In Sanskrit, the ablative has separate endings only in the declension of *-a-* stems; in all other paradigms it merged with the genitive. In Balto-Slavic, prepositions that denote ablatival relations regularly take the genitive. The same happens in Ancient Greek, so the Greek genitive is considered the merger of the Indo-European ablative with the Indo-European genitive; but, contrary to what one can see for the dative, there is no morphological evidence for this merger (see Chantraine 1961). In other words, while the endings of the dative do in fact correspond to the endings of dative, locative, and instrumental in other Indo-European languages, the endings of the genitive only correspond to the endings of the same case elsewhere.

The ablatival use of the prepositionless genitive is attested to especially in connection with certain verbs:

(9)   *eîke,*   *Diòs*   *thúgater,*   *polémou   kaì   dēïotêtos.*
       flee:IMPT.PRS.2SG   Z.:GEN   daughter:VOC   war:GEN   and   fight:GEN
       'O daughter of Zeus, flee from the battle and the fight!' (Hom. *Il.* 5.348).

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15.   Morphologically the Latin ablative can be shown to be the merger of the Indo-European locative, ablative and instrumental, see Prat (1975).

As shown in (10), it was already true in Homer that when a NP expressed source, and this was not clearly indicated by the verb, the genitive tended to be specified by the preposition *ek* 'out of'.[16]

(10) *elthónt'*   *ek*   *polémoio kaì ainês*   *dēïotêtos.*
      come:PART.PRS.M   out-of war:GEN   and fearful:GEN   fight:GEN
      'coming from the battle and the fearful fight.' (Hom. *Il.* 5.409).

It is remarkable that the possibility for the genitive to denote source is dependent on the verb, while the possibility for the dative to denote location and for the accusative to denote direction is rather dependent on lexical features of the NPs involved. Besides, especially in the case of the dative, independence of the locative meaning from the verb is also shown by the fact that dativeNPs with spatial referents can have locative meaning also when they function as adverbials. This never holds for the ablatival genitive: genitive NPs which are syntactically adverbials never express source (see Luraghi 2003: 60–61).

      This lesser autonomy of the ablatival genitive depends on the fact that the genitive was widely used as a partitive in Ancient Greek. In particular, genitive adverbials may have a partitive reading; consequently, the ablative meaning is not possible. As such, the genitive could also occur in location expressions:[17]

(11) *ê*   *ouk*   *Árgeos*   *êen* ...?
      PTC   not   A.:GEN   be:IMPF.3SG
      'was he not in Argos?' (Hom. *Od.* 3.251).

Example (11) can be compared with (1), where the dative occurs: the dative NP *Lakedaímoni* in (1) and the genitive NP *Árgeos* in (11) both express location. The great relevance of the partitive meaning for the use of the genitive in reference to space is visible especially in the development of prepositional phrases, and had the consequence that the ablatival meaning of the genitive in spatial expressions was limited even with prepositions, as I have argued at length in Luraghi (2003). For this reason,

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16.   Another Greek preposition, *apó* 'from', is also frequently used in source expressions; however from the distribution of *ek*, and of the prepositionless dative and accusative, as well as of the same cases with *en* and *eis* in Homeric Greek, one can conclude that it was *ek*, rather than *apó*, that stood on the same plane as the other two prepositions (this is also true from the etymological point of view, since *ek* means 'out of, i.e., it denotes elative rather than ablative, and similarly the basic meaning of *en* was inessive and the basic meaning of *eis* was illative). In later Greek the use of *apó* tended to extend at the expense of *ek*, see Luraghi (2003: 123–130).

17.   The partitive genitive in location expressions indicated special features regarding the internal structure of the landmark, i.e., that the landmark was conceived of as multiplex discontinuous in the terminology of Talmy (2000), see the detailed discussion in Luraghi (2003).

for example, Greek had prepositional expressions based on case variation for relations of proximity, but not for relations of contact with the surface of the landmark (i.e., for group 2 in Table 1, but not for group 3), as we will see in the next Section.

3.6   Prepositions and basic spatial relations

Summarizing the discussion in the preceding Sections, one can say that in Classical Greek, in spite of syncretism, the sub-system of local cases continued with its tripartite structure, whereby basic spatial relations were expressed through simple and univocal expressions. With respect to the reconstructed system of Proto-Indo-European, in Greek we find precise equivalents of the cases that built the local sub-system:

Table 3.   Spatial relations in Proto-Indo-European and in Ancient Greek.

Indo-European	Homeric Greek	Classical Attic-Ionic	Semantic role
locative	(*en*)-dative	*en*-dative	location
accusative	(*eis*)-accusative	*eis*-accusative	direction
ablative	*ek*-genitive	*ek*-genitive	source

With regard to cases only, one can note that the genitive and the dative, i.e., two grammatical cases (see above § 1), have taken over a spatial function that they did not have in Proto-Indo-European, thus becoming symmetrical to the accusative in this respect. Consequently, one can re-design the relevant part of Table 2 as in Table 4:

Table 4.   Grammatical and spatial functions of cases in Ancient Greek.

	Accusative	Genitive	Dative
Grammatical relation	direct object	nominal modifier	indirect object
Spatial semantic role	direction	source	location

Ancient Greek had a variety of prepositions, and the value of cases within prepositional phrases is not simple to describe, especially on account of the wide prepositional usage of the partitive genitive. Consequently, one cannot generalize and say that the three cases (accusative, genitive, and dative) always continued the Proto-Indo-European accusative, ablative, and locative when they occurred with prepositions in spatial expressions: indeed they did this to a quite limited extent (see Luraghi 2003). However, at least in the case of the preposition *pará* '(near)by', this is exactly what happens:

(12) *pàr dé   hoi hestḗkei   Sthénelos.*[18]
      by   PTC him stand:AOR.3SG   S.:NOM
      'Sthenelos stood by him.' (Hom. *Il.* 4.367);

(13) *keîthen dè   Spártēnde   parà   xanthòn Menélaon.*
      thence   PTC   S.:ACC+PTC   by   fair:ACC   M.:ACC
      'and thence (go) to Sparta, to fair Menelaos.' (Hom. *Od.* 1.285);

(14) *pàr   Zēnòs   Olumpíou   eilḗlouthen.*
      by   Z.:GEN   Olympian:GEN   come:AOR.3SG
      'came back from the Olympian Zeus.' (Hom. *Il.* 15.131).

Pará indicates that the trajector is located in the vicinity of the landmark, while the basic prepositions *en*, *eis*, and *ek* tend to take landmarks that can be conceived of as containers (see Luraghi 2004a), and indicate that the trajector is located at the interior of the landmark. Thus *pará* was often associated with human landmarks, as shown in the above examples. In Homer, other types of landmark occurred as well, with all three cases, while later on, in Attic-Ionic prose, the dative and the genitive virtually only occur with human landmarks; the accusative too was limited to human landmarks when denoting direction.[19]

Thus, reinforcing the spatial meaning of cases with prepositions, Greek had a rather elaborate sub-system of exponents of local relations, in which the group of relations that involve the inner part of the landmark has more distinctions, relying not only on variation among three cases, but on three distinct prepositions as well, while the group of relations that involved the landmark's proximity was encoded through case variation with the same preposition.

As I have remarked at the end of § 2.6, the three cases involved in spatial expressions, when occurring with different prepositions in Greek, correspond to the relations expressed by Hungarian local cases only in part, i.e., limited to the relations of type 1 and 2 in Table 1 (relations of containment and of proximity). In principle, one could expect that case variation with *epí* 'on' could express the group of relations involving the landmark's surface (corresponding to Hungarian superessive, sublative, and delative, group 3 in Table 1), but this is not the case. Indeed, the genitive with *epí* never functioned as an ablative, but had partitive value instead (see Luraghi (2003: 298–313). Consequently, *epí* with the dative and *epí* with the accusative correspond to some

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18.   The form *pár* contains apocope.

19.   This preposition also had a wide use with the accusative and inaimate NPs, with the meaning 'along'. See Luraghi (2003: 131–145) for an exhaustive account of the use and meanings of *pará*.

extent to the superessive and the sublative case, but there is no correspondence for the delative.

3.7   Summary

In the above paragraphs, I have shown how case syncretism operated in Greek, taking the reconstructed Proto-Indo-European case system as a starting point. I have argued that reduction of the cases system, which involved disappearance of the instrumental, the locative, and the ablative, did not result in a complete loss of local cases. Rather, the functions of these cases were redistributed among the remaining ones. In particular, the functions of the instrumental and of the locative were taken by the dative, which could express instrument or location depending on the lexical features of the NPs involved. To a limited extent, the function of the ablative was taken by the genitive; the ablatival value of the genitive was limited because the genitive also often functioned as partitive.

Most often, cases in spatial expressions were reinforced by prepositions. In Classical Greek, the three basic spatial relations, location, source, and direction, are encoded by means of three different prepositions, *en*, *eis*, and *ek*, each taking a different case: the dative for location, the accusative for direction, and the genitive for source. When the same spatial relations hold with reference to the proximity of a landmark, they are still connected with the three cases, together with the preposition *pará* 'nearby'.

4.   Case syncretism in Latin

The Latin case system includes six cases: nominative, accusative, genitive, dative, ablative, and vocative. Limited to some toponyms and a few nouns with spatial reference, Latin also had a separate locative. At first sight, the Latin case system looks more conservative than the Greek one, but, as will become clear in the discussion of the data, this was not the case.

As already remarked in Section 1.1, case syncretism followed quite different paths in Latin and in Greek. In Latin, grammatical cases did not take over the spatial functions of the concrete cases that were lost: much to the contrary, all concrete cases merged together into the ablative. In other words, grammatical cases did not develop a new function in the encoding of spatial relations as they did in Greek. Latin cases are indicators of syntactic functions to a larger extent than Greek cases (See Pinkster 1985 and Serbat 1989).[20]

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20.   Again, this is a generalization, even for grammatical cases. In particular, the dative, which did not acquire any new functions, retained the possibility to express purpose with inanimate (mostly abstract) NPs, and in such occurrences its primary function was to express a

4.1   The Latin ablative

The most typical function of the ablative without prepositions was not to denote source (as its name seems to imply) or any other spatial relation, but rather to denote instrument, as *ferro* and *voce* in (15), to be compared with *lógōi* and *érgōi* in (1):

(15) *quos   ferro   trucidari   oportebat,   eos*
REL.ACC.PL   iron:ABL   kill:INF.P   need:IMPF.3SG   DEM.ACC.PL

nondum   voce   volnero.
not.yet   voice:ABL wound:PRS.1SG

'I do not yet attack, even by words, those who ought to be put to death by the sword.' (Cic. *Catil.* 1.9).

The ablatival value of the ablative is mostly visible with verbs that require some sort of source expression, such as *liberare*:

(16) *senatum   et   bonos   omnis   legis   agrariae*
senate:ACC and good:ACC.PL all:ACC.PL law:GEN agrarian:GEN

metu   liberavi.
fear:ABL   free:PF.1.SG

'I delivered the senate and all virtuous citizens from the fear of an agrarian law.' (Cic. *Pis.* 4).

In spatial expressions not directly required by the verb, the prepositionless ablative mostly occurs with specific toponyms (city names and names of small islands), but its function depends on the inflectional class of the noun: with nouns of the first two declensions, which have a separate locative in the singular, the ablative mostly expresses source, while with nouns of the other declensions, as well as with plurals of all declensions, the ablative can express either source or location, as in:[21]

(17) *dicam   Athenis   advenisse   cum   amatore   aliquo*
say:PRS.1SG A.:ABL.PL come:INF.PF with lover:ABL   INDEF.ABL

suo.
POSS.3SG.ABL

'I say she came from Athens with a lover of hers.' (Pl. *Mil.* 239);

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semantic role, rather than a grammatical relation, in much the same way as in the occurrences in which it expressed beneficiary with animate NPs. See further Luraghi (forthcoming).

21.   Various city names were *pluralia tantum*, such as *Athenae* 'Athens', *Syracusae* 'Syracuse', etc.

(18)   *si*   *ego*   *emortuossim,*   *Athenis*   *te*   *sit*
      if   I   die:SUBJ.PF.1SG   A.:ABL.PL   you:ABL   be:SUBJ.PRS.3SG

      nemo   *nequior.*
      nobody:NOM   worse:NOM

      'if I'm dead, there will be no one worse than yourself in
      Athens.' (Pl. *Pseud.* 339).

With other types of NP, basic location is expressed by *in* with the ablative, on which I will return below, § 3.3. It must be stressed that the locative was not only lexically restricted, but, to some extent, not even obligatory: apparently, nouns of the second declension were losing it in the 2nd century BCE already, and only nouns of the first declension preserved it longer.[22] Besides, already in Early Latin, toponyms of the first two declensions could occur in location expressions with *in* and the ablative.[23]

4.2   Toponyms

As has already been remarked, the singular of city names and names of small islands belonging to the first (*-ā-* stems) or second (*-o-* stems) declension, and a few other nouns, retained a separate locative case. Thus, such Latin toponyms were very conservative in that they could occur within spatial expressions without prepositions and continued the tripartite sub-system of Proto-Indo-European. We find for example: *Romae* (LOC.) 'in Rome', *Roma* (ABL.) 'from Rome', and *Romam* (ACC.) 'to Rome'. The locative of first and second declension nouns is homophonous with the genitive, while the locatives *ruri* 'in the field' from *rus*, and *domi* 'at home' from *domus*, that belonged to the third and fourth declension, were different from the genitive too.

     This system was somewhat confused by the fact that, as already remarked, toponyms of the third, fourth, and fifth declension, as well as nouns of the first two declensions in the plural did not have a separate locative, and used the ablative instead; so only the context could indicate whether such a toponym in the ablative expressed location or source, as shown in examples (16) and (17) above.

     On the other hand, the prepositionless accusative only expressed direction with toponyms of all inflectional classes, as shown in:

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22.   According to Löfstedt (1956: 75), the reason why the locative was preserved longer in *-ā-* stems was that the name *Roma* belonged to this declension, and the expression *Romae* 'in Rome' must have been a very frequent one: frequency of use preserved the form.

23.   Indeed the rule by which toponyms did not take prepositions in space expressions was much more consistently followed in the highly artificial language of Classical writers than in Early Latin, see Bennett (1914) and Luraghi (forthcoming).

(19) *his*   *proximi*   *habiti*   *legati*
      DEM.DAT.PL   next:NOM.PL   stand:PART.PF.NOM.PL   legate:NOM.PL

      tres   *qui*   *Athenas*   *ierant.*
      three:NOM.PL   REL.NOM.PL   A.:ACC.PL   go:PPF.3PL

      'next to them were placed the three commissioners who had gone
      to Athens.' (Liv. 3.33.5).

Consequently, there was little symmetry between the local use of the accusative and
the local use of the ablative: whereas the prepositionless accusative was connected with
a specific spatial relation, the prepositionless ablative was not.[24]

4.3 Cases and prepositions

As I have already mentioned in § 3.1, apart from a limited number of exceptions the
ablative case took the preposition *in* in location expressions and the preposition *a(b)* in
source expressions in Latin. In direction expressions, *in* occurred with the accusative.

Case alternation was far from systematic in Latin prepositional phrases, being
limited to three prepositions, *in*, *sub* 'under', and *super* 'over'. With other prepositions,
either the ablative or the accusative was obligatory; virtually all prepositions that only
took the ablative and had spatial reference denoted source, rather than location. Thus,
the association of the semantic role location with the ablative case was only partly
reinforced by the usage of the prepositional ablative. Indeed, most prepositions that
only took the accusative could occur both in direction and in location expressions,
depending on the context:

(20) *proelium*   *factum sit*   *ad*   *Magetobrigam.*
      battle:N/A   happen:SUBJ.PF.3SG.P   at   M.:ACC
      'there was a battle by Magetobriga.' (Caes. *Gal.* 1.31.12);

(21) *quorum*   *saepe et diu ad*   *pedes*   *iacuit.*
      REL.GEN.PL   often   and long at   foot:ACC.PL   lie:PF.3SG
      'at whose feet he often lay, and that for a long time.' (Cic. *Quint.* 96);

(22) *sese*   *omnes*   *flentes*   *Caesari*   *ad*
      REFL   all:NOM.PL   weep:PART.PRS.NOM.PL   C.:DAT   at

      pedes   *proiecerunt.*
      foot:ACC.PL   throw:PRET.3PL

      'they all threw themselves at Ceasar's feet.' (Caes. *Gal.* 1.31.2).

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24.   Note further that, to a certain extent, the prepositionless ablative could even express path
with certain nouns, such as *porta* 'gate', see Luraghi (forthcoming).

Furthermore, *in* with the accusative could denote location with abstract nouns:

(23) *quae*   *in*   *amicitiam* *populi*   *Romani*
REL.NOM.PL in   friendship people:GEN Roman:GEN

     dicionemque   *essent.*
     subjection:ACC-and be:SUBJ.IMPF.3PL

     'which are allies and subjects of the Roman people.' (Cic. *div. in Caec.* 66).

Clearly, the possible semantic contribution of cases to the meaning of Latin prepositional phrases was completely different to their contribution in Greek, for at least four reasons:

a.   some Latin toponyms had a separate locative, but this case did not occur within any type of prepositional phrase;
b.   consequently, since the locative could not occur with prepositions, no preposition could take the three local cases and denote three different spatial relations, as *pará* did in Greek;
c.   with toponyms that had no locative, the ablative could denote both location and source, so it was not clearly associated with one and the same spatial semantic role;
d.   with prepositions that had no case alternation, the ablative mostly occurred in source expressions, while the accusative occurred both in location and in direction expressions.

4.4   Summary

In the preceding Sections I have discussed case syncretism in Latin. I have shown that the Latin ablative does not have a clear correspondence with a specific semantic role in spatial expressions. In fact, the Latin ablative can express either location or source, limited to toponyms and in association with verbs that require either local complement. The locative case is limited to some inflectional classes, and never occurs with prepositions. Furthermore, case alternation is limited to few prepositions; with other prepositions, the accusative can occur both in location and in direction expressions. As a consequence, there is no clear association of specific cases with any spatial semantic roles in Latin.

5.   Comparison of the two languages

From the evidence adduced in the preceding Sections, it is apparent that the subsystem of local cases in Greek and Latin was quite different. In fact one could even say that only Greek actually had a sub-system of local cases. As we have seen in § 2, even in Homer, cases could appear without prepositions to a limited extent only – the

ablatival genitive was even more restricted than the locative dative and the allative accusative – so prepositions had a relevant role in the coding of spatial relations. However, cases retained their independent meaning to a certain extent, as shown by their occurrence with *pará.*

The Greek subsystem of local cases was structured as follows:

Table 5. Coding of spatial relations in Ancient Greek.

		Location	Direction	Source
1	Interior	*en*-dative	*eis*-accusative	*ek*-genitive
2	Proximity		*pará*	
		dative	accusative	genitive

In Latin, on the other hand, only a small number of nouns retained a three-fold system of local cases that could denote spatial relations without prepositions. In general, the usage of the preposition *in* implies a certain degree of merger of location and direction: only case variation keeps the two roles distinct, but even with *in* it seems to be partly redundant, as shown by occurrences such as (23); with most other prepositions the distinction between direction and location must be understood from the context, and is not connected with case variation. Besides, toponyms that do not have a separate locative attest to the typologically infrequent merger of location and source, since the ablative can express both semantic roles, as shown by occurrences such as (17) and (18).[25]

Table 6. Lexically restricted coding of spatial relations in Latin

(a) singular toponyms of 1st and 2nd declension

Location	Direction	Source
locative	accusative	ablative

(b) other toponyms

Location/Source	Direction
ablative	accusative

Table 7. General coding of spatial relations in Latin.

	Location/direction		Source
	in		*ab*-ablative
ablative		accusative	

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25. See Stolz (1992: 120–121). Several examples of merger of of locative and ablative in presence of a separate allative are reviewed in Lachlan Mackenzie (1978).

Note that Latin could not have a way of coding spatial relations based on proximity by means of the same preposition with case variation (as Greek *pará*) because, as I have repeated, no preposition could take the locative, and case alternation was limited to two cases, i.e., the accusative and the ablative.

The contrasting situation in Greek and Latin is connected with two different types of syncretism, described above, in § 1.1. In Greek, semantic factors played a prominent role in the merger of cases, while in Latin syncretism was mostly conditioned by syntactic factors. As a consequence, and in spite of the fact that the Ancient Greek case system contains fewer distinctions than the Latin case system, Greek cases play an important role in the expression of semantic roles.

The relevance of cases for the expression of semantic roles in Greek can be seen especially within certain prepositional phrases. Indeed, if we limit our observation to plain cases, the difference between Greek and Latin seems smaller. Both Latin and Greek display a special case for the semantic role instrument (the Latin ablative and the Greek dative); this case can also occur in local expressions under similar lexical constrains (with toponyms and with certain nouns), while the accusative case can express direction in both languages, again with lexical constrains. Note that the local usage of the Greek dative is more limited in this respect, because plain cases in local expression only occur in the Homeric poems or in poetry. The most important difference between Latin and Greek, considering the local function of plain cases, lies in the fact that singular toponyms of the first two declensions in Latin have a locative case, while other nouns do not. As a consequence, only singular toponyms of the first two declensions have three distinct local cases (locative, accusative, and ablative), which express the three basic local semantic roles (location, direction, and source). In Greek, all nouns had a separate dative, accusative and genitive, so at least in principle the correspondence between morphological case and semantic roles was not dependent on inflectional classes.

However, if we turn to prepositional phrases, the difference between Latin and Greek becomes much clearer. Latin prepositions tend to take only one case: case variation is very limited, and the distinctions conveyed by different cases can also be understood from the context (for example, by the occurrence of a motion verb or of a verb of rest). In other words, cases are mostly redundant within prepositional phrases in Latin (see Luraghi 1989).

A further difference between Latin and Greek, which also holds for Latin prepositions that allow for case variation, is constituted by the fact that the Latin locative case never occurs with preposition. This means that a preposition can occur with two cases at the most, and can occur in expressions that involve two semantic roles, rather than all three basic spatial roles. Greek prepositions can take three cases; in the case of *pará,* I have shown that the same preposition can occur in location, direction, and source expressions, depending on the case.

The role of the verb and the syntactic function of local expressions deserve some more comments. Local expressions can be arguments of the verb or adverbials. Indeed, direction expressions usually occur with motion verbs, and are most often arguments of the verb, while location expressions may be arguments, as in (1), but they may often be adverbials (see Luraghi 1989). In the case of the Greek dative, I have shown in example (2) that the syntactic function of the NP did not affect its possible usage in location expressions. Indeed, the plain dative of certain nouns could express location, both inside and outside the verbal valency, at least in Homer. In the case of source expressions, I have shown that Greek tends to use prepositional phrases already at an early time (i.e., in Homer), unless the semantic role source is clearly required by the verb. I have argued that this peculiarity of the ablatival genitive is connected with the fact that a plain genitive is often interpreted as a partitive.

6. Recapitulation

In the present paper I have described the way in which the basic spatial relations location, direction and source were coded in Ancient Greek and in Latin. I have shown that, in spite of a smaller number of cases, Greek preserved the Proto-Indo-European sub-system of local cases to a larger extent than Latin. This difference ultimately goes back to different patterns of syncretism that underlie the merger of different cases in the two languages. While in Greek case semantics played a major role, in Latin it was the most frequent syntactic function of NPs in the locative, ablative and instrumental that determined their merger. Because such NPs most frequently had the function of adverbials, rather than arguments, they merged together into the so-called ablative.

List of abbreviations

Grammatical glosses

ABL	ablative	INDEF	indefinite
ACC	accusative	INF	infinitive
AOR	aorist	M	masculine
ART	article	MID	middle
DAT	dative	M/P	medio-passive
DEM	demonstrative	N/A	nominative/accusative
F	feminine		neuter
GEN	genitive	NOM	nominative
IMPF	imperfect	P	passive
IMPT	imperative	PART	participle

PF	perfect		Hom.	Homer
PL	plural		Liv.	Livy
PPF	pluperfect		Lys.	Lysias
POSS	possessive		Pl.	Plautus
PRET	preterite			
PRS	present			
PTC	particle		*Works*	
REFL	reflexive			
REL	relative		*Catil.*	*Against Catilina*
SG	singular		*div. in Caec.*	*Divinatio against Q. Caecilius*
SUBJ	subjunctive		*Gal.*	*The Gallic War*
VOC	vocative		*Il.*	*Iliad*
			Mil.	*Miles Gloriosus*
			Od.	*Odyssey*
Classical authors			*Pis.*	*Against Piso*
			Pseud.	*Pseudolus*
Caes.	Caesar		*Quint.*	*Letters to and from Quintus*
Cic.	Cicero			

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Argument structure and alignment variations and changes in Late Latin*

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This paper explores the diachronic relationship between the active/neutral realignment of grammatical relations taking place in Late Latin, manifested by accusative subjects, and the temporary loss of the grammatical dimension of voice. These two clusters of changes can be shown to reflect the rise of head-marking patterns in a predominantly dependent-marking language such as Latin in the passage to Romance.

Three parameters play a role in the spread of the accusative into the functional domains of the nominative for non-object, core arguments: *semantic* (the inactive nature of the arguments), *syntactic* (the degree of syntactic cohesion between the argument and its predicate), *pragmatic* (the grammaticalization of a constituent originally denoting the topic of the clause), interacting, in the course of time, with the restructuring of the voice system.

1. Introduction

This paper investigates the interplay between two well-known and much discussed changes taking place in the transition from Latin to Romance, the use of the accusative in subject function, the so-called *extended accusative* (Moravcsik 1978; Plank 1985a) and the concomitant *reorganization of voice distinctions*, signaled by the equivalence among voice forms and the abandonment of the passive as a voice strategy, sometimes replaced by the active voice (Herman 2002; Cennamo 1998, 2006).

The discussion is organized as follows. Section 2 illustrates some aspects of the encoding of argument structure in Latin, in relation to the role played by the notions

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of animacy and control in determining variations in the marking and alignment of the core arguments of the clause. Section 3 illustrates the use of the accusative in subject function in Late Latin, its interplay with the restructuring of the voice system and the impact of the two changes on argument structure in the transition to Romance. Section 4 relates the issues investigated to a more general change, the rise of head-marked patterns of active syntax in Late Latin. Section 5 summarizes the conclusions and argues for the deep restructuring of the argument structure of the clause testified by the issues investigated, as one of the outcomes of the emergence of *head-marking* patterns in a canonical *dependent-marking* language such as Latin.

2. Argument structure and alignment in Latin: Synchronic aspects

2.1 Marking and linking of core arguments

In Latin, in their canonical encoding, the nuclear arguments of the clause, S/A and O (following the well-established terminology by Dixon 1979, 1994, recently discussed by Mithun & Chafe 1999), are marked with the nominative and accusative cases, the so-called *syntactic cases*, in subject and object functions, respectively (cf. Lehmann 1985; Pinkster 1985; Michaelis 1993, inter alia):

> (1) a. *puer*   *currit*
>   boy.NOM   run.PRES.IND.3SG
>   'The boy runs'
>
>   b. *puer*   *canem*   *necavit*
>   boy.NOM   dog.ACC   kill.PERF.IND.3SG
>   'The boy killed the dog'

The accusative not only marks different types of O arguments, e.g., the affected O of a telic divalent predicate, as illustrated in (1b), but it also functions as the *ungoverned* case (Vincent 1999), as in nominal clauses, e.g., exclamations (2a), commands – sometimes with a deleted verb governing the accusative implied, as

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The following abbreviations are used: ABL = ablative; ACC = accusative; ACT = active; AGR = agreement; AN = animate; DAT = dative; F = feminine; FUT = future; GEN = genitive; GER = gerundive; HUM = human: IMPF = imperfect; IMPER = imperative; IMPERS = impersonal; IND = indicative; INF = infinitive; INTR = intransitive; M = masculine; MPASS = medio-passive marker -*R*; NEUT = neuter; NOM = nominative; PASS = passive; PERF = perfect; PL = plural; PRES = present; PRES.PRT = present participle; PP = past participle; PLUP = pluperfect; RFL = reflexive; SG = singular; SUBJ = subjunctive; 1 = first person; 2 = second person; 3 = third person.

in (2b) – listings (2c), and appositions (2d), in alternation with the nominative in the last two functions (Leumann, Hofmann & Szantyr 1965: § 39; Svennung 1935: 187–188, inter alia):

(2) a. *me   infelicem   et   scelestam …*
 I.ACC unhappy.ACC and dreadful.ACC
 'What an unfortunate scoundrel I am …' (Plaut. *Cist.* 685)

 b. *manum   de   Tabula!*
 hand.ACC from table.ABL
 '(Take) your hand off the table!' (Cic. *fam.* 7, 25, 1)

 c. *mustaceos sic facito…:   anesum,   cuminum, …*
 buns.ACC   thus make.PRES.IMPER aniseed.ACC caraway.ACC

 casei   libram…
 cheese.GEN pound.ACC

 'Make wedding buns in this way …: (take) aniseed, caraway, … a pound of fat' (Cato *Agr.* 121)

 d. *Eumenem   prodidere   Antioco,   pacis   mercedem …*
 Eumenes.ACC betray.PERF.3PL Antiochus.DAT peace.GEN price.ACC
 'They betrayed Eumenes to Anthiocus, (as) the price of peace …'

 (Sall. *Hist.* 4, 69, 8)

The ungoverned or *asyntactic* uses of the accusative also comprise its topic function, as in (2e):

(2) e. *Puteolos…   Pompeios,   hae   sunt*
 Pozzuoli.ACC Pompei.ACC these.NOM be.PRES.IND.3PL

 verae   coloniae
 true.NOM colonies.NOM

 'Pozzuoli …, Pompei, these are true colonies' (*CIL* IV, 3525)

The accusative, therefore, qualifies in Latin as the functionally unmarked or *default* case (Woodcock 1959: 10; Velten 1932; La Fauci 1994; 2001; Vincent 1999; Cennamo 2001b, forthc.).

    As for the linking of arguments to their grammatical function, in Latin the unmarked linking of arguments is for A/S to occur in the nominative in the active voice, functioning as subjects (3):

(3) *poeta   umbram   amat*
 poet.NOM shadow.ACC love.PRES.IND.3SG
 'The poet loves the shade'

Passive instantiates marked linking, signaling an O argument as subject, e.g., *iter* 'way' in (4), where the verb is in the synthetic passive, expressed through the *-R* form (see discussion in Michaelis 1993; Cennamo 1998):[1]

(4)   a.   *his*   *rebus*   *cum*   *iter …*   *impediretur*
              these.ABL   things.ABL   if   way.NEUT   block.MPASS.IMPF.SUBJ.3SG
              'If the way … is blocked by these things' (Caes. *Gall.* 2.17.5)

Already in Early Latin, however, there is variability in the rules linking the core arguments of the clause to their grammatical function. In point of fact, the passive voice may convey an S/A argument as subject, as with deponents (5), verbs with a passive morphology but an active meaning (Flobert 1975; Baerman 2007: 2–3; Xu, Aronoff & Anshen 2007, inter alia).

(5)   *amplectitur*   *genua*
        grip.MPASS.PRES.IND.3SG   knees.NEUT
        'He grips his knees'

Conversely, the active voice may signal an O argument in subject function, as with so-called "lexical" passives, verbs in the active voice but with a passive meaning, e.g., *vapulare* 'be beaten up' in (6), the lexical passive of *verberare* 'beat' (see further discussion in Lindsay 1897: § 63; Ernout & Thomas 1964: § 228; Cennamo 1998: 81, 2006):

(6)   *a*   *tyranno*   *vapulavi*
        by   tyrant.ABL   be-beaten.PERF.IND.1SG
        'I have been beaten by the tyrant' (Sen. *Contr.* 9.4.2)

In some grammatical domains, therefore, already in Early Latin, the canonical linking rules of Latin appear to be violated or do not consistently apply, anticipating later changes, involving a deep restructuring in the voice system, which at some point intersects with a different alignment of case marking and agreement (Sections 2.2 and 3). As will be shown in the course of discussion, the clash between the two phenomena triggers some of the major morphosyntactic changes taking place in the passage from Latin to Romance (Cennamo 2003, 2005, 2006, 2008a, and Section 3).

2.2   Alignment variations and constraints

In this section I discuss the alignment of the sentence nuclear arguments S, A, O in Latin in relation to case marking and agreement, only marginally addressing the position of the argument with respect to the verb (see Section 3.2).

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1.   This suffix is regarded in the literature as being originally either an impersonal (Ernout 1908–1909: 273–279; Lindsay 1895: § 21, int.a.), or a (medio)-passive suffix (Bassols de Climent 1948: § 5; Leumann, Hofmann & Szantyr 1965: § 162, note a), having primarily a "passive" function in a synchronic grammar of Latin (Flobert 1975; Baldi 1977). On its controversial status see also Kurzová (1993: 157–171).

Languages, or rather different constructions within languages, may show different alignments of the primary morphosyntactic coding devices of case marking, agreement and position of the core arguments with respect to the verb (Donohue 2008, inter alia), in relation to all or some of the above characteristics:

– *nominative–accusative*: A and S arguments are coded alike and are differentiated from O
– *ergative–absolute:* O and S are grouped together, morphologically and/or syntactically, while A shows different coding properties
– *active–inactive* (active–stative, agentive–patientive): some Ss (S_A) are coded like the A argument of a canonical transitive clause, while other Ss (S_O) are aligned with the O argument of a transitive clause, that is differentiated from A (Mithun 1991, inter alia)
– *neutral alignment*: S, A and O are coded alike as far as case marking is concerned, with other devices, agreement and/or word order, or "referential ranking", depending on the language, distinguishing A from O (Comrie 1989, 125, 2005; Bickel & Nichols 2009)

Latin can be described as a prototypical nominative–accusative language. The canonical alignment of the core arguments of the clause consistently involves identity of morphological and syntactic marking of A and S which are in the nominative case and agree with the verb, in contrast to O which is in the accusative case and lacks agreement with the verb, as illustrated in (7):

(7) a. *mater*   *filiam*   *amat*
         mother.NOM   daughter.ACC   love.PRES.IND.3SG
         'A mother loves her daughter'

     b. *puer*   *currit/venit*
         boy   run.PRES.IND.3SG/come.PRES.IND.3SG
         'The boy runs/is running/comes/is coming

Already in Early Latin, however, in some constructions the S argument does not occur in the expected nominative case. More specifically, the inactive arguments of nominal clauses, S_O, especially those that can be interpreted as equative clauses involving ellipsis of the verb *esse* 'be' (8), and of exclamative-presentative structures introduced by *eccum, eccillam, eccillum*, as in (9), occur in the accusative (Bennett 1914: 257–258; Leumann, Hofmann & Szantyr 1965: § 49). Observe that the forms *eccum, eccillam, eccillum* are "univerbations" of *ecce* 'here' and the accusative form of the pronouns *is, ille* 'he', *iste* 'this':

(8) *fortunatum*   *Nicobulum*
     lucky.ACC   Nicobulus.ACC
     'How lucky is Nicobulus' (Plaut. *Bacch*. 455)

(9) a. *sed   eccum   Palastrionem,   stat   cum   milite*
         but   here.M.ACC   Palastrio.ACC   stay.PRES.IND.3SG   with   soldier.ABL
         'But here is Palastrio with a soldier' (Plaut. *Mil.* 1290)

     b. *sed   eccum   Amphitruonem,   advenit*
         but   here-he.ACC Amphitruo.ACC   come.PRES.IND.3SG
         'But here comes Amphitruo' (Plaut. *Amph.* 1005)

Also the O/S$_O$ argument of some impersonal verbs/constructions, either in the active
(10a) or in the medio-passive -*R* form (10b), figures in the accusative case
(Woodcock 1959: 167–168; Calboli 1962: 27; Bauer 2000: 109–110). This results in ambi-
guity between an impersonal and a personal (passive) interpretation of the pattern when
the sole argument agrees with the verb in the -*R* form, as in (11):

(10) a. *me   taedet,   me   pudet*
         I.ACC annoy.PRES.IND.3SG (IMP) I.ACC repent.PRES.IND.3SG   (IMP)
         'I am annoyed (lit. me annoys), I am ashamed (lit. me ashames)'

     b. *nilne   te   populi   vereretur?*
         not at all you.ACC people.GEN fear.MPASS.IND.3SG.IMP
         'Don't you have any respect for the audience?' (Atta, *com.* 7)

(11) *vitam   vivitur*
      life.ACC live.MPASS.PRES.IND.
      'One lives life' (Enn. *trag.* 241)

The patterns exemplified in (8–11) above show a different orientation of case marking
and indicate the existence of dependent-marked patterns of active syntax already in
Archaic Latin. In these structures, in fact, a coding system is found, which identifies
morphologically, through case marking, the inactive sole argument of non-canonical
intransitive situations (S$_O$), with the O argument of canonical transitive situations, i.e.,
the object, generally marked through the accusative case. In particular, (8) exemplifies
a nominal clause in attributive function, with the S argument being semantically the
theme, a participant which is in a state or position. In (9a–b), instead, the accusative
S (*Palastrionem* 'Palastrio', *Amphitruonem* 'Amphitruo') is not clearly integrated into
the syntax of the clause, but it seems to convey a purely pragmatic function, that of the
topic of the clause. However, it is also the semantic as well as the syntactic "subject", as
shown by verb agreement (if we regard the comma as reflecting a stylistic choice on the
part of the text commentator rather than marking the extra-syntactic topic function
of the noun in the accusative). In contrast, in (10a–b) the argument in the accusative
case, e.g., *me* 'I' in (10a), *te* 'you' in (10b), has the thematic role of Experiencer, in that
it is *affected* by the verbal process.

The unifying element in the use of the accusative in these patterns is the non-
active, inert nature of the argument of the predicate, it being the participant "at rest" in
the clause (Collinge 1978; Cennamo 2001b).

Other instances of active–inactive coding in Early Latin are exemplified by second declension 'thematic/weak neuters' of the *o*-stem, such as *uterum* 'belly', *corium* 'skin', *caelum* 'sky', whose nominative/accusative forms are identical with the accusative of second declension masculine nouns (e.g., *deus* (NOM) ~ *deum* (ACC) 'God', cf. Lazzeroni 2002b; Rovai 2007a). For these neuter nouns traditional reference grammars of Latin also give the corresponding 'secondary' forms of animate masculine, more rarely feminine, gender, depending on the noun. Therefore, alongside the neuter form *corium*, attested at all stages of the language, in Early Latin (e.g., Plautus, in the 3rd century B.C., Varro, in the 1st century B.C.) the masculine *corius* also occurs (see full discussion in Rovai 2007a–b):

(12) a.   *tris   facile   corios   contrivisti   bubulos …*
           three   easily   skins.ACC.M consume.PERF.PRES. 2SG   of-bullocks.ACC.M
           'You have easily consumed three bullocks skins …' (Plaut. *Poen*.139)

      b.   *iam   tibi…   crassus   corius   redditust*
           already you.DAT thick.NOM.M skin.NOM.M   return.PP.BE.PRES.IND.3SG
           'The thick skin has already been returned … to you' (Plaut. *fr*. II.5)

Interestingly, the neuter form in Early Latin occurs in syntactic contexts where the subject is inactive, i.e., non-agentive, such as passives (13a), fientives (patterns derived from adjectives denoting the transition from a state to a new state, cf. Haspelmath 1993: 34), as in (13b), equative structures, as in (13c), changes of state, as in (13d), i.e., with unaccusative structures (examples from Rovai 2007a: 59–61):

(13) a.   *detegetur   corium   de   tergo …   meo*
           uncover.MPASS.PRES.IND.3SG skin.NEUT   from   back.ABL my.ABL
           'The skin is uncovered from my … back' (Plaut. *Epid.* 65)

      b.   *fieret   corium …   maculosum …*
           become IMPF.SUBJ.3SG   skin.NEUT   mottled.NEUT
           'That the skin … became mottled' (Plaut. *Bacch.* 434)

      c.   *corium   [sit] …   non   asperum   ac … durum …*
           skin.NEUT be.SUBJ.PRES.3SG   neither rough.NEUT   nor   hard.NEUT
           'That the skin … be neither rough … nor hard' (Varr. *De re rust.* 2.5.8)

      d.   *quod   periit,   periit: meum*
           what.NEUT go-lost.PRES.IND.3SG go-lost.PRES.IND.3SG   my.NEUT

           corium   [cum] cistella
           skin.NEUT with   basket.ABL
           'What gets lost gets lost: my skin with the basket' (Plaut. *Cist.* 703)

Following Lazzeroni (2002b) and Rovai (2007a), (2007b), I do not regard these alternations as cases of free allomorphy between the masculine and neuter forms (Ernout 1974: 1–4; Leumann, Hofmann & Szantyr 1965: §§ 7–18). In contrast, I consider the

"neuter" variant as an early attestation of the accusative to mark nuclear non-O arguments, a phenomenon that becomes quite widespread in Late Latin, as part of the loss of the case system. Under this view thematic neuters instantiate the generalization of the accusative in S and A function with some nouns, occurring initially in syntactic contexts where the subject is inactive and inanimate. This pattern is apparently of Indo-European inheritance, and is attested in Hittite, Avestic, Indo-Iranian, as well as Greek, alongside Latin, and points to the existence of some morphosyntactc domains which followed an active–inactive orientation in the coding of verbal arguments (Lazzeroni 2002a–b).

Already in Early Latin, therefore, alongside the canonical nominative–accusative alignment of the core arguments of the clause, S, A, and O, there occur structures which show a semantically constrained split marking of S, sensitive to the more general notion of control, the degree of primary responsibility of a participant over the verbal process (Lehmann 1988; Comrie 1989: 52–62), and animacy. These parameters, in fact, play an important role in the encoding of the argument structure of the clause in Latin, both synchronically and diachronically (Cennamo 1998, 2001a–b, 2006).

In Early and Classical Latin in some grammatical domains also agreement shows an active–inactive alignment, grouping together, morphologically O/S_O arguments (La Fauci 1994, 1997). This is evidenced, in particular, by the occurrence of past participle agreement with the O argument of resultative aspectual periphrases/perfective patterns with *habere* 'have', as in (14), and with the inactive S_O argument of constructions in the non-active voice, i.e., the *-R* form, in the *perfectum*. In these tenses, in fact, the past participle of the lexical verb always agrees with the inactive subject, e.g., *profectus* 'left' in (14b) (deponent), *necatus* 'killed' in (14c) (passive) (see discussion and further examples in La Fauci 1994; Zamboni 1998, 2000; Cennamo 2008a; Ledgeway 2008):

(14) a. *habeo*   *epistulam*   *scriptam*
         have.PRES.IND.1SG   letter.ACC   write.PP.F.SG.ACC
         'I have the letter written/I have written the letter'

      b. *consul*   *profectus*   *est*
         consul.NOM   leave.PP.M.SG.NOM   be.PRES.IND.3SG
         'The consul left/has left'

      c. *consul*   *necatus*   *est*
         consul.NOM   kill.PP.M.SG.NOM   be.PRES.IND.3SG
         'The consul was/has been killed'

To conclude, there appears to be evidence for the existence of some areas in the nominal and verbal systems of Early Latin, where the coding of verbal arguments does not consistently follow the nominative–accusative alignment, but shows different types of active–inactive-like variations, reflecting the notions of animacy and/or control.

3.   Argument structure and alignment in Late Latin

In this section I investigate the changes taking place in Late Latin in the encoding of argument structure, in relation to the emergence of a different alignment of some of the coding characteristics of grammatical relations, namely case marking (3.1) and agreement (3.2), no longer confined to specific constructions, as in Early and Classical Latin, but affecting core transitivity domains. More specifically, I discuss their interplay with the changes in the rules linking arguments to their grammatical functions, signaled by uncertainties in the use of voice patterns (3.3).

3.1   The extended accusative: Its origin, spread and geographical distribution

In Late Latin, roughly by the 4th–5th century A.D, with earlier attestations by the 2nd–3rd century A.D. from African Latin, as part of the general process leading to the breaking down of the case system, the accusative may occur in subject function. Initially this is attested with intransitive patterns, subsequently with transitive constructions, and more and more the accusative also marks the sole argument of impersonal constructions.

This change is also referred to in the literature as the *extended accusative*, following a term originally introduced by Moravcsik (1978), to denote the extension of a morphological marker, the accusative case, generally used for the object (O) of a transitive verb, to encode the sole argument (S) of some intransitive predicates, mainly denoting mental processes, involuntary actions and existence, a phenomenon which is well attested cross-linguistically, both synchronically (Moravcsik 1978: 241–54) and diachronically (Plank 1985a, 1995; Burridge 1994: 152–160 for middle Dutch).

Following Plank (1985a, 1995), I regard this pattern as the manifestation of an active coding system, where the sole argument of an intransitive construction (S) is coded like the subject (A) of a transitive verb with some patterns, and like the object (O) of transitive verbs with other structures (see also Section 2.3).

The chronology and spread of the phenomenon varies according to the different areas in which it occurs (see Gerola 1950; Herman 1997: 25–25). It concerns mainly the southern provinces of the empire – Africa, Italy, Spain (Herman 1995: 72–75), probably the Balkans (Herman 1987: 102) – with late (5th–8th century) attestations also from Gaul. In this area, however, by the 8th century there is also clear evidence for the two-case declensional system which developed in Old French, with the nominative–oblique opposition, so-called "cas sujet" vs "cas régime", i.e., with the accusative used as a general oblique case replacing the other cases, marking core and non-core relations as well (Pei 1932:150, 207–237 and references therein, Schøsler 2001, and Detges, this volume for Old French).

3.1.1 *Accusatives with intransitive patterns*

Anomalous uses of the accusative for the nominative with core arguments already occur in execration tablets from Northern Africa of the 2nd–3rd century A.D. (Audollent 1967: 387; Herman 1987: 103–105, 1997: 25). They figure, in particular, with intransitive verbs denoting change of state/location, as in (15a), agentive anticausatives with animate nouns of the second (15b) and third declensions, such as *Victore* 'Victor' in (15a), alternating with canonical nominative subjects in (15c). In the same region the *extended* accusative is also attested in literary texts of the 3rd–5th century, as in (15d):[2]

(15) a.   *Epafu*   *Victore*   *cadant,*   (*intransitive*)
       Epafus.ACC   Victor.ACC   fall.PRES.SUBJ.3PL

       Lydeu   *cadat …*
       Lydeus.ACC   fall.PRES.SUBJ.3SG

       'Let Epafus, Victor fall, Lydeus fall …' (*Def. Tab.* 278A 3–6)

     b.   *Superstianu …*   *cadat,*   *vertat …*
       Superstianus.ACC   fall.PRES.SUBJ.3SG   turn.PRES.SUBJ.3SG

       servu   *cadat*   (*agentive anticausative*)
       servant.ACC   fall.PRES.SUBJ.3SG

       'Let Superstianus … fall, turn, the servant fall' (*Def. Tab.* 283A, 2–4)

     c.   *Blandus*   *Gemmatus …*   *cadat*
       Blandus.NOM   Gemmatus.NOM   fall.PRES.SUBJ.3SG
       'Let Blandus Gemmatus … fall' (*Def. Tab.* 272, 9–11)

     d.   *nec*   *unquam*   *esse*   *superbos*   (*equative*)
       neither   ever   be.PRES.INF   arrogant.ACC.PL.M
       'Neither to be ever arrogant' (Commod. *Instruct.* II, XXII, 4)

Forms such as *Victore* 'Victor' in (15a) and *servu* 'servant' in (15b) do not exemplify well-known and thoroughly investigated phonetic phenomena such as the fall of final *-m* and *-s* in atonic syllables (Herman 1987; Molinelli 1989, inter alia), but a genuine morphosyntactc change: the penetration of the accusative into the canonical functional domains of the nominative. More specifically, they instantiate the alternation between the nominative and the accusative, respectively Ø ~ *-e* (< *-em*) for the singular of the third declension), and *-us* ~ *-u* (< *-um*) (*o* in late texts, with fall of final *-m* in pronunciation and loss of quantity vowel and change in vowel aperture in final position, whereby *-u* > *o*) in the second declension (*servus* > *servo*)

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2.   Anticausatives are intransitive patterns (mainly denoting change of state/location) derived from originally transitive ones, with the original inanimate O (the object) occurring as S, the process being described as taking place spontaneously. When the subject is animate, the pattern realizes a so-called agentive anticausative (Haspelmath 1987: 28–29).

(Herman 1987: 103–105; Väänänen 1965: 30 for 5th–6th century African Latin; Pei 1932: 106 for Merovingian Latin). This phenomenon is attested also for the plural of second declension nouns/adjectives such as *superbos* 'arrogant' in (15d) (see also Väänänen 1965: 36 for 5th–6th century African Latin).

I leave out of discussion the accusative for the nominative in the plural of first declension nouns, the *-as* forms. Unlike the accusative of the other declensional classes investigated in this paper, in fact, these forms occur in all clause types, i.e., also in transitive clauses, both in their early attestations and at later stages, as illustrated in (16a–b), respectively of the 1st century B.C. and of the 8th century A.D. Probably they originate from Osco-Umbrian forms (Norberg 1943: 26–32, 1944: 27; Löfstedt 1933: 332; Gerola 1950: 207–209; Rovai 2005 for a different view):

(16) a. *quot   laetitias   insperatas …   mi*
          that   happiness.ACC   unexpected.ACC   I.DAT

          inrepsere   in   sinum
          penetrate.PERF.IND.3PL   in   breast.ACC

          'That unexpected happiness … overtook me' (Pompon. *Atell.* 141)

      b. *si   ipsas   personas …   talem   fraudem*
          if   the-same.PL.ACC.F   people.PL.ACC.F   this.ACC   fraud.ACC

          consentire   voluerint
          let.INF.PRES   want.FUT.SUBJ.

          'If these people … wanted to accept this fraud' (*Lex Cur.* 319,6)

In other areas of the empire, e.g., Italy, Spain, Gaul, the *extended accusative* is attested in texts from various periods, spanning from the 4th to the 8th–11th century, and in a wider range of intransitive patterns. It occurs, in fact, not only with equative structures, as in (17a), from the 4th century A.D., but also with fientives, as in (18a), anticausatives (18b) and passives (19b), figuring with both animate and inanimate nouns of the same declension classes with which they are attested in African Latin, as illustrated in (17–19) below (see Cennamo 2001b; Rovai 2005 for a full list of examples from 4th–8th century texts):

(17) a. *ustionem   necessaria   res   est*
          cauterization.ACC   necessary.NOM.F.SG.   thing.NOM   be.PRES.IND.3SG
          'Cauterization is necessary' (*Chiron* 153)

      b. *ut   crudastros   sint*
          in-order-to   underdone.ACC.PL.M   be.PRES.SUBJ.3PL
          'So that they are underdone' (Anthim. 11, 21)

(18) a. *ficum   contundito,   usque   dum minutum fiat*
          fig.ACC   cut.IMPER.2PL   until   minute.ACC   become.PRES.SUBJ.3SG
          'Cut the fig until it is reduced to small pieces' (*Chiron* 890)

b. *multos*   *languores*   *sanantur*   *in*
    many.PL.ACC illnesses.PL.ACC/NOM heal.MPASS.PRES.IND.3PL in

    ipsis   *locis*   *ubi*   *cadit*   *ipse*   *ros*
    same.PL.ABL place.PL.ABL where fall.PRES.IND.3SG same.NOM rose.NOM

    'Several illnesses heal in the places where this rose falls'

(Anton. Plac. *Itin.* 9, Corp. Christ. 165, 16)

(19) a. *catulum*   *lactantem*   *vivum*   *in*   *aqua*   *fervente*
    kitten.ACC suckling.ACC live.ACC in water.ABL boiling.ABL

     coctum …   *conditur*   *eodem*   *modo*
    cook.PP.M.ACC season.PRES.IND.MPASS.3SG same.ABL way.ABL

    'Live suckling kitten cooked in boiling water … is flavoured in
    the same way' (*Chiron* 199)

b. *omne*s   *cibos*   *comedantur*   (*passive*)
    all.NOM.PL food.ACC.PL eat.MPASS.PRES.SUBJ.3PL
    'That all the food be eaten' (Anthim.1)

Already in 4th century texts and even more so in later periods, the accusative also occurs for the sole argument of impersonal constructions formed from transitive verbs (20):

(20) *cum*   *factum*   *fuerit*   *missam*
    when   make.PP.NEUT.SG be.FUT.PERF.3SG Mass.ACC
    'When the Mass is over' (*Per. Aeth.*32, 2)

In (20), in fact, the transitive verb *facere* 'do, make' is in the *perfectum* of the impersonal form, with the past participle in the unmarked neuter singular form *factum* 'done' and the finite verb in the unmarked third person singular *fuerit* 'will have been', followed by the 'logical' object *missam* 'Mass' in the accusative.

In 4th century texts accusative subjects are also well attested with intransitive verbs denoting change of state, as in (21), telic change of location, e.g., *exire* 'go out', *procedere* 'go on' in (22a–b), and state, e.g., *dolere* 'hurt' in (23) (see Cennamo 2006; forthc., Rovai 2005: 79):

(21) *nascitur*   *ei*   *genuorum*   *contractionem* *et*
    be-born.PRES.IND.3SG he.DAT knee.GEN.PL spasm.ACC   and

    claudicationem
    lameness.ACC

    'There arises a spasm and contraction of its knees' (*Chiron* 516)

(22) a. *ut*   *sanguinem* *exeat*   *copiosum*
    in-order-to blood.ACC come-out.PRES.SUBJ.3SG abundant.ACC
    'So that the blood comes out abundantly' (*Chiron* 618)

b.   *cum   aetatem   processit*
   when   age   go-on.IMPF.SUBJ.3SG
   'As age goes on' (*Chiron* 612)

(23)   *cum pulmonem   dolebit*
   if   lung.ACC   hurt.FUT.3SG
   'If its lung hurts' (*Chiron* 368)

In later texts the accusative occurs, albeit less frequently, alongside the patterns illustrated above, as in (24) with a stative verb, from a 6th century African inscription, with agentive motion activities, as in (25) from the 7th century, indefinite changes of state, as in (26) from the 8th century, non-agentive, and non-motion activities, as in (27), from the 9th century (Norberg 1944: 21–32):

(24)   *lucem …   caruit*
   light.ACC   lack.PERF.IND.3SG
   'The light … was lacking' (*CIL* VIII, 5372)

(25)   *si …   ipsum   currit*
   if   he.ACC   run.PRES.IND.3SG
   'If … he runs' (*Lex Alam*. XCIV codd. A)

(26)   *si   inter   eos …   causam   advenerit*
   if   between   they.ACC   dispute.ACC   arise.FUT.PERF.3SG
   'If a dispute arose … between them' (*Lex Cur*. 2, 2)

(27)   *crepitavit   panem   in   furno*
   crackle.PERF.IND.3SG   bread.ACC   in   oven.ABL
   'Bread crackled in the oven' (Agnell.175)

The accusative, therefore, is attested, both at earlier stages and in later centuries, with unaccusative constructions. Unaccusative verbs, e.g., statives and verbs denoting changes of state/location, are attested earlier than unergatives, e.g., non-agentive, non-motion (*crepitare* 'crackle') and agentive motion activities (*currere* 'run'). For the relevance of this notion also to other areas of Late Latin syntax, see La Fauci (1991, 1994, 1997), Cennamo (1999, 2000). It is to be investigated, however, to which extent the different chronological attestations of accusative subjects with these verb classes in later 7th– 8th century texts reflect a true subsequent stage of the change or whether the attestations are confined to the texts scrutinized, i.e., whether this is a 'diachronic correspondence' rather than a true change (Andersen 2008: 31).

The structures illustrated in (21–27) above show the functional equivalence between the nominative and accusative cases to mark the S_O argument of intransitive patterns and anticipate later occurrences of the accusative in subject function and for the sole argument of impersonals. This phenomenon was already noticed by Audollent (1967: 384) for the African execration tablets, and has been discussed by Herman (1987, 1990, 1995, 1997) for its areal distribution in the empire as well as with

reference to the more general issue of the restructuring and breaking down of the case system in the transition from Latin to Romance. As pointed out by Herman (1997: 27–28), the examples from 2nd–6th century texts, illustrated above, show the existence of a very old morphosyntactc bipartition within the Romance area, dating back to the first centuries of the empire, between a vast area (Africa, Italy, the Iberian Peninsula) where the functional opposition nominative–accusative to mark the clause nuclear arguments disappears early, and a more restricted area, Gaul, where this alternation is kept. Also in Gaul, however, for a period of time the two-case system apparently co-existed with the one-case (or no-case) system that had already won out in the other areas. This alternation is clearly documented for the Gallic inscriptions of the 5th–6th century (Pirson 1901: 188–189), for 6th century texts such as the *Historia Francorum* (Bonnet 1890), and for some 8th century chancery documents (Pei 1932: 214).

In particular, Herman (1997) stresses the existence of an early formal and functional fusion between the accusative and the nominative of second declension nouns, i.e., between a nominative and an accusative in -*u*, involving mainly proper names. In certain areas, therefore, e.g., Africa and Central and Southern Italy, there appears to be a nominative–accusative case with a mobile -*s*, occurring initially in S and later in A function, reflecting the early reduction of the case system in some southern provinces of the empire. This phenomenon parallels the existence, within the same areas, of the nominative–accusative forms in -*as*, which are rare in Northern Italy and the Iberian Peninsula and are lacking in Gaul, where they appear in the 6th century (Herman 1990: 81–84, 1997 and discussion above).

The functional equivalence between the nominative and accusative cases with intransitive patterns, which gives evidence for the existence of a sole nominative–accusative case for first, second and third declension nouns, is well attested in 7th–8th century texts from Italy as well as in the 8th century *Lex Curiensis*, from Rhetia. This is exemplified in (28–29), respectively with an intransitive change of location verb, *venire* 'come', and a passive predicate, *concremetur* 'is burnt', with early examples in 4th–6th century Christian inscriptions from Rome (cf. Gerola 1950; Norberg 1944: 25–26; Herman 1997: 24). The equivalence between the nominative and the accusative is documented also for the Iberian Peninsula during the 6th–7th centuries, with early 4th century examples from the *Peregrinatio*, given the Iberian origin of the text (See 50a, Section 3.3). It is also documented at a later age, as in (30), from the end of the 10th century, with the intransitive change of location verb *venire* 'come' (cf. Bastardas Parera 1953: 16–20; Herman 1987; 1995: 72–75, 1997):

(28) *ille*   *heres,*   *cui*   *talem*   *servum*   *in*
      that.NOM   heir.NOM   who.DAT   this.ACC   servant.ACC   in

      porcionem   *venit*
      share.ACC   come.PRES.IND.3SG

      'That heir to whose share such a servant falls' (*Lex Cur.* 2, 23)

(29) *et   illum   servum   ignibus   concremetur*
and that.ACC   servant.ACC   fire.ABL.PL   burn.MPASS.PRES.SUBJ.3SG
'And this servant is to be burnt at the stake' (*Lex Cur*.9, 6)

(30) *venerunt   Gundessalvo* [<*um*] *et   alio   bassalo*
come.PERF.IND.3PL Gundesalvus.ACC   and another.ACC vassal.ACC
'There came Gundesalvus and another vassal'
(S. Millán 28, 1; Bastardas Parera 1953: 17)

In the Latin inscriptions from Gaul (Pirson 1901: 188–189) and in Merovingian charters (Pei 1932: 214–215) accusative subjects are attested mainly with unaccusative structures such as passives (31a) and equative clauses (31b), most typically with place names and proper names, although also examples with common nouns occur (Pei 1932: 214 and further references therein for other texts):

(31) a. *Theodovaldo   lapide[m]   non*
Theodovaldus.ACC/DAT   the-tomb.ACC   not

revolvatur
turn-over.PRES.SUBJ.MPASS.3SG

'Theodovaldus' tomb should not be turned over'
(Le BL., N.R. 264, Pirson 1901: 189)

b. *cui   vocabulum   est   Latiniaco* [<*um*]
whose name.NEUT   be.PRES.IND.3SG   Latiniacus.ACC
'Whose name is Latiniacus' (Tardif 40, Pei 1932: 214)

When the verb in the passive voice, i.e., the *-R* form, agrees with its sole argument, as in (29) and (31a)*,* the pattern is ambiguous between a passive ('the servant should be burnt' in (29), 'the tomb should not be turned over' in (31a)) and an impersonal interpretation ('one should burn the servant' and 'one should not turn over the tomb'); it is unclear, in fact, whether *servum* 'servant' in (29) and *lapidem*' tomb' in (31a) bear the O or S function (see also Section 3.2).

The pattern is well attested also in some 6th century texts from Gaul, e.g., the *Historia Francorum* (Bonnet 1890), where accusative subjects occur in the same structures with which they are attested in other areas, e.g., Italy, Spain, i.e., with passives, equative clauses and intransitive verbs, as exemplified in (32), where the accusative occurs on the subject of an indefinite change of state verb *evenire* 'happen' (Bonnet 1890: 522):

(32) *cui   evenerit   victoriam*
who.DAT   happen.FUT.3SG   victory.ACC
'The person who will happen to win (lit. to whom victory will
happen)' (*h.F.* 2,41: 104, 11)

In Merovingian texts from the early 8th century there also occur impersonal constructions followed by an argument in the accusative (33a) if it is a noun, and in the

dative if it is a pronoun (33b). This is the case both in texts where the nominative–accusative contrast is maintained (see Vielliard 1927: 220–222) and in texts which show the coexistence of two competing declensional systems, the two-case system characteristic of Old French and the one-case/no-case system which prevailed in the other areas of the empire (Vielliard 1927: 221; Pei 1932: 277–275):

(33) a. *interrogatum*   *est …*   *viro*   *Drogone*
          interrogate.PP.NEUT.SG   be.PRES.IND.3SG   man.ACC   Drogo.ACC
          'The man … Drogo was interrogated' (*Mer. Dipl* . XXVII, 14)

      b. *interrogatum*   *ei*   *fuit*
          interrogate.PP.NEUT.SG   he.DAT   be.PERF.IND.3SG
          'He was interrogated' (*Mer. Dipl* . XXV, 10–11)

The patterns illustrated so far not only exemplify the functional equivalence between the nominative and accusative cases in some syntactic contexts in the various areas of Romània, but they also seem to represent a transitional stage in the encoding of grammatical relations between Late Latin and Early Romance, one during which they are no longer identified on a nominative–accusative basis, but on an active–inactive one, with case marking as the overt manifestation of their realignment. In particular, the patient/theme subjects of passives, equative clauses, fientives/anticausatives and of some intransitives, i.e., one-argument verbs, are encoded like the object (O) of transitive verbs. This is a phenomenon that often takes place in the transition from accusative to ergative coding systems, where intermediate stages conform to an active–inactive coding system, with extension of the accusative and regression of the nominative. It is the change referred to in the literature as the *extended accusative/restricted nominative alignment*, discussed at length by Plank (1985a) also with reference to Late Latin: the accusative generally occurs with inactive, patient/theme subjects and the nominative recedes to the coding of active, dynamic arguments of intransitive situations, that resist the realignment (cf. Plank 1985a, 1995; Harris 1990: 85–88; Dixon 1994: 187–92; Harris & Campbell 1995: 273–81).

Unlike other languages which show similar intransitive-based changes, the *extended accusative/restricted nominative* in Late Latin does not seem to represent a stage in the shift from a nominative–accusative to an ergative–absolutive coding system (Plank 1985a). It preludes instead the loss of the nominative–accusative contrast (Herman 1987, 1995, 1997; Plank 1985) and pairs other manifestations of an active–inactive coding system, such as the alternation of the accusative/dative pleonastic reflexives *se/sibi*, occurring, respectively with unergatives and unaccusatives (e.g., *se periurare* 'swear' vs. *sibi perire* 'perish') (Cennamo 1999 and Section 4). It probably belongs to the same phenomenon as the tendency towards VS order, already attested in Classical Latin (Pinkster 1991: 77–79) for some intransitive verb classes/patterns, i.e., unaccusative structures, the same verbs/patterns with which the *extended accusative* and the pleonastic reflexive *sibi* occur (see also Cennamo 1999, 2001a, 2001b; La Fauci 1994: 46, fn.16, 47, fn. 20).

One cannot, however, exclude the possibility that there occurs at some point an ergative–absolutive coding system, once all S arguments may be marked by the accusative, whereas A arguments retain nominative case (see Zamboni 1998, 2000: 114–115). Hints of this change may be seen in such forms as *ipsum currit* 'he runs' and *crepitavit panem* 'the bread crackled', where the accusative appears for the S argument of an agentive motion activity verb and a non-agentive, non-motion activity, i.e., with peripheral unergatives (Sorace 2000).

The data, then, point to the spread of the accusative from inactive, inanimate arguments to active, dynamic ones, initially inanimate and subsequently animate, i.e., from S_O to S_A, a progression that seems to involve verb classes as well. Further study is needed, however, in order to detect the actual lexical path of the change and to confirm, as it seems to be the case, that core unaccusatives are affected by the shift earlier than peripheral ones (see also Cennamo 2001b).

There are also rare examples of a passive construction with overt expression of the Agent (by means of the prepositional phrase introduced by the preposition *a* together with the ablative) and the O argument in the accusative case, as exemplified in (34).

(34) a. *ut*   *ecclesiam*   Beati   Apolenaris   *ab Iuliano*
in-order-that   church.ACC   blessed.GEN   Apollinaris.GEN   by   Julian.ABL

     Argentario   *fundata*   *et*
     Argentarius.ABL   found.PP.SG.F.NOM   and

     consummata   *fuisset*
     complete.PP.SG.F.NOM   be.PLUP.SUBJ.3SG

     'For the church of Saint Apollinaris to be founded and completed by Julianus' (Agnell. 63)

   b. *a*   *nullo*   *principe*   *ei*   *nullam*   *licentiam*
     by   no.ABL   prince.ABL   he.DAT   no.F.ACC   permission.ACC

     detur
     give.MPASS.PRES.SUBJ.3SG

     'That no permission ought to be given him by any prince' (*Lex Cur.* 2, 5, 1)

In (34a–b), in fact, the subject of the passive clause *ecclesiam* 'church' and *licentiam* 'permission', i.e., the O argument, occurs in the accusative case. The A argument is overtly expressed through an agentive phrase, *ab Iuliano* 'by Iulianus' in (34a) and *a nullo principe* 'by no prince' in (34b). The past participle of the passive phrase, instead, occurs in the canonical nominative form and agrees with the accusative subject in (34a).

The pattern exemplified in (34), which is similar to analogous constructions occurring in several Indo-Arian (Gerola 1950: 222; Masica 1991: 341) and Slavic (Fici Giusti 1994) languages in the perfect, is also attested in Latin in a non-perfective form, as in (34b), where the verb is in the present subjunctive.

To sum up, in Late Latin – in all areas of the empire, albeit to a different extent and at different periods, depending on the region – the accusative may replace the nominative in subject function, initially with intransitive constructions with an inactive S, such as equative structures, passives, fientives/anticausatives, and intransitive predicates denoting change of state/location, and state, i.e., marking an S_O argument. Only at a later stage does the accusative extend to S_A arguments, as evidenced by its occurrence with intransitive activity predicates. Two semantic parameters appear to play a major role in this change: animacy and control, with lack of control determining initially the occurrence of the accusative, thereby configurating an active–inactive orientation of case marking, subsequently moving to an ergative-like patterning once all Ss may be marked by the accusative, with hints of this further change attested at a late stage, e.g., 7th–9th century.

3.1.2 *Accusatives with transitive patterns*

The last stage of the process seems to be instantiated by the extension of the accusative to the active, dynamic, agentive arguments of transitive situations, whose diachronic development and areal as well as numeric incidence is still to be investigated.

Accusative animate subjects with transitive verbs are attested in African inscriptions of the 5th century A.D. (Herman 1997: 25), as shown in (35):

(35) *filios   et   nepotes … memoria   posuerunt*
       child.PL.ACC and nephew.PL memory.ABL build.PERF.IND.3PL
       'His children and nephews … built the tomb' (*CIL* VIII, 7467)

In other areas of the empire the phenomenon is fairly widespread at a later stage. In Gaul, in 6th century texts such as the *Historia Francorum*, alongside accusative intransitive subjects discussed in 3.1.1, there also occur examples of the accusative with the A argument of transitives, with both inanimate (36a) and animate (36b) nouns (Bonnet 1890: 522):

(36) a. *ne   faciat   scandalum   haec   causam*
          so-that make.PRES.SUBJ.3SG difficulty.NEUT this.NOM.F reason.ACC.F
          'So that this reason will not cause any difficulty' (*h.F.* 5,18: 213, 9)

       b. *ut   nullum   (puerum) … haberet   accessum*
           that no.ACC   boy.ACC   have.SUBJ.IMP.3SG access.ACC
           'So that no boy … had access to it' (*h.F.* 5,30: 224, 6)

Some examples are also found in the Gallic inscriptions from the 5th–6th century (Pirson 1901: 189) like the one in (37a), as well as in the Merovingian royal charters, as in (37b–c):

(37) a. *sibi   et   suis   vi[v]um   paravit*
          himself.DAT and his.DAT alive.ACC buy.PERF.IND.3SG
          'He bought it during his lifetime for himself and his family'
                                            (XIII 1146, Pirson 1901: 189)

    b.   *ipse*   *viro* [*<virum*]   *Grimoaldus …*   *iussit …*
        this.NOM   man.ACC   Grimoaldus.NOM   order.PREF.IND.3SG
        'This man Grimoaldus … ordered …' (Tardif 45, Pei 1932: 215)

    c.   *quem*   *Leudefredo*   *colit*
        which.ACC   Leudefredus.ACC   grow.PRES.IND.3SG
        'Which Leudefredus grows' (Tardif 40, Pei 1932: 214)

In Rhetia and Italy the extended accusative is fairly common in 8th–9th century texts (cf. Norberg 1944: 21–32):

(38) *surdum*   *et*   *mutum …*   *hereditatem*   *colligere*
       deaf.ACC   and   mute.ACC   inheritance.ACC take-up.INF.PRES

       debet
       must.PRES.IND.3SG

       'Deaf-mutes … should obtain the inheritance' (*Lex Cur.* 26, 1,2)

Examples of accusative subjects with transitive verbs already occur, however, in texts from the second half of the 4th and the 5th–6th century A.D., although apparently confined to inanimate nouns (Rovai 2005: 81):

(39) a. *fontem*   *vero …*   *quater*   *in* *anno*   *colorem*
          spring.ACC in-fact   four-times in year.ABL colour.ACC

          mutat
          change.PRES.IND.3SG

          'The colour of the spring-water changes in fact … four times
          a year' (*Per. Aeth.* Excerpta)

    b. *si* *iumentum*   *morbum*   *renalem*   *temptavit*
          if   beast-of-burden.NEUT illness.ACC renal.ACC affect.PERF.IND.3SG
          'If this beast of burden suffers from kidney trouble' (*Chiron* 55)

In the 9th–11th century chancery documents from the Iberian Peninsula, investigated by Bastardas Parera (1954: 18–19), the accusative in subject function is instead frequently attested with transitive verbs, with both animate and inanimate nouns, as in (40):

(40) *nullus*   *homine[m]* *ausus*   *sit*   *piscato*
       no.NOM   man.ACC   dare.PP.M.SG.NOM be.PRES.SUBJ.3SG catch.ACC

       prendere
       take.PRES.INF

       'Nobody shall dare to take the catch' (S. Millán 9, 37; Bastardas Parera 1953: 19)

On the whole accusative subjects have a low frequency in the texts where they occur and alternate with patterns where the nominative–accusative distinction is kept, both in the first attestations of the phenomenon and at later stages, regardless of the animacy of

the noun, as illustrated in (41a–b), which exemplify, respectively, the canonical nominative form for the subject of an intransitive and a transitive predicate:

(41) a. *si   quis   homo …   in   maiore   potestate*
          if   this.NOM   man.NOM   in   major.ACC   office.ACC

          venerit
          come.FUT.PERF.3SG

          'If a man … takes up a position of responsibility and power' (*Lex Cur.* 2, 26)

      b. *quicumque   mulier …   suum   servum   ad*
          whichever.NOM   woman.NOM   her.ACC   servant.ACC   to

          maritum   preserit
          husband.ACC   take.FUT.PERF.3SG

          'Which ever woman … married her servant' (*Lex Cur.* 9, 6)

In sum, the use of the accusative to mark A arguments appears to be a further step in the change, attested initially with inanimate subjects and subsequently with animate ones in some areas (Italy, Spain), figuring however with animate subjects already in its first attestations in other regions (Africa). The extension of the accusative to transitive subjects is also attested in Gaul, with both animate and inanimate nouns, both in literary and non-literary texts, roughly by the same time as it appears in Africa, i.e., the 5th–6th century, thereby showing that all the Romance-speaking areas have been affected by the change. In Gaul also a two-case system developed, with the nominative coming to mark A and S arguments and the accusative marking O and non-core arguments as well. At some point in the course of time, then, there emerges a neutral coding system: case marking no longer identifies verbal arguments, which are differentiated, instead, by word order, animacy, and/or agreement (see Section 3.2)

3.1.3   *Possible sources and pathways of the change*

The main steps of the change leading to the accusative marking of the S and A arguments of the clause in Late Latin, as well as the types of constructions and parameters involved, can be summarized as in Table 1. The table specifies the sentence-type constructions that are relevant for the change, characteristics of arguments, their syntactic functions, alignment pattern and the progression of the change (with [an] standing for animacy).

Whereas it is difficult to detect the path of the change for the various areas, because we lack in-depth investigations of different texts from the same area, as pointed out above, some general trends, however, emerge quite clearly by comparing texts from different areas and from different time spans. In particular, the accusative appears to spread from low transitivity domains such as nominal clauses – equative clauses with omission of the copula *esse* 'be', as in commands, listings and

various types of topicalizations – exclamative-presentative constructions introduced by *ecce* 'here', and impersonal constructions with an expressed argument, to more canonical intransitive patterns. From there it extends to equative clauses, anticausatives, fientives, passives, impersonals, unaccusative verbs, as well as to transitive verbs with inanimate, inactive subjects. Subsequently the accusative also figures with unergatives and transitive verbs with animate, active subjects.

As pointed out by Plank (1985a: 291, 1995) who has discussed the issue with reference to other intransitive-centred changes involving the realignment of the nuclear arguments of the clause, the locus of the change is the intransitive pole. In particular, he regards the *extended accusative* in Late Latin as a case of "resemanticization" of the nominative–accusative opposition: the nominative case encodes active, dynamic participants, whilst the accusative marks inactive, patient participants/arguments. This yields the distribution of the accusative and the nominative in intransitive and transitive clauses, regardless of the differences among clause types. However, as already pointed out in the literature (Collinge 1978; Lehmann 1985a; Vincent, 1999), there seems to be evidence in favour of the hypothesis that the accusative was the *functionally unmarked case* in Latin, alternating with the nominative in the encoding of non-active "neutral" participants (Vincent 1982), those "at rest" in the clause, as in nominal clauses (Collinge 1978).

The picture is also further complicated by the albeit uncommon occurrence of the opposite phenomenon as well, the widening of the functional domains of the nominative, that in some 6th–8th century texts from Italy, e.g., Oribasius and the *Edictus Rothari*, may also occur in O function, initially apparently with inanimate arguments (42a), subsequently with animate ones (42b):

(42)   a.   *pulvis*   *superaspargis*
           powder.NOM   sprinkle.PRES.IND.2SG
           'You sprinkle the powder' (Orib. 860.1; Mørland 1932: 104)

      b.   *si*   *pater*   *percusserit*
           if   father.NOM beat.SUBJ.FUT.3SG
           'If he beats his father' (*Ed. Roth.* 169: II, Löfstedt 1977: 215)

Therefore, rather than a resemanticization of the nominative–accusative distinction, with the nominative used for dynamic, active participants and the accusative with inactive, patient ones, there appears to occur instead an active–inactive realignment of some of the coding properties of grammatical relations, namely case marking and, to a lesser extent, agreement (Section 3.1.3). Animacy and control play a crucial role in this change: accusative subjects, in fact, are confined initially to inactive arguments. These semantic parameters conflate, in the course of time, with *syntactic features* and *pragmatic features*. The syntactic features involve the type of clause and the degree of syntactic cohesion between the verb and its argument, while the *pragmatic features*

Table 1. Types of constructions and steps of the change.

Early Latin	Late Latin	
Type of construction		
nominal clause	nominal clause	
impersonal/passive	impersonal/passive (+overt A)	
presentative ecce+accusative	presentative	
equative	equative	
anticausative	anticausative	
fientive	fientive	
telic change of state/location	telic change of state/location	
	indefinite change/state	
	activity (agentive motion activity	
	non-motion (non-agentive) activity) transitive	
Characteristics of arguments		
[±animate]	[±animate] [+animate] [+animate]	
[-control]	[-control] [-control] [+control]	
Function of arguments		
O/S	S_O, A	S_A, A
patient/theme	patient/theme	agent
Alignment patterns		
dependent-marked active–inactive	dependent/head-marked active–inactive, ergative (?)	
Progression of change: II–I B.C.	**II–III–IV A.D. VII–IX A.D.**	
nominal clauses		
presentative construction with *ecce*		
equative clause		
passive/impersonals fientive →	passive/impersonal + overt A (VIII A.D.)	
telic change of state →	telic change of state/location [±an] → activity [±an] state [-an]	
two-argument predicate [-an]	two-argument predicate [+an]	
core unaccusatives (S_O) →	non-core unaccusatives (S_O) → activity S_A/A [+an] transitives ([-an] A) transitives ([+an] A)	
[-control] [±an] →	[-control] [±an] [+control] [±an]	

involve, for instance, the subjecticization of a nominal in the accusative case originally conveying an extra-syntactic function, marking the topic of the clause, gradually being integrated into the predicational nucleous of the clause. In Late Latin, in technical texts of the 4th and 5th century A.D., there are several examples of topics in the accusative, syntactically 'hanging' arguments occurring in sentence initial position, that are at times ambiguous between a purely pragmatic and a syntactico-pragmatic function, as in (43):

(43) *herbam,*   *quae*   *Gallice*   *dicitur*
      herb.ACC   which.NOM   Celtic   say.PRES.IND.MPASS.3SG

      blutthagio   *nascitur*   *locis*   *umidis,*
      blutthagio   born.PRES.IND.MPASS.3SG   place.ABL   humid.ABL

      eam   *teres*
      be it.ACC   tear.PRES.IND.2SG

      'The herb which is called blutthagio in Celtic, grows in humid places,
      you tear it' (Marcell. 9, 132)

Here *herbam* 'herb' is both the topic of the sentence, occurring as such in initial position, and the subject of the verb *nascitur* 'arises', with which it agrees, and is cross-referenced by means of the resumptive pronoun *eam* 'it', referring back to *herbam*. In point of fact, once the accusative more and more could alternate with the nominative to mark intransitive subjects, one might hypothesize that speakers tended to use the form in the accusative as the basic lexical form, and started using it in all syntactic contexts, therefore also with canonical, i.e., topical subjects of transitive clauses.

Unlike earlier attestations, in Late Latin the 'anomalous' uses of the accusative for nuclear arguments are not confined to peripheral, low transitivity domains, but spread to canonical (in)transitive structures. The phenomenon, therefore, reflects a genuine change taking place in the encoding of grammatical relations, which preludes the breaking down of the case system and the use of the accusative as the only case (Plank 1985a: 289–93), a change that by the 8th century A.D. occurs also in Gaul, although it withdraws subsequently in favor of the competing two-case system (Pei 1932: 214–215, also Section 3.1.1).

After an initial stage, at which the S argument of intransitive predicates is encoded on an active–inactive basis, the accusative spreads to the A argument of transitive clauses as well, leading to a neutral coding system (see discussion in 3.2).

3.2   Accusative arguments and agreement variations

In Late Latin, although generally continuing to pattern nominatively, grouping together S and A vs. O arguments, as in early and Classical Latin, agreement, nevertheless, may come to pattern absolutely, singling out S_O/O arguments, as when involving adjectives and participles (Plank 1985: 292), which may agree in case with the inactive argument in the *extended accusative*. Morphologically, therefore, S may be coded like the O argument of resultative/perfective constructions (Section 2.3):

(44) a.   *ut*   *sanguinem*   *exeat*   *copiosum*
          in-order-to   blood.ACC   come-out.PRES.SUBJ.3SG   abundant.ACC
          'So that the blood comes out abundantly' (*Chiron* 618)

b. *clavum   morticinum … si natum   fuerit*
    corn.ACC dead.ACC   if born.PP.M.SG.ACC be.FUT.PERF.3SG
    'If a corn … arises' (*Chiron* 615)

In (44a), for instance, both the argument *sanguinem* 'blood' and the predicative adjective *copiosum* 'abundant' are in the accusative case, agreeing in number with the verb *exeat* 'came out'; this is so also in (44b), where the noun *clavum* 'corn', its adjectival modifier *morticinum* 'dead' and the past participle of the verb, *natum* 'born', are in the accusative case and agree in number with the finite form of the verb, *fuerit* 'will be', functioning as subject. At other times, in the same type of constructions, the participle may pattern nominatively:

(44) c. *quantoscumque   filios …   ei   nati*
          howevever-many.ACC sons.ACC   he.DAT born.PP.PL.M.NOM

          fuerint
          be.FUT.PERF.3PL

          'Regardless of the number of sons … he will have had (lit. the sons who to him will be born)' (*Lex Cur.* 28, 8)

In (44c), for instance, in contrast to (44b), the past participle *nati* 'born' agrees in number and gender with the accusative argument, *filios* 'sons', the subject, as shown by agreement on the finite verb, *fuerint* 'will be', but disagrees with it in case, occurring in the nominative, the canonical subject case.

Sometimes the S argument, like *equus* 'horse' in (44d), occurs in the canonical subject case, the nominative, agreeing in person/number with the verb, while its modifier, the predicative adjective *laesum* 'hurt' in (44d), is in the accusative, i.e., the inactive case:

(44) d. *si equus …   laesum   fuerit*
          if horse.NOM hurt.ACC/NEUT be.FUT.PERF.3SG
          'If the horse … is hurt' (*Chiron* 803)

As pointed out in the course of discussion, when the verb is in the 3rd person singular and occurs with a noun in the accusative, agreeing in number with it, as in (45), the pattern is ambiguous between an impersonal ('one should not eat the skin') and a passive interpretation ('the skin should not be eaten'), with the verbal argument *cutem* 'skin', being ambiguous between an S and O function (see also discussion in 3.3):

(45) *cutem   esocis   non   manducetur*
      skin.ACC pike.GEN not   eat.PRES.SUBJ.3SG
      'One should not eat the pike's skin/the pike's skin should not be eeaten' (Anthim. 41)

The construction is, however, clearly impersonal when the argument is in the accusative and does not agree (in number and/or gender) with the verb, which is in the non-agreeing 3rd person singular if in the tenses of the *infectum*. Consider, for instance,

baptizetur 'is baptized' in (46a), which is followed by an accusative 3rd person plural masculine pronoun, *eos* 'them'. In the corresponding tenses of the *perfectum*, instead, the past participle is in the neuter form, as shown by *factum* 'made' in (46b), followed by an accusative feminine noun, *missam* 'Mass'. This pattern is very frequent in Late Latin, also with the verbal adjective formed with the suffix *-ndus*, with a deontic value, as illustrated in (46c), and develops already existing, albeit rare, forms of Early Latin (Section 2.1) (cf. Ernout 1908–1909; Svennung 1935: 474–5; Pieroni 1999, inter alia):

(46) a. *ne* *baptizetur*   *eos*
         not   baptize.MPASS.PRES.SUBJ.3SG   they.PL.ACC
         'That one should not baptize them' (Itala e *Act* 10, 47)

      b. *cum*   *factum*   *fuerit*   *missam*
         when   make.PP.NEUT.SG   be.FUT.PERF.3SG   Mass.ACC
         'When the Mass is over' (*Per. Aeth.* 32, 2)

      c. *de*   *carnibus*   *vaporatas*   *factas …*
         about   meat.PL.ABL   stew.PP.PL.F.ACC make.PP.PL.F.ACC

         utendum
         use.GERUND.NEUT
         'As for meat, it should be eaten … stewed' (Anthim. 3)

In sum, in Late Latin also agreement may pattern absolutely. This is so not only in resultative aspectual constructions and periphrastic perfects with *habere* 'have', where the resultative/perfective participle already in Early and Classical Latin patterned absolutely, agreeing with the O argument (see La Fauci 1994, 1997, 1998 and discussion in Section 2.3), but also with the S argument of some intransitive predicates, unaccusatives, i.e., S$_O$.

By the end of the 4th century A.D., therefore, the occurrence of the accusative case on the only argument of some intransitive verbs, together with its agreeing in case, number and gender with the past participle of the verb in the tenses of the *perfectum,* points to the existence of a head-marked pattern of active–inactive coding system. This involves the verb and the marking on its participial form of the inactive role of the subject, expressed through the accusative case on the argument. In addition, lack of agreement (in gender and/or number) between the verb and the argument in the accusative results in different types of impersonal constructions.

3.3   The extended accusative, voice and alignment in Late Latin

In the literature the *extended accusative* is often regarded as resulting from anacoluthon, determined by contaminations between active and passive clauses, a phenomenon which frequently occurred in Late Latin (cf. Löfstedt 1911: 290–293, Norberg 1944: 22–24). This is already attested in classical authors, for instance in Cicero's

philosophical writings (Norberg 1944: 21–22). In particular, an initially active transitive clause with the object O in the accusative case ends up – often interspersed with subordinate clauses – as a passive construction, with the original object in "subject" function (see also Plank 1985a: 288–289):

(47) a. *stupeo*   *vos …*   *Gesalecum …*   *in*   *vestram*
amaze.PRES.IND.1SG   you.ACC   Gesalecus.ACC   in   your.ACC

defensionem   sic   fuisse   susceptum
defence.ACC   thus   be.PAST.INF   take.PP.M.SG.ACC

'I am amazed by the fact that you … have taken Gesalecus … in your defence' (Cassiod. *var*. 5, 43, 2, Norberg 1944: 22)

In (47a) in the subordinate clause the verb is in the passive voice, *fuisse susceptum* 'have been taken', rather than the active form, *suscepisse* 'have taken'.

Also the converse phenomenon occurs, as exemplified in (47b), whereby an initially passive clause with the Agent (A) expressed as a prepositional phrase, *a decessoribus suis* 'by his predecessors', ends up with an active infinitive, *dedisse* 'have given', rather than the passive *data esse* 'have been given':

(47) b. *Iocundus*   *presbyter …*   *nobis …*   *peticione*
Iocundus.NOM   priest.NOM   we.DAT   request.ABL

suggessit,   *a*   *decessoribus*   *suis …*
submit.PERF.IND.3SG   by   predecessor.PL.ABL   his.PL.ABL

sacra   *ministerial …*   *Albino*   *cuidam …*
sacred.PL.ACC   function.PL.ACC   Albinus.DAT   certain.DAT

dedisse
give.ACT.PERF.INF

'The priest Iocundus … submitted to us … the request that the sacred functions … be given by predecessors … to a certain … Albinus' (Pelag. *Epist. Pontif*. 39: Norberg 1944: 22)

The spread of the accusative to subject function, however, does not appear to be related to confusions in the planning of discourse, with ensuing contaminations between active and passive clauses, but to the concomitant loss of voice distinctions, well attested already by the second half of the 4th century A.D. (cf. Cennamo 1998, 2001a–b). This might have encouraged the expansion of the accusative from impersonal constructions, with which it already occurred, though marginally, in Early Latin, to passives, anticausatives and intransitives (on the importance of impersonal passives in the extension of the accusative see also Gerola 1950: 221). As a matter of fact, once the functional domains of the -*R* form and of the active voice are no longer clear-cut, the function of the nuclear argument, whether it is O or S, is obscured.

A reflex of the gradual loss of the voice dimension in Late Latin is the use of the *-R* form in active function already by the end of the 4th century A.D., with both intransitive and transitive verbs, as in (48a–b):

(48) a.   *commeatur*   *sanguis*   *per*
            come-out.MPASS.PRES.IND.3SG   blood.NOM   through

            totum   *corpus*
            whole.ACC   body.ACC

            'The blood emerges from all over his body' (*Chiron* 732)

      b.   *optati*   *sumus*   *ire*
            ask.PP.M.PL.NOM   be.PRES.IND.1PL   go.PRES.INF
            'We have asked to go' (*Per. Aeth.* 10, 9)

The phenomenon is known in the literature as Deponentization (Norberg 1943: 152–70; Flobert 1975), and is usually regarded as a reaction of the written language to the demise of deponents in the spoken language and the increasing use of the reflexive pattern. Without denying the role played by these factors in determining the spread of deponents in the written language at a late stage, I regard deponentization as a further manifestation of the loss of the notion of grammatical voice in the spoken language (Bonnet 1890; Herman 2002; Cennamo 1998, 2001a, 2006).

In point of fact, alongside the use of the *-R* form in active function, one also finds the use of the active in non-fully active (intransitive) function, as with anticausatives, with which an original O occurs as subject (S), with the process described as taking place spontaneously. These patterns, which in Archaic and Classical Latin occurred in the *-R* form, sometimes alternating with the active intransitive and the reflexive pattern, increase in frequency in the active and/or the reflexive voice (cf. Feltenius 1977). Therefore at a certain point in time, the three voice forms become equivalent (49a), though continuing to occur in their canonical functions (52b) (cf. Cennamo 1998):

(49) a.   *pus*   *facit*   */se*   *facit*
            pus.NOM   make.PRES.IND.3SG   /RFL   make.PRES.IND.3SG

            fit
            become.PRES.IND.3SG

            'Pus arises'

      b.   *sarda*   *ita*   *fit*
            pilchard.NOM   thus   be-made.PRES.IND.3SG
            'The pilchard is cooked in this way' (Apic. 9, 2)

The equivalence is clearly detectable in texts from the second half of the 4th century A.D., as shown in (50):

(50)   a.   *fit*   *orationem   pro   omnibus*
            become.PRES.IND.3SG   prayer.ACC   for   everybody.ABL
            'Praying takes place; one (INDEF.) says a prayer; a prayer is said'
                                                                (*Peregr. Aeth*. 25, 3)

       b.   *ficum   contundito,   usque dum   minutum   fiat*
            fig.ACC   cut.IMPER.2PL   until   minute.ACC   become.PRES.SUBJ.3SG
            'Cut the fig until it is reduced to small pieces' (*Chiron* 890)

       c.   *cataplasmabis   eum,   donec   maturum   faciat*
            smear.PRES.FUT.2SG   it.ACC   until   soft.ACC   make.PRES.SUBJ.3SG
            'Smear it until it becomes soft' (*Chiron* 91)

The example in (50a) exemplifies the active intransitive use of *fieri* 'be done/made', the lexical passive of the verb *facere* 'do, make', in the impersonal form, followed by the "logical subject" in the accusative case, generally used to mark the object of transitive verbs. The pattern is ambiguous: it could have a passive ('a prayer is (being) made/said'), an impersonal ('one makes/says a prayer') or an intransitive ('a prayer takes place') interpretation. It is therefore no longer clear whether *orationem* 'prayer' is an S or an O argument. The example in (50b) shows the active intransitive use of the verb *fieri* 'be done/made', in its personal form, with the logical subject (S) in the accusative case. The example in (50c) illustrates the opposite phenomenon, the use of the active transitive verb *facere* 'do, make' in intransitive function, replacing the canonical form *fieri* 'be done/made', preceded by an adjective referring to the logical subject in the accusative case.

These patterns exemplify the interaction of the reorganization of voice distinctions with the active morphological realignment of the nuclear arguments S and A, and the consequent loss of any firm notion of grammatical relation, in particular of the notion of subject. In point of fact, the loss of voice distinctions and the accusative in subject function appear to be two distinct phenomena, determined by different parameters which in Late Latin converge and interact with each other, as illustrated in (50a–c) above (see also Cennamo 1999, 2001b).

In particular, these forms exemplify the penetration of the accusative, which replaces the nominative with the S argument not only with impersonal/passive constructions such as *fit orationem* 'a prayer is said/one says a prayer', a function that it already had in analogous, though rare, Early Latin patterns, but also with intransitive active structures such as *minutum fiat* 'becomes minute' in (50b), and even more so *maturum faciat* 'becomes soft' in (50c) (see discussion in Cennamo 2001a).

As already pointed out, the loss of the voice dimension, in particular the lack of clear-cut distinctions in Late Latin between the active and the medio-passive voice,

that is, the *-R* form, might have been the channel along which the accusative spreads from impersonal to personal constructions (passives-anticausatives, intransitives and later transitives) (see Cennamo 2008b).

In intransitive clauses the encoding of the nuclear argument in the accusative case rather than the nominative, does not hinder the identification of its function, regardless of whether there is case agreement with the nominative (nominative–accusative basis) or the accusative (active–inactive basis). When, however, the accusative spreads to the A argument, i.e., to transitive verbs/clauses, there seems to emerge a "neutral" coding system, where only verb agreement in gender/number, as shown in (51a), and/or word order, as in (51b), allow one to differentiate A from O and to identify their syntactic function:

(51) a. *si   autem   clericum* (A) …   *aliqua[m]   iniuria[m]* (O)
         if   then   cleric.ACC   any.NOM   offence.NOM

         passus   fuerit
         suffer.PP.M.SG.NOM   be.PERF.FUT.3SG

         'If then a cleric … suffered an offence' (*Lex Alam.* XV codd. A)

     b. *nullus   Romanus* (A) *Barbara* (O) *cuiuslibet   gentes*
         no.NOM   Roman.NOM   foreign.ACC   whatever.GEN   descent.GEN

         uxorem   habere   presumat,   nec
         wife.ACC   have.PRES.INF   presume.PRES.SUBJ.3SG   neither

         Barbarum (A)   *romana* (O)   *sibi   in   coniugium*
         foreign.ACC   Roman.ACC   himself.DAT   in   marriage.ACC

         accipere   presumat
         take.PRES.INF   presume.PRES.SUBJ.3SG

         'No Roman man should presume to take a foreign woman of whatever
         descent as his wife, nor should a foreign man presume to take a
         Roman woman in marriage' (*Lex Cur.* 3, 14)

Both (51a) and (51b) are transitive clauses, with the verb in the active voice in (51a) and deponent in (51b). Both examples reflect the fact that probably, in the spoken language, the grammatical notions of subject and object were no longer identified through case marking. In (51a) it is gender and number agreement which identify and differentiate A, *clericum* 'cleric', in the accusative case, from O, *iniuria* 'offence', that could either exemplify the accusative form, *iniuriam*, with loss of final *-m* or the use of the nominative in O function, as discussed above. The finite verb is, in fact, in the 3rd person singular, agreeing with A, *clericum* 'cleric', with which the participle *passus* 'suffered' agrees in gender and number, but disagrees in case, being in the nominative. In contrast, in (51b), in the coordinated sentence introduced by the disjunctive particle *nec* 'neither', neither verb agreement nor case marking allow one to differentiate A, *barbarum* 'foreign', in the accusative case, from O, *romana* 'Roman woman' in the accusative, with dropping of final *-m* or nominative case.

Only the context, word order, and factors like animacy allow one to identify the syntactic function of the clause nuclear arguments. In (51b), therefore, the notion of subject usually adopted in the literature for Latin (Pinkster 1988) does not hold: there is no constituent which determines number, person and gender agreement with the verb, and which also occurs in the nominative. Taking up a multi-factorial notion of subject, determined by the interplay of pragmatic, semantic and syntactic factors, along the lines of Comrie (1989: 105ff), Keenan (1976) and Sornicola (1990) for some European languages, one can say that in (51b) only the pragmatic factor of topicality/ initial position and the semantic parameter of *Effector* preceding *Affected* are left (see also Eythórsson and Barðdal 2005 for the abandonment of the notion of the nominative being the syntactic subject in the history of Germanic and Barðdal 2006 for a discussion of construction-specific properties of subjects).

In (51b), therefore, word order seems to be the only parameter which allows us to identify the syntactic function of the nuclear arguments, that is to distinguish A from O. Word order in (51b), then, reflects not only pragmatic and semantic notions, but it appears to be the only identifying feature of subjecthood. Word order, however, continues to convey mainly pragmatic notions, such as the tendency for topical/old information to precede new information, as illustrated in (52):

(52) *si   iudex   hoc   non   inpleverit,   et*
       if   judge.NOM   this.ACC   not   accomplish.FUT.PERF.3SG   and

       ipsum   iudicem   et   officium   suum (O)   *graves*
       this.ACC   judge.ACC   and   office.ACC   his.ACC   severe.ACC./NOM.PL

       penas (A) *constringantur*
       penalty.PL.ACC/NOM   limit.MPASS.PRES.SUBJ.3PL

       'If the judge did not accomplish/do this, the judge himself and his
       office should face severe sanctions' (*Lex Cur*. 12, 2, 3)

In point of fact, in (52) the verb appears in the medio-passive *-R* form, *constringantur* 'limit', in active function, and a topical O *ipsum iudicem et officium suum* 'this judge and his office', precedes a rhematic A, *graves penas* 'severe penalty', the subject, as shown by verbal agreement.

To conclude, in Late Latin, by the end of the 4th century A.D., the *extended accusative* comes to interact with the loss of the grammatical dimension of voice, resulting in a deep restructuring in the encoding of argument structure in the transition to Romance.

4.   Emergence of head-marking coding patterns?

As illustrated in Section 3.3, at some point in Late Latin, the function of the clause nuclear arguments, i.e., their A, O and S_A/S_O status, may be identified through verbal

agreement in gender and/or number only, rather than through case marking, once the latter patterns on an active (53a) as well as on a neutral (53b) basis:

(53)   a.   *si   Arnebertum* (S$_O$) …   *non   fuissit   interfectus*
            if   Arnebertus.NOM   not   be.PLUP.SUBJ.3SG   kill.PP.M.SG.NOM
            'If Arnebertus … had not been killed in the Subola valley'
            (*Fred. Cron.* 4, 78)

       b.   *huius   sucum* (A) … *oculorum   vitia*
            whose.GEN   juice.ACC   eye.PL.GEN   infection.PL.ACC
            sanat
            heal.PRES.IND.3SG
            'Whose juice … heals the eye infections' (*Chiron* 533)

Thus the syntactic relation between the verb and its arguments comes to be marked on the verb only, i.e., on the head of the construction, rather than on the arguments, i.e., the dependent elements as well, as in Archaic and Classical Latin. This is apparent in (53b), where the A status of the noun in the accusative, *sucum* 'juice', is signaled by the third person singular agreement on the verb *sanat* 'heals' (see also (51a) above).

The phenomenon whereby agreement rather than case marking may identify the syntactic function of verbal arguments, might be interpreted as resulting from a more general change, specifically the shift from a canonical *dependent-marking* language such as Latin, to languages with *head-marking* coding-patterns, the Romance languages. In fact, whilst in Latin syntactic relations within a construction are most typically marked on the dependent element, in the Romance languages syntactic relations are marked on the head of the construction (see Nichols 1986a–b; Vincent 1997, 1998 for other morphosyntactc aspects of the transition from Latin to Romance and recent discussion in Ledgeway 2008).[3]

The various alignment changes discussed in Section 3, illustrating the initially active and subsequently neutral alignment of nuclear arguments as well as the loss of the grammatical dimension of voice, might indeed be understood as different manifestations of the more general move towards the head-marking organization of certain grammatical domains in the transition to Romance.

Evidence in favour of this hypothesis seems to come from predominantly head-marking languages which also have a case system, i.e., so-called double marking

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3.   The distinction between head-marking and dependent-marking languages, however, is not clear-cut, but a continuum, along which predominantly dependent marking languages may have some head-marking features and vice versa (Nichols 1986a: 71). Indeed, verb agreement in Latin, and generally in the Indo-European languages, marks the syntactic relation between a verb and the subject on the verb, i.e., on the head, rather than on the argument, i.e., the dependent, unlike in polar dependent-marking languages such as Japanese, which do not have verb agreement (see discussion in Nichols 1986a: 61, 1986b).

languages, which mark the syntactic relation between two elements of a construction both on the head and on the dependent (Nichols 1986a). These languages may either exhibit only an oblique case, used for A, O and S, like several non-Pama-Nyungan languages of Australia, e.g., Warndarang (Dixon 1980: 223–4 & Nichols 1986a: 78) or they may have a minimal system of case opposition, with A/S, i.e., the subject, in the direct case and O in the oblique one, as in Adyghe, West Circassian. In other languages, e.g., Shuswap, Interior Salish, there may be a two-case system involving identical marking for A, O and S, which occur in the direct case.

It is in this light, for instance, that one can interpret the use of the nominative to code O arguments in some Late Latin (mainly Italian) texts, as in (54a) (Löfstedt 1977: 215–217; Herman 1997: 25–26), and the occurrence of the accusative as the only case for nuclear (as well as non-nuclear) arguments in all Romance areas at some point (see 3.1.1–3.1.2). Also the restriction of the accusative to O arguments and obliques in Gaul, with A/S being marked by the nominative instead (54b), can be viewed as one of the outcomes of this change:

(54) a. *si   pater* (O)   *percusserit*
          if   father.NOM   beat.SUBJ.FUT.3SG
          'If he beats his father' (*Ed. Roth.* 169 II, Löfstedt 1977: 215)

      b. *quod   ipsi*   *hominess* (S)   *Beneventan[i] …*
          that   same.NOM.PL   man.PL.NOM   Beneventan.PL.NOM

          non   erant
          not   be.IMPF.IND.3PL
          'That these men were not from Beneventum …' (*Tardif* 86, Pei 1932: 390)

Taking a broader view of the phenomenon investigated, one might argue that at some point in Late Latin, with clear attestations by the 6th–7th century A.D., there occurs a shift from *dependent-marked* split intransitivity systems already existing in Early and Classical Latin, to *head-marked* ones. In fact, in Early Latin the difference between two subtypes of intransitive verbs, i.e., of two different types of Ss, is marked on the dependent element, the argument, through case marking, the accusative with some intransitive patterns, most typically reflecting, at least initially, the inactive nature of the subject, i.e., its lack of control. In contrast, in Late Latin the opposition is marked on the verb alone and appears to apply systematically to clusters of verbs/patterns, irrespective of purely semantic factors such as control (cf. Merlan 1985; Nichols 1986b: 144).[4] This is evidenced not only by the active–inactive alignment of

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4. The two subtypes of split intransitivity systems, the dependent-marked and the head-marked type (following the distinction put forward by Merlan 1985 and further elaborated by Nichols 1986b, 1990) differ both in their *formal marking* and in their *semantics*. In the

agreement, that in 6th–8th century texts may single out O/S$_O$ arguments, as discussed above, but also by two further changes in the encoding of argument structure in Late Latin, the use of the pleonastic reflexive pronouns *sibi* and *se*, and the rise of *esse* 'be' and later *habere* 'have' as perfective auxiliaries of intransitive verbs. In point of fact, in Late Latin the pleonastic reflexives *sibi* and *se* come to occur, respectively, with S$_O$ and S$_A$ arguments, differentiating two subclasses of intransitives, unergatives and unaccusatives, as exemplified in (55a–b) (Cennamo 1999, 2000):

(55) a. *revertatur*   *sibi*   *ad* *parentes*   *suos*
          go-back.MPASS.PRES.SUBJ.3SG   RFL.DAT   to   relative.PL.ACC   his.ACC
          'That he go back to his parents' (*Ed. Roth.* 216)

     b. *vacabant*   *se*   *supradicti*
          deal-with.IMPF.IND.3PL   RFL.ACC   afore-mentioned.PL.NOM

          martires …   *die*   *noctuque*   *orationibus*   *et*
          martyr.PL.NOM   day.ABL   night.ABL-and   prayer.PL.ABL   and

          ieuniis
          fast.PL.ABL

          'The afore-mentioned martyrs … prayed and fasted day and night'
                                                              (*Passio Kil. ,* MGH *Mer.* V, 725, 21)

Also the perfective auxilaries *esse* 'be' and *habere* 'have' in late, 7th century texts, come to mark, respectively, the S$_O$/S$_A$ status of the verbal argument with intransitive verbs, with and without past participle agreement with the subject, as in (56a–b) (Cennamo 2008a):

(56) a. *in* *Pannonia*   *deventi*   *sunt*
          in   Pannonia.ACC/ABL   arrive.PP.M.PL.NOM   be.PRES.IND
          'They have arrived in Pannonia' (Agnell. 95)

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dependent-marked type the opposition between two types of Ss is marked on the dependent element, the subject, by case marking, whilst in the head-marked type it is signaled on the head, the verb, by sets of pronominal markers/affixes. Dependent-marked split intransitivity also tends to exhibit fluid S-marking, with the S$_A$/S$_O$ opposition reflecting the semantics of the situation expressed by the predicate rather than syntactic class membership, as in head-marked split intransitivity, so-called "straightforward" vs. "reflexive" semantics (Nichols 1986b: 144–147). Interestingly, the Latin data seem to show the gradual move from straightforward semantically determined patterns of active syntax, generally triggered by inactive arguments, to a (semantico)-syntactically based marking, where the original semantic motivation is blurred. This is evidenced by the late use of the accusative with verbs denoting change of location and an active, dynamic participant, as in *ipsum currit* 'He (ACC) runs' (see full discussion in Cennamo 2000: 48–49).

b. *sicut* *parabolatum* *habuistis*
    thus speak.PP.NEUT.SG have.PERF.3PL
    'As you have said' (*Form. Merk.* 260, 7, Thielmann 1885: 545)

In this respect then, the Late Latin data offer interesting insights into possible routes through which a canonical dependent marking language may develop head-marking coding patterns. Interestingly, the changes outlined above occur alongside another head-marking coding pattern arising in the transition to Romance, the emergence of clitics, well attested in Merovingian Latin and exemplified in (57), from the 8th century A.D.:

(57) *ipsa* *cuppa* *frangantla* *tota*
      this.NOM/ACC cup.NOM/ACC break.PRES.SUBJ.3PL-it.f all.NOM/ACC all
      'This cup, that they broke it up' (Parody of the *Lex Sal.*)

Clitics, in fact, come to mark dislocated O arguments on the verb, a function which was carried by case marking in Latin (see Nichols 1986a: 86, and discussion in Vincent 1997, 1998: 425–427; Ledgeway 2008). In (59), for instance, the clitic pronoun *la* 'it' marks on the verb the dislocated object *ipsa cuppa* 'this cup' to which it refers.

The restructuring in the encoding of argument structure in the passage to Romance, testified by the realignment of grammatical relations and the recasting of the voice system, might therefore be interpreted as the outcome of a more general typological change, the rise of head-marked patterns of active syntax.

5.   Conclusions

The study of some aspects of the encoding of argument structure in Latin has revealed the existence of some areas of the grammar with active–inactive patterns of alignment, sensitive initially to the notions of animacy and control. In particular, there appear to be examples of dependent-marked active coding systems, where the only argument (S_O) of unaccusative patterns, i.e., equative clauses, passives, anticausatives, fientives and some impersonal constructions, is coded like the O of canonical transitive clauses, surfacing in the accusative case.

In Late Latin the accusative gradually expands its functional domains, replacing the nominative with all core arguments, i.e., also with S_A and A arguments, pointing to a neutral system, at a late stage, where only agreement and/or word order allow one to distinguish and identify the function of the core arguments of the clause (A and O).

The spread of the accusative into the functional domains of the nominative with the S/A argument follows a path where *semantic* factors such as the thematic role of the S argument, in particular its non-active nature, *syntactic* parameters such as the

degree of syntactic cohesion between the S argument and its predicate, and the *grammaticalization* of a constituent originally denoting the *topic* of the clause, might have played a role. These factors interact, in the course of time, with the gradual loss of the grammatical dimension of voice, determining a radical restructuring in the system of argument structure in the passage to Romance.

In particular, the accusative seems to penetrate from nominal into equative clauses and from impersonal into passive-anticausative, intransitive and finally transitive constructions. Some aspects of the path proposed appear to be confirmed by the occurrence of impersonal patterns with the sole nuclear argument in the accusative case, the so-called impersonal passive, with 2nd and 3rd declension nouns also in texts from Romània, where the nominative– accusative contrast is kept and where no examples of the accusative for the nominative occur, such as some chancery documents from Merovingian Gaul (Vielliard 1927: 220–221).

The existence of active and neutral coding patterns in Late Latin, however, by the 8th century A.D. appears to involve all Romance areas, that is, also Merovingian Gaul – though to a lesser extent – where the single-case and the two-case systems alternate for a while, with the latter winning out in the case of Old French.

Indeed, the changes taking place in Late Latin in the encoding of grammatical relations and voice distinctions – testifying to the temporary dissolution of grammatical voice, that will be reconstituted in Romance in different ways and along different dimensions – might be regarded as the overt manifestation of a more general phenomenon, the rise of head-marking coding patterns in a dependent-marking language.

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Case loss in Texas German

The influence of semantic and pragmatic factors

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Based on a comparison of data from Gilbert (1972) and data collected by the Texas German Dialect Project between 2001–2006 I demonstrate that dative case marking in Texas German has significantly declined over the past 40 years. Applying Trudgill's (2004) model of new-dialect formation to the data I argue that the reduction in dative case is best explained in terms of internal factors, that is, leveling processes taking place in dialect contact situations. I propose that the replacement of the dative by the accusative is triggered by at least three interlaced factors: similarity in phonological form, movement towards unmarked forms (from lexical to structural case), and similarity in semantic contexts.

1.   Introduction

The loss of dative case in German-American dialects has been the subject of extensive research over the past five decades. Consider, for example, the Texas German data in Table 1. Salmons (1994: 60) suggests that the majority of base dialects brought to Texas from Germany in the 1840s still distinguished between accusative and dative case. In contrast, present-day Texas German exhibits very little dative morphology in the determiner system. Similar trends have been observed for case marking on adjectives and pronouns in Texas German (see Eikel 1949, 1954; Gilbert 1972; Guion 1996; Fuller & Gilbert 2003) as well as in other German-American dialects such as Pennsylvania German (Louden 1994; Van Ness 1996), Wisconsin German (Lewis 1973), Michigan German (Born 1994, 2003), and Kansas Volga German (Keel 1994). In analyzing case loss in German-American dialects, these studies typically address the following questions: (1) Did any of the regional European-German donor dialects brought to North America already exhibit a reduced case system? (2) Should case loss be attributed to a process of convergence with English (i.e., external factors) or to internal developments resulting from the general Germanic drift towards two-case systems? (3) To what degree did the teaching of Standard German in German-American schools influence case loss in German-American dialects?

Table 1. Development of Texas German case marking (Salmons 1994: 60).

	Most Base Dialects			>	Texas German		
	MASC	FEM	NEUTER		MASC	FEM	NEUTER
NOM.	der	die	das		der	die	das
ACC.	den	die	das		den	die(der)	den(das)
DATIVE	dem	der	dem		den	die(der)	den(das)

In this paper I deal with each of these three questions in detail. More specifically, I analyze Gilbert's (1972) data on the Texas German case system and compare them with more recent data collected by the Texas German Dialect Project (TGDP) (Boas 2003), which re-recorded the same data originally recorded by Gilbert in the 1960s. This study is different from previous studies on German-American dialects such as Salmons (1994) in that it analyzes case loss over a time period of more than 100 years (some of Gilbert's informants were born during the last quarter of the 19th century). Comparing two data sets covering such a wide time span offers a unique perspective on case reduction because it allows us to analyze the same phenomenon from the perspective of both apparent time and real time (Bailey 2002).

The remainder of this paper is structured as follows. Section 2 provides a brief overview of the socio-historical background of the German settlements in central Texas. Section 3 discusses the origins of the German dialects brought to Texas beginning in the 1840s and analyzes the development of Texas German in the context of Trudgill's (2004) model of new-dialect formation. Section 4 offers an overview of previous analyses of case syncretism in other German-American dialects and argues that an analysis in terms of internal factors accounts best for the Texas German data. Additional evidence comes from a comparison of Texas German (henceforth TxG) with other German dialects. Section 5 provides a functional explanation of case loss in TxG, discussing a number of semantic and pragmatic factors. Finally, section 6 concludes.

2.   The socio-historical context

Organized German immigration to Texas began in the 1840s due to a large-scale immigration effort of the *Mainzer Adelsverein* ("Society of Noblemen from Mainz"). The majority of immigrants came initially from the Duchy of Nassau, while later arrivals came from the Alsace region and the areas encompassing the present-day German states of Hesse, Lower Saxony, Saxony, and Thuringia, among others (see Biesele 1930; Salmons 1983). The immigrants settled in an area that later came to be known as the German-belt, encompassing the area between Gillespie and Medina Counties in the

west, Bell and Williamson Counties in the north, Burleson, Washington, Austin, and
Fort Bend Counties in the east, and DeWitt, Karnes, and Wilson Counties in the south
(see Boas 2005).[1]

Although most German immigrants settled in the German-belt, not all settle-
ments were exclusively German. That is, in parts of the Hill Country (Gillespie County
and Kendall County) the German-born population numbered 75% and more in 1870,
whereas in other areas the German-born population was only about 20% (DeWitt
County) or 6% (Goliad County) (see Gilbert 1978; Boas 2005). Despite the geographic
discontinuity of the German-speaking *Sprachinseln* ('language islands'), the latter part
of the 19th century saw the establishment of a stable linguistic situation with German
as the dominant language in virtually all public and private domains. English was typi-
cally not learned until children entered school. Among adults, English was primarily
used by men in business settings when traveling outside of German-speaking areas
when they had to interact with non-German speakers (Salmons 1983; Boas 2005).

This relatively stable linguistic situation began to change towards the end of World
War I when English-only laws prescribed the use of English in schools (Salmons 1983;
Guion 1996). As a result, Texas German children entering the first grade were con-
fronted with a new language to which they had to adopt very quickly in order to suc-
ceed. The children's difficulties, as well as a general wave of anti-German sentiments due
to World War I, led many to limit their use of TxG to the home or with friends. A con-
siderable number of parents decided not to pass their first language on to their children
because they wanted their children to succeed in school and in their professional lives
(Guion 1996). According to Salmons (1983), the years between the two World Wars are
best characterized in terms of a diglossic situation where English was established as a
high form (H) in most public domains (schools, newspapers, work place), as TxG was
the L form used primarily at home among family, friends, and neighbors. Due to World
War II, German underwent another era of low prestige, which in turn led to eventual
language shift in favor of English. While some parents continued to speak TxG to their
children throughout the 1940s, intergenerational transmission virtually ceased during
the 1950s. Demographic factors also played an important role in the language shift to
English as more Texas Germans moved to larger cities to enroll in college or find jobs

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1.   Note that the first settlers still spoke their original German dialects when they arrived in
Texas. The result was a diverse mix of phonological, syntactic, morphological, and lexical fea-
tures that interacted and influenced each other over the next century or so. In contrast to other
new world dialects (e.g., New Zealand English (Trudgill 2004) or Pennsylvania German (Raith
1992)), Texas German did not evolve into a coherent new world dialect with broad-scale leveling
of linguistic features. This widespread variation is amply documented in Gilbert's (1972) pioneering
Linguistic Atlas of Texas German as well as by more recent language documentation efforts such
as the Texas German Dialect Project (see Boas (2003) and http://www.tgdp.org).

after World War II. At the same time, more English-only speakers moved into areas traditionally settled by German immigrants. At the beginning of the 21st century, the great majority of TxG speakers is 60 years and older, which means that the dialect will most likely become extinct within the next 30–40 years (Boas 2005).

The following section discusses the case systems of the donor dialects that formed the input for TxG and sheds light on the question of whether TxG evolved into a coherent new-world dialect. This is an important point because we need to know whether at some point TxG exhibited a coherent case marking that was shared among all its speakers. The results of this discussion form the basis for the analysis in section 4, where I determine the role of internal and external factors in the development of the TxG case system.

3.   New dialect formation and development of the TxG case system

3.1   Determining the range of donor dialects

Determining the range of donor dialects that formed the input for TxG from the 1840s onwards is a difficult task. One major problem is that we do not have exact information about the geographic origins of the German immigrants. Previous research by Jordan (2004) suggests that census data can be used to identify the origin of German-born immigrants. In what follows, I first summarize Jordan's data and results. Then, I argue that they are not sufficiently fine-grained to serve as a reliable basis for identifying the donor dialects brought to Texas by the German-speaking immigrants.

Jordan (2004) discusses the origins of German settlers in Austin County (to the east of Austin) as well as three typical Hill Country counties (Gillespie, Mason, and Llano), which lie to the west of Austin. Based on census data from 1860 and 1870, Jordan argues that German-born farmers in Austin County came predominantly from northern Germany, whereas those living in the Hill Country were primarily born in west-central Germany. His results are summarized in Table 2.

Although the trend described by Jordan is supported by the census data, it is not clear that these data are very useful when it comes to identifying the donor dialects spoken by German immigrants coming to Texas, because the census data do not list the exact geographic origins such as specific towns or villages. Consider, for example, the Duchy of Nassau, which is claimed by 22% of German-born Hill Country immigrants as their place of birth. Nassau was formed in 1806 out of a number of smaller states to the north of Frankfurt/Main and included at least three major dialects, namely Rhine Franconian (*Rheinfränkisch*), Mosel Franconian (*Moselfränkisch*), and Central Hessian (*Zentralhessisch*) (see Wiesinger 1983). These major dialect areas can be further subdivided into more fine-grained areas, down to cities and even villages that are in close proximity to each other (see Wolf 1983: 1116–1118).

Table 2. Origin of German-born farmers with the number of inhabitants greater than 1% (Jordan 2004: 64, 123).

Austin county (1870 census)	Gillespie, Llano, and Mason counties (1860 census)
Mecklenburg – 15%	Nassau – 22%
Oldenburg – 6%	Hannover – 15%
Saxony – 5%	Hesse – 7%
Anhalt – 5%	Brunswick – 7%
Baden – 2%	Württemberg – 6%
Württemberg – 2%	Saxony – 4%
Lippe-Detmold – 2%	Baden – 1%
Hesse – 2%	Bavaria – 1%
Bavaria – 1%	Mecklenburg – 1%
Brunswick – 1%	Unspecified Prussia – 36%
Saxe-Meiningen – 1%	
Saxe-Weimar – 1%	
Hamburg – 1%	
Unspecified Prussia – 54%	

These dialectal differences have a direct bearing on the types of case-marking systems brought to Texas. Consider, for example, Shrier's (1965) analysis of case systems in German dialects which investigates the distribution of nominative, accusative, and dative marking. Shrier distinguishes between two broad categories of case syncretism in German dialects: (1) dialects in which the nominative and accusative form a single case vis-à-vis the dative; (2) dialects in which the accusative and dative form a single case vis-à-vis the nominative (see also Lipold 1983; Maak 1983, and Panzer 1983).[2]

Returning to the case marking systems found in the Nassau area, we find three different patterns of case syncretism. In the southernmost area we find isoglosses characterizing the local dialects as belonging to the more conservative areas. Figure 1, taken from Shrier (1965), illustrates the distribution of cases in this area. Southeast diagonal hatching represents the core area of N/A/D strength, which is most resistant

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2. Note that Shrier's analysis relies on data "collected from individual dialect grammars and monographs" (1965: 421). Unfortunately, she does not list her sources and as such it is not entirely clear when the data that formed the basis for her analysis were compiled. A comparison of her isoglosses with those found in the *Digitaler Wenkeratlas* (http://www.diwa.info), which provides digital versions of German dialect maps from the last quarter of the 19th century, suggests that Shrier's sources in large part reflect the distribution of cases in 19th century Germany (for details see Boas 2008).
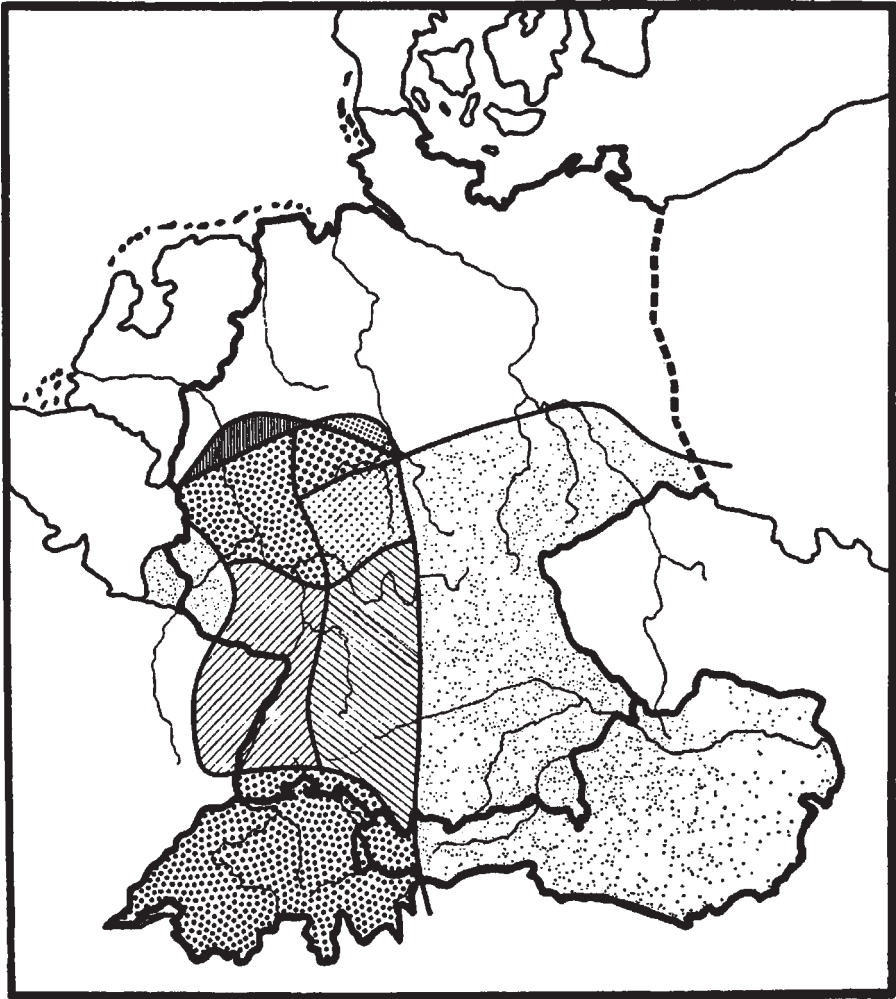
Figure 1. Strength of N/A/D differentiation.

to morphological change and which is the center of the dialect territory where the three way distinction is maintained in all five parts of speech (both pronouns, both articles, and adjective). Note, however, that other Nassau area dialects are less conservative than the southernmost varieties (southeast diagonal hatching). For example, the middle section of the Nassau area (medium dotting) and the northern section of the Nassau area (coarse dotting) in Figure 1 exhibit significantly more case syncretism in their 1st and 3rd singular pronouns.

The dialects of the Nassau area demonstrate considerable variation in case marking. Similar variation between the dialects of the Nassau area is attested for

other morpho-syntactic phenomena as well as at the phonological and lexical level (see Boas 2008 for more details). Thus, without knowing the exact geographic origin of the immigrants leaving the Nassau area we are unable to determine precisely which case systems were brought to Texas. As such, Salmons' (1994) summary of the case systems of the base dialects discussed above (see Table 1) is only a rough estimate. Another unknown is the number of immigrants using a particular case system. As shown in the following section, the strength of the input of a particular linguistic feature to a dialect mixture is important for determining the outcome of new-dialect formation.

The problem of identifying the settlers' exact geographic origin and their dialects is not limited to the Nassau area. Jordan's (2004) category "unspecified Prussia" (see Table 2) is claimed by 36% of Hill Country German settlers as their place of origin. Within that area, we find an even greater variety of dialects, such as Westphalian (*Westfälisch*), Eastphalian (*Ostfälisch*), different varieties of Pomeranian (*Pommersch*), Silesian (*Schlesisch*), and Thuringian (*Thüringisch*), among others. However, without knowing the exact town or village of origin, it is difficult to establish the exact nature of the dialect input that formed the basis for TxG. Without this information it is tricky to establish accurate numbers for an explanation of the TxG dialect mixture based on Trudgill's (2004) model of new-dialect formation.

3.2 Trudgill's model of new dialect formation

Despite the problems with identifying the exact geographic origins of the settlers I suggest that it is still possible to arrive at a coarse-grained understanding of the nature of the dialect input based on apparent time data. To achieve this goal, I apply Trudgill's (2004) model of new-dialect formation, which allows us to systematically analyze data on dialect contact and dialect mixing.

Based on New Zealand English data, Trudgill (2004) proposes that when different dialects are in contact in a colonial setting, different variants are leveled out, and, eventually, a new dialect is formed that is different from all input varieties. The process of new-dialect formation takes place over distinct sequential stages, each corresponding approximately to a life-time of a generation of speakers. Trudgill's first stage in the formation of New Zealand English involves immigration of speakers of various English dialects to New Zealand until about 1860. During the long journey and the initial years of the new settlements speakers of different dialects came into contact. As a result of accommodation of speakers to one another in face-to-face interactions, rudimentary dialect leveling and interdialect development took place, according to Trudgill (2004: 83–99). At the same time, new interdialectal forms develop, which were not present in any of the input varieties contributing to the mixture.

The second stage of new-dialect formation involves extreme variability (Trudgill 2004: 100–112). During this phase, which lasted until about 1900 in the case of New Zealand English, the immigrants' children had access to a multitude of linguistic models that resulted from the interdialect mixing in the previous generation. Being exposed to many different linguistic options leads to linguistic "diffuseness" (LePage & Tabouret-Keller 1985), i.e., children select different variants from various dialects to form a new mixture. One of the results of this rather atypical language acquisition situation is *intra*-individual variability, where speakers are likely to fluctuate considerably in their own speech, exhibiting a different type of linguistic behavior than people raised in more homogenous speech communities (Trudgill 2004: 106). Another result characteristic of Trudgill's second stage is *inter*-individual variability, which refers to different speech patterns of speakers from the same location (Trudgill 2004: 107–108). Interestingly, there is relatively little implicational predictability, i.e., most of the variability is seemingly random, leading Trudgill (2004: 108) to the conclusion that what occurred was a form of variable acquisition, not accommodation. However, the inter-speaker variability of the second stage appears to be less pronounced than the variability assumed to exist among speakers during the first stage. Trudgill (2004: 109) explains this difference in terms of apparent leveling taking place among mainstream regional English features that were sufficiently common that they must have survived the initial contact stage.

The first two stages summarized so far are commonly known as koinéization (Trudgill 1986; Siegel 1987; Britain 1997). It is only after Trudgill's third stage, which is characterized by *focusing*, that one may talk about a stable and coherent outcome of new-dialect formation, i.e., a crystallized variety with surprisingly little regional variation. This last stage of new-dialect formation in New Zealand, which took place among speakers born around 1890; involves another phase of leveling of linguistic features, i.e., accommodation between speakers in face-to-face interaction (Trudgill 2004: 113–114). During the third stage, it is usually the majority variants that survive the final leveling, while minority variants are typically leveled. Trudgill explains this development by looking at the role of children at stage three, who are exposed to a somewhat more stable social environment and a more restricted set of variants to choose from (as opposed to children at stage two). In other words, these children "simply selected, in most cases, the variants that were most common" (Trudgill 2004: 115). In the following section I apply Trudgill's concept of new-dialect formation to the data in Gilbert's (1972) *Linguistic Atlas of Texas German* to determine whether TxG can be characterized as a coherent new-world dialect.

3.3   Historical Texas German data

Gilbert's (1972) *Atlas* is based on field recordings conducted throughout the 1960s. To get an inventory of a broad variety of linguistic features, Gilbert and his associates

conducted a total of 286 interviews in a 31-county area across central Texas. Based on the questionnaire used for Gilbert's (1963) study of TxG in Gillespie and Kendall Counties, informants were asked to translate words, phrases, and sentences from English into TxG. The interviews were recorded and augmented with field notes. Finally, the data were transferred to a total of 148 maps, each map showing the geographic distribution of a particular morpho-syntactic, phonological, and lexical feature. Each map lists in the top right an English title identical to the English word, phrase, or sentence posed by the field workers to the informants for translation into German. Directly underneath the English is a High German translation with the portion under study underlined (Gilbert 1972: 7). Each map provides numbered interview points and linguistic symbols. A legend that lists lead-forms with individual symbols identifies the geographical distribution of the linguistic variants. For example, the Standard German translation of the English sentence *The picture hangs over the bed* would require the use of the dative case following the preposition *über* ('over') as in *Das Bild hängt über dem Bett*. Since the dative has been lost in many contexts in TxG, most of Gilbert's informants used the accusative instead of the dative. The distribution of case is indicated on the map by individual symbols.

Applying Trudgill's (2004) model to Gilbert's (1972) data necessitates a more fine-grained analysis than just comparing the use of cases. To this end, it is useful to take a look at Salmons' (1994: 61) summary of dative versus accusative use in TxG in Table 3, which provides a detailed summary of Gilbert's *Atlas* data split up by region and age group. Salmons shows that the use of the dative case is highest among the oldest age group (64%) born before 1899. The younger groups show a significant reduction in the use of the dative: the younger group, born between 1900 and 1911, used 55.1% of datives, while the youngest group, born after 1912, used only used 28.5% datives. Numbers for dative forms are listed first, followed by numbers for accusative forms. Both refer to syntactic environments in which the dative is expected in Standard German. The two-letter abbreviations stand for geographical areas: NW (Northwest), WC (west central), SW (Southwest), and NE (Northeast).

Table 3. DAT vs. ACC for StdGm dative, Regional/Age stratification (Salmons 1994: 61).[3]

Date of birth	NW	WC	SW	NE	Total	Percentage
–1899	10–13	43–29	52–16	29–16	134–74	(64%)
1900–1911	21–17	22–15	21–11	17–23	81–66	(55.1%)
1912–	16–60	4–30	20–21	9–21	49–123	(28.5%)

3.   Salmons does not explicitly mention the number of speakers that are represented by each cell.

While the age stratification clearly shows a decline in the use of the dative case, the data appear to suggest that there was already a considerable degree in variation in case usage among the generation born before 1899. In my view, this variability is a reflection of the various case marking systems of the donor dialects brought to Texas by the first wave of settlers.[4] In other words, the variety in case marking systems suggests that the three case system used by speakers who were born before 1899 has its source in some of the donor dialects brought to Texas.

More specifically, I propose that speakers born before the turn of the century should be classified as the children of the first generation of Texas-born German speakers, which were exposed to the variable case marking systems of the original settlers (with some rudimentary leveling). The children of the first immigrants would generally fall into the first stage of Trudgill's (2004) model of new-dialect formation. Speakers born from 1880 until about the first decade of the 20th century would thus have participated in the second stage of new-dialect formation, which is characterized by variability and some more leveling. In fact, Salmons' observations support my proposal, as he claims that "[t]hose born until the turn of the century tend to maintain the distinction, though some lose the distinction either variably or, occasionally, categorically" (1994: 62). The type of variability described by Salmons is one of the defining features of Trudgill's second stage of new-dialect formation. Speakers born in the 1920s and later would belong to Trudgill's third stage of new-dialect formation, i.e., focusing. During this phase, most of the remaining dative distinctions would have been leveled out.

In sum, the data on case usage from Gilbert's *Atlas* demonstrates three important points. First, there already existed a considerable amount of variability in case use among the first generation of Texas-born German speakers. This variability is in fact expected considering Trudgill's (2004) model of new-dialect formation.[5] The available evidence suggests that the various donor dialects brought to Texas are the most likely source. Second, subsequent generations of TxG speakers used the dative less and less

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4.   One problem with analyzing Salmons' data is that his breakdown of the data by date of birth does not match up well with what we might presume Trudgill's stages to be. I assume that the first major wave of German immigrants to Texas lasted from the 1840s until the beginning of the Civil War. Note that it is difficult to establish exact dates for each generation since some of the first settlers came to Texas in their 20s, while others were considerably older and were already married with children. As such, there is an overlap in generational membership between children coming to Texas as immigrants with their parents and children born in Texas during the 1850s and 1860s.

5.   Although Trudgill's model is based on phonological data, it also apparently can be used to describe dialect leveling at the morpho-syntactic level. For critical remarks about Trudgill's model, see Gordon et al. (2004) and Gordon (2005).

(see Berend & Jedig 1991 and Rosenberg 1994, 2003 for similar reports on case usage in German dialects spoken in Russia and Brazil). Third, and perhaps most significant, Gilbert's (1972) data demonstrate that there is no coherent use of dative case marking among the third and fourth generation of native-born TxG speakers (see Table 3 above). This suggests that TxG did not go through all of Trudgill's three stages of new-dialect formation with respect to its case-marking properties.[6] This means that TxG stopped short of what would be the final stage of Trudgill's model of new-dialect formation, i.e., focusing.

3.4   Comparison of historical data with present-day Texas German data

I now compare Gilbert's (1972) data with present-day data on TxG to determine whether any significant changes have taken place in the case marking systems of TxG over the past 40 years. The present-day TxG data come from field interviews of the Texas German Dialect Project (TGDP) at The University of Texas at Austin (see Boas 2003). From 2001–2006, the TGDP conducted interviews with 200 speakers of TxG. Three types of data were collected: (1) Re-recording of historical data. Taking the original elicitation lists from Gilbert (1972) and Eikel (1954), informants were asked to translate English words, phrases, and sentences into TxG. The re-recording of the historical data follows the same method applied by Gilbert and Eikel and thus allows for a direct comparison in real time. In addition, it constitutes a controlled data set. (2) Open-ended sociolinguistic interviews. Based on an eight page questionnaire with questions about the origins of ancestors, childhood activities, the community, religion, education, living conditions, tourism, government, and current activities (among other things), field workers initiate conversations in German with TxG speakers. The goal of these questions is to produce casual, relaxed conversation in which informants are given the chance to respond freely in TxG without being asked to produce specific linguistic structures as with the word and sentence list translation task. (3) Biographical questionnaire in English (very few Texas Germans write German). The written questionnaire covers information about age, date of birth, level of education, domains of language use (Texas German and English), and language attitudes (subjective reactions), among other things. Field workers typically sit across from the informants and discuss the individual questions in English in order to help informants fill out the questionnaire. The data were not collected in any particular order.

All interviews are recorded on MiniDisc, and subsequently transferred to the project's main work station and edited for further processing. Then, students transcribe the

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6.   This point is supported by phonological data showing inconsistent use of a number of vowels and consonants among TxG speakers of different generations. See Boas (2008) for details.

interviews and translate them into English. Finally, the audio clips and their accompanying transcriptions and translations are stored in an on-line multimedia archive, the Texas German Dialect Archive (TGDA) (http://www.tgdp.org), which is freely available to the public (see Boas 2006 for a detailed description of the project's workflow).

A brief glance at the data in Gilbert's (1972) *Atlas* shows considerable linguistic variation across the 31-county large German-belt, similar to the one observed in Figure 1 above. To delimit the scope of my analysis of case loss in TxG I focused on only one particular region, namely New Braunfels and its surrounding communities in Comal County, halfway between San Antonio and Austin. I selected New Braunfels because it is one of the oldest German speaking settlements in Texas, receiving settlers from different areas in Germany. Its founding in 1845 and its subsequent development are well documented (Biesele 1930; Haas 1968; Fey 1994), and there are three previous studies describing the local variety of TxG spoken there (Clardy 1954; Eikel 1954, and Gilbert 1972). Gilbert's data for the New Braunfels area are based on interviews with eleven informants and provides the most detailed information on a wide range of linguistic features. In what follows, I compare the case marking system of Gilbert's informants with that of the 52 informants interviewed by the TGDP in the New Braunfels area from 2001–2006. The real-time evidence spans a 40-year time span and provides an interesting addition to the apparent-time data discussed in the previous section (see Bailey 2002 for advantages and disadvantages of real-time and apparent-time data).

The first data set captures case marking in prepositional phrases headed by *über* ('over'), *unter* ('under'), *neben* ('next to), *in* ('in'), and *auf* ('on'), see (1a)–(1e). Note that the use of dative case following the prepositions in these sentences reflects the case marking of Standard German (which has a four case system), in line with Gilbert's method of description, which illustrates case use in TxG from the perspective of the standard variety.

(1)   a.   *Es liegt dort unten auf dem Boden.*   (Gilbert 1972: Map 57)
          'It's lying down there on the floor.'

      b.   *Das Bild hängt über dem Bett.*   (Gilbert 1972: Map 51)
          'The picture hangs over the bed.'

      c.   *Er sitzt unter dem Baum.*   (Gilbert 1972: Map 53)
          'He's sitting under the tree.'

      d.   *Er sitzt neben dem Baum.*   (Gilbert 1972: Map 55)
          'He's sitting beside the tree.'

      e.   *Er ist schon im Zimmer.*   (Gilbert 1972: Map 59)
          'He is already in the room.'

Table 4 summarizes the use of the dative case by the 52 New Braunfels area informants when translating the sentences in (1a)–(1e) into TxG. The table compares the

Table 4. Use of dative case in TxG (dative expected in Standard German).

	Gilbert (1972)	TGDP (2006)
auf	80%	5%
über	13%	0%
unter	20%	7%
neben	27%	3%
im	13%	5%

data collected by Gilbert in the 1960s with the data collected by the TGDP from 2001–2006. There is a slight difference in age between the speakers interviewed by Gilbert and those interviewed by the TGDP. While the TGDP speakers range in age from 62 to 95, Gilbert's speakers range in age from their mid-30s to their 80s. Note that from the perspective of Standard German, all five prepositions require the use of the dative case as in (1a)–(1e).

The data in Table 4 demonstrate three important points. The first point concerns the reduced use of dative case in Gilbert's data. By the 1960s there was already a considerable degree of contexts in which informants preferred accusative over dative following these prepositions. Except for *auf* ('on'), which 80% of Gilbert's informants used with a dative, all other prepositions triggered the use of accusative case in the majority of cases. The second point is that Gilbert's data demonstrate an item-based distribution of case loss. In other words, not all prepositions in Gilbert's data exhibit the same degree of case loss, which suggests that some prepositions may be more resistant to losing their dative case assignment functions than others. The third point concerns the development of case loss in the present-day data. Compared with Gilbert's data, the TGDP data show an acceleration of dative case loss, leading to the almost exclusive use of accusative in contexts where one would typically expect the dative in Standard German. In addition, the previously attested variation in case loss appears to have been leveled out over the past forty years. Whereas Gilbert reports dative case usage ranging from 13% to 80%, the TGDP data reveal a much smaller difference in variation, ranging only from 0% to 7%. Before turning to the role of internal and external factors in the loss of the dative case, let us take a look at case loss in the TxG pronoun system.

Previous studies on German *Sprachinseln* by Huffines (1989), Van Ness (1994), and Rosenberg (2005), among others, have shown that pronominal systems are typically more resistant to case syncretism than full lexical nouns. To see whether this difference also holds for TxG, I summarize Gilbert's (1972) data for case assignment to pronouns and compare them with the data recently re-recorded by the TGDP. Gilbert's original sentences are given in (2a)–(2e), the comparison of the historical data with present-day data is given in Table 5. Note that, as in the data set in (1),

Table 5. Use of dative case in TxG (dative expected in Standard German).

	Gilbert (1972)	TGDP (2006)
ihnen/denen	79%	52%
mir	54%	27%
ihr	93%	40%
ihr	87%	29%
mir	27%	12%

the dative marking on the pronouns is described from the perspective of Standard German (following Gilbert's methodology).

(2)   a.   *Das Bild gehört ihnen/denen.*   (Gilbert 1972: Map 35)
           'The picture belongs to them.'

      b.   *Er kam mit mir.*   (Gilbert 1972: Map 30)
           'He came with me.'

      c.   *Wir gingen mit ihr.*   (Gilbert 1972: Map 34)
           'We went with her.'

      d.   *Gib ihr zwei Stück!*   (Gilbert 1972: Map 33)
           'Give her two pieces.'

      e.   *Er hilft mir jetzt.*   (Gilbert 1972: Map 31)
           'He's helping me now.'

A comparison of the data in Table 5 with those in Table 4 clearly shows a higher retention of dative case marking among pronouns than among referential noun phrases governed by prepositions, i.e., up to 79% of Gilbert's New Braunfels area speakers employed the dative in the relevant context. Besides this difference, dative case marking has been significantly reduced in the TGDP data. While Gilbert's informants used from 27% to 79% dative case marking on pronouns, only 12% to 52% of TGDP informants continue to use the dative in the relevant contexts. As such, the case marking on pronouns has followed a path parallel to that of the referential noun phrases discussed above, continuing a trend already observed by Eikel (1954), Gilbert (1965), and Fuller & Gilbert (2003). However, in TxG pronouns the dative case is generally better preserved in comparison with referential noun phrases. With this overview of the data in hand I now turn to the question of whether the loss of dative case is best explained in terms of internal or external factors.

4.   The role of internal and external factors in case loss

Whether case loss in German *Sprachinseln* is triggered by internal or external factors is perhaps one of the most studied questions in German dialectology, covering a wide

spectrum of language contact situations in the United States (Louden 1988; Huffines 1994; Salmons 1994; Guion 1996; Born 2003; Fuller & Gilbert 2003; Wagener 2003), the former Soviet Union (Jedig 1966; Berend & Jedig 1991), Brazil (Altenhofen 1996; Damke 1997), Namibia (Riehl 2004), and Australia (Clyne 2003), among others. Studies such as Eikel (1949), Elliott (1972), and McGraw (1973) propose that case loss is triggered because of contact with another language that already exhibits a reduced case system. In this view, case loss proceeds on a generational basis, with younger generations having more and more contact with the contact language, eventually leading to case loss. As Eikel (1949: 281) puts it: "Older people use the dative more freely than does the present generation. (…) New Braunfels German has been forced to follow the English pattern of syntax."

Other studies such as Keel (1994) and Rosenberg (2003, 2005) emphasize the role of internal factors. For example, Rosenberg (2005) takes a comparative approach to analyzing case loss by focusing on German *Sprachinseln* that are in contact with different languages, namely Portuguese, Russian, and English in order to determine differences and similarities in case loss patterns. Comparing the historical background of the German *Sprachinsel* in Rio Grande do Sul in southern Brazil with those scattered throughout Russia, Rosenberg points out five parallels: (1) both countries have a German-speaking population of more than one million speakers; (2) the majority of German settlements in both countries date back to the 19th century (or earlier); (3) there was considerable discrimination against the German language and culture during World War II; (4) settlers lived in small isolated colonies scattered throughout the two countries; (5) the original settlers came from various locations throughout Germany, speaking different dialects. As such, the input dialects in each location had similar features (Rosenberg 2005: 228).

In light of the data on the different contact situations, Rosenberg (2005) argues against attributing case loss to external influences. His comparison between the *Sprachinseln* in Brazil and Russia, which both exhibit comparable degrees of case loss, and which have a very similar historical background, shows that the loss of the dative should not be attributed to external factors. Rosenberg argues that on the view favoring external factors the German varieties spoken throughout Russia should not exhibit any case loss since Russian has a considerably more complex case system than any German variety. In other words, there is no evidence of the contact language providing a simpler case system that could serve as the model for the reduced German system. This observation leads Rosenberg to focus on internal factors as a possible explanation for case loss in German *Sprachinseln* (2005: 229).

Perhaps even more interesting is case loss among the Amish and Mennonites, who speak Pennsylvania German. Rosenberg compares the differences in case loss patterns between sectarian and non-sectarian Amish and Mennonite groups (see also Louden 1998; Van Ness 1996). Interestingly, case reduction is strongest among members of sectarian groups, who use German in most parts of their lives. In

contrast, members of non-sectarian groups, who have intensive language contact with English, show a significantly smaller degree of case reduction (Rosenberg 2005: 229). Rosenberg points out that if external factors were indeed playing a role in case loss, we would expect members of the non-sectarian groups to have markedly less dative morphology because of their intense contact with English. However, the fact that sectarian speakers (who have significantly less contact with English) show a higher degree of case loss suggests that external factors did not play any significant role in this development. In other words, more contact with English should result in more loss of dative case, not its maintenance.

Given these arguments against external factors, several authors have suggested that case loss should be accounted for in terms of internal factors (Gilbert 1965; Salmons 1994; Van Ness 1996; Rosenberg 2003). For example, Rosenberg points out that the reduction of noun inflection in German dialects is even more radical than in the standard. This development is not only restricted to German dialects, but can be observed among most Germanic languages, according to Rosenberg. On this view, case loss is due to a "long term development from synthetic to analytic structure" (2005: 208). In other Germanic language such as English and mainland Scandinavian, this process has progressed at a much faster pace than in German dialects, leading to the almost complete loss of morphological case, according to Rosenberg. This observation leads him to suggest that the reduction of noun inflection among German language island varieties proceeds at a much faster pace than in Standard German or other German dialects, an idea already proposed by Clyne's (1991: 179) analysis of German *Sprachinseln* in Australia.

With respect to case loss in TxG, an explanation in terms of internal factors appears to fit the general pattern of case loss in other German *Sprachinseln*. Consider, for example, the range of donor dialects brought to Texas. As shown in section 3, the dialects differed from each other in their case marking systems to begin with. Thus, the original settlers and their offspring were engaged in continuous face-to-face interaction involving different case marking systems, which eventually led to case loss similar to that observed among the many *Sprachinseln* in Russia (Schirmunski 1962; Berend & Jedig 1991). Applying Trudgill's (2004) model of new-dialect formation to the TxG data in Tables 3–5 we can observe a generational pattern of case loss. Recall Trudgill's claim that during the first and second stages of new-dialect formation linguistic features are first leveled and then increase in variability, before there is further leveling and subsequent focusing during the third stage. The data in Tables 3–5 clearly show a generational pattern of case loss that matches up with Trudgill's three stages of new-dialect formation. On this view, the trend towards a reduced case system may not only be attributed to internal typological tendencies of Germanic languages towards reduced case systems (cf. Sapir's 1921 notion of drift). In addition, Trudgill's model allows us to describe this development of the interaction of different case systems in a

dialect contact situation, eventually leading to leveling of morphological case. The further loss of case we see between the 1960s (when Gilbert recorded his data) and today can be attributed to a continuation of trends already in place well before the 1960s. In sum, the data thus strongly suggest that case loss in TxG is due to internal factors.

However, the data do not shed light on the role of external factors in this development. First, consider the role of English. While Eikel (1949) maintains that contact with English ultimately led to case loss in TxG, this appears highly unlikely for the following reasons: (1) Previous research demonstrates that non-sectarian speakers of Pennsylvania German, who are in constant contact with English speakers, exhibit a lower degree of case loss that sectarian speakers, who have much less interaction with English speakers (see Rosenberg 2005); (2) The generational pattern of case loss described by Salmons (1994) based on Gilbert's (1972) data in Table 3 above shows that TxG already exhibited a significant loss of dative before the end of the 19th century. However, at that time the great majority of rural German settlements throughout the Hill Country existed in relative isolation. It was not until the 1920s that a reliable network of roads was built throughout central Texas, allowing the rural population uninterrupted access to larger towns and cities (Biesele 1930; Boas 2005). Because of this geographic isolation, there was relatively little contact between speakers of TxG and English, in particular throughout the Hill Country, until after World War I. Thus, contact with English is very unlikely to have played a role in triggering case loss in TxG until the first quarter of the 20th century.

Another external factor that may have played a role in case maintenance in TxG is the influence of Standard German. For example, Salmons and Lucht (2006) attribute the relatively high degree of dative marking in the speech of speakers born before roughly 1880 to the fact that Standard German played an important role in the lives of Texas Germans. Based on their review of statistics and reported use of Standard German in schools, churches, and the press, they argue – together with Salmons (1994) – that Standard German was influential in promoting the use of dative case among speakers of Texas Germans. Until the early 20th century, there was variable case marking, and speakers born after 1912 do not exhibit regular use of dative morphology even in formal speech. Salmons suggests that the loss of dative goes hand in hand with discontinuation of Standard German in schools. Pointing to English-only laws enacted in 1884 and 1909, he proposes that once Standard German was no longer taught in schools, TxG speakers lost their systematic distinction between dative and accusative. While the observations regarding the important role of Standard German in the schools are certainly correct, I suggest that the use of Standard German in Texas is overestimated. In particular, I maintain that the level of active control of Standard German was far less among the German settlers and their descendants than claimed by Salmons (1994) and Salmons and Lucht (2006). As such, Standard German had very little, if no influence on the case system of TxG. Consider the following points raised by Boas (2008).

1. The development of Standard German. Standard German spread at the expense of regional dialects in Germany. This development took a period of about 500 years, spanning the invention of the printing press, Luther's translation of the Bible into Eastern Middle German, the gradual acceptance of Luther's German in the Catholic south, political unification in 1871, and public education in the twentieth century. A written standard that was broadly accepted throughout the various German states had not evolved until the end of the 17th century, and even then this new variety was quite limited in its distribution. For example, Elspass (2002: 44–45) points out that well into the 19th century access to the evolving written standard was restricted to the educated middle and upper classes. As such, people from the lower and lower middle classes did not have access to the written standard until the first half of the 19th century when the majority of German people became literate.

Even then, there were significant regional differences, with regions in central Prussia exhibiting comparatively high literacy rates, while Catholic and rural areas in the east, the far west and the south had to deal with widespread illiteracy (Ludwig 1998; Durrell 1999; Elspass 2002). Based on an extensive analysis of private letters written by members of the lower and lower middle classes during the 19th century, Elspass shows that there were still "more non-standard norms of usage (Milroy & Milroy 1985: 25) rather than just the norm of the standard variety" (Elspass 2002: 50). The analysis of the letters leads him to conclude that the existence of unofficially 'non-standard' forms is to be attributed to the persistence of regional norms of usage among the letter writers. In his view, written standardization was still under way during the mid 19th century. Elspass's analysis explains why it was not until the early 20th century that a unified German orthography was adopted: it was not until 1902 that Konrad Duden's orthography (first published in 1880) was adopted as a uniform standard throughout Germany, Austria, and Switzerland (Wells 1985: 351–353). Commenting on the introduction of the new orthography, Wells (1985: 348) points out that inconsistencies and alternatives persisted for a considerable time, as they did in morphology and syntax.

While the early 20th century saw the emergence of a coherent written standard, it took even longer for a spoken standard to evolve into a variety that was used throughout Germany (largely among the urban, well-educated middle and upper classes). The first broad-scale work aimed at codifying a spoken standard of German, Viëtor's *Die Aussprache des Schriftdeutschen* ('The Pronunciation of Written German') was not published in Germany until 1885. As such, it was no earlier than the mid-20th century that a form of Standard German became the mother tongue of greater parts of the German population (Durrell 1999; Elspass 2002). Similarly, it was not until the advances of radio and television in the 1950s and 1960s that Germans themselves were constantly exposed to the spoken standard. König (1989) shows that even in the later part of the

20th century there existed among Germans with a high school degree a wide spectrum of pronunciation that deviated significantly from the pronunciation advocated by Siebs (1969). This leads Besch (2003: 24) to conclude that even at the end of the 20th century there was widespread variation in spoken Standard German. These facts make it very unlikely that those who knew written Standard German in Texas pronounced it in a uniform way before the end of the 19th century (as was certainly the case for Germany).

2.   *The importance of Standard German in Texas.* During the late 19th and early 20th century in Texas only a small group of German settlers had an active control of Standard German. Unfortunately we have no exact information about the size of the educated middle and upper classes. An exception were the settlements known as "Latin Settlements" such as Sisterdale, which were founded by highly educated Germans who were political refugees fleeing persecution after the failed revolution of 1848. Based on accounts describing the importance of literary circles in these settlements, it is likely that the majority of settlers there insisted on continued use of Standard German for some functions (see, e.g., Biesele 1930: 171–173). Based on all available information, only the educated middle and upper classes had an active command of Standard German because they either acquired it natively (their parents coming from a similar background), or they learned it in school and subsequently attended university where an active command of the standard was an integral part of education. For example, in New Braunfels members of the educated middle and upper class held various important public positions that promoted the use of Standard German. Ferdinand Lindheimer, the first editor of the *Neu-Braunfelser Zeitung* from 1852 to 1872 received his education at a Frankfurt *Gymnasium* and attended a preparatory school in Berlin. He then attended the University of Wiesbaden, the University of Jena, and the University of Bonn (Sasse Ragsdale 2005). In sum, the available information suggests that some form of Standard German was primarily used by the members of the educated middle and upper classes in domains that exposed the rest of the population to the standard to some degree.

3.   *Limited exposure to Standard German.* Recall that the majority of German settlers were farmers and craftsmen who had typically received only a limited education in Germany (usually 4–6 years of schooling). These facts suggest that most had at best a passive knowledge of the written standard when coming to Texas. The situation was not much different for their children growing up between 1850 and 1890. The majority of students did not attend school year round, but went to rural country schools (Cf. Rahe 1999: 46). Many of these one-room country schools hosted four to eight grades, where the same teacher typically taught all the children. Up until the beginning of the 20th century, most children only received an elementary education, as Gold (1945: 83) points out. Furthermore, it was often

neither feasible nor practical for students to attend classes year-round as Rahe (1999) points out:

> When the crops needed to be harvested, every member of the family went to work and the children were too busy for book learning. While the teacher was highly respected, school attendance was in many cases impractical. (…) The children in the rural areas grew up as hard-working responsible individuals with years of on-the job training in farming and ranching; however, they had limited formal education and exposure to the outside world. (Rahe 1999: 47)

It is not clear to what degree teachers themselves were proficient in Standard German. Discussing the use of Standard German by elementary school teachers in 19th century Germany, Elspass (2002: 50) shows that it is not certain what knowledge elementary school teachers had of the standard variety. It would be more accurate to say that they taught a form of German that they regarded as the standard. This leads Elspass to suggest that non-standard norms of usage in written language seem to have been at least partly reinforced by teachers in elementary schools who were not aware of the official standard variety of felt insecure about its correct use themselves (Elspass 2002: 60–61). Considering these facts regarding the role of Standard German in elementary school education in 19th century Germany, it appears likely that the situation in Texas was similar, if not even more divergent. The limited attendance at rural schools suggests that most children acquired an active knowledge of Standard German only to a certain degree. That is, they may well have understood the standard and were able to produce it at some level during their school years. However, once they left school it is very likely that they lost most active control of the standard after a few years and were only exposed to it at church and by reading newspapers, thereby maintaining passive knowledge of the standard. As such, I propose that Salmons & Lucht's (2006) claim that "active control of Standard German was commonplace" should be regarded with some caution. Instead, it is more likely that the majority of Texas Germans continued to actively use some form of German dialects in their daily lives. In other words, it was only the educated middle and upper classes that had active control of some version of standardized written German. In sum, I have argued that the loss of dative case should be attributed primarily to internal factors instead of external factors such as the influence of English and Standard German. The following section discusses to what extent case loss in TxG can be attributed to internal semantic and pragmatic factors.

5.   Towards a functional explanation of case loss in Texas German

The loss of case morphology in the history of a given language has been analyzed in numerous studies (e.g., Allen 1995; Blake 2001; Kulikov 2006; Barðdal & Kulikov 2009;

Harbert 2007). One of the common ways in which case is lost is that two different cases merge. This development leads to case polysemy where one and the same form expresses two or sometimes even more case functions. This process is typically referred to as case syncretism. To explain case syncretism Heine and Kutova (2005: 148) propose the following possible causes:

(3)　Possible causes of case syncretism (Heine & Kutova 2005: 148)

　　a.　Owing to phonetic processes, different case forms become formally indistinguishable.
　　b.　One case category C_1 extends its functional domain and takes over the function of another category C_2, eventually replacing the latter.
　　c.　One of the case markers disappears and its functions are taken over by the other case marker.

In discussing the three possible causes of case syncretism, Heine and Kutova (2005: 149) point out that the three causes are not necessarily alternatives. Instead, they may work together as a part of a general process. On this view, case syncretism can be regarded as a combination of morphological, syntactic, and semantic processes. In what follows, I briefly address each of these processes to determine the mechanisms leading to case syncretism in TxG. I begin with a discussion of case assignment following prepositions.

Recall from Table 1 above that the majority of base dialects brought to Texas from Germany in the 1840s still distinguished between accusative and dative case. At that time, the difference in form between the accusative masculine determiner *den* and its dative counterpart *dem* was relatively minimal: the accusative-marked determiner ended in a voiced alveolar nasal while the dative-marked determiner ended in a voiced bilabial nasal. This minimal difference in form signaled functional differences in that it distinguished between grammatical functions such as direct and indirect object. At the same time, it served to distinguish between semantic roles such as Patient, Recipient, Path, Location, and Goal. Due to the minimal difference in form between the two case marked determiners it appears likely that at some point they became formally indistinguishable in certain discourse contexts (in particular in fast speech), thereby leading to an overlap in meaning. Thus, the accusative marker extended its functional domain to that of the dative, eventually replacing the dative altogether.

An explanation based primarily on phonological factors is ultimately neither satisfactory nor adequate since it leaves two important questions unanswered: (1) Why did the accusative extend its functional domain over that of the dative and not the other way around? (2) How do we account for the changes in case marking on feminine and neuter determiners?

Regarding the first question we need to consider some significant differences between accusative and dative. In German, accusative (and nominative) are so-called

structural cases that are assigned in specific phrase-structure configurations. In contrast, dative is a lexical case that requires a specific lexical licenser such as a verb or a preposition that assigns dative case as a lexical property (see Haider 1993 for details). There are also semantic differences between structural and lexical cases. Nominative and accusative are compatible with a wide arrange of semantic roles, while the dative is not. The latter is typically associated with the semantic roles of Recipient or Beneficiary. When it comes to locations, the dative is used to indicate a stationary Location. As such, the dative is morpho-syntactically and semantically the marked option, while the two structural cases nominative and accusative are the unmarked option in German. Following Wurzel's (1989) suggestion that unmarked forms and constructions are preferred by speakers, I propose that the loss of dative marking on masculine determiners is also triggered by the trend towards unmarked forms. Thus, the loss of lexical case (the dative) can be attributed to the observation that morphological change moves towards naturalness, in this case towards unmarked structures such as structural (accusative) case marking.

The overlapping semantics of accusative and dative may also play an important role in this development. Recall that the prepositions in (1) govern two cases in the base dialects of TxG. When they are used in a sentence in which the prepositional object is in motion, they govern accusative case (cf. *Leg es auf den Boden* 'Put it on the floor'). When they are used to indicate a stationary location, they govern dative case (cf. *Es liegt auf dem Boden* 'It is lying on the floor'). The difference between using the dative and accusative is then simply a matter of indicating motion versus non-motion (see Langacker 1991: 402–403). At the same time, this semantic difference is also often expressed by the phonological form of the main verb, which exhibits a vowel alternation depending on whether motion is involved or not: *legen* ('to put down') vs. *liegen* ('to lie'), *setzen* ('to sit down') vs. *sitzen* ('to sit'), etc. This suggests that the information encoded by the case opposition between accusative and dative is not only overlapping, but also largely superfluous in these contexts. Given that languages have a tendency to avoid synonymous grammatical forms (see Goldberg 1995: 67) it should thus come as no surprise that the case distinctions disappear. In summary, I propose that the replacement of the dative by the accusative is triggered by at least three interlaced factors: similarity in phonological form, movement towards unmarked forms (from lexical to structural case), and similarity in semantic contexts.

I now turn to the second question posed above, namely the question of what factors triggered case syncretism among determiners marking feminine and neuter nouns (see Table 1 above). Clearly, similarity in phonological form does not appear to play a significant role in this development as the differences between accusative and dative are more pronounced in the feminine paradigm (cf. *die* (ACC) vs. *der* (DAT)) and the neuter paradigm (cf. *das* (ACC) vs. *dem* (DAT)) than in the masculine paradigm (cf. *den* (ACC) vs. *dem* (DAT)) discussed in the previous paragraphs. I suggest that the

loss of dative marking in the feminine and neuter paradigm was triggered by the trend to prefer unmarked over marked forms. Following the trend exhibited by the masculine paradigm, the feminine and neuter paradigms gave up lexical case marking for structural case marking. This development was in all likelihood supported by the fact that the forms of the nominative and accusative feminine and neuter determiners were already identical in form. Following Bybee's (1995) and Barðdal's (2008) proposal that high type frequency constructions are also semantically more open and less restricted, I thus cautiously suggest that the most frequently used cases (nominative and accusative) were generalized at the expense of the less frequently used dative. Since as yet we do not have a sufficiently large data pool available that could be used as empirical evidence to help us arrive at a definite answer, I would like to emphasize the tentative nature of my proposals outlined in this section.

6.   Summary and conclusions

Based on a comparison of data from Gilbert (1972) and data collected by the Texas German Dialect Project over the past five years I have argued that there exists no uniform TxG dialect. Instead, TxG should be regarded as a convenient cover term for different new-world varieties of German spoken in Texas. With respect to case syncretism I have shown that dative case marking in TxG has significantly declined since Gilbert collected his data in the 1960s. I proposed that the trend towards a two-case system described by earlier studies such as Gilbert (1965, 1972) and Salmons (1983, 1994) already began during the first decades of German settlement in Texas, when speakers of different German dialects came into contact with each other. Applying Trudgill's (2004) model of new-dialect formation to the TxG data I then argued that the reduction in dative case is best explained in terms of internal factors, that is, leveling processes taking place in dialect contact situations. On this view, case loss in TxG is similar to case loss in other German *Sprachinseln* such as in Brazil and Russia. Finally, I suggested that the replacement of the dative by the accusative is triggered by at least three interlaced factors: similarity in phonological form, movement towards unmarked forms (from lexical to structural case), and similarity in semantic contexts.

Obviously, further research is required to investigate why some dative forms are lost earliest or retained longest (see Rosenberg 2003). Closely related to this issue is the question of external factors. While internal factors certainly are the strongest factors in triggering case syncretism, it may be impossible to rule out the secondary influence of local external factors. The goals of the present paper have been more modest: to demonstrate how real-time data can be used for an analysis of case loss in TxG, and to highlight the importance of considering syntactic, semantic, pragmatic, and phonological factors for arriving at a unified account of case syncretism.

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Case splits motivated by pragmatics, metonymy and subjectification

Semantic role to new information in Meithei*

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The patient, associative, locative and agent semantic role markers in Meithei (Tibeto-Burman, Northeast India) each exhibit a homophonous enclitic, a morpheme which indicates information as new or surprising from the speaker's perspective. It is argued that the system wide homophony is due to the metonymic extension of semantic role markers and semantic change through "Subjectification" (Traugott 1989).

1.   Introduction

The Tibeto-Burman language Meithei (also known as Manipuri or Meiteiron, spoken in Northeast India) exhibits pragmatic markers homophonous with the patient, associative, locative and agent semantic role markers. The homophony is not accidental; rather, the homophonous enclitics have developed from the semantic role markers through a process of metonymic extension and semantic change.

Sections 2–6 illustrate the semantic role markers and homophonous pragmatic markers. Section 2 is an overview of semantic role marking in Meithei. Section 3 discusses the distribution of the patient marker *-pu*, showing that patient marking only occurs when the patient is specific. This section also provides examples and discussion of a homophonous suffix *-pu* 'adversative' which indicates a speaker's empathy with or dismay at an entity's involvement in an action. Section 4 illustrates the distribution

of the associative marker *-kə* and provides examples of the homophonous suffix *-kə* 'unanticipative'. The examples in Section 5 show that the locative marker *-tə* occurs only on specific NPs. The homophonous marker *-tə* reflects speaker surprise about an NPs involvement in an action. Finally, Section 6 shows that not all agents are marked by a semantic role marker; rather, as in the case of patient and locative marking, agent marking occurs with specific NPs. From a discourse perspective, subjects which occur in foregrounded clauses are *-nə*-marked while subject NPs in backgrounded clauses are not. The agentive *-nə* is homophonous with *-nə* 'contrastive' which places an NP in contrastive focus.

Section 7 sets out the diachronic path that leads to the extension of semantic role markers to the homophonous enclitics, all of which are markers of new information. The section shows how semantic change is motivated by metonymic extensions. It is argued that the way in which semantic role markers develop from indicating clause-bound information (agent and patient, for example) to expressing a speaker's subjective framing of a proposition (marking NPs as new or unexpected, for example) is an illustration of "Subjectification" as described in Traugott (1989, 1997).

2.   Semantic role marking in Meithei

The semantic role markers of Meithei, presented in the order in which they are discussed, are as follows:

Patient	*-pu*
Instrumental	*-nə*
Associative	*-kə*
Locative	*-tə*
Agentive	*-nə*
Possessive	*-ki*
Ablative	*-təgi*

The patient and instrumental markers are exemplified in (1a); the associative and locative in (1b–c), the possessive in (1d), and the ablative in (1e). The agentive and instrumental markers are obviously related; however, since their distribution is quite different, they are listed as two different markers (see Bhat and Ningomba 1997: 105–108 for further discussion of this point). The function of *-nə* 'agentive' needs special attention and is addressed in Section 6. Unless otherwise indicated, the examples in this study are taken from Bhat and Ningomba (1989 and 1997), my field notes collected between 1984–2008; examples from my text collection (Chelliah 2009), and discussions with Meithei linguists.

(1) a. *núpá-ti*   *ə́-ŋáŋ-pu*   *čə́y-nə*   *phú-í.*
         man-DLMT ATT-small-PAT stick-INST   beat-NHYP[1]
         'Only the man beat the child.'

     b. *tombi* *raǰa-kə*   *skul-tə*   *čát-khi-lə-e.*
         Tombi Raja-ASS   school-LOC go-STILL-PERF-ASRT
         'Tombi has gone with Raja to school.'

     c. *tombi-kə*   *raǰa-kə*   *dili-tə*   *həl-lək-kə-ni.*
         Tombi-ASS   Raja-ASS   Delhi-LOC   return-DIST-POT-COP
         'Tombi and Raja will go back to Delhi.'

     d. *mə́-čhi*   *ə́y-ki*   *yúm-ni.*
         NM-proximal.determiner[2] 1P-POS house-COP
         'This is my house.'

     e. *hú-lán-pə-tu-nə*   *ímuŋ-tu-təgi*   *mə́-pán-tə*
         steal-foe-NOM-DDET-AGN within-DDET-ABL   NM-border-LOC

         čín-thok-khi-pə   *mə́-təm-tə-ti …*
         run-OUT-STILL-NOM   NM-time-LOC-DLMT

         'At the time that the thief came running out from inside the house … '

3.   Semantic extension of *-pu 'patient'*

In Meithei, as seen for languages such as Turkish, Persian, and Spanish (see Lyons 1999: 202–206), patient marking interacts with NP values for definiteness and specificity. A brief explanation of terminology is needed here: An NP is *specific* if it is

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1.   Note that there is no tense marking in Meithei. The Meithei verb must minimally consist of a verb root and an inflectional suffix which can be one of two indicative markers: *-e* 'assertive' which marks an emphatic nonfuture declarative as in (3b) and *-í* 'nonhypothetical' which marks a simple nonfuture declarative as in (1a). In (1c), the copula is used. The nonhypothetical functions like the English present tense to express a general statement of fact (e.g., *Babies cry for two reasons*); a habitual or daily occurrence (e.g., *He goes to school*); a situation that exists at the moment of speaking (e.g., *I have a dollar*); or the equivalent of the English present perfect (e.g., '*He has eaten*'). The nonhypothetical and the progressive (as in (10a)) have similar allomorphs distinguished only by tone which speakers identify quite easily. The progressive has rising tone while the nonhypothetical has falling tone. Thus, for example, the progressive /-li/ with the allomorphs [li], [ri], and [mi] must be distinguished from the nonhypothetical /-í/ with the allomorphs [lí], [rí], and [mí].

2.   The proximal determiner functions as the root here.

identifiable by the speaker but not by the hearer, while a *definite* NP is one that is identifiable by both the speaker and hearer.[3] A specific expression may be definite or indefinite. This is illustrated in examples (2a–2b) taken from Schiffrin (1994: 230). In both examples, the speaker has in mind a particular cat but in (2a) the hearer can identify the cat the speaker has in mind while in (2b) the hearer cannot.

(2)   a.   Specific and definite: *Last night <u>the cat</u> knocked over our trash can.*
      b.   Specific and indefinite: *Every night <u>a cat</u> knocks over our trash can. It must be hungry.*

Returning to Meithei, as seen in example (3a–c), the patient marker is not obligatory and occurs only when the patient NP is specific. Patients that are neither specific (the speaker is not referring to a particular NP) nor definite (the speaker and hearer do not share knowledge about the NP) are unmarked. See example (3a). Patients marked with -*tu* 'distal determiner' are definite as in (3b); and specific and definite when marked with -*tu* 'distal' and -*pu* 'patient' as in (3c).

(3)   a.   *má-či   mí   tházə-də-e.*
           he-PDET   man believe-NEG-ASRT
           'He doesn't believe people.' (nonspecific and indefinite)

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3.   I use the definition of definiteness and specificity given in Lyons (1999). Shared knowledge which leads to the use of definite NP may be due to:

–   Familiarity: An NP is familiar because: as in (i) the underlined NP is visible to both the speaker and hearer; as in the case of *the moon* in (ii), the NP is familiar because it exists in the interlocutors' shared knowledge about the world; as in (iii) if it has an antecedent in a preceding clause; as in (iv) where an NP_y is considered familiar if it has a referent in a previous clause and if real-world knowledge implies the existence of NP_y with respect to NP_x.
–   Identifiability: The hearer may not be familiar with an entity but can identify it using clues in the discourse or physical situation. See (v) taken from Lyons (1999: 6).
–   Uniqueness: An NP is unique if there is just one entity that satisfies its description as in *the Pope* in (vi).
–   Inclusiveness: Each entity subsumed under mass noun or plural count noun is definite if the NP is known to the speaker and hearer. Thus in (vii), each piece of chalk referred to by the speaker is definite.

   i.   *Just put the cans on <u>the counter</u> behind you.*
   ii.   *<u>The moon</u> is bright tonight.*
   iii.   *The old man danced the night away. <u>He</u> was a good dancer.*
   iv.   *I took a plane from Singapore to Chennai. I think <u>the pilot</u> was drunk.*
   v.   *Pass me <u>the hammer</u>, will you?*
   vi.   *Is <u>the Pope</u> Catholic?*
   vii.   *<u>The chalk</u> I left in this classroom yesterday has disappeared.*

b. *niŋthəw-tu-nə*   *jenrəl-tu*   *lan-mí-təgi*   *tók-hən-khi-rə-e.*
king-DDET-AGN general-DDET war-man-ABL stop-CAUS-STILL-PERF-ASRT
'The king had the general dismissed from the army.' (nonspecific and definite)

c. *niŋthəw-tu-nə*   *jenrəl-tu-pu*   *lan-mí-təgi*
king-DDET-AGN   general-DDET-PAT   war-man-ABL

tók-hən-khi-rə-e.
stop-CAUS-STILL-PERF-ASRT

'The king had that general dismissed from the army.' (specific and definite)

Most *-pu* marked patients are human; however, it is possible in pragmatically marked instances for nonanimate or nonhuman patients to be marked. These NPs also receive a specific referential reading as illustrated in (4–5).

(4) *má-hák-nə*   *tebəl*   *káw-í.*
he-here-AGN   table   kick-NHYP

a. Object is *tebəl* 'table': 'He kicked a table.'
b. Object is *tebəlbu* 'table-PAT': 'He kicked a particular table.'

(5) *mə́-loy*   *mə́-laŋ-tu-pu*   *nú-pí-tu-nə*
NM-spice   NM-assorted-DDET-PAT   person-fem-DDET-AGN

írónbə-tə   *thak-chin-lə-í.*
chutney-LOC   mix-in-PERF-NHYP

'The woman put those spices into the chutney.'

A second nominal marker *-pu* 'adversative' (ADVR) signifies an NP whose existence or involvement in an activity is deemed by the speaker to be surprising and unfortunate. The adversative can occur on non-patient arguments as in (6a), or can co-occur with other semantic role markers as in (6b–d) where it occurs after locative, possessive and associative markers, respectively.

(6) a. *púŋ-pu*   *kəya*   *ta-lə-e?*
time-ADVR   what   fall-PERF-ASRT
'What time is it?' (I'm surprised at how late it is.)

b. *Tomba-nə*   *bol-tu*   *Chawba-tə-pu*   *lə́m-í.*
Tomba-AGN   ball-DDET   Chawba-LOC-ADVR   path-NHYP
'Tomba kicked the ball to Chawba.' (I'm surprised because Chawba is a bad player and his having the ball is bad for the team.)

c. *má-ki-pu*   *chóy-tə-ləbədi*   *phə́-lə-e.*
he-POS-ADVR   mistake-NEG-IF   good-PERF-ASRT
'It'll be good if nothing goes wrong for him.' (The sentence implies that something will probably go wrong.)

d.   *má-kə-pu*   *kəna-nə*   *čə́t-kə-ni?*
    he-ASS-ADVR   who-AGN   go-POT-COP
    'Who's going to go with him.' (The sentence implies that no one wants to go with him?)

When the adversative occurs on a first-person subject, the speaker expresses surprise and dismay about where the proposition places the speaker with respect to some situation.

(7)   a.   *ə́y-pu*   *hi*   *hon-pə*   *həy-tə-e-ne.*
        1P-ADVR   boat   row-NOM   proficient-NEG-ASRT-SI
        '(Unfortunately), I don't know how to row boats.'

    b.   *ə́y-pu*   *čák*   *čá-lə-ne.*
        1P-ADVR   rice   eat-PRO-SI
        '(What a shame I can't take you up on your invitation), I've already eaten.'

In agglutinative languages such as Meithei, we expect the linear order of morphemes to be more or less fixed, with morpheme categories such as tense and aspect occurring in a predictable order. Thus it is unusual for a morpheme, unless it is adverbial in nature, to show variable ordering. Consider the sequences *-pu-nə* 'patient-contrastive' as in (8a) as opposed to *-nə-bu* 'agentive-adversative' as in (8b). The sequence of morpheme categories exemplified by these examples is "semantic role" followed by "pragmatic marking". Unless we assume a fluid category-ordering system – something that is contrary to the general nature of Meithei morphology – we must assume that the *-pu* in (8b) is in the category for position for pragmatic markers since the semantic role marker position is filled and that the *-pu* in (8a) is a semantic role marker since the pragmatic marker position is filled. The fact that *-pu* occurs in two different category slots supports the idea that there are two different *-pu* morphemes. For a discussion of Meithei morpheme ordering, see Chelliah (1992).

(8)   a.   *ə́y-pu-nə*   *mə́-hák-nə*   *ə́-yuk-tə*   *erpot-tə*   *thil-ləm-e.*
        1P-PAT-CNTR   3P-here-AGN   ATT-early-LOC   airport-LOC   took-EVD-ASRT
        'As for me he took me to the airport early. (He took the others to the airport later.)'

    b.   *mə́-khóy-nə-pu*   *pat-tu*   *čit-thok-í.*
        3P-human.plural-AGN-ADVR   lake-DDET   drain-OUT-NHYP
        '(I'm shocked) that they drained the lake!'

To summarize thus far *-pu* 'patient' marks an NP as specific. A different marker *-pu* 'adversative' expresses a speaker's surprise and dismay at an entity's involvement in some activity. This second *-pu* marker can occur on patient and non-patient NPs. As will be seen in the following sections, similar pairs of suffixes for the associative, dative and agentive markers exist. This system wide pattern strongly suggests that the dual

meanings associated with *-pu* are due not to accidental homophony but to systematic semantic change whereby a semantic role marker develops a secondary function and ultimately into a second related marker.

4. Semantic extension of *-kə* 'associative'

The associative marker is used to indicate that an action has been performed in conjunction with another person (9a). If a speaker wants to exhaustively list the participants in a jointly performed action, both participants can be marked with *-kə* as in (9b).

(9) a. *mə́-hák   tomba-kə   skul   čə́t-khi-lə-e.*
3P-here   Tomba-ASS   school   go-STILL-PERF-ASRT
'He has gone to school with Tomba.'

b. *ram-kə   sita-kə   khə́t-nə-ləm-í.*
Ram-ASS   Sita-ASS   fight-RECIP-EVD-NHYP
'Ram and Sita fought each other.'

A homophonous enclitic, *-kə* 'unanticipative' (UNANT), indicates the subjective opinion of the speaker that the juxtaposition of a known participant with some situation is unanticipated. Examples are given in (10).

(10) a. *tomba-tu   yu-kə   thə́k-li-ne.*
tomba-DDET   wine-UNANT   drink-PROG-SI
'(Knowing the kind of person he is I'm amazed that) Tomba was drinking rice wine!'

b. *má   čák-kə   čá-lə-pə-lə.*
he   rice-UNANT   eat-PERF-NOM-INT
'Has he been able to eat (I'll be surprised if he has since he has been sick)?'

The unanticipative may follow another semantic role marker as in (11).

(11) *má-nə-pu   Tomba-tə-kə   khə́t-nə-pə   haw-rək-í.*
3P-AGN-ADVR   Tomba-LOC-UNANT   fight-RECIP-NOM   start-MULT-NHYP
'(Considering his size, I can't believe that), he's picking a fight with Tomba!'

Clear evidence of two distinct markers, the associative and unanticipative, is given in (12). The example in (12a) provides the simple interrogative, while (12b) carries an additional note of speaker incredulity.

(12) a. *bol-kə   ləy-pə-rə.*
ball-ASS   be-NOM-INT
'Did you bring the ball?'

b. *bɔl-kə-kə*   *ləy-pə-rə.*
ball-ASS-UNANT be-NOM-INT
'(Given that we have a game on, I'm surprised that) you haven't brought a ball?'

5. Semantic extension of *-tə* 'locative'

The locative *-tə* marks goals: human recipients, locations, temporal end points, or quantities. As illustrated in (13c–d), the occurrence of *-tə* indicates a degree of specificity.

(13) *má čiŋ ká-í.*
he hill climb-NHYP

a. Location is *čiŋ* 'hill': 'He climbs hills.' (nonspecific and indefinite)

b. Location is *čiŋ-tu* 'hill-DDET': 'He climbs the hills.' (nonspecific and definite)

c. Location is *čiŋ-tə* 'hill-LOC': 'He climbed the hill.' (specific and indefinite)

d. Location is *čiŋ-tu-tə* 'hill-DDET-LOC': 'He climbed that hill.' (specific and definite)

When the goal is a proper noun, which is inherently specific and definite, the use of the locative makes the destination noteworthy, as in (14a). When a state of being is located, such as 'living in X', either the locative *-tə* or definite marking must be used, e.g., *yumdu* 'that house', *yumsi* 'this house', as in (14b).

(14) a. *ə́y dili-(tə)   čə́t-lə-í.*
1P Delhi-LOC go-PERF-NHYP
'I went to Delhi.'

b. *yum-tə   mí məri ləy-í.*
house-LOC men four be-NHYP
'Four people live in the house.'

Similarly, for temporal endpoints, the locative specifies a particular endpoint as shown in (15).

(15) *má-su nuŋ-taŋ layrík pa-í.*
he-ALSO sun-shelter book read-NHYP

a. If the temporal adjunct is *nuŋdaŋ* 'night': 'He also read books each night.'

b. If the temporal adjunct is *nuŋdaŋ-tə* 'night-LOC': 'He also read the books that night.'

Human recipients are either specific and/or definite. They may be marked by *-tə* 'locative', *-pu* 'patient', *-tu* 'distal determiner', or *-si* 'proximate determiner'. See example (16) taken from Bhat and Ningomba (1997:138).[4]

(16) *mə́-má-nə*   *ə́ŋáŋ-pu*   *čák*   *ín-í.*
      3P-mother-AGN   child-PAT   rice   feed-NHYP

    a.   If the direct object is *ə́ŋáŋ-pu* 'child-PAT': 'The mother fed the child food.'
    b.   If the direct object is *ə́ŋáŋ-tə* 'child-LOC': 'The mother fed food to the child.'

There exists a homophonous marker *-tə* 'contrary to expectation' (CTE) which indicates a speaker's evaluation that the involvement of an entity in an action or a situation may be unexpected or new to the hearer. The CTE may follow semantic role markers as in (17a–b) or occur on nominalized clauses as in (17c).

(17) a. *ə́y*   *moyraŋ-tə-tə*   *ləy-í.*
           1P   Moirang-LOC-CTE   be-NHYP
           'I live in Moirang.' (The sentence implies that you may think I live elsewhere.)

     b. *ə́y-khóy*   *ŋə́raŋ*   *tombə-ki-tə*   *čə́t-ləm-í.*
           1P-HPL   yesterday   Tomba-POS-CTE   go-EVD-NHYP
           'Yesterday we went just to Tomba's house.' (Not elsewhere as you might assume.)

     c. *həyeŋ-ti*   *ə́y-khoy*   *čák*   *sóy-tə́nə*   *čá-ni-tə.*
           tomorrow-DLMT   1P-HPL   rice   certain-BY   eat-COP-CTE
           'Tomorrow we will surely eat with you (although you have invited us many times and we have put it off for so long).'

6.   Semantic extension of *-nə* 'agentive'

The following description of the distribution of the agent marker is based on a study I conducted with native Meithei-speaking linguists Harimohon Thounaojam and

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4. As seen in the following example, there are other possibilities for marking human recipients but the details are irrelevant for the discussion at hand.

    Raja-ti   *layíik-tu*   *tombi-nə*   *pí-ləm-í.*
    Raja-DLMT   book-DDET   Tombi-AGN   give-EVD-NHYP
    'Tombi has given the book to only Raja.'

For further discussion on the difference between patient and locative marked arguments, see Bhat and Ningomba (1997: 119–122, 138).

Chungkham Yashawanta Singh in 2007. It takes into consideration speaker intuition through elicited data and speaker use in naturally occurring speech. The elicited data come from translations of sentences that I created using sample verbs from each verb class in Levin (1993). The natural data is comprised of traditional narratives, conversations, spontaneous role plays, "Pear Story" retellings,[5] and monologues.

6.1 The distribution of the agentive

Agent marking does not occur in an across-the-board fashion; rather, agents are marked in those instances where the speaker wishes to indicate agent involvement in a noteworthy or unexpected instance of an activity. Subjects of states cannot be marked with *-nə*, but rather, receive a reading of contrastive focus if marked with *-nə* as will be discussed in Section 6.4. The following is a discussion with examples of these generalizations.

Subjects whose involvement in an activity is noteworthy or unexpected must be marked by either the agent marker *-nə* or some other pragmatic marker such as the ones listed in (18). For similar factors determining the distribution of the ergative or agentive, see McGregor (2006) for Warrwa; Coupe (2007: 156–160) for Mongsen Ao; and Gaby (2008) for Kuuk Thaayorre. Example sentences are provided in (19–21).

(18) -nə   'agentive'
      -tu   'distal demonstrative'
      -ti   'delimitative'
      -su   'also'

(19) *polis-nə*   *mí*   *ə́-ní*   *hát-pə-ni-ko.*
      police-AGN   man   ATT-two kill-NOM-COP-TAG

      a. Agent *polis-nə* 'police-AGN': 'The policemen killed two people, didn't they?'
      b. Agent *polis-tu* 'police-DDET': 'Those policemen killed two people, didn't they?'

(20) *vc-nə*   *rejistrar-pu*   *thə́bə́k*
      Vice Chancellor-AGN   registrar-PAT   work

      phə-pə-ki-təmək-tə   *phəmmə*   *ká-həl-lə-e.*
      place-NOM-POS-precise-CTE   place-one   climb-CAUS-PERF-ASRT

      a.   If the agent is *vc-nə* 'vice chancellor-AGN': 'The Vice Chancellor promoted the registrar.'
      b.   If the agent is *vc-su* 'vice chancellor-ALSO': '(Along with everyone else in the chain of command) the Vice Chancellor promoted the registrar.'

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5.   The Pear Story is a six minute silent film created by Wallace Chafe and his students at the University of California, Berkeley in the 1970s as a tool with which to elicit controlled natural speech. The film contains a story line in which the same entities occur repeatedly such that retellings of the Pear Story provide examples of how speakers track entities in discourse. The Pear Story is available for viewing at http://www.pearstories.org/.

(21) *heloy-nə   mə́-hák-ki   ləmba-tu   hu   pi-thək-í.*
spirit-AGN 3P-here-POS enemy-DDET poison give-drink-NHYP

    a. If the agent is *heloy-nə* 'spirit-AGN': 'A witch fed her enemy poison.'
    b. If the agent is *heloy-ti* 'spirit-DLMT': 'Only the witch fed her enemy poison.'

The (a) and (b) sentence pairs in (19–21) show us that agents do not have to be marked by the agentive. Rather, speakers have a range of options on which marking to use. While the meanings of the agents in the (b) sentences in (19-21) are easily articulated by speakers, the meaning of *-nə* marked agents in the (a) sentences are not. One recurring description is that the *-nə* marked agents are "particularized". Thus while use of *-nə* marking adds a nuanced meaning that is difficult to access and express, its use is clearly related to the specificity of the subject NP.

    The agents of clauses which express characteristic, expected, or routine activities occur with no agent marking. As shown in (22–25), if the agent is marked by *-nə*, a routine activity is recast as unusual or noteworthy.

(22) a. *má   chan-nə-pə   pót   cha-li.*
      he play-ADV-NOM thing make-PROG
      'He is making toys.' (Making toys is a characteristic activity for the subject.)

    b. *má-nə   chan-nə-pə   pót   cha-li.*
      he-AGN play-ADV-NOM thing make-PROG
      'He is making toys.' (a noteworthy activity for the subject who is not good with his hands)

(23) a. *tomba   chá   čá-í.*
      Tomba meat eat-NHYP
      'Tomba ate meat.' (Tomba is a non-vegetarian.)

    b. *tomba-nə   chá   čá-í.*
      Tomba-AGN meat eat-NHYP
      'Tomba ate meat.' (A noteworthy activity, not expected for this vegetarian.)

(24) *ə́y   chən-tu   u-kón-tə   pun-í.*
    I cow-DET wood-device-LOC bind-NHYP

    a. Agent is *əy*: 'I tethered the cow to the post (as one of my regular duties).'
    b. Agent is *əynə*: 'I tethered the cow to the post (on a particular occasion).'

(25) a. *má   túm-khi-lə-e.*
      he sleep-STILL-PERF-ASRT
      'He's gone to bed.'

    b. *má-nə   túm-khi-lə-e.*
      he-AGN sleep-STILL-PERF-ASRT
      '(How surprising,) he's gone to bed.'

For bodily functions or everyday non-noteworthy activities such as those in (26), the specific occasion reading obtained with *-nə* marking can be considered odd because it forces the exceptional rather than expected reading for the activity. Therefore the subjects of these sentences are usually unmarked. See Coupe (2007: 154–165) for discussion of similar facts in Mongsen Ao, a dialect of the Tibeto-Burman language Ao spoken in Nagaland.

(26)   a.   *ə́y   ya   chéŋ-í.*
I   tooth   clean-NHYP
'I brush/brushed my teeth.'

b.   *tombi   alu   phút-í.*
Tombi   potato   boil-NHYP
'Tombi boils/boiled potatoes.'

c.   *Tombi   lə̄y   íchiŋ   čə́y-í.*
Tombi   plants   water   sprinkle-NHYP
'Tombi waters/watered the plants.'

Conversely, as seen in (27), activities that are noteworthy sound strange without *-nə* marked subjects. Example (27b) is ungrammatical as it is not culturally possible for the draining of a particular pond to be construed as an everyday activity. Something in the clause must indicate the special nature of the pond-draining event. In the most acceptable version, the involvement of the agent in the activity is made prominent with use of the agent marker as in (27a). Another way to improve on (27b) is to provide an adverb as in (27c) which places the event in a particular spatio-temporal time frame. Finally, although it is ontologically odd, the habitual draining of a variety of ponds can be indicated by omitting both definite marking on the object and agent marking on the subject as in (27d).

(27)   a.   *mə́-khóy-nə*   *pat-tu*   *čit-thok-lək-í.*
3P-human.plural-AGN   pond-DDET   drain-OUT-DIST-NHYP
'They drained the pond.'

b.   **mə́khóy   pat-tu   čit-thok-lək-í.*
'They drained the pond.'

c.   *?nuŋ-taŋ-tə   mə́-khóy   pat-tu   čit-thok-lək-í.*
sun-shelter-LOC   3P-human.plural   pond-DDET   drain-OUT-DIST-NHYP
'They drained the pond at night.'

d.   *?mə́-khóy   pat   čit-thok-í.*
they   pond   drain-OUT-NHYP
'They drain ponds.'

Subjects of stative predicates are not marked. Activities that are set in the future or other irrealis situations pattern with stative clauses; unless the projected activity is sure

to occur, no agentive marking is used. Thus, subjects of predicates which indicate an entity's needs, wants, intentions, or states obtained from lack of activity are not marked by *-nə*. Examples are in (28).

(28)   a.   *mə́-hák*   *mə́-təm*   *pum-nə-mə́k-tə*   *oza-pu*
             3P-here   NOM-time   all-ADV-ONLY-CTE   teacher-PAT

             i-káy-khul-lə-e.
             IDEO-humble-revere-PERF-ASRT

             'She's always respected her teacher (and continues to do so).'

      b.   *ə́y*   *khə́rə*   *hen-nə*   *čini*   *pam-í.*
             I   some   more-ADV   sugar   like-NHYP
             'I'd like a little more sugar.'

      c.   *u-pák-tu*   *láy-nə*   *tebl*   *lán-nə*   *ín-sin-í.*
             wood-broad-DDET   easy-ADV   table   cross.over-ADV   slid-IN-NHYP
             'The plank slides easily across the table.'

      d.   *ə́-čaw-bə*   *layrík-tu*   *lum-í*
             ATT-big-NOM   book-DDET   heavy- NHYP
             'The big book is heavy.'

      e.   *ə́y*   *ə́-phə-pə*   *nú-pá-ni.*
             I   ATT-good-NOM   person-male-COP
             'I am a good boy.'

      f.   *má*   *waŋ-í*
             he   tall-NHYP
             'He is tall.'

6.2   A discourse based explanation for the distribution of the agentive

What explains the correspondence between active versus stative clause type, noteworthy and expected activity, and agentive marking on NPs? Activities, especially those involving two or more participants, are most likely to be of discourse interest in that they may well contain foregrounding information; that is, these clauses provide information which moves a story line forward. Foregrounding and clause transitivity are often seen as linked since "events which approximate the transitive prototype are more likely to be of interest and thus inherently more likely to constitute foregrounded information." (DeLancey 1987: 55). It is exactly in the clauses which require foregrounding where Meithei allows for agentive marking.

On the other hand, states and activities involving one participant usually constitute background information. Background information is that which provides a speaker's evaluation of events or somehow elaborates a scene in which a narrative takes

place (Hopper & Thompson 1980: 280). The lack of *-nə* marking on Meithei subjects indicates the background discourse status of the clause in which that NP occurs.

This discourse based understanding of the agentive implies that we should be able to find the same clauses with and without *-nə* marked agents, with the occurrence of *-nə* marking being decided on whether the clause constitutes foregrounded or back-grounded information. The elicited data in Section 6.1 shows that the same clause can indeed occur with or without agentive marking. A study of "Pear Story" retellings in Meithei reveals that speakers use *-nə* as a strategy to background or foreground an NP on a case-by-case basis as dictated by the story line. Subjects of the main story line are marked by the agentive, while NPs that are considered background information are left unmarked. In the Pear Story retelling task each speaker does not select the same clauses for foregrounding. Some speakers, as communicated to me post data-collection, find a story sideline to be important and mark the subject of this story line with *-nə*. Those who do not find the same story line significant mark the subject with a determiner or leave the entire episode out of their retelling. Details of agent marking in the Pear Story retellings are in Chelliah (2009). See Genetti (1988) and LaPolla (1992) for a discussion of similar connections between agentive marking and discourse prominence in related languages. For similar observations on the distribution of the ergative in Warrwa (Kimberley, Western Australia) see McGregor (2006) and in Gurindji Kriol (nothern Australia) see Meakins (this volume).

6.3   The agent marker and volitionality

As discussed in section 6.2, clauses with *-nə* marked subjects are predominantly transitive. Since one feature of transitivity is subject volitionality (Hopper & Thompson 1980: 286–287), it follows that *-nə* marked subjects in Meithei usually act volitionally. However, as I show below, *-nə* is not primarily a marker of volition.

– UNMARKED SUBJECTS MAY ALSO BE VOLITIONAL ACTORS: Examples (22–25) provide clauses with unmarked agents acting of their own volition. Thus, clearly, volitionality does not have to be indicated by agentive marking.

Bhat and Ningomba (1997: 104) provide the sentence pair in (29a–29b) to illustrate their position that volitionality is a primary meaning of the agentive in Meithei.

(29)   *ə́y   lə́y-máy-tə   on-í.*
       1P   land-face-LOC   roll-NHYP

   a.   Subject is *ə́y* '1P': 'I rolled on the ground (because of an external force).'
   b.   Subject is *ə́y-nə* '1P-AGN': 'I rolled on the ground (on purpose).'

But there is another interpretation possible of this sentence pair. Using my analysis we can see that, as in all the examples discussed so far, (29b) illustrates a subject

involved in an unusual activity. The subject is therefore marked by the agentive. In (29a), the subject is interpreted as an experiencer. Here, the reading of a subject involved in a habitual activity is not possible because of the pragmatically odd nature of the verb; that is, rolling around on the floor cannot be considered an ordinary activity.

–SUBJECTS MARKED-Nə ARE NOT ALWAYS VOLITIONAL ACTORS: In (30) the animate, sentient, -*nə* marked subject occurs with the predicate 'drown'. The drowning sister-in-law in this example is certainly not acting of her own volition. Speakers reflect that rather than marking volition, -*nə* marking in this instance provides "particularization" which could also, in this instance, be provided by -*tu* 'distal determiner'.

(30) *mə-náw+nu-pi-nə*   *púkhrí-tə*   *i-rák-nə-rə́gə*
      NM-small+person-fem-AGN   pond-LOC   water-power.over-INST-AFTER

      mə-təy-nə   *ú-nə+ú-nə*   *upay*
      3P-relative.of.opposite.sex-AGN   see-INST+see-INST   means

      ləy-tə-nə   *yeŋ-dúnə*   *ləy-í*
      be-NEG-INST   see-ING   be-NHYP

      'While the sister-in-law was drowning in the pond with only the brother-in-law to see it, there would be no means for her to be saved (since he could not touch her).'

–SUBJECTS MARKED -Nə IN GENERIC STATEMENTS DO NOT IMPLY SUBJECT VOLITIONALITY: Statements that refer to the characteristic activity or quality of a class may be marked with one of the pragmatic markers listed in (18) which includes the agentive marker. Examples are given in (31).

(31) a. *hindu-síŋ-nə*   *lukun-si*   *tháŋ-í*
          Hindu-PL-AGN   sacred.thread-PDET   wear-NHYP
          'Hindus wear the sacred thread.'

      b. *shamu*   *mə́-ča-nə*   *thə́wri*   *khəŋ-tə-pə-kum.*
          elephant   NM-small-AGN   rope   know-NEG-NOM-like
          'A young elephant does not understand the rope.'

      c. *uček-siŋ-nə*   *sul*   *atiya-tə*   *pay-í.*
          bird-PL-AGN   air   sky-LOC   fly-NHYP
          'Birds fly in the open air.'

Consider the lack of volitionality in the -*nə* marked subjects in (31a–c): (31a) does not describe a Hindu man wearing the sacred thread because of his free will but rather reflects the force of tradition. Young elephants and birds might behave volitionally on occasion but (31b–c) expresses their behavior as determined by instinct. Rather than indicate volitionality, the -*nə* in these examples, selects and defines a characteristic of

a member of the class which can be generalized to the whole class, as in the English sentence *The/a squid likes seaweed* (Lyons 1999: 182).[6]

The habitual or characteristic reading may be obtained with non-generic NPs with *-nə* marking if the clause contains a non individuated object and takes simple non future declarative inflection. So, (31f) is potentially ambiguous: it can mean that it is a noteworthy event that mother cooked food (in keeping with the discussion for agentive marking in section 6.1); and secondly it can mean that cooking food is what mother does.

(31) f.   *mə́-má-nə   čák   thoŋ-í*
          3P-mother-AGN   food cook-NHYP
          'Mother (is the one that) cooks food.'

      g.   *daktər-nə   ə́-na-pə   ləy   yeŋ-í*
          doctor-AGN   ATT-sick-NOM disease look-NHYP
          'The doctor attends to his patients.'

Thus far four distributional statements for the occurrence of *-nə* have been provided. These are restated in Table 1.

What seems to pragmatically tie the distributional statements (3) and (4) in Table 1 together is the "particularization" or specificity of the subject, not subject volition. In clauses which follow pattern (3), the speaker is pointing out the unexpected involvement of a particular subject in an activity. In clauses which follow pattern (4) the speaker is pointing to a particular individual or class of individuals, as opposed to other individuals or other classes of individuals, who perform an activity.

– SUBJECTS ARE NOT ALWAYS ANIMATE: Although subjects are mostly animate and sentient, they need not always be. In this case it is possible to clearly see that *-nə*

Table 1. The distribution of the agent marker.

	Clause is a statement of …	Agentive marking
1.	A particular instance of a socially sanctioned/expected activity performed on a particular occasion	
2.	An inherent quality of the subject	
3.	A particular instance of an unusual activity for subjects	X
4.	A generic statement of an activity characteristic for the subject	X

6.   Examples of other pragmatic marking on generic subject noun phrases can be found in Pettigrew (1912: 109), Primrose (1888: 46), (Devi no date: 88 and 113), and (Devi 1979: 12).

marking indicates specificity and not volitionality. See for example (32), taken from a conversation on getting admission to a school.

(32) *ə́-tu-təgi*   *sesən-nə*   *kərəm*   *kan-tə*   *həw-pə?*
      ATT-distal.determiner-ABL   session-AGN   when   time-LOC   start-NOM
      'So then when will the session begin?'

Thus while volitionality is a possible and often attested correlate of *-nə* marked subjects, marking volitionality is not the primary function of *-nə*.[7]

6.4   Contrastive focus

Homophonous to *-nə* 'agentive' is the contrastive marker *-nə* (CNTR) by which the speaker places an entity in contrastive focus. The speaker and hearer have knowledge of the entities; it is the opposition by the speaker of one entity against a set of possible entities that is framed as new information for the sake of the hearer. The sentences in (28) would have the readings provided in (28') if they occurred with the contrastive marker.

(28') a.'   The subject is *mə́hák-nə* 'she-CNTR': 'She always respected her teacher (though others may not have).'
       b.'   The subject is *ə́y-nə* 'I-CNTR': 'I'd like a little more sugar (others don't).'
       c.'   The subject is *ubak-tu-nə* 'plank-DDET-CNTR': 'The plank slides easily across the table (but the hammer does not).'
       d.'   The subject is *layrík-nə* 'book-CNTR': 'The big book is heavy (others are not).'
       e.'   The subject is *ə́y-nə* 'I-CNTR': 'I am a good boy (but not the others).'
       f.'   The subject is *mâ-nə* 'she-CNTR': 'She's tall (the others are not).'

This contrastive reading is readily accessed and reported on by native speakers. Further examples and discussion can be found in Chelliah (1997), Bhat & Ningomba (1997), and Singh (2000).

  The reason for glossing *-nə* in (28') as 'contrastive' (CNTR) and not 'agentive', is based on the following evidence for the existence of two *-nə* markers, an 'agentive' and 'contrastive'. First, consider example (33a–b) where *-nə* occurs on more than one argument in the same clause. Assuming that only one NP can be marked for the agent role, it would appear that one of the *-nə* marked NPs in these sentences cannot be an agent. Consider also (33c) and (33d) where *-nə* follows the patient marker. Assuming that an

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7.   Hoop and Malchukov (2007:1637) using Bhat and Ningomba's analysis state that "in Manipuri [i.e., Meithei] all and only volitional subjects get ergative case. Thus … ergative case [agentive role marking] in Manipuri corresponds to the feature of volitionality on the subject." This statement is clearly incorrect.

NP can only take one semantic role marker, the marker following *-pu* 'patient' cannot be a semantic role marker.

(33) a. *ə́y-nə   ram-nə   koy-kók-lə-e.*
          1P-CNTR   Ram-AGN   head-shave-PERF-ASRT
          'It's me (and no one else) that Ram shaved.'

      b. *ə́ŋàŋ-tu-nə   nú-pá-nə   čə́y-nə   phú-í.*
          child-DDET-CNTR   person-male-AGN   cane-INST   beat-NHYP
          'The man beat the child with a cane (but he did not beat someone else)'.

      c. *má-pu-nə   ə́ykhóy-nə   thə́bə́k   ə́mə   pí-í.*
          her-PAT-CNTR   1P-HPL-AGN   work   one   give-NHYP
          'We offered her (and none of the others) a job.'

      d. *ə́y-pu-nə   khóŋ-nə   čə́t-nə-həl-lə-í.*
          1P-PAT-CNTR   foot-INST   go-ADV-CAUS-PERF-NHYP

          ə́-tu-kə   má-nə   gari-tə   lak-lə-í.
          ATT-distal.determiner-ASS   3P- CNTR   vehicle-LOC   go-PERF-NHYP

          'It was I who was forced to go on foot while he went by car.'

Note that in (33a–c) the argument in the second position is interpreted as the agent and the argument in sentence initial position is interpreted as topic. Any argument can be fronted to topic position as long as it is definite or specific.[8]

Clauses which express inherent properties of subjects get the strongest contrastive reading. Contrastive readings can also be obtained with events if a second clause with a different agent is provided. The second clause may be overtly present or must be clearly implied.

(34) *nú-pí-nə   tilhəw   kok-í   nú-pá-nə   u   kok-í.*
      person-fem-CNTR   onion   chop-NHYP person-male-CNTR   wood   chop-NHYP
      'The woman chopped the onion while the man chopped the wood.'

To summarize this section, active predicates mark the subjects of noteworthy or out of the ordinary activities. Subjects of such clauses require agentive or other pragmatic marking. Characteristic, expected, or routine activities may occur with no marking. A speaker may choose to indicate that such an activity is, in fact, noteworthy by marking the subject with *-nə*. Subjects of states are not marked by the agentive. Subjects of both activities and states can be marked by the contrastive marker *-nə*.

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8.   When the agent and patient are both marked for *-nə* and are of equal in value for animacy and humanness, such clauses are potentially ambiguous.

7.   Metonymy and subjectification

As shown in Section 2–6 and summarized in Table 2, the semantic role markers patient, associative, locative, and agent each exhibit a homophonous marker indicating new information.[9] It seems unlikely that the new information markers developed in isolation from the semantic role markers. For one thing, we know that semantic role markers in Tibeto-Burman are susceptible as a category to grammaticalization. As discussed for 26 Tibeto-Burman languages in Genetti (1986, 1991), case markers extend system-wide to be used as clausal subordinators. The same extension of semantic role markers to clausal subordinators is true for Meithei as shown in Chelliah (1997:172–180). See also Noonan (this volume) on shared patterns of multiple meanings for case markers in the Bodic branch of the Tibeto-Burman family.

Second, it is possible to draw a connection between the semantic role markers and the new information markers by way of metonymy, which is a recognized pathway to semantic change (Nerlich & Clarke 2001). For example, the cognitive basis of the extension of the patient marker to a marker of empathy lies in the speaker's exploitation of the acted-upon, typically non-volitional nature of the patient role. Singling out an NP for empathy has the effect of foregrounding it and backgrounding other NPs in the clause. The extension of the locative marker expands on the idea of

Table 2. Metonymic extensions leading to the creation of new information markers.

Semantic role	Process of extension	New information
-pu 'patient'	Exploit the acted-upon, non-volitional nature of the patient	Adversative: highlights NP as the unfortunate one
-kə 'associative'	Exploit inevitable comparison forced through NP conjunction	Unanticipative: highlights strangeness of NP_1 when juxtaposed with NP_2
-tə 'locative'	Exploit geographical delimitation of a location	Contrary to expectation: highlights clearly delimited proposition
-nə 'agentive'	Exploit expression of agent participation in a noteworthy event	Contrastive focus: highlights qualities as present in one entity. Noteworthy because these qualities are, by implication, lacking in others

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9.   The connection between new information and the unexpectedness of the information as seen for the 'unanticipative' and 'adversative' is reminiscent of the category "mirative" (Delancey 1997, 2001; Aikhenvald 2004). The Meithei data presented here, however, are restricted to marking on simple NPs, while the mirative is seen as a category functioning at the level of the verb or sentence.

finality and delimited nature of a physical location. The extension of the associative is based on the necessary juxtaposition brought about by conjoining two entities. These entities may be similar or the juxtaposition may highlight differences between them. Finally, the connection between nominative, agentive, or ergative marking and contrastive focus is widespread in the literature. See for example, Kwon & Zribi-Hertz (2008), Meakins (this volume), and Tournadre (1991). In the case of the Meithei agentive, a subject is singled out as participating in a noteworthy event. When noteworthiness is evoked in stative predications, the contrastive focus reading automatically obtains. Suppose, for example, we stated that John was tall in a noteworthy sense, we would be implicitly comparing John's height with that of others. The metonymic extensions leading to the creation of the new information markers are summarized in Table 2.

In addition, we can postulate a 'midway' change occurring with the semantic extensions given in Table 2. It has been noted that there is close relationship between article and case systems, with both case and articles being used to indicate definiteness and indefiniteness in some languages (Lyons 1999: 324). In Meithei, we find that the distribution of semantic role markers is determined by considerations of specificity as the semantic role markers discussed in this paper occur in only those positions where specificity needs to be indicated. Taking this into consideration, if we assume that semantic role markers historically occurred in all relevant positions – for example, that all agents were marked agentive regardless of the discourse value of the clause – then steps to semantic change could be postulated as in Table 3.

In addition to metonymy as a force for semantic change, we can see both a semantic and distributional sense where the change from semantic role to new information marker could be described as Subjectification (Traugott 1989: 31–35), a process of semantic change by which:

–   The meanings describing an external situation change to express an internal situation. For example, objective reporting becomes evaluative or highlights a speaker's perception of events.
–   A morph, rather than having clause level relevance, increasingly has significance for the larger textual or metalinguistic situation.
–   The meanings of morphs increasingly reflect a speaker's "subjective belief state or attitude toward [a] proposition" (Traugott 1989: 31).

The semantic change is motivated by pragmatic inferencing such that a particular real-world context prompts speakers to associate a linguistic form with a particular meaning. When this association is repeated over time, a polysemous form emerges.

A good example is Traugott's treatment of epistemic adverbials in English; for example, *actually, indeed, in fact,* and *apparently*. *Apparently* originally had referential interpretation but between 1449 and 1846 developed strong epistemic meaning

Table 3. The role of specificity in the creation of new information markers.

Stage 1	Semantic role markers indicate syntactic relations
Stage 2	Semantic role markers distribute on the basis of syntactic information and specificity. (Agents are marked by the agentive marker, locatives by the locative marker, and so on.) Marking only occurs when NPs are specific
Stage 3	Semantic role markers continue to distribute on the basis of syntactic information and specificity. Additionally, four new pragmatic "new information" markers are created based on the combination of specificity and some of the meaning of the original semantic role marker

Table 4. Three stages of the epistemic adverbial 'apparently'.

Stage 1	1449 = openly, in appearance	referential
Stage 2	1566 = to all appearances	weakly epistemic
Stage 3	1846= may be so (but I can't vouch for it)	strongly epistemic

reflecting a speaker's subjective opinion about the truth of a situation. The stages for development of *apparently* are as shown in Table 4.

Along with semantic change, Traugott points to a concomitant widening of the scope of the adverb. Thus, English *apparently* has clause level scope in the 1400s but discourse level scope in later stages where it acts as discourse marker (Traugott 1997). Thus the meaning of the morpheme is interpreted on the basis of the textual or metatextual level.

Traugott uses corpora studies of English through several centuries to illustrate semantic change through pragmatic inferencing. Although some pre-20th century Meithei texts have been studied (Chelliah & Ray 2002), no corpora comparing older and newer forms of Meithei are currently available. However, if we consider Meithei semantic role markers to be basic and their use as markers of new information to be a later development, a Subjectification pathway to the new information readings seems inevitable. Initially, the semantic role markers describe clause local NP to V relationships. Then, the extended meanings of the markers, as set out in Table 3, become expected meanings in particular situations. The new information meanings of the semantic role markers situate the marked NPs in a larger discourse, implying relationships and meanings not overtly stated in the clause so that while the semantic role markers encode the facts of a proposition, the new information markers provide the subjective view of the speaker.

8.   Conclusion

I have provided examples from Meithei illustrating how semantic role markers have developed into markers of new information. Specifically, it is apparent that the patient

marker -*pu* has developed into the homophonous 'adversative'; -*kə* 'associative' has developed into -*kə* 'unanticipative'; -*tə* 'locative' has developed into -*tə* 'contrary to expectation'; and -*nə* 'agentive' had developed into -*nə* 'contrastive'. It is known that case markers can develop over time to indicate tense and aspect distinctions. See Blake (1994: 182–185) for examples. The Meithei data show that case or semantic role can extend to pragmatic marking, thus adding to our understanding of the possible derived functions of case markers.

The change of semantic role markers to pragmatic marking is not random. Each semantic extension of the Meithei role markers is clearly motivated through metonymy, a known force for semantic change. Subjectification is also a known pathway for semantic change and has previously been observed as a motivating factor in the development of pragmatic meanings of case. See Sadler (this volume) for a discussion of Subjectification and change in case semantics in Japanese. Another example is found in Barðdal (2004) where it is shown that in Icelandic, German, and Faroese dative marking on subjects does not occur just on subjects of experiencer-based predicates as would be expected if NP marking was semantically based. Dative marking also occurs on subjects of certain non-experiencer based predicates to reflect a speaker's subjective stance with regard to the proposition. The Meithei data exemplify this same pathway, taking morphs that express clause-bound information (agent, patient, for example) and extending them to express a speaker's subjective framing of a proposition (marking NPs as new or unexpected, for example).

Recognition of the connection between new information markers and semantic role marking provides a means for understanding argument marking in other Tibeto-Burman languages, many of which exhibit the same homophony discussed here for Meithei. Tibetan, for example, has homophonous agentive and contrastive focus markers (Tournade 1991; Agha 1993, and Zeisler 2007). Burmese exhibits subject and object marking based on pragmatic factors similar to what was found for Meithei (Soe 1999; Wheatley 1982; and Sawada 1995). Descriptions of argument marking in these languages is often tentative or complex since case markers are seen as having dual functions, both grammatical and pragmatic. The descriptions of these systems will be clarified if reformulated using the analysis of Meithei presented here. The Meithei data support an analysis of case or semantic role markers and homophonous markers as being two separate markers distributed on different principles, rather than a single morpheme with alternate functions. An excellent example of this is the Meithei agentive marker: the principles that govern its distribution are discourse based, i.e., agents in foregrounded clauses are marked while those in backgrounded clauses are not. The principles that govern the distribution of the contrastive focus marker are determined by a speaker's need to place an NP in contrast, whether or not it is the agent.

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From less personal to more personal

Subjectification of *ni*-marked NPs
in Japanese discourse

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The Japanese *ni* is a postpositional particle, known for its wide range of semantic and grammatical roles such as a marker of locations, directions, recipients, and dative subjects. Based on an examination of pre-modern and modern Japanese texts, this study documents how the most basic meaning/usage of *ni*-marked NPs to mark stative locations has attained more subjective meaning/usage over the course of history. As discussed in Heine (1997), the transition from one stage to another is gradual, involving each new stage coexisting with the prior stages. These overlaps create ambiguity in structure and meaning. The study shows the importance of diachronic perspectives to help us better understand the ways in which semantic and pragmatic changes are represented synchronically.

1. Introduction

The Japanese particle *ni* is characterized to be a "lexically complex grammatical morpheme" (Kabata 2000) because of its wide range of semantic and grammatical functions such as a marker of location, direction, recipients, and dative subjects (e.g., Martin 1975; Sadakane & Koizumi 1995). While most such usages were already observed in historical documents before the early 8th century, the most basic usage of this particle seems to be associated with two types of 'spatial' sense – location and direction (Kabata 2000). *Ni* often appears with other particles like the topic marker *wa* or the particle *mo* 'in addition', and forms a complex particle as in *niwa* or *nimo*. In fact, both *niwa* and *nimo* are listed as particles in dictionaries, and their occurrence is attested as early as the 8th century. *Ni* as well as complex particles like *niwa* and *nimo* often

appear in existential or locational constructions as in example (1) which is taken from a contemporary Japanese novel:

(1) *teeburu niwa jootoo-no-sake ga atta.*
     table   NIWA[1] first.class-of-wine GA exist: PERF
     'There was a first-class Japanese wine on the table.' (Yoshimoto 1991:22)

Throughout this study, all the glosses and English translations are mine unless specifically mentioned. In example (1), the complex particle *niwa* marks the NP 'table', and expresses the location where a 'first-class Japanese wine' was. The prototypicality of spatial sense in lexically complex grammatical morphemes or markers is compatible with findings in other languages such as Latin (Bennett 1914), some African languages (Heine 1990), and Marathi (Pandharipande 1990).

   Ni as well as complex particles like *niwa* also mark "what appears to be the subject of a clause" (Shibatani 1999: 45), which are generally human referents, occurring with a predicate which expresses things like possession, potentiality, necessity, and inner feelings. As reported in Sadler (2007), both in modern Japanese conversation and novels, the canonical marking – dative subjects solely marked with *ni* – are definitely infrequent. Of all 49 instances of "dative subjects" identified in the written data, there are only 11 of them which are solely marked with *ni*. The rest are marked with *niwa*, occupying over half of the examples (25 cases), *nitotte* (7 cases), *nimo* (5 cases), or *nidakewa* (1 case), all of which are complex particles which involve *ni*. In fact, the occurrence of dative subjects solely marked with *ni* seems to be mostly within embedded clauses as in (2a), whereas complex particles such as *niwa* occur in both main clauses as in (2b) and embedded clauses as in (2c):

(2) a. *Sayaka ni yaruki ga aru ka dooka kiku tame*
         Sayaka NI willingness GA possess Q whether ask purpose

         datta.
         COP: PERF

         '(My visit) was to ask (Sayaka) whether or not Sayaka has a willingness (to do a part-time job)' (Akagawa 1994: 47)

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1.   The following abbreviations are used for this study: ALL (allative), ATT (attributive), CONJE (conjectural), COP (copula), EMPH (emphatic), FP (final particle), GER (gerund), HON (honorific), IMP (imperfective), LOC (locative), NEG (negative), NOM (nominalizer), PASS (passive), PAST (past), PERF (perfective), PROG (progressive), Q (question), and QUO (quotative). In addition, the so-called case markers such as *ni* ('dative'), *ga* ('subject' marker), *o/wo* ('direct' object marker) as well as other particles which are often referred to as 'topic' markers, or *kakari* or *toritate* particles such as *wa, tte* and *mo*, will *not* be glossed on the basis of their syntactic functions, but will be glossed in capital letters like NI, GA, O, WO, WA, and MO.

b. *Ryoosuke niwa   mieru-hazunonai-   mono ga*
Ryosuke   NIWA be.visible-not.supposed.to- things GA

miete-shimau-no-datta
can.see-wound.up-NOM-COP: PERF

'it's that Ryosuke can see things that are not supposed to be visible against (his) will' (Wakagi 1989: 32)

c. *naiyoo niwa   puro–no-raitaa   niwa   nai*
content NIWA professional-of-writer NIWA possess: NEG

shinsensa ga   atta
freshness GA   exist: PERF

'in the content (of the script), there was a freshness professional writers don't have' (Yamazaki 1996: 39)

(2a)–(2c) are typical examples of the so-called dative subject construction. A proto-typical construction consists of a first NP marked with *ni* or complex particles such as *niwa* and *nimo*, a second NP marked with the so-called subject marker *ga*, and a predicate which expresses things like ability, understanding, possession, and internal feelings. Although the grammatical role of this *ga*-marked NP is one of the most con-troversial issues surrounding the Japanese dative subject construction,[2] it is beyond the scope of this study (for extensive discussion, see Caluianu this volume). The main focus of this study thus remains to be *ni*-marked first NPs as shown in (2). In (2a), the first NP, Sayaka, is solely marked with *ni* in the embedded clause; in (2b), the *niwa*-marked Ryosuke appears in the main clause; (2c) shows the occurrence of the first NP 'professional writers' marked with the complex particle *niwa* within the embed-ded clause. Based on subjecthood diagnostic tests such as subject honorification and reflexive binding,[3] it is said that *ni*-marked human referents like Ryosuke in (2b),

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2. For example, under Kuno's analysis (1973), the dative subject construction as in examples (2) is assumed to be *transitive*, and *ga* is considered to mark a direct object. More recent studies (Shibatani 1999, 2001a, 2001b; Kumashiro 2000; Kumashiro & Langacker 2003), however, claim that the dative subject construction is *intransitive*, and thus consider the *ga*-marked second NP to be the subject of the clause instead of the direct object of the clause. See more extensive discussions on this issue in Sadler (2007).

3. "Subject honorification" refers to a construction which involves the conversion of the verb into the honorific form *o* V-*ni naru*. The NP which triggers the honorification is considered to be the subject of a clause. In the following examples, Prof. Kakehi is identified as the subject of the clause.

a. *Kakehi sensei   ga   warat-ta*
Prof. Kakehi   GA   laugh-PAST
'Prof. Kakehi laughed'

for example, exhibit most of the properties of NPs marked by the so-called "subject" marker *ga* like Ryosuke in a canonical transitive clause as in (3), and thus, are typically referred to as "dative subjects" or "experiencer subjects".[4]

(3)   *Ryoosuke   ga   mieru-hazunonai-mono*
      Ryosuke   GA   be.visible-not.supposed.to-things

      o   miru.
      O   see: IMP

      'Ryosuke sees things that are not supposed to be visible' (constructed)

Based on an examination of literary works from the 7th–20th century, the current study documents how the most basic and prototypical meaning/usage of *ni*-marked NPs has attained more subjective meaning/usage over the course of history. The data demonstrates the changing status of this construction from its most basic usage as indicating stative locations to its metonymic usage to mark a location where an individual worthy of respect resides so as to avoid the explicit mention of them, and to its extended usage to create a subjective framework in the first-person narrative of

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b.   *Kakehi sensei ga o-warai-ninat-ta*
     'Prof. Kakehi laughed' (Shibatani 1990: 283)

The second well-known subjecthood test is based on the notion that the subject of a clause controls the binding of the reflexive form *jibun* 'self'.

Taroo$_i$ ga   Hanako   ni   Jiroo   o   jibun$_i$ no   ie   de   shookaishita
Taroo GA Hanako NI Jiroo O self of house in introduced
'Taro$_i$ introduced Jiro to Hanako in self's$_i$ house' (Shibatani 1990: 283)

According to Shibatani (1990), the reflexive *jibun* can only refer to the subject *Taroo*.

4.   It should be mentioned, however, as pointed out by Sugimoto (1986), in some cases, it is not so clear-cut whether *ni*-marked NPs are subjects or locations. While some linguists would consider *Ryosuke-niwa* in (2b) to be a dative subject (e.g., Kuno 1973; Shibatani 1977, 1978), others treat all *ni*-marked NPs, whether human or nonhuman, as a homogeneous category. Sugimoto (1986), for example, argues that dative-marked NPs are basically locations, consistent with the fact that the most basic and prototypical usage of *ni* is as a locative marker. Kumashiro (2000) claims that sentences such as (2b) involve metonymy in that, although the *ni*-marked NP, *Ryosuke*, is a human entity, it metonymically refers to an entity closely associated with it, i.e., its domain of application, defined as a set of statements believed to hold true for the individual. Whether dative-marked NPs are subjects or not is also a question which has been dealt with in a number of works cross-linguistically (e.g., Masica 1976; Kachru 1980, 1990; Mohanan 1983; Davidson 1985; Sugimoto 1986; Klaiman 1986; Pandharipande 1990; Verma 1990; Hock 1990; Mishra 1990).

modern Japanese. As discussed in Heine (1997), the transition from one stage to another is gradual, involving each new stage coexisting with the prior stages. These overlaps create ambiguity in structure and meaning. The study demonstrates the need to examine diachronic processes, in order to understand synchronic phenomena, since synchrony is in essence a temporary outcome of on-going change.

This study is structured in the following way. Section 2 provides a description of data. Section 3 presents the patterns that emerged from the examination of the data. The section documents the semantic and pragmatic enrichment of *ni*-marked NPs from less personal usage to more subjective and discourse-based usage in three stages: (i) *ni*-marked NPs as metonymic locations; (ii) *ni*-marked NPs as human referents; and (iii) *ni*-marked NPs as subjective framework in first person narrative. This most extended use of *ni*-marked NPs is a clear instantiation of SUBJECTIFICATION (e.g., Traugott 1995; Traugott and Dasher 2005), "whereby 'meanings become increasingly based in the speaker's subjective belief state/attitude toward the proposition,' in other words, towards what the speaker is talking about" (Traugott 1995: 31). The final section summarizes the findings, and discusses some implications.

2. Data

The data consists of 27 literary works from the 600s to the early 1900s from an existing pre-modern and modern Japanese literature corpus, *The Japanese Text Initiative* (developed by the University of Virginia Library Electronic Text Center and the University of Pittsburgh East Asian Library) as well as four contemporary Japanese novels from my own collection (See Appendix). Given the fact that dative subjects rarely occur in modern Japanese conversation (Sadler 2007),[5] I chose to focus on written discourse so that I have access to a large amount of data that represents a wide variety of speech styles and discourse genres.

3. *Ni*-marked NP_1s in pre-modern and modern Japanese texts

I examined the entire body of each text including its narrative portion, conversational portion, and poems for *ni*-marked human NPs, i.e., dative subjects, as well as

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5. As shown in Sadler (2007), of the 5000 clauses examined (26 casual conversations, 150 minute long), there were only seven clauses occurring with "dative subjects".

ni-marked nonhuman NPs which appear to have human referents as illustrated in examples (4) and (5):

(4)   ⟨*Ni*-marked human NPs⟩
      <u>*Watashi niwa*</u>   *naze-ka yoojiki-no-   kioku   ga   zenzen*
      I   NIWA   why-Q   infancy-of-   memory   GA   at.all
      nakatta.
      exist/have: NEG: PERF
      'I didn't have any memory of my childhood.' (Yoshimoto 1991: 21)

(5)   ⟨*Ni*-marked nonhuman NPs which appear to refer to human referents⟩
      <u>*on-mafe   nimo*</u>   *imizyuu   otiwarafa-setamafu.*
      HON-front   NIMO   greatly   laugh.with.relief-HON
      '<u>Even at the empress residence</u>, she also laughed with delight.' or '<u>The empress</u> also laughed with delight.' (Sei Shōnagon 1000s)

For terminological convenience, I will use the term "*ni*-marked NP_1s" to refer to these two types of *ni*-marked NPs. Note that "*ni*-marked NP_1s" include not just NPs marked solely with *ni* but also those marked with the complex particles such as *niwa* and *nimo* which involve *ni*.

The examination yields 878 *ni*-marked NP_1s in total, approximately 68% of which appear in the narrative portions of the texts, 31% of which are in the conversational portions, and 1% of which are in the poems. Of all *ni*-marked NP_1s, a third person referent was most frequent (49%), followed by the first person (43%) and second person (8%) forms. As will be discussed in the following sub-sections, the frequency and distributional properties of *ni*-marked NP_1s show quite different patterns across time as the spatial sense of *ni*-marked NP_1s gradually expands their semantic and pragmatic meanings.

3.1   *Ni*-marked NP_1s as metonymic locations

In my database, I found that almost all the examples of *ni*-marked NP_1s in the earlier texts are metonymic. The metonymic usage as in *on-mafe nimo* in (5) occurs most frequently in the texts written in the 900s and 1000s, particularly in texts which depict the Heian court life. Out of 190 occurrences of *ni*-marked NP_1s in the texts written in the 900s and 1000s, 97% of them are identified as metonymic, all of which appear in Heian courtly fiction. In contrast, only 3% of them are *ni*-marked human referents, similar to "dative subjects" in modern Japanese, as in <u>*fafa-tozi-ni*</u> *ware-wa manago zo* [mother-HON-NI I-WA favorite.child FP] 'I am the favorite child for (my) mother' (*Manyōshū 6* [The Ten Thousand Leaves vol. 6], Anonymous 640s–740s). A closer look at the metonymic *ni*-marked NP_1s tells us that the majority of them (137 out of all 184 metonymic) refer to the third person, and the most frequently occurring third person is either the emperor or the empress in my data.

One such example is found in *Genji Monogatari* [The Tale of Genji] which is said to be written around the early 11th century by a court lady named Murasaki Shikibu. The leading character, Genji, was born as the son of the emperor and a low-ranking court lady called Kiritsubo. It was obvious that the empress or Lady Kokiden detests this whole situation. Even after the death of Kiritsubo, she never feels at peace.

(6) 1   *kaze-no-oto   musi-no-ne   nitukete*[6]
         wind-of-sound   insects-of-sound   in.terms.of

     2   *mono nomi kanasyuu obosaruu   ni*
         things only   sad   think: HON   when
         'everything, the moaning of the wind, the humming of autumn insects, added to the sadness'

→   3   <u>*Kookiden*</u>   *niwa*   *hisasiku*
         the.apartments.of.Kokiden   NIWA   long.time

     4   *ufe-no-mitubone   nimo*
         upper-of-room-HON   ALL

     5   *moonobori-tamawa-zu*
         visit: HON-HON-NEG
         '<u>in the apartments of the Kokiden lady,</u> it had been some time since she had last waited upon the emperor' or 'it had been some time since <u>the Kokiden lady</u> had last waited upon the emperor'

     6   *tuki-no-omosiroki   ni   yoru fukuru made*
         moon-of-elegant: ATT   when night get.late until

     7   *asobi-wo-zo   si-tamafu-naru*
         having.fun-WO-EMPH   do-HON-hearsay

     8   *ito   susamazyuu   monosi   to*
         very   extreme   unpleasant   QUO

     9   *kikosimesu*
         hear: HON
         'The moonlight being so beautiful, she saw no reason not to have music deep into the night. The emperor muttered something about the bad taste of such a performance at such a time.' (Murasaki Shikibu 1000s)

The distinction between a location and a participant is blurred here, as reflected in translations of *Kookiden-niwa* in modern Japanese: *Kokiden-dewa* 'in the apartments of Kokiden' (Tanizaki 1964; Tamagami 1964); or *Kokiden no nyoogo-wa* 'as for the lady

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6.   For morphological analyses and an English translation for *Genji Monogatari*, I have frequently consulted Seidensticker (1976) and Tamagami (1964).

of Kokiden' (Taga 1975 [1723]; Enchi 1972; Abe, Akiyama, & Imai 1976). One can clearly see a conceptual parallelism between the spatial sense of the *ni*-marked *NP$_1$* and the metonymic usage in the translation of *Kookiden-niwa* as a location. In fact, it is generally assumed that a *ni*-marked *NP$_1$* is not a subject, but that it constitutes an adverbial phrase in the form of a locative noun marked with the spatial marker *ni* (Tamagami 1964; Matsuo 1969; Saeki 1971; Matsumura 1971; Tanaka 1972; Sugisaki 1979 and others), and is used to avoid the direct mention of a specific individual such as the emperor and empress. When used for an individual worthy of respect, co-occurring with honorific expressions, it exhibits respect toward the referent (Saeki 1971; Sugisaki 1979) as shown in lines 3–5. In keeping with Kumashiro's (2000) synchronic analysis of the Japanese dative subject construction, one can also construe that lines 3–5 involve metonymy, in that, while the *niwa*-marked NP is a locative noun (lit. 'the apartment of Kokiden'), it metonymically denotes a particular individual closely associated with it, namely, Lady Kokiden. I will, hereafter, refer to this type of *ni*-marked *NP$_1$*s as 'metonymic'.

The metonymic use of *ni*-marked *NP$_1$*s can also refer to locations close to the speaker, i.e., *koko* 'this place', or the locations away from the speaker but closer to the addressee, i.e., *soko* 'that place'. The following example is taken from *Genji Monogatari*, Hahakigi (Murasaki Shikibu 1000s). Here, Chūjō, the son of a Minister of the Left and Princess Omiya, was looking at the letters sent to Genji by various women. Chūjō tried to guess who sent the letters. Genji, feeling uneasy, asks Chūjō:

(7) <u>soko</u>   <u>ni-koso</u>   ofoku   tudofe-tamafu-rame
     that.place.close.to.the.hearer NI-EMPH a.lot   collect-HON-CONJE

   '<u>in YOUR place</u> there must be a lot of collection of them (i.e., the letters from women)' or '<u>YOU</u> must have a lot of collection of them' (Murasaki Shikibu 1000s)

Soko generally refers to a location further away from the speaker but closer to the listener both in pre-modern and modern Japanese. In pre-modern Japanese, however, *soko* implicitly refers to the addressee who is close to the speaker or lower in social status than the speaker. A blurring category of *soko-ni-koso* is reflected in its later translations; *soko-ni-koso* can either indicate 'you' or 'in your place':

(8) a. *sonata*   *koso*
         the place close to you/you   EMPH
         'in YOUR place/YOU' (Taga 1723)

     b. *anata*   *koso*
         you   EMPH
         'YOU' (Yosano 1914; Enchi 1972)

    c.   *kimi-no-tokoro*   *ni-koso*
         you-of-place   NI-EMPH
         'in YOUR place' (Tamagami 1964)

    d.   *anata-no-tokoro*   *ni-koso*
         you-of-place   NI-EMPH
         'in YOUR place' (Tanizaki: 1964)

Here again, a parallelism between the spatial sense of *ni*-marked NP_1s and the metonymic use is clear, as demonstrated by the fact that some translators considered *soko-ni-koso* to be the location. Avoiding direct mention of Chūjō by encoding this agent in a locative NP expresses the speaker's (= Genji's) respect toward Chūjō (see Matsuo 1969). As demonstrated in the English translations, however, the distinction between a location and a participant is not so clear-cut.

3.2   *Ni*-marked *NP₁*s as human referents

The metonymic use of *ni*-marked NP_1s, which was abundant in the texts written in the 900s and 1000s, became scarce, and eventually faded away after the 1200s. Only three instances are attested, all of which are found in *Heike Monogatari* [The Tale of the Heike] (Anonymous 1200s). In my data, no instances are found in the texts written after the 1200s. A number of reasons can be posited for this sudden drop and its later disappearance. For one thing, there was a major political power shift from the emperor, whose political ground was in Kyoto, western Japan, to the warrior class, which established its first government in Kamakura, eastern Japan, in the late 1100s. In the world of literary works, newly created genres such as war tales, Noh dramas, Kabuki plays and *gesaku* or popular prose, emerged and gained in popularity as more and more people became educated. Most of such newly created genres do not fantasize or idealize Heian court life in the way that Heian courtly fiction does. As a result, the emperor and the empress, who were implicitly indicated with the metonymic use along with elaborate honorific expressions and/or suffixes in the Heian courtly fiction, became less likely to be mentioned in such genres. This explains why the number of metonymic use of *ni*-marked NP_1s suddenly dropped and eventually disappeared in literary works written after the 1200s.

    As the metonymic use of *ni*-marked NP_1s eventually disappeared over the years, human NPs marked with *ni*, i.e., dative subjects, gradually came into prominence in texts written as early as the 1200s although their occurrences did not become frequent until the late 1800s. I found 72 instances of the *ni*-marked NP_1s identified in the 11 texts written between the 1200s and 1800s, 69 of them are human referents. The following example is found in the war tale *Heike Monogatari* [The Tale of the Heike] (Anonymous 1200s), and is an example of a human NP solely marked with *ni*. For the translation of this portion, I consulted McCullough (1988).

(9) <u>ware</u> <u>ni</u> *musume* *hachinin* *ari-ki* *mina* *daija-no-tameni*
    I NI daughter eight exist-PAST all big.snake-of-because of

    noma-re-nu *ima* *hitori* *nokoru-tokoro-no* *osanaki*
    swallow-PASS-PERF now one leave-NOM-of young

    onna *mata* *noma-re-n* *to* *su*
    daughter again swallow-PASS-CONJE QUO do

'I had eight daughters once. A mighty serpent devoured them all, and now (he) is about to devour the only child we have left' (Anonymous 1200s)

Examples like this contrast with what we have seen in the texts written before the 1200s. That is, the *ni*-marked NP$_1$ is not a location or a location which metonymically refers to a human, but it is a human referent, appearing with the unmarked NP, *musume* 'daughters', and the predicate *ari* 'exist/possess'. The spatial sense of *ni*-marked NP$_1$s is clearly seen here in that *ware-ni* can be viewed as a location (Sugimoto 1986) or a metonymic location (Kumashiro 2000) where eight daughters existed. Other than *ware* 'I', the following types of human referents are marked with *ni* at Stage II (1200s – 1800s): *ore* 'I by male speakers'; *warera* 'we'; *konata* 'we; this side'; *nanji* 'you'; *kiden* 'you'; specific characters such as: *Genji no kimi* 'Genji'; *Komatsu-dono* 'Komatsu'; *hito* 'people in general'; *ningen* 'human being'; *soo* 'monk'; *kunshi* 'a person in high status'. Human referents that occur with predicates expressing possession are marked just as metonymic locations.

As the metonymic use of *ni*-marked NP$_1$s, which was most frequently observed in Heian courtly fiction gradually faded away, the occurrence of *ni*-marked human NP$_1$s started to increase in the newly created genres of literary works such as war tales written after the 1200s. However, their occurrence did not become very frequent until the time when Japan and the Japanese language underwent more significant changes between the 1800s and early 1900s. Starting with the arrival of Commodore Perry with his iron black ships in 1853; and the overthrow of the Shogunate and the establishment of a new government under Emperor Meiji that later followed. These changes further motivated Japan's growing awareness of the need for modernization. The study of English was encouraged to help absorb Western civilization as much as possible and as quickly as possible. In order to spread education and popularize new ideas and technology, scholars and writers during this period came to address the need for *genbun-itchi* 'the unification of speech and writing', which had diverged since the 13th century. Such awareness led to a reformation of the written language. A newly established writing style, *genbun-itchi-tai* 'the unification of speech and writing style' – often referred to as a 'colloquial language' – came to be in use in all novels by 1908, in newspapers by 1923, and in governmental documents after 1946 (Yamamoto 1964, 1965).

The impact of such external factors on the Japanese language has been extensively discussed elsewhere (e.g., Arakawa 1932; Umegaki 1963; Miller 1967; Shibauchi &

Takai 1967; Morioka 1972; Inui 1974; Sonoda 1975; Lovins 1975; Miura 1979; Fujii 1991; Heinrich 2005; Sadler 2007). In my data, too, this period turns out to be pivotal time in terms of the frequency of *ni*-marked human NP_1s, i.e., dative subjects. In the texts written around the time when these changes occurred, *ni*-marked human NP_1s are most frequent. For example, 61 instances of *ni*-marked human NP_1s are found in *Ukigumo* [Sheep in the Sky] (Futabatei 1947), which was originally published in the late 1800s, 214 in *Kokoro* [Heart] (Natsume 1927), and 76 in *Shayō* [The Setting Sun] (Dazai 1948). The increased usage of the *ni*-marked human NP_1s in those texts is quite significant since there are 268 instances of *ni*-marked NP_1s in 20 texts written before the 1800s, only 28% of which are *ni*-marked human NP_1s, and the rest of which (193 instances) are all metonymic locations from earlier literary works. Note that the length of the texts written before the 1800s are significantly longer than those written after the 1800s. Among the texts written before the 1800s, *Manyōshū* [The Ten Thousand Leaves] (Anonymous 640~740s) compiles over 4500 poems in 20 chapters and 4 volumes, *Genji Monogatari* [The Tale of Genji] (Murasaki Shikibu 1000s) contains 54 chapters, and *Heike Monogatari* [The Tale of the Heike] (Anonymous 1200s) consists of 21 chapters. None of the texts written after the 1800s are that long. Considering the discrepancy in the lengths of the data examined, the increased usage of *ni*-marked human NP_1s after the 1800s is of great significance.

3.3   *Ni*-marked NP_1s as subjective framework in first person narrative

Changes occurred not only in the frequency of *ni*-marked human NPs, but also in their distributional patterns depending on the discourse type. Although the narrative portions are proportionally larger than the conversational portions in my entire data, in the texts written before the 1800s, *ni*-marked NP_1s occur in the conversational portions (46%) nearly as much as in the narrative portions (50%), and are used in poems 4% of the time. In contrast, the occurrence of *ni*-marked NP_1s is significantly higher in the narrative portions (76%) than in the conversational portions (24%) of the texts written after the 1800s. That is, in the texts written after the 1800s, *ni*-marked NP_1s extended its frequency and discourse-pragmatic functions in the narrative portion.

This increase in the frequency and function is particularly evident in the emergence of *watashi-niwa*. *Watashi-niwa* consists of the first person singular form *watashi*, which can be used either men or women, marked with the complex particle *niwa*. Although *ni*-marked first person singular forms such as *ware* as in (9) were present in pre-modern Japanese texts, their occurrence was very rare (less than 10%), and limited to the conversational portions most of the time. In the texts written after the 1800s, on the other hand, *ni*-marked first person singular forms like *watashi-niwa* occupy over half of all the *ni*-marked human NP_1s (i.e., first/second/third person forms), and appear not only in the conversational portions but also in the narrative portions.

As the occurrence of *ni*-marked first person singular forms such as *watashi-niwa* increased in the narrative portions, the pragmatic difference between *ni*-marked first person singular forms and other types of *ni*-marked human NP_1s became more evident, particularly when occurring with perceptual or mental predicates which describe the narrator's internal state. In the following excerpt taken from a contemporary Japanese novel, the main character, Yayoi, found out that the person she had believed to be her aunt for years was in fact her older sister, who came to live separately after their parents died in a traffic accident. Yayoi comes to a cabin, hoping to see her aunt, i.e., her older sister. This is the cabin many of her family members use including her current family who she lives with as well as her 'aunt'.

(10) 1   *Soshite   fuini   shitta.*
        then   suddenly know: PERF
        'Then (I) have come to know (it) suddenly.'

    2   *Oba wa koko   ni tsui sakki*
        aunt WA this.place NI   just a.little.while.ago

    3   *made   tatteitanichigainai.*
        until   must.have.been.standing
        '(that my) aunt must have stood here just a while ago.'

    4   *Sore wa yuugata hi ga hotondo*
        that   WA dusk   sun GA almost

    5   *kureta   kon'iro-no-sora ga kigi-*
        set: PERF navy.blue-of-sky GA trees-

    6   *no-shiruetto o fushigina   mozaiku ni*
        of-silhouette O mysterious mosaic   on

    7   *ukabiagaraseru koro no   koto da.*
        float: CAUS   time   of   thing COP
        'That was the time when, in the evening, after the sun was almost set, the mosaic silhouettes of the trees were shown in the navy blue sky.'

    8   *Oba wa hitori koko   ni tatte*
        aunt WA alone this.place at   stand

    9   *akari mo tsukezuni   soto   o*
        light   MO without.turning.on outside O

    10 *nagameteita.*
        look.at: PROG: PERF
        '(My) aunt stood here alone, and was staring outside without lights on.'

→ 11 Watashi niwa *tenitoruyooni wakatta.*
I NIWA quite.clearly understand: PERF
'I knew (it) quite clearly.' (Yoshimoto 1991: 90–91)

The segment above is taken from one of the novels written with the first person perspective (= Yayoi's perspective). Two main characters of the novel, Yayoi and her aunt are mentioned here.

> Line 1 – perfective Yayoi's realization
> Lines 2–3 – imperfective ⎫
> Lines 4–7 – imperfective ⎬ the content of her realization
> Lines 8–10 – perfective
> Line 11 – perfective Yayoi's realization

In line 1, the narrator, Yayoi, experiences that she has a new state of mind. The content that she has come to know is described in lines 2 through 10. In lines 2–3, the narrator reports that, in her image, her aunt was standing in the same room as she is now. The narrator continues to describe the state of affairs, by further expanding details of a surrounding environment when her aunt was standing in the room in lines 4–10. In line 11, the narrator reveals her new state of mind as the experiencer that she has realized that her aunt was standing alone in the dark room where the narrator is now.

Note the aspectual shifts observed in this paragraph, which seem to correspond to the stream of the narrator's consciousness. The imperfective forms are used in lines 2–7, and describe *what* the narrator has realized – the image of her aunt standing in the room. The use of imperfective forms draws readers to what the narrator is observing and experiencing *now*, and gives readers a sense of ongoingness, immediacy, and sharedness (Koyama-Murakami 2001: 94). The shifts into the perfective forms as in line 1 and line 11, on the other hand, signal that the narrator has a new state of mind. The use of the perfective form is also observed in lines 8–10. However, when we take a closer look at lines 8–10 and line 11, both of which are expressed in the perfective forms, the discourse-pragmatic effect of the *niwa*-marked *watashi* becomes more apparent. While in lines 8–10, the narrator's role is the 'reporter' of the event regarding her aunt which the narrator does not share or have direct access to, in line 11, the narrator reveals her new state of mind as the 'experiencer' who acquired such a state. The use of perfective forms in lines 8–10 and line 11 show the "duality of the narrator" (Iwasaki 1993; Koyama-Murakami 2001), the narrator as the reporter in lines 8–10 and the narrator as the experiencer in line 11. The transition from 'the narrator as the reporter' to 'the narrator as the experiencer' is motivated by the *niwa*-marked *watashi*, which signals a shift in the narrator's role.

In contrast, the lack of "duality" of the narrator is apparent in novels written with non-first person perspective. The following segment is taken from one of the contemporary Japanese novels written with the third person perspective (= Ryosuke's perspective).

(11)   Ryosuke has believed that he is an ordinary high school student, but is
       beginning to realize that he has a mysterious power. In fact, his friends,
       Ryo and Saeko have just witnessed Ryosuke use his power to
       neutralize magic.

1   *Ryoo   ga   oogoe   o   agete*
    Ryo   GA   loud.voice O   raise: GER

2   *furikaeru.*
    turn around
    'Ryo raised his voice and turned around.'

3   *"Sonna   datte … dekiru-no-ka   sonna   koto?"*
    such   but   be.possible-NOM-Q   such   thing
    "What the hell? Is such a thing possible?"

4   *"Mita   wa   atashi … zettai*
    see: PERF   FP   I   definitely

5   *soo   yo!"*
    SO   FP
    "I saw (it)! Definitely (that) was the one [=the power to neutralize magic]!"

6   *Futari   ga   nani   o   iiatteiru-no-ka*
    two   GA   what   O   argue-NOM-Q

→ 7   <u>*Ryoosuke   niwa*</u>   *yoku   wakaranai.*
       Ryosuke   NIWA   well   understand: NEG: IMP
       'Ryosuke doesn't understand what the two (Ryo and Saeko) are arguing about.'

8   *Tada   bakuzento … ima-no-koto   wa*
    simply vaguely   now-of-thing WA

9   *jibun   ga   okoshita-no-da   to*
    Self   GA   make it happen-NOM-COP   QUO

10 *soo   toraetewaita   ga …*
    so   grasp: PROG: PERF   but
    '(He) just vaguely knew what just happened now is done by himself but…'
                                                              (Wakagi 1989: 21)

The segment begins with the two quotes from Ryosuke's friends. After witnessing
Ryosuke's unbelievable power, the two friends express their astonishment. The *niwa-*
marked Ryosuke in (11) and the *niwa*-marked *watashi* in (10) are similar in that both
of them occur with the perceptual verb *wakaru*, and are associated with some spatial
sense; both human NP_1s could be considered to be locations (Sugimoto 1986) or met-
onymic locations where 'understanding' occurs or does not occur (Kumashiro 2000).

That is, even in modern Japanese discourse, some traces of the original meaning of *ni*-marked *NP$_1$*s are present.

Note, however, the two instances of *niwa*-marked human NPs are not identical to each other with respect to the discourse-pragmatic effect they create. The two sentences are different in terms of *whose experience* is conveyed to readers. In (10), the narrator "I" is a particular individual (=Yayoi) within the story-world, and the entire story is told from this one particular point of view. The narrator is the reporter and also the "immediate experiencer" (Akatsuka 1979). As the experiencer, the narrator conveys her point of view directly to the readers based on her direct experience of the event (Yoda 2006: 280). Koyama-Murakami (2001) points out that the readers of such first-person stories may be more likely to align themselves with the character (=the narrator), and thus may have the sense of empathy, immediacy, and intensity as if they put themselves in the character's shoes. What the *niwa*-marked first person forms do in first-person novels is to signal a transition from the narrator as the reporter to the narrator as the immediate experiencer.

In (11), on the other hand, the stories are told by the omniscient narrator, who could enter any character's mind. Thanks to such a 'superhuman' narrator, the readers can have the same access to any character's mind. However, the discourse-pragmatic effects generated by using such a narrative style are not the same as those in first-person novels. That is, although the narrator may know everything happening in the story-world, he is *not*, after all, the immediate experiencer of the events; he just 'reports' the events and perspectives of multiple characters. In (11), too, the narrator uses the *niwa*-marked Ryosuke to 'report' Ryosuke's point of view on a particular event which was experienced by Ryosuke but not the narrator. For these reasons, the readers of non-first-person novels may not feel the same sense of intensity, immediacy, and sharedness that they may experience when reading first-person stories. The contrasts between the first person forms and the third person forms are well documented in many languages (e.g., Benveniste 1971; DeLancey 1981; Iwasaki 1993; Thompson & Mulac 1991; Tao 2001; Scheibman 2000, 2001, 2002). Benveniste (1971: 229), for example, points out that *I swear* in English expresses a pledge by the speaker, but *he swears* is "simply a description, on the same plane as *he runs*, *he smokes*".

We have thus observed that first person singular form marked with *niwa* signal and highlight a transition in the narrator's role from the narrator as the reporter to the narrator as the experiencer, whereas non-first person forms do not seem to have the same discourse-pragmatic effect. As Ono and Thompson (2003) mention about the use of *(w)atashi* itself in naturally occurring conversation, *watashi-niwa*, too, may be better characterized as a semi-fixed form, which gives "a subjective framework for, or stance towards, the rest of the utterance" in modern Japanese novels.

4.   Conclusion

I have demonstrated in this study the semantic and pragmatic enrichment of *ni*-marked *NP$_1$*s from the most basic and concrete meaning/usage to its more expressive, more personal, more subjective, more discourse-based, and more writer-oriented usage. More specifically, *ni*-marked *NP$_1$*s as stative locations gradually expand to express metonymic locations where an individual worthy of respect resides so as to avoid the explicit mention of them in Heian courtly fiction. In the next stage, the metonymic use of *ni*-marked *NP$_1$*s is eventually used to mark human referents occurring with predicates which express things like possession, potentiality, and internal feelings. This extended usage as in *watashi-niwa* further developed to be a subjective framework for a proposition in novels written with the first person perspective. *Watashi-niwa* is in fact a clear example of subjectification (e.g., Traugott 1982, 1989, 1995), which shows a "semasiological process whereby SP/Ws (=speakers/writers) come over time to develop meanings for Ls (=lexemes) that encode or externalize their perspectives and attitudes as constrained by the communicative world of the speech event, rather than by the so-called 'real-world' characteristics of the event or situation referred to" (Traugott & Dasher 2005: 30).

Subjectification is a widespread phenomenon and has emerged as a most pervasive tendency in diachronic semantic change (e.g., Traugott 1982, 1989, 1995; Traugott & Dasher 2005). For example, in her account for the motivation of dative marking in Icelandic, German and Faroese, Barðdal argues that the occurrence of dative (logical) subjects with Performance verbs demonstrates that "the function of the dative argument has been extended from being subject-oriented, i.e., expressing the judgment of the subject referent, to becoming speaker-oriented, i.e., expressing the judgment of the speaker" (2004: 131). In Chelliah's study (this volume) on the Meithei (Tibeto-Burman) semantic role markers (e.g., Patient, Associative, and Locative), she captures the change of the semantic role markers to pragmatic markers in terms of the semantic extension from the most basic usage to the secondary usage as markers of new information or information surprising from the speaker's perspective. The shift of case marking into a more pragmatically prominent role is also documented in Meakins' study (this volume) on the ergative marker in Gurindji Kriol, an Australian mixed language. The study proposes that the ergative marker is used to highlight discourse prominence (i.e., the speaker's evaluation of the status of information, and the attribution of importance to certain pieces of information"), in particular the agentivity of a subject. In the same vein with these studies, the current study demonstrates that what has been considered to be a most grammatical aspect of a language actually turns out to be rather pragmatically oriented.

Appendix: Pre-modern and modern Japanese discourse data

Data from *The Japanese Text Initiative*:

Year	Literary Works ⟨Genre⟩
640s – 740s	**Title**: *Man'yôshū* ⟨Poetry⟩ **Author**: Anonymous **Original Source**: *Nishi Honganji-bon*
900s	**Title**: *Kokin Wakashū* ⟨Poetry⟩ **Author**: Anonymous **Original Source**: the manuscript by Fujiwara Teika
	Title: *Taketori Monogatari* ⟨Prose; Tale⟩ **Author**: Anonymous **Original Source**: Tokyo: Iwanami (1929)
	Title: *Ise Monogatari* ⟨Prose; Tale⟩ **Author**: Anonymous **Original Source**: a Takeda-bon manuscript
	Title: *Kagerō Nikki* ⟨Diary⟩ **Author**: Fujiwara no Michitsuna no haha **Original Source**: Tokyo: Iwanami (1927)
1000s	**Title**: *Genji Monogatari* ⟨Prose; Tale⟩ **Author**: Murasaki Shikibu **Original Source**: the Teika-bon manuscript
	Title: *Makura no Sōshi* ⟨Essay⟩ **Author**: Sei Shōnagon **Original Source**: Tokyo: Yuhodo (1929)
	Title: *Sarashina Nikki* ⟨Diary⟩ **Author**: Sugawara no Takasue no Musume **Original Source**: The original data are found at URL: http://kuzan.f-edu.fukui-u.ac.jp/sarasina.txt
	Title: *Izumi Shikibu Nikki* ⟨Diary⟩ **Author**: Izumi Shikibu **Original Source**: Tokyo: Koten Bunko (1948)
1200s	**Title**: *Kaidōki* ⟨Diary⟩ **Author**: Anonymous **Original Source**: *Nihon Koten Zensho*, Tokyo: Asahi Shinbun (1951)
	Title: *Tōkan Kikō* ⟨Travel accounts⟩ **Author**: Anonymous **Original Source**: *Nihon Koten Zensho*, Tokyo: Asahi Shinbun (1951)
	Title: *Izayoi Nikki* ⟨Diary⟩ **Author**: Abutsu-ni **Original Source**: Tokyo: Iwanami (1934)
	Title: *Heike Monogatari* ⟨Prose; War tale⟩ **Author**: Anonymous **Original Source**: Tokyo: Honbunkan (1933)

(*Continued*)

Appendix: (Continued)

Year	Literary Works ⟨Genre⟩
1300s	**Title**: *Tsurezuregusa* ⟨Essay⟩ **Author**: Yoshida Kenkō **Original Source**: *Nihon Koten Tokuhon*, Tokyo: Nihon Hyoronsha (1939)
1400s	Collection of Noh plays from *Yokyoku Hyoshaku*, by Owada Tateki, Tokyo, Hakubunkan (1907): *Aoi no ue* (by Zenchiku); *Aya no Tsuzumi* (by Zeami); *Hagoromo* (by Zeami); *Izutsu* (by Zeami); *Kagekiyo* (by Zeami); *Kumasaka* (by Zenchiku); *Matsukaze* (by Kan'ami); *Nonomiya* (by Zeami); *Sekidera Komachi* (by Zeami); *Semimaru* (by Zeami); *Sotoba Komachi* (by Kan'ami); *Takasago* (by Zeami); *Tsunemasa* (by Zeami).
1600s	**Title**: *Kōshoku Ichidai Onna* ⟨prose⟩ **Author**: Ihara Saikaku **Original Source**: *Saikaku Zenshū*, Tokyo: Hakubunkan (1930)
1700s	**Title**: *Sonezaki Shinjū* ⟨Play⟩ **Author**: Chikamatsu Monzaemon **Original Source**: *Chikamatsu Jōrurishū*, Tokyo: Yuhodo (1912)
	Title: *Kanadehon Chūshingura* ⟨Play⟩ **Author**: Izumo Takeda, Miyoshi Shoraku, and Namiki Senryu **Original Source**: Tokyo: Iwanami (1937)
	Title: *Ugetsu Monogatari* ⟨Prose⟩ **Author**: Ueda Akinari **Original Source**: Kyoto, Osaka: Hambei Umemura and Chobei Nomura (1776)
	Title: *Oku no Hosomichi* ⟨Travel accounts⟩ **Author**: Matsuo Bashō **Original Source**: checked and reformatted against the *Nihon Koten Bungaku Taikei*, vol. 46, Tokyo: Iwanami Shoten (1967)
1800s	**Title**: *Ora ga Haru* ⟨Travel accounts⟩ **Author**: Kobayashi Issa **Original Source**: Tokyo: Iwanami (1927)
	Title: *Gojū no Tō* ⟨Prose⟩ **Author**: Kōda Rohan **Original Source**: Tokyo, Kaizosha (1927)
	Title: *Ukigumo* ⟨Prose⟩ **Author**: Futabatei Shimei **Original Source**: Tokyo: Shun'yodo (1947)
Early 1900s	**Title**: *Kokoro* ⟨Prose⟩ **Author**: Natsume Sōseki **Original Source**: Tokyo: Iwanami (1927)
	Title: *Kikai* ⟨Prose⟩ **Author**: Riichi Yokomichi **Original Source**: Tokyo: Sogensha (1935)
	Title: *Hōrōki* ⟨Prose⟩ **Author**: Hayashi Fumiko **Original Source**: Tokyo: Shinchosha (1947)
	Title: *Shayō* ⟨Prose⟩ **Author**: Dazai Osamu **Original Source**: Tokyo: Shinchosha (1948)

Data from my contemporary Japanese novels:

Year	Literary Works ⟨Genre⟩
Late 1900s	**Title**: *Kanashii Yokan* ⟨Prose⟩ **Author**: Yoshimoto Banana **Publisher:** Tokyo: Kadokawa (1991)
	Title: *Raffuruzu Hoteru* ⟨Prose⟩ **Author**: Murakami Ryu **Pubisher**: Tokyo: Shueisha (1992)
	Title: *Tenshi wa Umaku Odorenai* ⟨Prose⟩ **Author**: Wakagi Mio **Pubisher**: Tokyo: Shueisha (1989)
	Title: *Zoogeiro no Kuroozetto* ⟨Prose⟩ **Author**: Akagawa Jiro **Pubisher**: Tokyo: Kobunsha (1994)

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