Dative: The heterogeneity of the mapping among morphological case, grammatical functions, and thematic roles

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Abstract

This paper examines the mappings among morphological case, grammatical functions and thematic roles, focusing on dative as a place where the mapping between the morphosyntax and semantics is often assumed to be particularly regular. Evidence is provided from three Germanic languages, English, German and Icelandic, which shows that the mappings are more heterogeneous than is generally acknowledged. An investigation of both co-occurrence restrictions and the lexical restrictions on adnominal genitives, middle formation and secondary predicate suggests that the linking of dative case to a verbal argument does not play a role in restricting lexical roles. Accusative goals are shown to behave in most respects just like dative goals, and dative themes just like accusative themes. Since the objects of transitive verbs do not all behave alike, theme cannot be treated as the default theta-role on verbal objects, and lexical rules may need to refer to the content of their roles, not just their relative position in a verb's theta grid. © 2001 Elsevier Science B.V. All rights reserved.

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1. The linking problem

This paper addresses the so-called ‘linking problem’: the problem of discovering and explaining the regularities which govern the syntactic realization of a verb’s arguments. What are the possible mappings between thematic roles, grammatical functions, and morphological case? What role does morphological case play in the grammar of natural languages? A common, if usually tacit, assumption in much of the literature is that morphological case directly reflects or encodes either grammatical functions (SUBJ, OBI, etc.) or thematic/semantic roles (agent, theme, experiencer, goal, etc.). An unusually explicit formulation of this assumption is found in the following quote from Dem Besten:

(1) “... there seems to be a one-to-one relationship between nominative, dative, and accusative and Subject, Indirect Object, and Direct Object respectively”

Such statements reflect the widespread assumption that there is a one-to-one mapping between morphological case and grammatical functions (GFs). Similarly, in many languages we find quite systematic regularities concerning the relation between n-case and thematic role; for example, dative is cross-linguistically the case assigned to recipients, experiencers, and beneficiaries. Following Kiparsky (1987), I will use ‘goal’ as a cover term for this class.

In this paper, I focus on dative case as a place where the mapping between the morphosyntax and semantics is often assumed to be particularly regular. In Romance languages, for example, it has been claimed that dative case is assigned to any verbal argument that is thematically a goal (Alsina, 1996: 175). We shall see, however, that the mapping is not so predictable, at least in Germanic. I show that not only are goal arguments not necessarily marked dative, but dative can be mapped to theme arguments as well as goals. Furthermore, even in the Germanic languages where the prototypical IO is dative, the IO is not always marked dative. For the purposes of this paper, I will use the traditional notion of IO, the argument which in all Germanic languages is the linearly first object in the double object construction and which by definition bears a goal-type theta role (usually recipient or benefactive), and hence is typically human.

1.1 Asymmetries between IO and DO

Before turning to the cross-linguistic data, I begin with a brief discussion of some of the arguments widely cited in the literature to distinguish between direct and indirect objects. One of the obvious differences between Romance and Germanic languages concerns the syntax of three-place predicates like give. Ditransitive or double object verbs are a proper subset of the class of triadic predicates. Only the Germanic languages have a true double object construction with two NP objects. In the modern Romance languages, the recipient argument will be mapped onto a PP or a dative clitic; in the Germanic languages, the recipient will typically be mapped on to a
ative NP, traditionally labeled the Indirect Object. Possibly motivated by the desire to minimize the differences between languages, a number of linguists have suggested that the indirect object/goal-argument is realized as the object of a Preposition which may be phonologically null. Eason (1985: §5.1; 1994: 617) argues that the morphological dative case on indirect object NPs and on NP complements to adjectives in German, Latin and classical Greek must be ascribed to the presence of an empty macroposition P; the dative case-marking is formally represented as an index or feature P on the NP sister of this null P. In his discussion of three-argument verbs, Baker (1997) compares dative alternation with locative alternation, and argues that the dative alternation, unlike the locative alternation, is the result of syntactic movement. The theme argument is consistently generated as the (underlying) direct object, but the benefactive dative/goal argument is generated as an oblique internal argument, object of a possibly null preposition. Dative shift is "treated as an instance of Preposition Incorporation . . . when the preposition is incorporated, it no longer can license Case on its object, therefore the goal must move to a position outside the inner VP to receive/check structural accusative Case . . . As a result of this movement, the goal comes to be before the theme and asymmetrically c-commands it" (Baker, 1997: 94).

Baker's analysis is based on the claim that indirect objects behave like prepositional objects and unlike direct objects. Hudson (1992) uses the same claim to argue for the traditional assignment of grammatical functions to the two internal arguments of a double object verb. It is interesting that despite their very different theoretical approaches, Baker and Hudson give many of the same arguments I enumerate Baker's arguments here:

(2) Six different syntactic asymmetries between IO and DO (Baker, 1997)
1. Secondary Predication
2. Derived nominals
3. Synthetic Compounds
4. Movement (difficulty extracting the first object of a double object construction, or moving it rightward)
5. Quantifier Scope interactions
6. Unaccusative verbs

(3) Adjectival secondary predication (Williams, 1980: 204; Baker, 1997: 90)
a. I gave the meat to Mary raw.
b. *I gave the meat to Mary hungry.
c. I gave Mary the meat raw.
d. *I gave Mary the meat hungry. [= Baker, 1997: 90, ex. 23d]

(4) Derived nominals (Baker, 1997: 93, ex. 29)
a. *Jim's giving of Mary (of) the book
b. *the resting of the men (of) the house
c. *his teaching of John (of) mathematics

(5) Synthetic compounds (Baker, 1997: 94, ex. 35)
a. secret-telling, book-reading
b. *spy-telling, *child-reading

(6) Wh movement and Heavily NP-shift (Baker, 1997: 92)
a. *I gave t candy every child that came to the door.
b. I gave to Johnny every piece of candy I could find.

(7) Quantifier scope interactions (Baker 1997: 94, ex. 36)
a. The teacher assigned one problem to every student.
b. The teacher assigned one student every problem.

(8) Unaccusative verbs (Baker, 1997: 95, ex. 40, 41)
a. The rope dropped t down to John
b. *John dropped t (down) the rope

Both Baker and Hudson implicitly assume that direct objects of simple transitive (dyadic) verbs behave alike with respect to the various diagnostics they use to distinguish the two internal arguments of ditransitive verbs: goal/IO versus theme/DO. I show here that this assumption is unfounded. Of the six asymmetries between IO and DO discussed by Baker, only two are specific to the double object construction: namely, movement and quantifier scope interaction, because they refer to the relation between the two internal arguments. I argue that at least the first three diagnostics are sensitive not to grammatical function but to thematic role, since the effects show up with monotransitive verbs just as clearly. I consider two of these diagnostics here, synthetic compounds and secondary predication.

1.2. Synthetic compounds

One of Baker's arguments is based on synthetic compounds. Observing first that a prepositional object cannot be compounded (cf. *relative-depending), he proposes to account for the impossibility of incorporating the IO of ditransitive verbs in terms of a null preposition.

(9) a. *relative-depending (from depend on relizes) incorporated object
   b. book-reading, gift-giving: letter-writing, incorporated DO

On the basis of these contrasts, Baker concludes that "Goal role is necessarily assigned by a preposition and Ps cannot appear in compounds" (Baker, 1997: 106).

However, the facts concerning synthetic compounds are far more complicated. First, there are mysterious contrasts involving direct objects which presumably bear the same thematic role but differ in some other way.

(10) a. Poetry-reading is not popular.
b. *Shakespeare-reading is required of all high school students.

More significantly, simple transitive verbs do not all behave alike. The direct objects of dyadic verbs like help, invite, reach, telephone, thank, visit cannot appear in synthetic compounds any more than the indirect objects of ditransitive verbs can.
(11) a. *Station-reaching on time is our goal.
   b. *Goal-reaching can be difficult.
   c. *Relative-visiting can be boring.
   d. *Dentist-visiting is no fun.
   e. *Host-slaking is common courtesy.
   f. *Friend-phoning after midnight makes parents angry.
   g. *Guest-inviting for the wedding took forever.

These are all verbs whose objects are often described as having the theta role goal rather than theme. The fact that the goal object of a ditransitive verb behaves like the IO, and unlike the DO, of a ditransitive verb shows that contrasts like those in (9) cannot be used as a diagnostic for grammatical function, as Hudson (1992) assumes. And unless one is willing to analyze the direct objects of these simple transitive verbs as (underlyingly) the objects of a null preposition, the constraints also suggest the existence of a thematic restriction against goal arguments occurring in such compounds.

1.3. Adjectival secondary predicates

Another of Baker's arguments is based on adjectival secondary predicates. A well-known descriptive generalization is that delicative and resultative APs can be predicated of a direct object but not the object of a P, as illustrated by the contrast shown in (3); this restriction is normally attributed to a c-command condition on secondary predication. Williams (1980) observed a further restriction for native verbs: a secondary predicate cannot be predicated of the goal argument of a ditransitive verb, even when it is not expressed as the object of to. This restriction is sometimes referred to as the Theme Condition (Anderson, 1976; Rappoport, 1991, 1993). Baker makes the following claim:

(12) "Indeed, (23d) *I gave Mary the meat hungry] is the only situation in which an AP cannot be predicated of a bare NP that is inside VP" (Baker, 1997: 90)

But this is not a descriptively accurate generalization. Consider the examples below which involve direct objects of simple two-place predicates. The object-host reading is unavailable. The predicative AP would normally be understood as modifying the subject NP, but this reading has been ruled out by including an attributive modifier e.g. sober, which conflicts with the meaning of the delicative AP, e.g. drunk.

(13) a. *The sober dean helped the student to his room drunk
   b. *The only healthy nurse visited the patient at home sick

1 This structural condition on predication is not universal. As discussed in Section 4, virtually any NP, including prepositional objects, can have a secondary predicate in Japanese.
2 The intended object reading may be marginally available if separated by a strong enough pause.

c. *The elegantly-dressed CEO invited the animal rights protesters inside stark-naked.
   d. *The sober dean telephoned the student at home drunk.

Just like the IO of a ditransitive verb, the direct object of these two-argument verbs cannot host a predicative AP.

Conversely, it is sometimes possible to predicate a delicative AP of a NP which is an indirect object or object of a P, which are widely assumed not to c-command the secondary predicate.1

(14) a. The brain surgeon had to operate on the patient wide-awake.
   b. The perverted orderly liked to look at female patients nude.
   c. Victorian doctors preferred to give their female patients a physical exam fully-dressed.
   d. The nurse gave the patient his medication still-groggy/half-asleep.

The picture is obviously far more complex than one would assume from reading Baker or Hudson.

1.4. Theoretical issues

What are the implications of these contrasts for syntactic theory, in particular, for the Uniformity of Theta Assignment Hypothesis (UTAH)?

(15) The Uniformity of Theta Assignment Hypothesis (UTAH)
   a. "Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure." (Baker, 1988: 45)
   b. "Arguments bearing similar thematic roles are expressed in similar initial structural positions both within and across languages ... [T]he alternations in the realization of arguments of a predicate that one does find are either the result of different conceptualizations of the event, or the result of syntactic movement processes" (Baker, 1997: 104–105)

Baker suggests that goals always receive their theta-role from a (possibly null) preposition. The logical consequence of this is clear: in accordance with UTAH, the objects of simple transitive verbs like help, invite, thank, telephone, visit must also be (underlyingly) the objects of a null preposition. Not all linguists will find this to be an acceptable level of abstraction.

An alternative is that the restrictions on synthetic compounds and nominalizations are thematic rather than configurational. If this suggestion is correct, the observed contrasts provide evidence that lexical rules need to refer to the content of theta-roles.

1 See also Whetstone (1995) for similar examples of control of Purpose clauses where the controller is either an indirect object or is headed by a preposition.
and not just their relative position in a verb’s theta-grid (contra much recent work), since a two-place predicate whose internal argument is a theme behaves differently from one whose internal argument is a goal argument. The problem, of course, is whether we can accurately identify the thematic role that a given verbal argument bears. We cannot simply rely on our intuitions about the difference between themes and goals. I assume that theme is defined as the argument that undergoes the action or motion or change of state described by the predicate.

(16) The theme is the entity which undergoes the (physical) change of state or location.

It is not straightforward to apply such definitions to a given verbal argument. Unfortunately, linguistic theory still awaits a full Lexical Conceptual Structure (LCS) analysis of verbs; so in the meantime, we will have to rely on other syntactic tests to support these intuitions. The difference between theme and goal arguments is reflected in English nominalizations in at least two ways: (i) in the choice of preposition, and (ii) for deverbal process nominals, in the interpretation of adnominal genitives as corresponding to the verb’s subject or object. Some English examples are given in (17)–(18):

(17) Our help/thanks *of the hostess went unacknowledged. (Wasow, 1977: 388)

(18) a. the student’s help ambiguous agent or theme)
   b. the student’s rescue (unambiguous agent only/thematic goal)

The relevant generalizations are as follows. First, themes but not goals can be marked with the case-assigning preposition of, as illustrated in (17). Second, themes but not goals can be linked to the adnominal genitive position when the head N is a deverbal process nominal, as shown in (18). Wasow (1977: 338) expresses the difference in terms of grammatical functions, e.g. the verbs help and thank are said to take “indirect objects” as their objects. In his comments on Wasow’s paper, Anderson (1977) interprets the distinction instead as one of thematic role (goal vs. theme).

Since the objects of transitive verbs do not all behave alike, it follows that Theme cannot be treated as the default theta-role on verbal objects. Rooper (1993) assumes that the object of the verb help is a Theme, and hence the verb has an [AG, TH] argument structure. This assumption is made explicit in his representation of the passive:

(19) John was helped by Bill. (Rooper, 1993: 189, ex. 15) [AG, TH]

Rooper observes that the verb’s object is ‘unprojectable’, in that the deverbal nominal help does not allow the object to be expressed as either an of-phrase or a preverbal genitive: note that in the NPs in (20a), John can only correspond to the subject argument of the corresponding verb:

(20) a. the help of John/John’s help (John = subject, #object)
   b. John’s defeat: John’s rescue; John’s murder (John = subject or object)

Because he fails to consider thematic role, Rooper mistakenly attributes the unprojectability of the object of help to zero-affixation, and goes on to develop an account in which the zero-affix blocks the percolation of the internal argument. But this hypothesis fails to account for the contrast between help and the many zero-affix deverbal nominals (including rescue, defeat and murder) that do allow expression of the object as an objective genitive. Like the analyses of Fagan and Holmberg and Plazack discussed below, this example clearly illustrates the danger of the widespread tendency to treat theme as the default theta-role on objects.

1.5. The role of morphological case

With this discussion of English as background, we can now turn to the questions posed at the beginning of this paper. To what extent does morphological case serve to encode either grammatical function or thematic role? How can we tease apart these grammatical notions? How does dative, the prototypical case of the indirect object, fit into the picture? For the purposes of discussion, I will ignore the possibility of lexical case-marking other than dative. Under this simplified picture, dative and accusative are the only possible morphological cases on verbal objects. The prototypical mappings between morphological case, grammatical functions and thematic role are shown in the first two lines of Table 1. The remaining logically possible combinations are shown in lines 3–6.

<table>
<thead>
<tr>
<th>m-case</th>
<th>b-role</th>
<th>GF</th>
</tr>
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<tbody>
<tr>
<td>Direct Object</td>
<td>dative</td>
<td>theme</td>
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<tr>
<td>Indirect Object</td>
<td>accusative</td>
<td>goal</td>
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<td>Direct Object</td>
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<td>theme</td>
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<tr>
<td>Indirect Object</td>
<td>accusative</td>
<td>goal</td>
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</tbody>
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Recall that for the purposes of this paper, I am using the traditional notion of IO, which by definition bears a goal-type theta role, rather than the linearly first object which might be considered the direct object by the syntactic criterion of passivization. The traditional semantic definition of the term IO makes the distinction between grammatical function and thematic role redundant. For this reason, Table 1 has only six rows rather than the expected eight, since by definition, the theme argument of double object verbs will never be assigned to the function ‘indirect object’. For two-argument verbs, however, there are four possible mappings between m-case
and thematic role. For a sketch of the case-marking on verbal objects in Icelandic, see Appendix A.

The remainder of this paper is divided into two sections. Section 2 is about the correlation between dative case and the GF 'Indirect Object'. I look at the co-occurrence restrictions on both accusative and dative objects, and argue that morphological case is not the constraining factor. Section 3 is concerned with the correlation between dative case and thematic role. Dative is, of course, not only the prototypical case on indirect objects, but cross-linguistically the case most likely to occur on the goal-like objects of verbs like help, thank, invite, visit, etc. I look at a number of examples in the morpho-syntax of Germanic languages where appeal has been made to the presence of lexical case-marking on verbal arguments in order to account for observed restrictions. In each case, examination of further data shows that lexical case does not play a role in restricting lexical rules. The evidence from adnominal genitives, middle formation and secondary predication shows that accusative goals behave in most respects just like dative goals. Finally, in Section 4, I briefly discuss two constructions where the presence of m-case seems to be the constraining factor.

2. The mapping between dative and the GF indirect object

As noted earlier, there is a widespread assumption that there is a one-to-one mapping between morphological case and GFs. While NOM subjects, ACC objects, and DAT indirect objects are the unmarked state of affairs cross-linguistically, they are not the only possibilities. As Den Besten himself notes, exceptions to this general pattern must be allowed for verbs which govern a nonstandard case on an object. It has traditionally been assumed that the grammatical subject is always NOM, and the nominative NP (other than a predicate nominal) is necessarily the grammatical SUBJ; work on Icelandic and other languages has demonstrated convincingly the existence of both non-nominative subjects and nominative objects (see Zaenen et al., 1985, inter alia). It is well-known that lexical (a.k.a. inherent or quirky) case may block the application of syntactic rules which effect changes in grammatical function. For example, lexically case-marked NPs cannot undergo passive in either German and Russian, in the sense that they cannot become the surface grammatical subjects of passive verbs (Babyy, 1980; Freidin and Sprouse, 1991). In effect, in these languages, m-case appears to block the mapping of a lexically case-marked NP to the grammatical functions of SUBJ and DO. As is well known, no such constant exists in certain other languages, including at least one Germanic language, namely Icelandic.4 Less often recognized is the fact that indirect objects are not necessarily dative.

4 Even in Icelandic, m-case seems to play a minor role in passive. Lexical case on the theme of a ditransitive verb prevents that argument from undergoing passive as the double object use when the goal argument is realized as a NP, not as a PP (Zaenen et al., 1985; Sprouse, 1996). The situation is actually more complicated than presented in the literature because of benefactive NDA verbs like oldvelda 'to make easier', where the accusative object does not readily passivize. By benefactive, I mean an argument which can be paraphrased as a for phrase.

One goal of the theory of abstract Case is to account for the distribution of argument NPs. It is widely assumed that Case theory makes available two structural Cases, NOM and ACC, which can each be assigned to at most one NP per clause. Similarly, for languages with double object constructions, it is often assumed that there is a single DAT case available, which is assigned to the IO. This analysis works well for German, a language for which it is essentially correct that there can be at most one ACC object and at most one DAT object per clause (Czepiak, 1982; Wegener, 1991). This descriptive generalization is not a constraint on morphological case per se; nonarguments, including adverbial adjuncts and nonubcategorized 'free datives' (see below) must be excluded. Structural case must be distinguished from the semantic case associated with various adverbials. As Wegener (1991: 73) notes, adverbial accusative makes it possible to have many or four or five accusative NPs in a single clause (the example in (21a) contains one of the very few verbs which govern two accusative objects). Toman (1987: 25f) notes that adverbial accusative is available in non-case positions, e.g. as complement to a noun. These possibilities are illustrated in (21):

(21) a. Er hat vorigen Monat jeden Abend eine Stunde seinen Sohn Wörter abgefragt, words-a quizzed.

b. die Widmung letzten Monat the dedication last-MONTH month.

Many linguists have independently suggested that there is a single Spec, VP position where IOs are generated; this position is thematically restricted to 'goal-like' arguments (experiencers, recipients, benefactives).6 Depending on the analysis and/or the language, this specifier position may or may not be associated with structural dative case (cf. Wegener, 1991: Hohberg and Platzauck, 1995: 204). Dative or verbal arguments has usually been considered a lexically-ascenated case, but Wegener (1991) gives two sorts of arguments in support of the claim that dative in German is actually a structural case: (i) case alternations, e.g bekomen or Recipient passives (see Reis, 1985), and (ii) co-occurrence restrictions.7 Wegener observes that in many ways, dative case behaves just like structural accusative. For example, either a dative or recipient argument may become the nominative subject of the bekomen passive, with lack of case-preservation, just as an accusative object becomes the nominative subject of the standard passive with auxiliary sein or werden. In this paper I will discuss only the argument involving co-occurrence restrictions.

6 This does not hold for Icelandic, which has verbs taking two dative objects (see Appendix A).
7 Recall that I am using 'goal' as a cover term for this class (following Kiparsky, 1987) rather than 'experiencer', the term used by Hohberg and Platzauck (1995).
2.1. Co-occurrence restrictions on (structural) accusative in German

It has been noted several times in the literature that with a very few diachronic exceptions, German has no double accusative ditransitives (Czepluch, 1982). Wegener observes a number of co-occurrence restrictions for verbal arguments bearing structural accusative, which she interprets as indicating that a verb can assign at most one ACC case to argument NPs. She begins by noting that German lacks a Whole-part (inseparable possession) construction:

(22) a. Er packte das Kind.
    he grabbed the child-ACC
    ‘Possessor’

b. Er packte seinen Arm.
    he grabbed his arm-ACC
    ‘Body Part’

c. Er packte das Kind seinen Arm.
    he grabbed the child-ACC his arm-ACC

d. Er packte das Kind am Arm.
    ‘He grabbed the child by the arm.’

e. Er packte [den Arm des Kindes].
    ‘He grabbed the child’s arm.’

The reader might be wondering why we should expect a sentence like (c) to be grammatical, given that the verb ‘grab’ is a simple two-place predicate taking a single object. But in many languages, including Korean, which has multiple accusative constructions of various kinds including ditransitive verbs, such sentences are fine, and indeed, it is in principle possible to have an unlimited number of accusative NPs (Kim, 1990: 289f.):

    (Korean) Yumi-TOP flower-ACC tie-Pst-Ind
    ‘Yumi put flowers in the vase.’

    Yumi-TOP wreath-ACC tie-Pst-Ind
    ‘Yumi put a wreath in the vase.’

    Yumi-TOP small-camphor-ACC flower-ACC tie-Pst-Ind
    ‘Yumi burned the small camphor and put it in the vase.’

The generalization is that where a given verb can take either an ‘affected’ or an ‘affected’ accusative object, they cannot co-occur in the same clause as two accusative objects. Wegener attributes this co-occurrence restriction to the hypothesis that a verb can assign only a single structural accusative in German. Once again, cross-linguistic evidence suggests that these are not in fact reflexes of the same Case-assigning mechanism, since this co-occurrence restriction holds for at least some speakers of Korean, where as we have seen, the case resources of the language do allow for more than one accusative argument NP per clause. Although some speakers do accept such sentences, many do not allow both the ‘affected’ or the ‘affected’ object to be marked accusative.

(24) a. Sie bindet die Blumen (zu einem Kranz).
    she ties the flowers-ACC (into a crown/wreath)
    ‘Affected object’

b. Sie bindet (aus den Blumen) einen Kranz.
    ‘Effect object’

c. *Sie bindet die Blumen einen Kranz.

Thus, the limits on the Case-assigning properties of the verb in a given language cannot be the entire explanation for the co-occurrence restrictions on accusative objects noted by Wegener.

2.2. Co-occurrence restrictions on dative in German

Wegener shows that similar co-occurrence restrictions hold for dative case. The German verb stehlen ‘steal’ can take either a dative beneficiary or a dative source, but not both together, as illustrated in (27):

(27) a. Er stehlt dem Juwelier einen Ring.
    SOURCE-DAT TH-ACC
    He steals the-DAT jeweler a-ACC ring
    ‘He steals a ring from the jeweler.’

According to Sooson Kim (p.c.), wreath is felt to be a kind of small clause complement ‘... to make a wreath.’ The first NP (the affected object) can also appear with instrumental case. There is the same slight difference in meaning that holds for the sprengen alternation in English: the ACC ACC V pattern has a holistic interpretation, whereas INST ACC V pattern has a partial reading.
b. Er steigt seiner Freundin einen Ring. 
_He steals her friend's ring._

\[ \text{BEN}_{\text{DAT}} \text{TH}_{\text{ACC}} \]

‘He steals a ring for his girlfriend.’

\[ \text{BEN \ SOURCE \ THEME} \]

c. *Er steigt seiner Freundin dem Juwelier einen Ring.
_He steals his friend's ring at the jeweler._

\[ \text{*BEN}_{\text{DAT}} \text{DAT}_{\text{ACC}} \]

Er steigt seiner Freundin beim Juwelier einen Ring. 

\[ \text{BEN}_{\text{DAT}} \text{DAT}_{\text{ACC}} \]

‘Go help your father in the kitchen for a minute for me.’

d. Der David hat mir der Claudia schon zuviel 
_The David has given me too many gifts._

\[ \text{BEN}_{\text{ACC}} \text{ACC} \]

‘I think David has already given Claudia too many presents.’

This extra dative is most acceptable if it is a 1st or 2nd person pronoun located at the left edge of the VP; it is interpreted as a beneficiary or person adversely affected by the event described in the sentence. Such datives have been called either the ‘free dative’ or the ethical dative. I assume that this dative is not subcategorized for by the verb. As an adjunct rather than an argument, it is not a grammatical object, and hence not a counterexample to the descriptive generalization that German allows at most one dative object per clause.

Wegener argues that the co-occurrence restrictions follow from the hypothesis that ACC and DAT are both structural cases in German, and that a verb can assign at most one ACC and one DAT.

Exactly the same argument could be made for English. As illustrated in (29), the ‘dative’ me can have either a benefactive reading (‘for me/on my behalf’), or a recipient/goal reading (‘to me’), but the two cannot co-occur in the same clause unless one of them is realized as a PP.

(29) a. Please write me a letter of recommendation. 
_You write a letter to me._

\[ \text{BEN}_{\text{TH}} \text{TH}_{\text{GEN}} \]

‘Please write me a letter.’

b. Please write the chairman a letter. 
_You write a letter to the chairman._

\[ \text{BEN}_{\text{TH}} \text{TH}_{\text{GEN}} \]

c. *Please write me the chairman a letter of recommendation.

Since English shows the same co-occurrence restriction as German, some linguists might want to argue that the IO bears an abstract dative Case. Wegener interprets this co-occurrence restriction as evidence that German has available a single dative case, which is assigned structurally to a Specifier position. Whatever the correct account is, the descriptive generalization is that in a given clause, only one goal-like argument can be realized as a bare NP; any others must be realized as PPs.

The availability of m-case seems to provide a filter on the morphosyntactic realization of argument structure, such that in a language like German, there can be only one accusative object per clause, and only one dative object per clause. As noted above, there is no surface constraint against two dative NPs, since (as observed by both Wegener, 1991; Vogel and Steinbach, 1998), a benefactive or muteactive dative can co-occur with dative object. The following examples are from Vogel and Steinbach (1998: 77, ex. 36b-d).
Note that the restriction cannot be accounted for by disallowing more than one lexically case-marked argument per clause, since many Icelandic ditransitive verbs govern two lexically case-marked objects (see Appendix A).

Even more compelling is the fact that Korean exhibits the same co-occurrence restriction on dative arguments as German, even though it allows an unlimited number of accusative NP’s. As illustrated in (32), dative case can mark a number of different thematic roles in Korean, depending on the verb (Shih, 1996: 454; Jun, 1998).

   adult-pl-nom child-pl-dat gift-acc give-pst-ind
   ‘Adults gave children gifts.’

   the boy-top friend-dat letter-acc write-pst-ind
   ‘The boy wrote (his) a friend a letter.’

c. Chikkwu-ka na-eykey ku muncej-lul malha-yess-ta. Hearer
   friend-nom me-dat the problem-acc talked
   ‘(My) friend talked to me about the problem.’

d. Na-nun Tom-eykey cewyul-sa(a)-ass-ta. Beneficiary
   I-top tom-dat dinner-acc bought
   ‘I bought Tom dinner.’

e. Na-nun non-eykey panci-lul sa(a)-ass-ta. Source
   I-top old-nun-dat ring-dat-acc bought
   ‘I bought a ring from an old man.’

   I-top him-dat ring-dat acc-pst-ind
   ‘I robbed him of a ring.’

It is possible to have two or more dative NP’s in a single clause if the NP’s are related by inalienable possession:10

(33) a. Nay-ka Yumi-eykey ina-ey kissuha-yess-ta. (Kim, 1989: 462)
   I-nom Yumi-dat forehead-dat kiss-pst-ind
   ‘(Kim) Yumi kissed me on the forehead.’

   I-nom Yumi-dat arm-dat shot-acc give-pst-ind
   ‘(Maling and Kim) Yumi shot me in the arm.’

10 Since ey and eykey are in complementary distribution in Korean, depending on the animacy of the NP, they are generally assumed to be allomorphs of a single morpheme, glossed here as dative.

However, it is impossible to have two dative NP’s bearing different thematic roles.

   I-top old-man-dat wife-dat ring-acc buy-pst-ind
   ‘I bought a ring from an old man for my wife.’

   he-top his girl-friend-dat jeweler-dat
   panci-dat ppayas-ass-ta ring-acc rob-pst-ind
   intended: ‘He stole a ring from the jeweler for his girlfriend’

As in Icelandic, this co-occurrence restriction can be shown to be independent of the morphological case on the recipient. Some ditransitive verbs in Korean allow the IO to be marked accusative as well as dative.

   I-top wife-acc ring-acc buy-pst-ind

b. %Na-nun na-lul cikap-ul ppayas-ass-ta.
   he-top me-acc wallet-acc rob-pst-ind

Choosing this option does not, however, make it possible for the added benefactive or source to be marked dative. Rather, a more semantically specific postposition must be used:

   I-top old-man-dat wife-dat ring-acc buy-pst-ind

   he-top wife-acc wallet-acc rob-pst-ind
   ‘He robbed me of my wallet for his wife.’

   I-top old-man-source wife-dat/acc ring-acc buy-pst-ind
   ‘He bought a ring for his wife from the old man.’

   he-top wife-ben me-dat/acc wallet-acc rob-pst-ind
   ‘He stole my wallet/purse for his wife.’

Once again, we see that dative case is not to blame. How, then, are these co-occurrence restrictions to be explained? I suggest that they can best be accounted for in terms of functional uniqueness. For three-argument verbs, the various Goal-like arguments may be realized either as the object of a semantically appropriate preposition, or in some languages as a bare case-marked NP, the choice between PP or NP, and if an NP, the m-case it bears (what Baker (1997: 66) calls ‘semantic Case marker’), is subject to strict subcategorization by the verb. If the verb selects to realize a goal argument as an NP, that argument must be assigned to a grammatical function such as IO or OBJ2 (other than OBL). By functional uniqueness, only one NP
can be mapped to this function. Alternatively, one could say that such arguments compete for a single syntactic slot, a unique functional projection, Agr-IO. Whichever theoretical approach one chooses, dative case turns out not to be the constraining factor.

3. The mapping between m-case and thematic roles

In Section 2, I provided evidence that the mapping between grammatical functions and m-case is not one-to-one. Let us now turn to the relationship between morphological case and thematic roles. In this section, I discuss the constraints on middle formation, adnominal genitives to deverbal nominalizations, and the licensing of depictive predicates. The relevance of thematic role for various kinds of (lexical) rules has been pointed out by various linguists (see e.g. Hale and Keyser 1987) on middles, Tenny (1992) on nominalizations, Rapoport (1993) on depictive predicates. However, as noted earlier, there is a widespread tendency to ignore this level of grammatical representation, and instead treat theme as the default theta-role on direct objects. This oversight has led to false claims about the nature of restrictions on various roles. One example is Middle Formation in German (Fagan, 1992).

3.1. Middle formation

What about lexical rules? Can lexical case have the same blocking effect on the externalization of a verb's internal argument in the lexicon that it can have on NP-movement in the syntax? In her detailed study of middle constructions in German, Fagan (1992) argues that Middle Formation (MF) is a lexical rule which externalizes the direct theta-role, and that the rule is constrained by both syntactic and semantic/aspectual constraints, as summarized in (38).

(38) Conditions on Middle Formation in German (Fagan, 1992: Ch. 5, Table 2)

a. V does not assign lexical case;

b. V is not an achievement or state;

c. V is not ditransitive.

The conditions in (38) are intended to limit the class of verbs which are eligible for Middle Formation in German. That there is some aspectual condition on MF is fairly uncontroversial, although according to Steinbach (1998:16), the condition in (b) is too restrictive: he argues that only individual-level predicates are excluded. The restrictions in (a) and (c), however, seem to be curious, language-particular constraints. Middle Formation in English is shown to be subject to the same conditions except for the Lexical Case Constraint in (a). Fagan sensibly assumes that a language like English which lacks morphological case-marking also lacks lexical case, even abstractly.

I argue here that this constraint is unnecessary even for German. Dative is not to blame, since independently motivated semantic and aspectual conditions (Fagan, 1992: Ch. 3) will rule out middles of verbs which happen to assign lexical case to their objects in German. Moreover, I show that in Icelandic many verbs which assign dative case form middles. Thus in neither language is it necessary to assume that lexical case blocks Middle Formation.

Fagan cites only one verb, helfen 'to help', in support of her claim that lexical case blocks Middle Formation in German. She observes that there is a contrast between waschen 'to wash', which forms a good middle, and helfen, which does not:

(39) a. Der Stoff wascht sich gut.

   the fabric(N) washes REFL well
   'The fabric launders well.'

b. *Er hilft sich schwer.

   he-NOM helps REFL hard
   'He's difficult to help.'

c. *Er helps with difficulty.

Steinbach (1998: 17, 84) also observes that middle formation is always ungrammatical with verbs that select dative case on their sole object. More precisely, they cannot form personal middles; there is an impersonal middle with expletive subject es shown in (40b).

(40) a. *Der Rektor widerspricht sich leicht.

   the dean-N contradicts REFL easily
   Steinbach (1998: 84, 66a)

b. Dem Rektor widerspricht sich's leicht.

   the dean-N contradicts REFL it easily
   Steinbach (1998: 85, 66b)

Steinbach accounts for failure of dative objects to undergo MF in terms of a condition on chain formation. He proposes that dative objects are A-bar elements in syntax; since A-chains are a necessary prerequisite for MF in German, i.e. MF is limited to A-positions, which by hypothesis exclude lexically case-marked arguments. In effect, the presence of lexical case-marking blocks the mapping of an argument to the SUBJ and OBJ functions.

Fagan (1992: 167, ex. 57a,b) gives the following lexical representations for the verbs 'wash' and 'help':

(41) a. waschen (agent, patient)

b. helfen (agent, patient, lexical role)

These representations are based on the assumption that the only thing which distinguishes waschen from helfen is the presence or absence of lexical case marking on the internal argument. "The direct 0-role of waschen differs from the direct 0-role of
helfen in is that it is associated with a direct argument that receives structural case rather than lexical case” (Fagan, 1992: 164). Holmberg and Platzauck (1995: 37) make essentially the same assumption about the Icelandic counterpart hjálpa, namely that this verb assigns lexical case to a theme.

Both Fagan and Steinbach make crucial use of lexical case-marking. Note, however, that the English middle *The helps with difficulty is just as ungrammatical as its German counterpart, despite the lack of lexical case in English. This suggests that the failure of help to undergo Middle Formation might better be attributed to other factors.

What about the restriction in (38c) against ditransitives? As it has often been observed, only the direct object of a ditransitive verb can become the subject of the corresponding middle, and never the indirect object.

(42) a. Ich habe einem Linguisten ein Buch verkauft.
   ‘I sold a linguist-DAT a book-ACC.’
 b. *Ein Linguist verkauft sich leicht Bücher.
   ‘A linguist sells books easily.’
 c. Bücher verkaufen sich leicht an einen Linguisten.
   ‘Books sell easily to a linguist.’

Most IOs in German are marked dative, and externalization of these dative IOs would already be blocked by the lexical case constraint in (38a). Fagan adds this restriction in order to block externalization of the IO argument even when it doesn’t bear lexical case; this is needed because of the few ditransitive verbs like lehren ‘to teach’ which take ACC on the indirect object as well as the direct object, at least in the standard written language.12 As Fagan notes, the verb lehren ‘to teach’ fails to form a middle, as shown in (43b). Another example is given in (44) using the verb abfragen ‘to test, quiz’.

(43) a. Er lehrt die Schüler die deutsche Sprache. (Fagan, 1992: 165, 59a)
   ‘The teacher teaches the students the German language-DAT.
   b. *Diese Schüler lehren sich (diese Sprache) schwer.
      ‘These pupils-NOM learn难 REFL this language hard.
   c. *Kinder lernen sich Fremdsprachen leicht.
      ‘Children learn foreign languages easily.’ (Fagan, 1992: 165, 59b)

(44) a. Der Lehrer hat den Schüler die unregelmäßigen Verben abgetagt.
   ‘The teacher has the student-A the irregular verbs-A tested.
   b. *Schüler fragen sich die unregelmäßigen Verben schwer ab.
      ‘Students don’t test easily on irregular verbs.’

12 This argument is complicated by the fact that for most speakers, this verb no longer takes the prescriptive ACC ACC case frame, but has assimilated to the productive DAT ACC case frame for ditransitive verbs. See Steinbach (1998: 69, ft. 33, 185).

The impossibility of MF in these examples suggests that once again, dative case is not to blame for the failure of indirect objects generally to become the nominative subjects of middles.

With this in mind, consider two-place predicates. A telling fact is that certain transitive verbs which take accusative objects also fail to undergo MF. The sentences in (45) contain the verb *bitten ‘to ask’, which governs accusative case on the ‘asker’ =

the goal of the speech act. This accusative object does not undergo MF, as illustrated in (45b). The same is true of many other monoton transitive verbs, including anregen ‘to appeal to, to phone’, bedienen ‘serve’, einladen ‘invite’, treffen ‘meet’, unterrichten ‘to instruct’, and unterstützen ‘support’, all of which govern accusative case on their objects. (Singular subjects have been chosen to rule out a reciprocal interpretation.) Note that these examples sound just as odd in English as they do in German.

(45) a. Der Angeklagte bittet den Richter um Gnade.
   ‘The defendant asks the judge-A for mercy
   b. *Der Richter bittet sich schwer um Gnade.
      ‘The judge asks REFL hard for mercy
      Intended: ‘The judge can’t easily be asked for mercy,’

(46) a. *Das Kind lädt sich leicht auf Partys ein.
   ‘The child invites easily to parties.’
 b. *Der Präsident ruft sich schwer an.
   ‘The president doesn’t telephone easily.’
 c. *Großmutter besucht sich leicht.
   ‘Grandmother visits easily.’
 d. *Der König bedient sich schwer.
   ‘The king didn’t serve easily.’
 e. *Eine Muslimein trifft sich schwer.
   ‘A modern woman doesn’t meet easily.’
 f. *Dieser Präsident greift sich schwer an.
   ‘This president doesn’t attack easily.’
 g. *Dieser Patient unterrichtet sich leicht über die Therapie.
   ‘This patient learns easily about the therapy.’
 h. *Diese Methoden unterstützen sich schwer in einem demokratischen Lande.
   ‘These methods don’t support easily in a democratic country.’

13 Steinbach (1998: 74) cites the following examples with treffen ‘to meet’ as grammatical:

(i) Der Weihnachtsmann trifft sich nicht so leicht.
   ‘Father Christmas doesn’t meet that easily.
 (ii) Freunde treffen sich in dieser Stadt öfter. (→ 37b)

Steinbach says that some verbs which are ambiguous between an activity and an achievement interpretation have only an achievement interpretation when used as a middle, thus treffen has only an achievement interpretation when used as a middle: “sentence (37a), for example does not mean that it is hard to arrange a get-together with Father Christmas but that it is hard to meet him altogether” (1998: 74); (b) is ambiguous between a middle interpretation and a reciprocal interpretation (1998: 74, ft. 41).
What accounts for the ungrammaticality of these examples? The existence of lexical restrictions on MF has been widely noted, and the exact nature of the constraints on MF has been the subject of much research. A common assumption is that MF is a rule which externalizes the direct internal argument of a verb, in other words, only verbs taking a direct internal argument can form grammatical middles (Carrier and Randall, 1992, Sec. 3.2; Rapoport, 1993; see also Ackema and Schoorlemmer, 1994, 1995). Rapoport (1993) argues that middles are possible only when the verb has a transitive LCS, i.e. when the subject of the middle is associated with the CAUSE-governed position in the LCS.

(47) a. [x CAUSE 1 y ...]]
    (Rapoport, 1993: 178, (31))
b. “Any NP in the syntax which is associated with an LCS variable in the position of the variable y in the phrase introduced and governed by CAUSE in (31) can be the subject of a middle or the host of a depictive predicate.”

It has often been claimed that only verbs with ‘affected’ internal arguments may undergo MF (Roberts, 1988; Carrier and Randall, 1992: 189, fn. 15; Fagan 1982: 65) and Steinberg (1998: 18) all note that this restriction is too strong. Fagan (1992: 76f.) argues for the relevance of a notion of ‘responsibility’, such that some property of the subject of the middle must be ‘responsible’ for the event described by the verb. What Fagan apparently did not consider in this regard is the possibility that the very factors that she discusses for these verbs will also take care of lehren, making it unnecessary to add the stipulation in condition (c) and also heften, making it unnecessary to add the stipulation in condition (a). In other words, dative case is not to blame.

Such examples suggest that the restriction is underlyingly thematic. Whatever account proves best in the long run, a consequence will be that goal arguments do not undergo Middle Formation because they are the wrong kind of internal argument. They are not ‘affected patients’ or ‘themes’ or ‘responsible’ participants, or do not occur in the right position in the verb’s LCS. What I wish to emphasize here is that whatever accounts for the often-cited contrast between direct and indirect objects is not limited to the IO of ditransitive verbs. The DO of two-place predicates do not form a homogeneous class. The following minimal pair nicely illustrates this.14

    (Theme)
   b. *Cats scratch most easily under the chin
    (Experiencer)
    (Intended: it is easiest/best to scratch a cat under the chin.)

Recall that invoking a lexical case restriction was motivated by the assumption that the presence of lexical case marking on the object of helfen is the only difference

Note the blank entries in the row for dative-marked themes. There is a partial correlation between m-case and thematic role in German, namely, theme arguments never bear lexical case. Thus, although there exist accusative goal arguments, there are no dative themes. The obvious question to ask is whether there exist any languages in which this restriction does not hold. The answer to this question is, fortunately, yes: there is at least one such language, namely, Icelandic. (See Appendix A for detail.)

3.2. Middle formation in Icelandic

If MF is the externalization of an affected patient/theme argument, and Icelandic has lexically case-marked themes, then it should come as no surprise that lexical case does not block MF in Icelandic. The middle in Icelandic is morphologically marked by the addition of an -tr suffix rather than an independent reflexive pronoun as in the German middle.15 The examples below are all formed from verbs which take dative objects in the active voice. Note both the lack of case-preservation accompanying externalization of this argument, and the fact that this argument may be either animate or inanimate.

(49) a. Oli og vatn blandast illa saman.
oil and water mix poorly together
b. Fólk breytist aðrei.
People never change.
c. Þessi síði breytist í núum.
this sofa converts into a bed
d. Myndin hellist síðar núor ár þessum bolla.
‘Milk spills less easily from this sort of cup.’

14 Kindle Lambrecht (p.c.) points out that the contrast which I interpret as theme vs. experiencer is encoded by different lexical items in German (braten vs. brühen) and in French (s)oyer vs. griller/grissilluer.

e. Lyklar sýnastr ógjaldan.
   keys get lost not seldom
   ‘Keys often get lost.’
f. Dedís hufði látsst ekki.
   this door locks not
   ‘This door doesn’t lock.’

However, not all verbs which govern dative case form grammatical middles. On the intended reading where the nominative subject of the middle corresponds to the dative object of the active voice verb, the following examples are just as ungrammatical as their English counterparts.

(50) a. *Gamah fólk hjálpast illa.
   ‘Old people don’t help easily.’
b. *Táningar bakkast illa.
   ‘Teenagers don’t thank easily.’
c. *Foreldrar tileinkast aðveðrlega.
   ‘Parents dedicate to easily.’
d. *Börn hjóðast aðveðrlega heim.
   ‘Children invite home easily.’
e. *Hundar gefast aðveðrlega.
   ‘Dogs feed easily.’
f. *Börnin hóttast aðveðrlega.
   ‘Children threaten easily.’

As expected, many verbs taking accusative objects do form good middles, as illustrated in (51):

(51) a. Barnið fannast aftir mikla leið.
   ‘The child was found after a long search.’
b. Kvenntúfinnar hefjast kl. 9.
   ‘Classes begin at 9.’
c. Íþróttir heyndist langa leið.
   ‘The squad is easily heard from afar.’
d. Laxar lýjast ekki (aðveðrlega).
   ‘Lax don’t tire (easily).’
e. Gluggarnar opinast aðveðrlega.
   ‘The windows open easily.’
f. Borður seljast vel um jól.
   ‘Books sell well at Christmas.’

Not surprisingly, however, accusative case marking on an object is no guarantee of an acceptable middle. On the intended reading where the nominative subject of the middle corresponds to the accusative object of the active, the following examples are just as ungrammatical as their English translations.

(52) a. *Viðskiptavérn aðstofðast aðveðrlega.
   customers assist easily
   b. *Veitbóðin stýjastr aðveðrlega.
   hunting.haüs support easily
   c. *Anna heimsækist aðveðrlega.
   Grandma visits easily
   d. *Konur kveðjast illa.
   women say good-bye to poorly
   ‘Women don’t say good-bye to easily.’

The facts for Icelandic are summarized in Table 3, which shows clearly that the ability of a verb to form a middle is correlated not with the morphological case assigned to the verb’s object, but rather with the thematic role assigned to that object.

<table>
<thead>
<tr>
<th>0-role</th>
<th>m-case</th>
<th>Icelandic verb</th>
<th>Middle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme</td>
<td></td>
<td>opna ‘to open’</td>
<td></td>
</tr>
<tr>
<td>Theme</td>
<td>Dat</td>
<td>loka ‘to close’</td>
<td></td>
</tr>
<tr>
<td>Goal</td>
<td>Acc</td>
<td>aðstoða ‘to assist, help’</td>
<td>aðstoðast</td>
</tr>
<tr>
<td>Goal</td>
<td>Dat</td>
<td>hjálpa ‘to help’</td>
<td>hjálpast</td>
</tr>
</tbody>
</table>

Why, then, does lexical case appear to block MF in German, when it so clearly does not in Icelandic? The explanation for this apparent contrast lies, I have suggested, lies in the different distribution of lexical case in the two languages. It is only in Icelandic that a lexically case-ranked NP will meet the semantic and aspectual restrictions on MF. Precisely because lexical case can be assigned to themes in Icelandic, as well as to goals/experiencers, it is possible to show that it is not the presence of lexical case per se that blocks Middle Formation. Whatever the correct account for the failure of goal arguments to externalize, the presence or absence of lexical case marking on the verbal object is irrelevant. Once again, dative case is not to blame.

I have argued that dative case is not to blame for the failure of certain verbal objects to undergo MF in German. Let us now turn to similar evidence for that dative case is not to blame for observed constraints in two other constructions which pattern with MF, namely, the licensing of secondary predicates and adnominal genitives.

3.3. Debitive predicates

Independent support for a thematic restriction on MF comes from the clear contrast in which verbs license secondary predicates on their objects. It has been argued that object-hosted debitive predicates are restricted by the thematic role assigned by the verb to its object. Consider the well-known contrasts in (53):
(53) a. Pat sold the boy [the fish], fresh.
b. "Pat sold [the boy], the fish hungry."

Williams (1980) suggests that predication is restricted to cases in which the NP is the 'theme' of the verb, thus accounting for observed contrast between the DO and IO as possible hosts. In (a), the depictive adjective fresh modifies the theme the fish, so the predication is acceptable; in (b) the predicate hungry modifies the NP the boy, which is the goal. The sentence is therefore ungrammatical.

The same contrasts are found in German, as illustrated below.

(54) a. Ich habe Maria den Fisch roh serviert.
    'I served Maria the fish raw.'
b. Ich habe Maria den Fisch nackt serviert.
    'I served Maria the fish naked/ungarnished.'

The host of the depictive adjective nackt 'naked' in (54b) can be either the subject ich or the object den Fisch (in which case it means 'ungarnished'), but not the indirect object Maria. This is brought out more clearly in the following example where nackt precedes the DO, and the subject-host reading is contradictory.

(55) a. Der elegant gekleidete Arzt hat die Frau nackt den Fisch serviert.
    'The elegantly dressed doctor served the woman the fish naked.'

As in English, a prepositional object cannot host a depictive predicate. Thus the following examples are ungrammatical; in (56b), the generally available subject-host reading is ruled out by the presence of the semantically contradictory adjective 'sober'.

(56) a. Ich stelle den Fisch in den Backofen sehr häufig.
    'I put the fish into the oven very often.'
b. Die nüchterne Hure versucht sich mit ihrem Freier betrunken.
    'The sober prostitute enjoyed herself with her client drunk.'

These are the sort of data which have been taken to support the hypothesis that IOs are endearingly the object of a null preposition. Once again, what gets overlooked in this regard is that the same contrasts can be found with two-place (dyadic) predicates taking a single object. The standard examples of secondary depictive adjectives involve accusative objects as hosts; some examples are given below.

(57) a. Der elegant gekleidete Arzt hat die Frau nackt untersucht.
    'The elegantly dressed doctor examined the woman naked.'
b. Der nüchterne Anwalt hat mich betrunken in den Zeugenstand getragen.
    'The sober lawyer called me-ACC drunk to the witness box.'
c. Die nüchterne Hure genoß ihren Freier betrunken.
    'The sober prostitute enjoyed her client drunk.'

d. Das has approximately the same meaning as (56b), but is grammatical since the intended host is now a direct object rather than the object of Preposition. An interesting contrast is provided by the sentence in (58), to be compared with the ungrammatical (55).

(58) Der elegant gekleidete Kellner servierte die Frau nackt.
    'The elegantly dressed waiter served the woman naked.'

This sentence is grammatical on what might be called the 'Greenaway reading', referring to Peter Greenaway, a famous British movie director. In his movie 'The cook, the thief, his wife and her lover', a naked woman is served up on a platter at a dinner party. On this reading, the naked woman is, of course, the accusative theme rather than the (dative) goal, and as such, can host the depictive predicate.

As expected, the dative objects of verbs like helfen 'help' and danken 'thank' cannot host a depictive adjective, as illustrated by the following examples:

(59) a. Der elegant gekleidete Arzt hat der Frau nackt ins Büro geholfen.
    'The elegantly dressed doctor helped the woman-D nackt into the office.'
b. Der nüchterne Gast hat seinem Wirt betrunken gedankt.
    'The sober guest thanked his host-D drunk.'
c. Der nüchterne Student hat seinem Professor betrunken widersprochen.
    'The sober student contradicted his professor drunk.'

But the failure of the objects of these verbs to host depictive adjectives cannot be blamed on dative case. First, as illustrated by the examples in (60), certain dative arguments can host a depictive adjective:

(60) a. Betrunken gefällt ihm diese Frau am besten. (ambiguous)
    'Drunk pleases him-D this-N woman best '
    'Drunk he likes this woman best.'
b. Betrunken ist hier der Plan nicht geleugnet.
    'Drunk, he didn't succeed in his plan.'
c. Betrunken kommt mir diese Nachricht komisch vor.
    'This news seems strange to me drunk.'
d. Betrunken mißlingt mir Marmonluchsen immer.
   'Drunk I never succeed in making a marble cake.'

e. Betrunken erscheinen mir solche Analysen immer richtig.
   'Drunk appear me-D such analyses-N always right'
   'Such analyses always appear right to me drunk.'

Note that in (60a), the verb gefallen 'to like' takes two animate arguments which could potentially host the adjective betrunken; this German sentence is ambiguous exactly like its English counterpart, despite the dative case-marking on the experiencer argument. Let us assume that the thematic hierarchy ranks Agent > Experiencer > Goal > Theme. I suggest that the reason precisely these dative experiencers can host depictives is that they are thematically the highest argument of these verbs, since the nominative argument is a theme, rather than an agent, as in the case for a verb like 'help'.

A second argument for assuming that dative case is not to blame for the failure of dative objects of genitive verbs to host secondary predicates is based on the many objects which cannot host a depictive adjective even though they are bear accusative case, as illustrated by the examples in (61). 18

(61) a. *Die nüchterne Frau hat ihren Mann betrunken angemessen.
   'The sober woman called up her husband drunk.'

b. *Der elegant gekleidete Kellner bediente die Frau nackt.
   'The elegantly dressed waiter served the woman naked.'

   'A sober bar tender served the customer drunk.'

d. *Der nüchterne Angeklagte rief den Richter betrunken um Gnade an.
   'The sober defendant appealed to the judge-ACC drunk for mercy.'

e. *Die nüchterne Frau bat den Richter betrunken um Milde.
   'The sober woman asked the judge-ACC drunk for leniency.'

f. *Der elegant gekleidete Arzt hat den Patienten nackt über die Therapie unterrichtet.
   'The elegantly dressed doctor instructed the patient-ACC naked on the therapy.'

g. *Die nüchterne Frau hat ihren Freund betrunken nach Hause eingeladen.
   'The sober woman invited her friend-ACC home drunk.'

18 Some speakers describe the object reading not as completely ungrammatical, but simply disregarded. The point is that for all speakers there is a contrast. Some speakers allowed a depictive on the indirect object of traditionallly ACC-ACC verbs like teihen/kreinen, aufgehen, independently of the actual case marking on the IO, eventhough they didn't accept MP applied to the same argument.

(i) *Der nüchterne Lehrer las den Schüler betrunken die Verben abgefragen.
   'The sober teacher tested the student-A drunk [on] the verbs.'

(ii) *Der nüchterne Priester hat mir das Gedicht betrunken gelesen.
   'The sober priest taught me-D drunk the poem.'

h. **Der elegant gekleidete Arzt wollte den Patienten nackt im Krankenhaus besuchen.
   'The elegantly dressed doctor wanted to visit the patient-ACC in the hospital naked.'

i. **Der nüchterne Priester hat den Studenten betrunken ein Gedicht lehren wollen.
   'The sober priest wanted to teach the student-ACC a poem drunk.'

Whoever accounts for the failure of these accusative objects to host depictives will also account for the failure of dative objects to host depictives, without appeal to dative case. The pattern for German is summarized in Table 4.

<table>
<thead>
<tr>
<th>object role</th>
<th>m-case</th>
<th>German verb</th>
<th>object as host of depictive predicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme</td>
<td>Acc</td>
<td>untersuchen 'examine'</td>
<td>possible</td>
</tr>
<tr>
<td>Theme</td>
<td>Dat</td>
<td>nute</td>
<td>beteten 'serving'</td>
</tr>
<tr>
<td>Goal</td>
<td>Acc</td>
<td>beteten 'serving'</td>
<td>not possible</td>
</tr>
<tr>
<td>Goal</td>
<td>Dat</td>
<td>helfen 'help'</td>
<td></td>
</tr>
</tbody>
</table>

3.4. Nominalizations

Another construction which distinguishes clearly between theme and goal arguments comes from deverbal process nominal. The same factors (e.g. affectedness) are often assumed to constrain both nominalizations and middle formation (Tenny, 1992), and object-host depictives (Rapoport, 1993). The difference between theme and goal arguments is reflected in English nominalizations in at least two ways: (i) in the choice of preposition and (ii) for deverbal process nominals, in the interpretation of adnominal genitives as corresponding to the verb's subject or object. Some English examples are given in (62)-(63):

(62) Our help/thanks to of the hostess were unacknowledged.

(63) a. the student's rescue (ambiguous: either subjective or objective genitive)
    b. the student's help (unambiguous: subjective genitive only)

The relevant generalizations are as follows. First, themes but not goals can be marked with the case-assigning preposition of, as illustrated in (62). Second, themes but not goals can be linked to the adnominal genitive position when the head N is a deverbal process nominal, as shown in (63). Wason (1977: 338) expresses the difference in terms of grammatical functions, e.g. the verbs help and thank are said to take 'indirect objects' as their objects. In his comments on Wason's paper, Anderson (1977) interprets the distinction instead as one of thematic role (goal vs. theme).
Toman (1987) discusses argument structure inheritance in nominalizations in German. He observes that inherent case, that is, dative or genitive on verbal objects, cannot be realized as such in a nominalization; in particular, adnominal datives are excluded.\(^{19}\)

(64) a. *die Hilfe meinem Freund  
   the help my-DAT friend  
   (Toman, 1987: 22)

Toman argues that this restriction has nothing to do with the inheritance of lexically case-marked arguments, which can be realized in AP's where dative complements are allowed. The output of nominalization is limited by language particular constraints on NP-structure: the exclusion of adnominal datives follows directly from the base hypothesis or structure-preserving principle (Emonds, 1976), since independently of nominalizations, the P-S rules for NPs in German do not admit adnominal datives. This exclusion of dative complements from NPs is a clearly language-specific restriction, as shown by the fact that in Russian, for example, lexical case on a verbal argument is inherited in the nominalizations of transitive verbs governing Dative, Genitive or Instrumental on their object.

(65) a. sosěd, pomůč stariků  
   'the neighbor helped the old man-D'  
   b. půmost, sosěd, stariků  
   'the neighbor's help [to] the old man-D'  
   c. *pomost, stariků, sosědů  
   sosědom

(66) a. stariků, ovtřet sosědů  
   'the old man answered the neighbor-D'  
   b. ovtřet stariků, sosědů  
   'the old man's answer [to] the neighbor-D'  
   c. *otvět sosědů, stariků

Something more needs to be said about what rules out the Instrumental marking on the Agents if adnominal genitive has not be used, as in (65c) and (66c), but it is clear that because lexical case on a verbal object is obligatorily inherited, a Russian nominalization can have two adnominal NPs: a structural genitive plus a lexically case marked complement. But in Germanic languages, at most a single adnominal genitive is allowed; any other verbal arguments must be expressed as the object of a semantically appropriate preposition. Toman assumes that the exclusion is due to the obligatory preservation of inherent case on the dative, which by assumption is inherently associated with a given verbal argument in the lexicon, and must therefore be inherited by the nominalization.

3.4.1. Icelandic nominalizations

What about nominalizations in Icelandic? At first blush, Toman's argument would seem to carry over to Icelandic. The Icelandic counterparts to the examples in

19 Toman shows (1987: 25) that adnominal genitive case must be distinguished from 'ad-verbal' genitive, which cannot be inherited: *der Gedenken der Soldaten* 'her memory the-soldier-GEN'.
However, accusative case-marking is neither a necessary nor a sufficient condition. Many dative objects can also map to the adnominal genitive position; some examples are given in (70):

(70) a. býrgun sjómannsins
   "the rescue of the sailor"
   Péir býrguðu sjómannum.  
   they rescued the sailor-
   DAT
b. breyting fundarins
   "change of the meeting time"
   Ég breytti fundarins.  
   I changed the.meeting.
   time-DAT
c. eyðing skjálsins
   "deletion of the file"
   hann eyði skjáluða óvært.  
   he deleted the file-
   DAT unawares
D. fæstun fundarins
   "the postponement of the meeting"
   hann fæst til fundarins.  
   he postponed the.meeting-
   DAT T
E. lokum verslunarins
   "the closing of the store"
   hann loknaði verslunins kl. 9.  
   she closed the.store-
   DAT at 9
F. náuðgun konunnar
   "the rape of the woman"
   hann náuðgandi konunn.  
   he raped the.woman-
   DAT
G. seisknun vélarins
   "the delay of the plane"
   flugfélögæð seisknali vélami.  
   the.aerline delayed the.
   plane
H. umhylting alls hér í skólanum
   "the change of everything here in the school"
   Péir umhyltingu verðlaunum eftir mótið.  
   they distributed the.prizes-
   DAT after the meet
I. útbyrðing geirfræðins
   "extermination of the great auk"
   Íslandningur útbyrðu geirfræðinum.  
   Icelanders exterminated the.
   great.auk-
   DAT
J. útskáufun morðingjans
   "banishment of the murderer"
   Péir útskáfuðu morðingjanum.  
   they banished the.murderer-
   DAT

On the other hand, many accusative objects cannot map to the adnominal genitive position, as illustrated in (71). Only the subjective genitive reading is available for these examples.

(71) a. aðstoð víðskiptavinarins
   "the customer’s assistance"
   # support to the customer
b. heimsókn sjúklinga
   "the patient’s visit"
   # heimsókn grafið
   DATc. *heimsókn grafarins
   "the grave’s visit"
   d. kvæðja heilurgessins
   "the guest of honor’s saying good-bye"
   * kvæðja heilurgessi
   DAT e. *banágg köpinga
   "deathblow of the scallop"
   *banágg köpinn.20

These are all verbs whose objects are thematically goals. Even when they are the direct objects of the base verbs, not the objects of a preposition, goal arguments must be realized as PP complements to the derived nominal.

(72) a. aðstoð við víðskiptavinnar
   "assistance to the customer"
   b. heimsókn til grafarins
   "a visit to the grave"
   c. kvæðja til heilurgessins
   "saying good-bye to the guest of honor"
   d. stuðning við hvalveitinn
   "support for the whaling ban"

Not surprisingly, goal objects which are marked dative cannot map to the adnominal position either. Only the subjective genitive reading is available for the following examples.

(73) a. heimaboð kennarans
   "the teacher’s invitation to his/her own home"
   * the invitation of the teacher to one’s home
b. hjálp kennarans
   "teacher’s help"
   c. hólm kennarans
   "teacher’s threat"
   d. toldinnurð fundarins
   "the author’s dedication"
   e. *toldinnurð konunnar af ríhið fundarins
   dedication wife-GEN by the author
f. fiskasla Evrópuhins
   "the sale of fish by Europeans"
   # the sale of Fish to Europeans
g. verðlaunahiltun sigurvegarann
   "the prize-distribution by the winners"
   h. verðlaunaverðing sigurvegarann
   "prize-awarding by the winners"
   i. vínumverðing gestanna
   "wine-offering by the guests"
   * the offering of wine to the guests
j. þók kennarans
   "the teacher’s thanks"
   * thanks to the teacher
The results are summarized in Table 5. The descriptive generalization is that goal arguments cannot map to adnominal genitive position in Icelandic, regardless of the morphological case they happen to bear as a verbal object.

Table 5

<table>
<thead>
<tr>
<th>Icelandic Nominalizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object role</td>
</tr>
<tr>
<td>Theme</td>
</tr>
<tr>
<td>Theme</td>
</tr>
<tr>
<td>Goal</td>
</tr>
<tr>
<td>Goal</td>
</tr>
</tbody>
</table>

3.4.2. German nominalizations

We would therefore expect the same to be true of German. As expected, many accusative objects can map to the adnominal genitive position, whereas a dative object never can. Thus, a NP like die Rettung des Seemanns 'the sailor’s rescue' is in principle ambiguous. By now, it should come as no surprise that we find the same pattern as we did for MF and secondary predication. Many accusative objects can map to the adnominal genitive position, as illustrated in (74).

(74) a. Die Rettung des Heißluftballonfahrers verlief ohne Zwischenfall.
   'The rescue of the balloonist proceeded without incident.'

   b. Rettungen der Küstenwache verlaufen in der Regel ohne Zwischenfälle
   (objective genitive)

   c. die Zerstörung der Stadt
   'the destruction of the city'

   d. die Taufe des Kindes
   'the christening of the child'

It is not surprising that dative objects cannot correspond to the adnominal genitive. The noun phrases in (75) allow only the subjective genitive interpretation.

(75) a. die Hilfe des Priesters
   'the priest’s help'

   b. der Dank des Wirtes
   'the thanking of the host'

   c. der Widerspruch des Papstes
   'the pope’s contradicting'

   d. expressing thanks to the host

   e. contradicting the pope

   (subject reading only)

Clever judgments can be obtained by adding a 'subject' in the form of a prenominal possessive, thus ruling out the subject reading for the adnominal genitive. The verbal object must be realized as the object of a semantically appropriate P; compare the ungrammatical examples in (76) to the grammatical nominalization in (77) where the goal argument is realized as a PP rather than an adnominal genitive.

(76) a. *seine Hilfe der Hinterbliebenen
   (intended: his help for the bereaved)
   his help of the survivors-GEN

   b. *die Hilfe der Hinterbliebenen durch den Priester
   the help of the survivor-GEN through the priest
   the help of the survivor-GEN through the priest
   the help of the survivor-GEN
   (intended: the priest’s help for the bereaved)

   c. *ihre Dank des Wirtes
   (intended: her thanks to the host)
   her thanks of the host-GEN

   d. *seiner Widerspruch des Papstes
   (intended: his contradicting of the pope)
   his contradicting of the Pope-GEN
   his contradicton of the Pope-GEN

(77) Ihr Dank an den Wirt
   'her thanks to the host'

However, just as with MF and depictive predicates, the lexical dative case associated with the verbal objects is not what prevents them from occurring as adnominal genitives. The same goal-like accusative objects which cannot host depictives or undergo MF also cannot occur as adnominal genitives.

(78) a. Die Bitte des Priesters an die Verzeihung war optimistisch.
   'The request of the priest for forgiveness was optimistic.'

   b. Er wollte den Priester um Verzeihung bitten.
   'He wanted to ask the priest for forgiveness.'

   c. *Der Arzt der Hinterbliebenen nach einem tödlichen Unfall ist immer
   nur noch lebendiger.
   'The doctor of the bereaved after a fatal accident is always alive.'

   d. Die Polizei muss die Hinterbliebenen nach einem tödlichen Unfall
   anrufen.
   'The police must call the bereaved after a fatal accident.'

21 Thanks to Ray Jackendoff for suggesting this.
c. Der Angriff des Richters (*durch den Angeklagten) war dumm.
   'The attack [by the judge-G] (*by the defendant) was stupid.'
   (only subject reading)
   cf. Der Angeklagte nahm den Richter angegriffen.
   'The defendant attacked the judge-ACC.'

d. Der konstante Angriff des Präsidenten durch die Medien ist politisch
   motiviert.
   'The media's constant attack on the president is politically motivated.'
   cf. Die Medien haben den Präsidenten konstant angegriffen.

e. Das Treffen des Studenten (mit seinem Professor)...
   'the meeting [of the student-G with his Professor]...
   (subject reading only)’
   cf. Der Professor hat einen Studenten getroffen.
   'The professor met a student-ACC.'

f. Der Unterricht der Kinder ist ausgezeichnet (can only mean 'the teaching
   done by children').
   'The instruction [of the children-G is excellent.]'
   cf. Der Lehrer hat die Kinder unterrichtet.
   'The teacher instructed the children-ACC.'

As in English and Icelandic, goal-arguments must be realized as the object of a
semantically appropriate preposition:

(79) a. Die Bitte an den Priester um Verzeihung
   'the request to the priest for forgiveness'

b. Der Angriff auf den Präsidenten
   'the attack on the president'

c. Das Treffen (des Professors) mit seinem Studenten
   'the meeting with his student'

I uncovered a number of apparent counterexamples: accusative goals which do map
to adnominal genitive in German.

---

24 This example is ungrammatical if the adnominal complement is singular; it's okay if the adnominal complement is plural, because the verb treffen 'meet' allows a plural subject with no object: Die Studenten haben sich auf dem Markt getroffen 'The students met at the market.'

25 'the meeting of the students at the market'

26 However, the following sentence is apparently acceptable (an affected object?):

   (i) das Treffen der Studenten auf dem Markt

   (subject reading only)

27 Thus the noun phrase *der Angriff der Stadt cannot mean 'the attack on the city'; this contrasts minimally with die Eroberung der Stadt 'the conquest of the city' where the objective genitive interpretation is the preferred reading.

The same pattern is found with synthetic compounds of the type discussed by Baker (1997) for English. Accusative goals, which cannot be incorporated, pattern just like
dative indirect objects.

(82) a. *Die Priesterbitte um Verzeihung
   'the priest asking for forgiveness'
   cf. Er will den Priester um Verzeihung bitten
   'he wants the priest A for forgiveness to ask...
There are rare examples of agentive compounds where the first member corresponds to the dative object of the verbal root, e.g. die Arzthelferin 'the doctor's receptionist' (literally, the doctor-helper). Such examples are not typical, however.27 Agentive compounds are productive only with accusative themes; incorporating a dative argument is not productive, as can be seen from the examples in (83):

   (intended: helper of children, the elderly or the poor)  
   b. Three-place verbs: Blutspender 'blood donor': *Kirchsprenger  
   (intended: one who donates to the church); Geldgeber 'money donor': 
   *Armengeber (intended: one who gives to the poor).

Overall, we find the same general pattern in which that goal arguments are prohibited. The ungrammaticality of the examples in (84), in which the first element of the compound corresponds to a goal argument marked accusative, shows once again that the dative case associated with the verbal objects in the above examples is not to blame.

(84) a. *Krankenbesucher (intended: one who visits the sick) 
   b. *Königbediener (intended: one who serves the king) 
   c. *Gastleinländer (intended: one who invites a guest) 
   d. *Richterbieter (intended: one who pleads to the judge)

In conclusion, I have looked at three different constructions: MF, secondary predic- 
ation, adnominal genitives and synthetic compounds, where the presence of lexical

27 Thanks to Markus Steinbach for this observation, and for providing the examples in (83).

4. Constructions where morphological case is responsible

I have argued here the presence of dative case marking is not to blame for either lexical or co-occurrence restrictions. Let me conclude that m-case serves only a purely decorative function in natural language, let me conclude by pointing out several instances where morphological case is the constraining factor. First, as noted earlier, lexical case marking does constrain the mapping of verbal arguments to grammatical functions in many languages including German, which does not allow grammatical subjects to bear lexical case. Alstott (1996: 179) observes that subjects must be nondeclarative in Romance, and further argues that this restriction cannot be reduced to a condition against the assignment of dative to an external argument. Another example where dative is the constraint factor is the phenomenon of Topic Drop in German.28 Steinbach (1985: 407, 427) observes that accusative but not dative topics can be dropped in clause-initial position, as illustrated by the following contrast.

(85) a. Was ist denn mit den Weingläsern? (Die) hab' ich schon auf den Tisch gestellt. 
   what is then with the wine-glasses? (them-ACC) have I already on the table put

28 Thanks to Markus Steinbach for this observation, and for providing the reference to Steinbach (1985).

We can control for the possible relevance of either animacy or thematic role by using verbs like einladen 'invite' and besuchen 'visit' whose objects are accusative goals.

(86) a. (Den Peter) hab' ich schon eingeladen.

The ACC Peter have I already invited.

b. (Den Peter) hab' ich noch nicht besucht.

The ACC Peter have I not yet visited.

The full acceptability of Topic Drop with such sentences shows that dative case is indeed responsible for the ungrammaticality of (85b).

The last examples I wish to discuss concern the constraints on secondary predicates. As noted earlier, secondary predicate is generally assumed to be subject to a structural condition such that the intended host must c-command the secondary predicate. (Cf. Winkler (1997) for a useful and detailed survey of the literature). The alert reader may have wondered why I provided Icelandic data on MF and nominalizations, but not on secondary predication. The reason is that Icelandic does not exhibit this structural condition. As illustrated in (87), any NP, including indirect objects and prepositional objects, can host a dative predicate.

(87) a. Osmalýf að gafa hannatun svöngam.

*Worm medication must be given to the dogs-D hungry-D.* (=i.e., on an empty stomach)

b. Aldrei skáltu gafa honum brenniví svöngam.

Never give him brennivín hungry.

c. Eg skilaði Joni bokinni ólæsinni.

I returned [to] John the book-D unread-D.

d. Eg hinosvíð af honum nesíspakkum glörsöltum og heytti honum í sjönnin.

I snatched from him-D his lunchbox ravenous-D and threw it into the sea.

e. Settu kjötð inn í ofinn elðeitan.

Put the meat into the oven-A redhot-A

Here, apparently, morphological case is to "blame". More precisely, the relevant factor seems to be agreeing morphological case, which generally makes the intended antecedent clear. As argued by Hale (1981) and Laughren (1992) for Warship, case agreement does the work of licensing secondary predicates (see also discussion by Rapoport, 1991: 179ff.). The licensing of secondary predicates is syntactic, either structural or via case agreement. Neither case alone nor agreement alone suffices to bypass the structural constraint. In Russian, for example, deictic adjectives are marked with an invariant case, instrumental, yet secondary predication is subject to the same structural constraints as in English.

It seems to be crucial that the agreement be case agreement. In Norwegian, predicate adjectives agree in number, but there is no morphological case marking. Despite the existence of number agreement on adjectives, goal objects cannot host deictic predicates. If the object is a theme, then the host of the deictic adjective can be either the subject or the object; if the object is a goal, then only the subject-host reading is available. The grammaticality judgments can be made sharper by ensuring that subject and object disagree in number. The adjective naken is singular (m/f), whereas nakne is plural.

(89) a. De så ham nakne/nakne

they saw him naked.

b. De redde ham nakne/naken

they rescued him naked-pl-sg

c. De besøkte ham nakne/naken

they visited him naked-pl-*sg

d. De hjalp ham nakne/naken

they helped him naked-pl-*sg

I conclude that it is the presence of agreeing morphological case on adjectives which serves to license secondary predicates in Icelandic even when c-command does not hold.

5. Conclusion

So, what role does morphological case play in the grammar? With only four morphological cases in Germanic languages, it would be impossible for m-case to mark each possible thematic role unambiguously, no matter how coarsely-grained one's inventory of proto roles. The so-called structural cases do not distinguish e.g. the prototypical agent subject from the experiencer subject of habellikefear. Although there is no neat one-to-one correlation between m-case and thematic role, case does serve to identify verbal arguments on a verb-by-verb basis, even in Icelandic. Recall the two senses of þóta 'to ask', where the choice between accusative and dative marks the distinction between the addressee and the benefactor. Although for many
verbs, m-case is redundant in that only one m-case can occur on the verb’s object, speakers can and do generalize across lexical entries, as evidenced by language change and acquisition data. Speakers extract generalizations based on semantic or thematic factors, and extend those generalizations to new verbs. In Icelandic, dative has been extending not only to experiencers (a phenomenon known as þágufullsýki, ‘dative-sickness’), but also to theme arguments under semantic generalization of ‘movement’ (Barddal, 1993; Maling to appear).

Nor is there necessarily a one-to-one correlation between m-case and GFs. Abstract Case theory is, I think, an unfortunate conflation of two quite distinct phenomena: (i) the licensing of NPs and (ii) the distribution of nominative/accusative as morphological cases vis-à-vis the core GFs of subject and object. Abstract Case theory is thus a theory not of morphological case, but rather of GFs. Although it is too late to take back the term ‘Case’ from Abstract ‘Case Theory’, it is not too late to consider grammatical functions, thematic role and m-case as separate and distinct phenomena. The discovery of both mismatches and partial mappings should only urge us to look more rigorously for the principles that underlie the linking regularities among these phenomena within and across languages. After all, Dative case is not always to blame.

Appendix A. Morphological case on verbal arguments in Icelandic as compared to German.

Although there are systematic linking regularities in the language, morphological case is demonstrably independent of both grammatical functions and thematic roles. This fact makes it an ideal language for teasing apart these grammatical notions in order to determine which is responsible for observed constraints on otherwise productive processes.

Consider first double object verbs, where there is general agreement about the thematic roles borne by the three verbal arguments. Double object verbs occur in six different case frames in Icelandic, as shown in the table below from Yip at al. (1987: 226, Table 3), and illustrated in the example sentences in (90). Insofar as possible, the illustrative sentences have been chosen because the corresponding verbs cannot be used as double object verbs in English.

(90) Transitive verbs in Icelandic

a. NDA hölda ‘hold’ Við átlum að hölda forsetum viðla.
we plan to hold the president-D party-A
‘We plan to hold a party for the president.’
auðveldla ‘make easier’ Óttar íllváfn beat auðveldla okkur starfbí
new computer has facilitated us-D the-job-A
‘The new computer has made the job easier for us.’

The NAA case frame also occurs with complex transitive verbs, with accusative on the objective complement. Since the object complement is not an object, such verbs are not included in the count. It isn’t clear that Icelandic actually has double object verbs with the NAA case frame, since the second accusative NP of kasta ‘cost’ and taka ‘take’ in the sense of ‘it took me an hour’ is an object rather than a measure verbal of some kind. Helgi Skúli Jónsson points out (pers. comm.) that for the verb kosta, the measure phrase took Dative rather than Accusative case in older periods of Icelandic.
with benefactives and a less strong but still noticeable tendency to have accusative with malefactives" (1995: 199), citing e.g. the NAD verbs *rae＊a ‘rob’, *lernn ‘conceal’, *nib＊a ‘deprive’. But there are enough exceptions to semantic generalizations such as this to lead us to conclude that the case of the IO must be stipulated in the lexical entry, at least for any verb that does not occur in the prototypical NDA case frame.

What about simple transitive verbs with a singular direct object? Does the morphological case on a verb’s object correlate with the verbal semantics, and if so, how? Cross-linguistically, dative case is typically associated with goals (e.g. indirect objects of ditransitive verbs) and experiencers. This is true in Germanic languages, as well, goal arguments which do not bear syntactic (nominative/accusative) case will bear dative case. Some monotransitive verbs taking dative goals in Icelandic and German are given in (92):

(92) Some monotransitive verbs taking dative goals in Icelandic and German
a. *ki＊a ‘help’; *ba＊a ‘thank’; *b－－a ‘invite’; *los＊a ‘threaten’; umb＊a ‘reward’; ge＊a ‘feed’
b. *helfen ‘help’; dank＊en ‘thank’; be＊－－en ‘meet’; dioh＊en ‘threaten’; schaden ‘harm’; fluchen ‘curse’

It is important to note that this correlation between m-case and thematic role is at best one-way, since not all goals are marked with dative case. For example, the German verb *e－－en ‘to invite’ takes an accusative object, whereas its Icelandic counterpart *ba＊a governs dative: the German *be＊－－en ‘meet’ governs dative, whereas both German *rei＊－－en ‘meet’ and Icelandic *hit＊a govern accusative; similarly, the verb meaning *to meet* governs dative in Japanese (as) but accusative in Korean (manna); the verb *to visit* takes accusative in both German (besuchen) and Icelandic (heimsokja) although its object bears the thematic role of goal. I assume, therefore, that dative case-marking is lexically-governed, and must be marked in the lexicon for each verb as associated with the relevant argument; any argument not marked for lexical case will get syntactic nominative/accusative case by the general principles of case assignment.

However, lexical case-marking is not a reliable indicator of thematic role. In both Iceland and German, there are nearly synonymous verb pairs which govern different cases, e.g. German *helfen* and Icelandic *hj＊a ‘help’ both govern dative, whereas German *unters－－een* and Icelandic *skobla* ‘to support’ govern accusative. As we shall see, evidence from deverbal nominals indicates that the objects of these verbs are thematically cases, despite the accusative case marking.

Thus, lexical case-marking has a somewhat different distribution in Icelandic than it does in German.

Icelandic differs from German in that it allows dative case to be associated with theme arguments as well as goals, so that prototypical dative case arguments.

(93) Some Icelandic verbs taking Dative theme objects
a. Monoaffixatives: *ib－－a ‘rescue’; *br－－a ‘change’; *ey＊a ‘destroy’; *for＊a ‘owe’; *gle＊－－a ‘wage’; *h－－a ‘shrink’; *kur＊a ‘threat’; *l＊a ‘lose’; *r＊a ‘owe’; *um＊－－a ‘revol＊－－enize’; *ats＊－－a ‘exp＊－－e’; *un＊－－a ‘extend’; *a＊－－a ‘broadcast’
b. Ditransitives: *lo＊－－a ‘promise’; *sky＊－－a ‘return’; *x＊－－a ‘answer’; *th＊－－a ‘distribute’

In fact, as first noted by Bardal (1993), one of the semantic classes of objects which are marked dative in Icelandic is objects which undergo movement. These include the objects of verbs meaning to throw, and the load-class (Bardal, 1999; Maling to appear).

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