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1 Introduction

This paper is concerned with theoretical and empirical issues in the definition and treatment of morphological categories. Considering the decomposition of privative categories into bundles of binary features, I will discuss what work the latter should be expected to do. I will propose a fairly literal interpretation of these component binary features and argue that we should take their independence from one another more seriously. I will then show that this provides us with the means to deal nicely with default categories, in particular the phenomenon known as default case.

2 The Decomposition of Morphological Categories

Since at least (Hjelmslev 1935, Jakobson 1936), it has been popular to break down monolithic morphological categories into bundles of more basic features. Thus instead of a primitive 1st person inclusive category we might have [+speaker, +hearer], and instead of [+neuter] we might have [-masc, -fem]. The primary motivation for this move is to handle syncretism, where a single form appears in more than one morphological category. E.g., Bierwisch (1967) proposes the following breakdowns for the four cases in German:

Case	Features
nominative	[-oblique, -governed]
accusative	[-oblique, +governed]
genitive	[+oblique, -governed]
dative	[+oblique, +governed]

Table 1: German cases according to (Bierwisch 1967)

This analysis allows us to say that the form das is syncretic because it is underspecified for the feature [+/-governed] which distinguishes nomina-

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tive and accusative environments. I.e. das is specified simply as [-oblique]. Similarly, the dative/genitive singular feminine der is just [+oblique], and the accusative/dative plural uns 'us' is [+governed]. This decomposition of categories is a useful and well-established tool in morphological analysis. What I would like to argue in this paper is that its use should be more explicitly constrained.

As I see it, there are two distinct motivations for a feature-decomposition account of syncretism. One is that it permits a simpler description of specific patterns of syncretism in specific languages. The other is that it can potentially be used to explain more generally why certain kinds of syncretism actually occur and others do not - within and across languages. As things stand, however, there is a tension between these two motivations. The decomposition of categories into component features is extremely powerful if no restrictions are placed on what sorts of component features can be proposed. In principle, it allows any imaginable syncretism to be derived. Thus without any additional constraints, accounts using such mechanisms cannot really distinguish common patterns of syncretism from non-existent ones. To see why this is, consider again the proposal of Bierwisch (1967). The fact that German has nominative/accusative syncretisms but not nominative/dative ones is handled by positing a decomposition where nominative and accusative are both [-oblique], but nominative and dative have no features in common. Yet there is in principle nothing that would prevent a different decomposition, according to which nominative and dative do belong together.

The source of the problem is that there is no explicit constraint on what sorts of features can be assumed to make up the complex morphological categories. To address this, I propose that we should follow something like the following constraint:¹

Morphological Feature Constraint (MFC):
 Each one of the features proposed to define morphological categories must have motivation independent of the morphological forms it is meant to describe.

This may seem fairly obvious, and indeed something like it is at least tacitly assumed by most work that uses feature decomposition. Nonetheless,

¹The MFC is intended here as a meta-theoretical constraint, essentially a methodological principle that guides the construction of theories about the definition of morphological categories. I.e. a theory that fulfills the constraint should be preferred over one that does not, all other things being equal. It is *not* a constraint on derivations, representations or even possible languages.

I submit that there has been a tendency in such work to be concerned in the first place with achieving the simplest possible account of the morphophonological facts, leaving the connection between these and the morphosyntax to be worked out later. I will argue that taking (1) more seriously from the start instead leads to different and better analyses. In particular, I would like to propose that the positing of a particular set of morphological features should be accompanied by explicit proposals about how they are related to the rest of the grammar. This can (and should) be seen as a particular instantiation of one of the central ideas of the theory Distributed Morphology (see e.g. Halle and Marantz 1993, Embick and Noyer To appear): There is no sharp division between syntax and morphology, thus the analysis of morphological facts must take the relevant syntactic facts into account as well.

Following this approach is almost trivial with certain categories like person and number that have reasonably clear semantic analogs. One can argue a bit about what the component features are for the 1st inclusive, but the number of really plausible possibilities is limited: Independent of its form, it is typically clear from the semantics whether something is 1st person. This has allowed researchers to make substantive, testable proposals about what sorts of person and number features exist in the languages of the world. For example, Noyer (1992:146ff.) argues that several generalizations about person systems can be explained by assuming that there is no actual 3rd person feature.

With categories like case, however, matters are different. A consistent semantic characterization for dative or genitive does not seem to be available, even within a particular language. The result has been that previous work on case has frequently decomposed the traditional categories into features which are a mix between often vague syntactic and semantic notions, and are often rather vague. Consider, e.g., the motivation for the features proposed by Halle and Vaux (1997) (see also Bierwisch 1967, Calabrese 1996, Halle 1997, Wunderlich 2003, Müller 2004, among others):

The feature specification [—oblique] is assigned to nominals that are arguments of the verb; [+oblique] is assigned to nominals that are not arguments of the verb. The feature [—structural] is assigned to nominals on non-structural, semantic grounds; [+structural] is assigned to nominals on the basis of their position in the syntactic structure, exclusively. The feature [—superior] is assigned to nominals in governed positions in the syntactic structure; [+superior] is assigned to nominals in non-governed positions. [—free] is assigned to nominals with a consistent role in argument structure; [+free] is assigned to nominals whose role in argument structure varies [p. 5].

Schütze 2001, and below for discussion of additional environments):

- (3) a. Me, I like beans. (English)
 - b. Der/*Dem Hans, mit dem spreche ich nicht mehr.
 the:N/*D Hans with him:D speak I not more
 'Hans, I don't speak with him anymore.' (German)
 - c. Vanja/?Vanju, ego ja ne ljublju. John:N/?A him:A I don't like 'John, I don't like him.' (Russian)
 - d. al-kitaab-u qara?t-u-hu.the-book-N read-1SG-it'The book, I read it.' (Arabic)
 - e. Strákarnir, við þá hafði aldrei verið talað. boys-the:N with them:A had never been spoken 'The boys, they had never been spoken with.' (Icelandic)

In constructing a theory for this default case, two central questions arise. First, how does the assignment of the default case actually work, and second, how do we predict which case will be the default for a given language?

Starting with the first question, the obvious strategy would be to treat default case in the way that we treat other morphological defaults. Unfortunately, this isn't quite so easy. Consider a standard morphological default, the English past tense suffix /-d/, which appears whenever none of the more specific ones like /-t/ or /-0/ are called for. This is easily handled in DM in terms of underspecification. The Vocabulary Item with the exponent /-t/ is specified to show up in the presence of roots like \sqrt{DEAL} , \sqrt{LEAVE} , \sqrt{SPEND} , and that with the exponent /- \emptyset / to show up with others like \sqrt{CUT} , \sqrt{READ} , \sqrt{SING} . The Vocabulary Item with exponent /-d/, on the other hand, is just specified for something like [+past], and is thus inserted in environments where the others fail. This approach won't, however, work for default case. Here we're not dealing with a particular Vocabulary Item that could be underspecified, but rather a whole default category. Of course, we could just make sure that all of the forms that belong to the default case are underspecified, but that would miss the point. Default status is a property of the case category the nominative in German for example - not of the specific forms that realize it - like der 'the', masc. sg. nom., or ich 'I', nom.

The second question above is particularly pressing because the determination of which case will be the default does not seem to be random across languages. Just looking at the examples above, it is notable that in all of the languages but English, the default case is the nominative. Ideally, our account

for default case within the theory should be able to derive this fact rather than stipulating it individually for each language. In what follows, I will present an analysis of default case which provides answers to both of these questions and makes crucial use of the ideas about compound categories developed in section 2.

4 An Analysis of Default Case

The key to understanding default case lies in recognizing its relationship to the structural case system of a given language. In most of the familiar nominative-accusative languages, the two structural cases are in a kind of dependency relationship (Burzio 1986, Yip, Maling, and Jackendoff 1987, Marantz 1991, Bittner and Hale 1996, Sigurðsson 2006). Accusative case is only assigned in the presence of the right kind of higher structural argument, but nominative has no corresponding restriction. I submit that it is not an accident that the default case in all of the languages in (3) but English is the nominative. The (somewhat obvious) idea is that we can generalize over the appearance of the nominative as the independent structural case and as the default. In other words, 'structural nominatives' are really just a subset of default nominatives. The question is whether there is any actual evidence for such a unification of nominative types. After all, the standard assumption for decades has been that structural nominative is actually assigned one way or another by finite tense.

In fact, the evidence against this is quite strong. For a recent extensive discussion of the data I refer the reader to Sigurðsson (2006). Here I will just talk about one particularly interesting and relevant set of facts. Consider first example 4 (from Sigurðsson 1991):

(4) Strákana langaði til að komast allir í veisluna. boys-the: A wanted for to get all: N.PL to party-the 'The boys wanted to all get to the party.'

The adjective *allir* in the embedded clause shows nominative plural agreement. This cannot be agreeing with anything in the finite matrix clause, because the co-referent DP there, *strákana* 'the boys' is accusative, not nominative. Instead, as Sigurðsson (1991) argued, it must be agreeing with PRO in the embedded clause, which thus must be nominative, even though the embedded clause is non-finite (see vanden Wyngaerd 1994 for similar data from Latin and Ancient Greek).

Now, for examples like this, we could perhaps propose that nominative is coming down from the finite matrix clause. But other data on the locality of structural case-assignment show that this cannot be correct. We know from normal ECM clauses like 5 that structural accusative depending on the main clause can be assigned to the subject position of an embedded clause:

(5) Við töldum hana vera góða stelpu.we:N believed her:A be nice:A girl:A'We believed her to be a nice girl.' (Sigurðsson 2006)

However, ECM can't assign accusative to the object of an embedded clause with a quirky dative subject. Instead, it shows up nominative, as in (6):

(6) Við töldum henni hafa leiðst strákarnir. we believed her:D have found-boring boys-the:N 'We believed her to have found the boys boring.'

The explanation for this seems to be that the object position is too far away to get accusative from the matrix clause.² If this is so, however, then it is presumably also too far away to get nominative case from the matrix clause. Nonetheless, in spite of the fact that the embedded clause is non-finite, *strákarnir* 'the boys' bears nominative case. We have here a nominative, which seems to be part of the structural system, yet which is not so much assigned as showing up where other structural cases fail.

There is thus some support for saying that structural nominative is just default nominative. The way that I would like to capture this is as follows:³

(7) Default case is not the case that is assigned when other cases fail, but the actual lack of case.

Now, this is not meant in the morphophonological sense that default case is the lack of an overt case-marker. Though the nominative is unmarked in this sense as well in many languages where it is the default, in others it is associated with an overt formal expression, e.g. -ur in Icelandic masculine a-stems (nom. hest-ur 'horse' vs. acc. hest) and -s in many Latin declension classes

²Note that the absence of accusative here can't be due to the intervention of the dative argument: Structural accusative is assigned unproblematically across an intervening dative in standard ditransitives.

³Note that I am making the non-controversial assumption here that morphological case is not connected to DP licensing, i.e. 'syntactic Case'. The behavior of default case is one of the pieces of evidence for this view. For others see (Marantz 1991, Schütze 1997, Sigurðsson 2003, McFadden 2004) and the literature cited there.

(nom. *prīncep-s* 'chief' vs. acc. *prīncip-em*). Instead, it is a morphosyntactic statement, regarding the determination of the case categories.

The formal implementation of this idea is made possible by the ideas about compound categories laid out in section 2. In particular, categories like nominative, accusative and dative do not have any substantive reality, but emerge from the combinations of more primitive features. These more primitive features are what is assigned to a DP - each independent of the other - on the basis of the syntactic structure. Now, if the relevant features are strictly binary, we can make the further assumption that there is essentially a single rule for each. Such a rule states syntactic (and potentially lexical) conditions under which a DP will be assigned (the marked value of) the feature in question. If those conditions are not met, the feature remains unset.⁴ In this way, the relative markedness of the feature values - and thus potentially of the complex categories they define - is actually derived rather than stipulated. The marked value (by convention, the positive value) for a feature is the one assigned when the DP meets specific conditions. The unmarked value is what results when it does not. Unmarked case categories are thus those that are composed of fewer marked feature values. In these terms, nominative in a language like German is the name for the category defined by all unmarked case-feature values, i.e. the one that shows up on DPs for which all case-feature assignment rules have failed to apply. The advantage of this is that it obviates the need for any rule of 'default nominative assignment'. The default simply emerges rather than being stipulated.

We must then determine what the actual rules look like which assign the case features. Concentrating for the moment on the structural cases, and adopting essentially the analysis of (Marantz 1991), the idea is informally this:

(8) A DP gets accusative if there is another structural DP in a higher, local position, and nominative otherwise.

In order to distinguish the two categories, I will propose the feature [+/-inferior].⁵ Turning to the issue of locality, I propose that the relevant domain is the phase. Reviewing a bit from above, the relevant scenarios are as

⁴By 'strictly binary' I mean that there is not a three-way distinction between a positive value, a negative value and a zero value. There is simply a marked value and an unmarked one. Whether unmarked values are explicitly specified (as negative values) or simply zero does have consequences (e.g. for whether Vocabulary Items can make reference to them), but I will leave aside such issues here.

⁵The name is based on [+/-superior] from Halle's work, but with things swapped to more transparently reflect the markedness relationships. Something similar is achieved by Wunderlich (2003)'s feature [+hr] 'there is a higher role'.

follows. Finite clauses are opaque to things like ECM, which is as expected if they are CPs and thus phases. Normal ECM as in 9 assigns accusative from the matrix clause into the subject position of the embedded clause. This makes sense if ECM clauses are TPs and thus no phase boundary intervenes between the matrix subject and the embedded subject.

- (9) Við töldum hana vera góða stelpu. we:N believed her:A be nice:A girl 'We believed her to be a nice girl.'
- (10) Við töldum henni hafa leiðst strákarnir. we:N believed her:D have found-boring boys-the:N 'We believed her to have found the boys boring.'

Recall then that ECM does *not* assign accusative to the embedded object position, as in (10). This also is expected since the vP in the embedded clause constitutes a phase and intervenes between the matrix subject and the embedded object.⁶ What we can propose then is the following rule:

- (11) Assign [+inferior] to a DP_i iff
 - a. there is a DP_i within the same phase, and
 - b. DP_i c-commands DP_i , and
 - c. DP_j does not bear a non-structural case.⁷

Note now that, under this proposal, it is no longer an accident that nominative is both the default case category and the independent member of the structural pair. This connection falls out from the way the system is constructed – not just the system of the theory, but the actual case-system of the language. Nominative is the maximally unmarked case category in the language, with no restrictions on its occurrence. It is not assigned when the other cases fail to be assigned, rather it is the lack of assignment of other cases.

⁶See McFadden (2004, ch. 4) for discussion of some complications that arise with the smaller kind of AcI below causatives and perception verbs.

⁷The third condition as given here glosses over some non-trivial issues which for space reasons I will not discuss in detail here. Briefly, knowing which case-features have been assigned to DP_j in order to determine which ones to assign to DP_i would potentially violate cyclicity. This can be avoided within a theory where DP_i bearing structural and non-structural cases are always distinguished syntactically, so that rule (11) only needs to know the position of DP_j , not what case-features it bears. (see McFadden 2004, 2006). A quite radical solution, as well as extensive discussion of the issue, can be found in (Sigurðsson 2006).

We can see the way these things fit together if we consider the one language that was a bit exceptional above, English. The left-dislocated DP in (3a) is oblique, not nominative, and indeed this seems to be the clear default case in English, at least in most colloquial varieties. Additional environments discussed by Schütze (2001) where default-looking oblique pronouns show up in the language include coordinated subjects (12a) certain ellipsis contexts (12b), bare DP replies to questions (12c), gapping contexts (12d) and modified pronouns (12e):

- (12) a. Me and him are gonna rumble tonight
 - b. A: I don't like this. B: Me neither
 - c. A: Who wants to try this game. B: Me!
 - d. We can't eat caviar and him eat beans.
 - e. The real me is finally emerging.

Now, why should English differ from German in this way? The crucial point, as should be clear from some of the examples above, is that English does not have the same structural case system as German. The alternation between the two structural cases is not determined by anything like rule (11). E.g., both nominative and oblique are possible on the sole DP in a clause:

- (13) a. I am vulgar.
 - b. The real me is vulgar.

Instead, there is a very different kind of rule at work, and its operation comes out nicely in the contrast between (13a) and (13b). Specifically, nominative forms are only possible for pronouns that are maximally close to finite T. If anything gets in the way – like the structure for modification in a sentence like (13b) – the oblique form appears. The crucial point here is that in English, it is the nominative on which there are special conditions, and thus for which there must be a rule assigning a marked feature value. For this reason, it is the nominative which is marked, and the oblique which is the default. The different choice in default cases in German and Icelandic versus English is thus derived as a direct result of the difference in their case-systems. This would be difficult to achieve if we had to write an explicit rule to assign the default case.

⁸As is well known, the case-forms of English pronouns are subject to considerable prescriptive pressure, with the result that some speakers control (at least at times) an artificially archaic distribution of the forms, and many speakers show a mixed distribution of historically nominative and non-nominative forms (which I call here oblique).

5 Extending the Analysis to the Obliques

The account of default case presented in the previous section relied primarily on the idea that the case categories need to be defined both in terms of the morphophonological forms that realize them and in terms of the morphosyntactic rules that assign them. It depended only peripherally on the decomposition of those categories. In this final section I want to briefly discuss how the ideas about markedness developed there can be combined with decomposition to handle some facts about the non-structural cases. German has two such cases, the dative and the genitive. Previous work has assumed that the two should share some featural component in order to handle syncretisms like the dative/genitive sg. fem. definite article *der*. Thus Bierwisch (1967) gives them both the specification [+oblique]. The question I would like to address here is whether there is morphosyntactic evidence to support this common [+oblique] feature in line with constraint (2) proposed above.

Such evidence can be found if we look at the contexts where the dative and genitive appear. Both cases can mark the objects of prepositions, with the choice between the two dependent on the identity of P itself. We find the dative e.g. with aus 'out of', außer 'outside of', bei 'near, at', mit 'with', nach 'after', seit 'since', von 'from, of', zu 'to' and the genitive with (an)statt 'instead of', trotz 'in spite of', während 'during', wegen 'because of'. We can relate this parallel in distribution to the syncretism by saying that all Ps assign [+oblique] to their complements. The distinction between them can then be handled by having the genitive prepositions assign an additional feature, call it [+genitive]. The form der will then be specified as only [+oblique], and with no competing [+oblique, +genitive] form in the sg. fem., it will win out for insertion with both sets of Ps.

Now, there are two important things to note about the use of the feature [+/-genitive] that distinguish my account from others. The first is that I am proposing a specific feature whose purpose is solely to distinguish genitives from datives. It is *not* the same feature that is used to distinguish nominative from accusative the way that Bierwisch (1967)'s [+/-governed] is or Halle and Vaux (1997)'s [+/-superior] is. This may seem like a weakness, as it involves positing one more feature than those authors do, but in fact it is just a matter of following the MFC in (2) above. The alternation between genitive and dative here has nothing in common from a syntactic perspective with

⁹Certain uses of the accusative are non-structural as well. Their treatment is somewhat more complicated, so I leave it aside here. See McFadden (2004, ch. 6) for one approach.

that between nominative and accusative, so using the same feature to handle both would be dubious. Note that by doing so we also avoid one of the imperfections of Bierwisch (1967)'s and Halle and Vaux (1997)'s systems: If nominative and genitive are both [—governed] or [+superior], we predict syncretisms between them which exclude the accusative and dative to be possible, but in German there are in fact none. In other words, I am insisting that the features we assume can be independently motivated, here at the expense of assuming a larger number of features than is logically necessary to derive the attested distinctions.

The second point to note here is that, just as the assignment of [+inferior] derives a markedness asymmetry between nominative and accusative, so the assignment of [+genitive] does between dative and genitive. Specifically, the genitive is more marked than the dative, having an additional actively assigned feature. If this is correct, we might expect to see dative forms emerging under certain circumstances as the unmarked alternant in place of the genitive, similar to the emergence of the nominative in place of the accusative, e.g. in the passive. This prediction is indeed borne out. Some of the prepositions, like trotz, show variation in whether they assign genitive. And in many forms of the language - including many colloquial spoken forms - the genitive as a case is moribund, and fails to show up in any contexts. Crucially, whenever genitive fails to be assigned to one of the Ps, it is always the dative that shows up. Now, if genitive DPs are specified [+oblique, +genitive], as argued here, the loss of the genitive specification will directly turn them into datives. The dative emerges because it is the unmarked option among the obliques. This is entirely parallel to the default nominative, which is the unmarked option outside the obliques, and indeed overall. My account enjoys the same advantages here as it did there, because the unmarked case emerges from the setup of the system. The fact that we get dative and not nominative or accusative is a direct result of how those categories break down into their component features. The accounts of Bierwisch (1967) and Halle and Vaux (1997), on the other hand, do not extend to these innovative syncretisms in any straightforward way. They would have to stipulate a flop in the value of the [governed] or [superior] feature.

¹⁰This is not a decisive problem for these theories, since there is nothing in them which says that all theoretically derivable syncretisms should actually be instantiated within a language. The point is simply that the coverage of the syncretisms by the account presented here is in a sense tighter.

6 Summary

In this paper, I have argued that the features which have been proposed to define morphological categories should be more explicitly grounded in the syntax. Such a step will in any case ultimately be necessary for any complete account of the morphosyntax of given language and for a full understanding of the syntax-morphology interface in general. However, on the basis of data on morphological case and in particular default case, I have attempted to show that thinking in these terms from the start also leads to better analyses of the morphological categories and patterns of syncretism themselves.

References

- Bierwisch, Manfred. 1967. Syntactic features in morphology: General problems of socalled pronominal inflection in German. In *To honour Roman Jakobson*, 239–270. The Hague: Mouton.
- Bittner, Maria, and Ken Hale. 1996. The structural determination of case and agreement. *Linguistic Inquiry* 27:1–68.
- Burzio, Luigi. 1986. Italian Syntax. Boston: D. Reidel Publishing Company.
- Calabrese, Andrea. 1996. Some remarks on the Latin case system and its development in Romance. In *Theoretical Analyses on Romance Languages: Selected Papers from* the 26th Linguistic Symposium on Romance Languages, ed. J. Lema and E. Trevi no. Amsterdam: John Benjamins.
- Embick, David, and Rolf Noyer. To appear. Distributed Morphology and the syntax/morphology interface. In *The Oxford Handbook of Linguistic Interfaces*, ed. G. Ramchand and C. Reiss. Oxford: Oxford University Press.
- Halle, Morris. 1997. Distributed Morphology: Impoverishment and fission. MITWPL 30:425–449.
- Halle, Morris, and Alec Marantz. 1993. Distributed morphology and the pieces of inflection. In *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, ed. K. Hale and S.J. Keyser. Cambridge, Mass.: MIT Press.
- Halle, Morris, and Bert Vaux. 1997. Theoretical aspects of Indo-European nominal morphology: The nominal declension of Latin and Armenian. Ms. http://www.fas.harvard.edu/Tingpub/online/online_phonology.html.
- Hjelmslev, Louis. 1935. La catégorie des cas: Étude de grammaire générale I, volume 7.1 of Acta Jutlandica: Aarsskrift for Aarhus Universitet. Copenhagen: Munks-gaard.
- Jakobson, Roman. 1936. Beitrag zur allgeimeinen Kasuslehre. Travaux du Cercle linguistique de Prague 6.
- Marantz, Alec. 1991. Case and licensing. In ESCOL '91: Proceedings of the Eighth Eastern States Conference on Linguistics, 234–253.

- McFadden, Thomas. 2004. The Position of Morphological Case in the Derivation: A Study on the Syntax-Morphology Interface. Doctoral Dissertation, University of Pennsylvania, Philadelphia.
- McFadden, Thomas. 2006. German inherent datives and argument structure. In *Datives* and Similar Cases: Between Argument Structure and Event Structure, ed. D. Hole, A. Meinunger, and W. Abraham. Amsterdam: John Benjamins.
- Müller, Gereon. 2004. A Distributed Morphology approach to syncretism in Russian noun inflection. In *Proceedings of FASL 12*, ed. O. Arnaudova, W. Browne, M.L. Rivero, and D. Stojanovic.
- Noyer, Robert Rolf. 1992. Features, Positions and Affixes in Autonomous Morphological Structure. Doctoral Dissertation, MIT.
- Schütze, Carson. 1997. INFL in Child and Adult Language: Agreement, Case and Licensing. Doctoral Dissertation, MIT.
- Schütze, Carson. 2001. On the nature of default case. Syntax 4:205-238.
- Sigurðsson, Halldór Ármann. 1991. Icelandic Case-marked PRO and the licensing of lexical arguments. *Natural Language and Linguistic Theory* 9.
- Sigurðsson, Halldór Ármann. 2003. Case: Abstract vs. morphological. In New Perspectives on Case Theory, ed. E. Brandner and H. Zinsmeister. Stanford, CA: CSLI Publications.
- Sigurðsson, Halldór Ármann. 2006. The nominative puzzle and the low nominative hypothesis. Ms., Lund University.
- Wunderlich, Dieter. 2003. Optimal case patterns: German and Icelandic compared. In *New Perspectives on Case Theory*, ed. E. Brandner and H. Zinsmeister. Stanford, CA: CSLI Publications.
- vanden Wyngaerd, Guido. 1994. PRO-legomena: Distribution and Reference of Infinitival Subjects. New York: Mouton de Gruyter.
- Yip, Moira, Joan Maling, and Ray Jackendoff. 1987. Case in tiers. *Language* 63:217–250.

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