

## German inherent datives and argument structure\*

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Two lines of recent research are brought together to argue that the defining characteristic of German inherent dative arguments is not morphological but syntactic. On the one hand, evidence is mounting that dative objects with two-place verbs, as well as those with three-place verbs, differ in their argument-structural status from direct objects receiving structural accusative case. On the other hand, the GB idea that movement is case-driven, which was central to previous analyses of the behavior of inherent datives under passivization, has been considerably weakened. It is proposed instead that the special syntactic, semantic and morphological properties of dative arguments should be derived from the way in which they are introduced into the structure. This not only accounts for the German data that form the basis of the discussion, but can also be more easily extended to languages like Icelandic, which are famously problematic for the original inherent Case analysis.

### 1. Introduction

There is a well-known contrast in German and other languages between objects receiving accusative case and those receiving dative. In the passive, the former become nominative subjects triggering agreement, but the latter remain dative, with the verb showing default third person singular agreement. This goes for datives which are the sole object of their verb, as in (2), as well as for those in ditransitive constructions, i.e. indirect objects, as in (3).<sup>1</sup>

- (1) a. *Boris hat die Wissenschaftler unterstützt.*  
 Boris has [the scientists]<sub>ACC</sub> supported  
 ‘Boris supported the scientists.’  
 b. *Die Wissenschaftler sind unterstützt worden.*  
 [the scientists]<sub>NOM</sub> are supported become  
 ‘The scientists were supported.’

- (2) a. *Boris hat den Wissenschaftlern geholfen.*  
 Boris has [the scientists]<sub>DAT</sub> helped  
 ‘Boris helped the scientists.’
- b. \**Die Wissenschaftler sind geholfen worden.*  
 [the scientists]<sub>NOM</sub> are helped become  
 intended: ‘The scientists were helped.’
- c. *Den Wissenschaftlern ist geholfen worden.*  
 [the scientists]<sub>NOM</sub> is helped become  
 ‘The scientists were helped.’
- (3) a. *Boris hat den Wissenschaftlern einen großen Auftrag gegeben.*  
 Boris has [the scientists]<sub>NOM</sub> [a big assignment]<sub>ACC</sub>  
 given  
 ‘Boris gave the scientists a big assignment.’
- b. \**Die Wissenschaftler sind ein/einen großer/großen Auftrag gegeben worden.*  
 [the scientists]<sub>NOM</sub> are [a big assignment]<sub>NOM/ACC</sub>  
 given become  
 intended: ‘The scientists were given a big assignment.’
- c. *Den Wissenschaftlern ist ein großer Auftrag gegeben worden.*  
 [the scientists]<sub>DAT</sub> is [a big assignment]<sub>NOM</sub> given become  
 ‘The scientists were given a big assignment.’

There are two basic ways to understand the intersection of special syntax and special morphology on dative objects like *den Wissenschaftlern* ‘the scientists’ in (2c). On the one hand, we could assume that the syntax depends on the case-marking, that it is the dative case that prevents such arguments from becoming subjects. On the other hand, we could assume that the case-marking depends on the syntax. The fact that *den Wissenschaftlern* can’t become the subject would be a reflection of deeper syntactic properties which also trigger dative case-assignment.

The traditional GB account of these facts was a version of the first idea (see especially Haider 1985; Chomsky 1986). Unlike accusative, dative case is not absorbed under passivization, so the dative object is not forced to raise to subject position to get nominative case and trigger agreement. The relevant difference between *unterstützen* ‘support’ and *helfen* ‘help’ is then that the latter is lexically specified to assign dative to its object, while the former is not so specified and thus assigns accusative as the structural default. Given the make-up of the theory, this was the obvious choice for GB. It is an empirical fact that the object of *helfen* ‘help’ is marked with a different morphological case than that of *unterstützen* ‘support’, and within GB, Case was the central theoretical device for accounting for the surface position and movement behavior of DPs. Explaining the syntax of inherent datives on the basis of their morphology was consistent with the theory and required a minimum of additional assumptions.

The second alternative, on the other hand, would have been far more difficult to implement. From an empirical standpoint, it was unclear whether objects of verbs like *helfen* could be consistently distinguished in any deep way from those of verbs like *unterstützen*, and from a theoretical standpoint, there was no obvious way to encode such a distinction. The structure assumed at the time for the introduction of verbal arguments was fairly simple. It distinguished the subject as specifier or external argument from objects as complements or internal arguments, but did not provide any means to structurally distinguish sole dative objects from direct objects. Such a distinction could have been encoded in terms of  $\theta$ -roles, but this could not have served in any obvious way as an explanation for the data in (2). Unlike case,  $\theta$ -roles were not assumed to have anything to do with the subject movement that was assumed to occur in (1b) but to be blocked in (2b).

Of course, much has changed in syntactic theory since the GB era. In this paper I will explore two separate lines of research from the intervening years that bear heavily on how we should handle the behavior of datives like the one in (2). One line of research (see Wegener 1991; Wunderlich 1996; Blume 1998; Barðdal 2001; Bayer, Bader, & Meng 2001; Maling 2001; Svenonius 2002; Cook this volume; McIntyre this volume; Hole in press, among others) has made it increasingly clear that what distinguishes (2a) from (1a) is not just an idiosyncratic case assigned by the verb. Most instances of the dative in German and other languages are predictable on semantic grounds and correlate with other syntactic properties. This points toward the conclusion that they are indeed distinct from direct objects in ways related to argument structure. The other line of research, including Yip, Maling, & Jackendoff (1987); Sigurðsson (1989, 2003); Marantz (1991); Harley (1995b); Schütze (1997); McFadden (2004) among others, has undermined the GB connection between A-movement and case. Of course, developments within generative theories of syntax have paralleled these empirical ones, and the machinery available to us now is far better suited to encoding the distinction between *unterstützen* and *helfen* in structural terms. The goal of this paper is to show that these two lines of development converge to motivate a reverse of the GB analysis of these datives: their special syntax determines case-assignment rather than their special case-assignment driving the syntax.

In Section 2, I will review the evidence that dative arguments are distinct from direct objects in ways that go deeper than just their morphological case-marking. What emerges throughout is that sole dative objects and indirect objects pattern together to the exclusion of the direct objects. In other words, dative arguments can be distinguished from normal direct objects in argument-structural terms, not just in terms of the morphological case they appear with. Thus in principle we could argue that the case of a DP depends on its syntactic properties rather than the other way around.<sup>2</sup> That this is in fact what we *should* do will be argued in Section 3, where I will discuss the evidence that has been gathered against the dependency of raising to subject on case. I will argue that the facts support a separation of movement, case-marking and subjecthood, not just for languages like Icelandic, but for German as well, and

that this points to a theory where case interprets the syntax, rather than driving and conditioning the derivation.

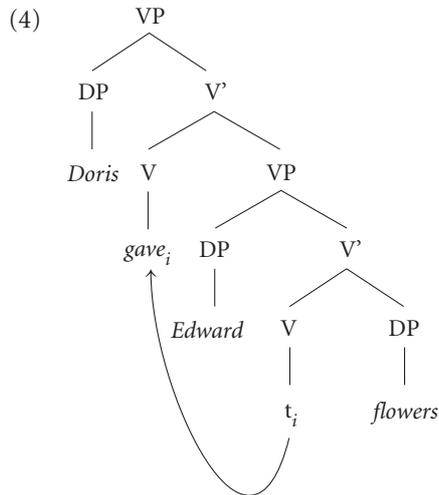
Before I proceed, I should stress that German datives do not constitute a single, homogeneous class in syntactic and semantic terms. They appear as verbal arguments, objects of prepositions and postpositions, as adjectival complements, and as certain types of DP-internal possessors. Even if we just restrict our attention to ones that appear to be arguments of verbs, we find that there are two main varieties. This is especially clear with ditransitive verbs, as one can distinguish a class where the dative is introduced higher than the accusative from a class where the accusative is introduced higher than the dative. Evidence for this distinction comes from unmarked word orders, placement of sentential negation and adverbs, constituent tests based on topicalization and the semantics of the dative argument (see e.g. Lenerz 1977; Wegener 1991; Haider 1993; Molnárfi 1998; Fanselow 2000; Meinunger 2000, this volume; Cook this volume). The class of low datives, appearing with verbs like *aussetzen* ‘expose’, is relatively small and displays less regularity and productivity in its behavior. For the remainder of this paper I will concentrate on the more numerous and regular high datives (but see McFadden 2004: Ch. 4, for some discussion and an analysis of the difference). For simplicity I will talk simply in terms of datives, but the claims to be made are only intended to apply to high datives.

## 2. Towards a structural analysis

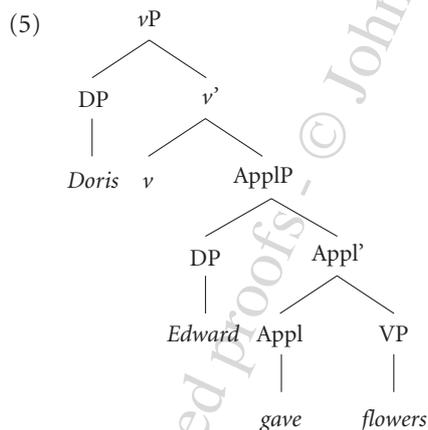
### 2.1 Structural considerations

As noted in the introduction, one of the reasons why it made the most sense in GB theory to use case as the defining feature distinguishing dative objects from direct objects was that there was no obvious way to distinguish them structurally. If a verbal argument can only be the specifier of V or its complement, the object of *helfen* ‘help’ must be a complement just like the object of *unterstützen* ‘support’. With both verbs, the specifier is filled by the subject, so the complement is the only position available. It is only with the articulation of the structure within the extended verbal projection that has been argued for over recent years that other options have become available.

Much of what has been learned in this area has come out of work on double object structures, like *Doris gave Edward flowers*. Since Barss and Lasnik (1986) and Larson (1988), it has been standard to assume for these a binary-branching structure, in which the IO c-commands the DO. The structure Larson proposes looks like that in (4).

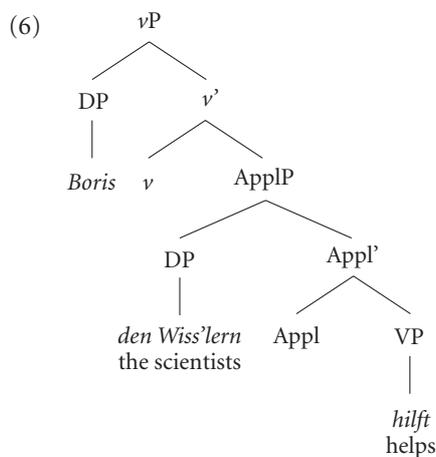


The additional hierarchy within the VP was proposed in order to account for various binding and constituency facts, but it has an important side-effect: the two object positions are now structurally distinct. The direct object is still the complement of V, but the indirect object is in a specifier position. Subsequent work has largely adopted Larson's basic hierarchical skeleton, but has varied in the identity of the heads in the verbal projection and their semantic contribution. I will follow much of the recent literature in using the term *Applicative* for the head that introduces the dative (see e.g. Marantz 1993; Pyllkänen 2002; Anagnostopoulou 2002; Cuervo 2003) and in assuming that the external argument is introduced by an additional, higher head labeled *v* (Chomsky 1995):



Again, the difference between the two internal arguments is clear: the direct object is the complement of V, while the indirect object is the specifier of ApplP. Adopting a structure like this for double objects has an important consequence for inherent

objects: the structural description of the indirect object does not depend in any way on the direct object. If this structure is on the right track, it should be possible for the Appl head to introduce an argument even when the V head does not. I.e. the same type of argument that shows up as an indirect object should be able to appear in the absence of a direct object. This analysis, laid out schematically in (6), is precisely what I propose for sole dative objects like the object of *helfen* 'help'.<sup>3</sup>



If an analysis like this can be motivated, then it is possible to say that the defining fact about dative objects is that they are introduced in such a structure, not that they are dative. Indeed, proposals involving very similar structures have been made recently by McIntyre (this volume), Meinunger (this volume) and Hole (in press), and work within rather different theoretical frameworks has come to similar conclusions. For Wunderlich (1996), for example, dative arguments are introduced by an extension of the verbal lexical predicate, independent of the presence of a direct object. Cook (this volume), working in LFG, proposes that there is a distinct grammatical function OBJ<sub>θ</sub> (secondary object), borne by both indirect objects and sole dative objects.<sup>4</sup> Crucially, while the mechanics of these proposals differ from the one being pursued here in theory-dependent ways, they are in agreement that the relevant objects are identified as a class in terms of argument structure, not case-marking.

## 2.2 Semantic evidence for an argument-structural analysis

The recurring theme of recent work on datives is that they are (surprisingly) regular. They fall into identifiable semantic classes, and the same classes are valid whether an additional accusative object is present or not – not just within German, but cross-linguistically as well.<sup>5</sup> In German we find what can be described as recipients (7), benefactives (8) and so-called pertinence datives (9).<sup>6</sup> Crucially, these types are found as both indirect objects and sole datives.

- (7) a. *Sie gab ihm die etruskische Vase.*  
 she gave him<sub>DAT</sub> the Etruscan vase  
 ‘She gave him the Etruscan vase.’  
 b. *Sie schrieb ihm.*  
 she wrote him<sub>DAT</sub>  
 ‘She wrote (to) him.’
- (8) a. *Sie erledigte ihm die Aufgabe.*  
 she took.care.of him<sub>DAT</sub> the assignment  
 ‘She took care of the assignment for him.’  
 b. *Sie half ihm.*  
 she helped him<sub>DAT</sub>  
 ‘She helped him.’
- (9) a. *Sie schnitt ihm die Haare.*  
 she cut him<sub>DAT</sub> the hairs  
 ‘She cut his hair.’  
 b. *Sie lief ihm in die Arme.*  
 she ran him<sub>DAT</sub> into the arms  
 ‘She ran into his arms.’

Much recent work has argued that these different meaning types are related and can be brought under a uniform account.<sup>7</sup> Hole (in press) argues that these datives are introduced by an Affectee head which relates them to the main predicate and requires that they bind a variable lower in the structure. McIntyre (this volume) proposes that the head which introduces datives assigns an interpretation parallel to that found with subjects of English *have*. He shows that, while the relevant relationship is not really possession in any obvious sense, paraphrases with verbal *have* are quite generally available. An important point that he makes is that the abstract HAVE relationship is not necessarily between the dative argument and another DP, but can also be with an eventuality. This difference is encoded by varying whether the dative-introducing head is above or below the V head, i.e. whether it takes a VP or DP complement. A very similar strategy is adopted by Pykkänen (2002) and Cuervo (2003) to handle variation between dative/applicative types within and across languages.

What these accounts have in common, and – I would argue – what allows them to handle the observed semantic patterns as well as they do, is that they are in essence syntactic. This provides a solution for a long-standing dilemma surrounding the semantics of dative arguments. While there are clear patterns that need to be accounted for, it has proved extremely difficult to come up with a single semantics that would apply to all and only dative arguments in a language like German. For example, there are well-known pairs of (nearly) synonymous verbs which differ in their case assignment. So both *gratulieren* and *beglückwünschen* mean ‘congratulate’, but the former takes a sole dative object, while the latter takes a normal accusative direct object. It proves quite difficult to show that the objects of these verbs receive clearly distinct semantic roles, and even more difficult to show that the relevant distinction consistently pat-

terns with case-marking with other verbs in the language. It was for this reason that researchers shied away from tying inherent case to specific  $\theta$ -roles in GB. E.g., Haider (1985:80) claims that “lexical Case on arguments is not tied to unique thematic values”. He explicitly contrasted this with the semantic case on non-argument DPs like the German accusative of extent or the various local cases in a language like Finnish, which *are* tied to specific roles.<sup>8</sup>

The theories of Pylkkänen (2002); Cuervo (2003); Hole (in press); McIntyre (this volume) solve this dilemma by deriving the semantic patterns indirectly from syntactic proposals rather than directly positing an explicit uniform semantics for datives. That is, the argument types in question here are unified by being introduced as the specifier of a designated functional projection (ApplP for Pylkkänen and Cuervo, AffP for Hole and V<sup>dat</sup>P for McIntyre). Because of this common feature, we predict that datives will show a certain amount of semantic consistency, but not identity. The semantic interpretation of a dative DP will be derived in large part from the semantic specification of the applicative head, but will also be affected by the type and identity of its complement and especially by the lexical verb. Furthermore, there is no requirement that a given concept will always be realized with a consistent syntax. That a given event can be conceived of in different ways with different syntactic argument structures is empirically well-supported (see e.g. Baker 1997, for extensive discussion and documentation of this phenomenon). Some well-known examples from English include variations in experiencer verbs (*Cats frighten Peter* vs. *Peter fears cats*) and the so-called *spray/load* alternation (*John loaded the wagon with hay* vs. *John loaded hay onto the wagon*). According to the argument-structural analysis of datives being given here, the difference between *gratulieren* ‘congratulate’ and *beglückwünschen* ‘congratulate’ is of just this type, and thus should not be surprising. In fact, there is morphological evidence that the two have distinct argument structures, in spite of their similar semantics. The latter belongs to a productive class of verbs with the prefix *be-* which derives verbs meaning ‘provide with X’ from nominal stems meaning ‘X’. Since the noun meaning ‘X’ – which we might have thought of as a theme – is incorporated into the verb, the syntactic direct object position is left open. And indeed, the verbs in this class always take the providee as a normal accusative direct object. The dative verb *gratulieren*, on the other hand, shows no signs of such a derivation acting on its argument structure.

### 2.3 Syntactic evidence

An important component of the analysis of datives in terms of argument structure, which distinguishes it from the GB inherent Case analysis, is that it is non-lexical. The appearance of a dative argument is not triggered by a property of the lexical verb, but by the functional head Appl. That the dative is indeed non-lexical is clear with indirect objects. It is of course true that lexical verbs differ in how many arguments they take, but if they take three, dative case is regular and predictable on the hierarchically medial argument, and its semantic properties are largely predictable as well.<sup>9</sup> Indeed, the dative is productive, which is predicted if it is introduced by a functional head, but

surprising if it is lexical. Two-place verbs in German generally allow the addition of a dative argument, with the recipient, beneficiary, or pertinence dative roles discussed above, so long as the addition of such a role is compatible with the meaning of the verb. Thus to a sentence like (10a) we can add a dative argument as in (10b), which can either be interpreted as the person for whom the car is being repaired, or as the person who owns the car that is being repaired. To a sentence like (11a) we can add a dative to be interpreted as the recipient or beneficiary of the ring-stealing incident, as in (11b), or as the maleficiary, i.e. the person from whom the ring was stolen, as in (11c) (see e.g. Wegener 1991; Abraham 1995; Maling 2001; Hole in press, for additional examples and discussion, and especially the latter for the relationship between the two possible meanings of examples like (10b)).

- (10) a. *Er repariert das Auto.*  
 he repairs [the car]<sub>ACC</sub>  
 'He's repairing the car.'
- b. *Er repariert dem Mann das Auto.*  
 he repairs [the man]<sub>DAT</sub> [the car]<sub>ACC</sub>  
 'He's repairing the car for the man.' (Benefactive) or 'He's repairing the man's car.' (Pertinence)
- (11) a. *Er hat einen Ring gestohlen.*  
 he has [a ring]<sub>ACC</sub> stolen  
 'He stole a ring.'
- b. *Er hat seiner Freundin einen Ring gestohlen.*  
 he has [his girlfriend]<sub>DAT</sub> [a ring]<sub>ACC</sub> stolen  
 'He stole his girlfriend a ring.' (Benefactive/Recipient)
- c. *Er hat dem Juwelier einen Ring gestohlen.*  
 he has [the jeweler]<sub>DAT</sub> [a ring]<sub>ACC</sub> stolen  
 'He stole a ring from the jeweler.' (Malefactive)

Indeed, datives are productive with new verbs entering the language. That is, if one invents or derives a new verb with the right semantic properties, it will be able to take a benefactive dative. Wegener (1991) cites the examples in (12) of new verbs formed with the *be-* prefix discussed above.<sup>10</sup>

- (12) a. *Den Hof werden wir Ihnen natürlich bebaumen.*  
 [the courtyard]<sub>ACC</sub> will we you<sub>DAT</sub> naturally betree  
 'We will of course plant the courtyard with trees for you.'
- b. *Kannst du mir die Brezel bebuttern?*  
 can you<sub>NOM</sub> me<sub>DAT</sub> [the pretzel]<sub>ACC</sub> butter  
 'Can you butter me the pretzel?'

This applies for borrowed verbs as well. Verbs of electronic transmission which have been recently borrowed from English regularly allow the addition of a recipient dative as expected.

- (13) *Er hat mir seinen Lebenslauf gefaxt/ge-emailt.*  
 he has me<sub>DAT</sub> his CV faxed/emailed  
 'He faxed/emailed me his CV.'

It would be difficult to argue that all of the verbs in these examples assign dative case to their objects as a lexical property. We could of course stipulate a feature in the entries for *stehlen* 'steal' and *reparieren* 'repair' saying that a dative argument can optionally be added, but it would be quite difficult to implement this for new verbs entering the language. Furthermore, it would totally miss the point. The regular semantic and morphological patterns we are seeing here are not facts about particular verbs, but about the treatment of a certain class of arguments within the language.

What is more, the defining property of these objects is not that they have been added to a verb that already has a subject and a direct object. That is, we cannot say that the dative is predictable, but only on indirect objects. Rather, sole dative objects are productive as well. Recipient datives are obviously less common than with three-place predicates, because their interpretation usually depends on something received being realized as the DO, but they do occur. Verbs of communication like *antworten* 'answer' can take a recipient dative, even if the message received is not overtly expressed. The newly borrowed verbs of electronic transmission fall into this class, and they behave in exactly the same way.

- (14) *Ich habe ihm geantwortet/ge-emailt.*  
 I have him<sub>DAT</sub> answered/e-mailed  
 'I answered/e-mailed him.'

The pertinence construction is particularly productive, being possible with all sorts of verbs which could not be argued to bear a lexical feature assigning dative case. And as noted above, it is possible even if there is no accusative DO, when the possessed argument appears embedded in a PP. Consider again (9) from above repeated as (15b), as well as (16b) (both from Wunderlich 1996).

- (15) a. *Sie lief in die Bibliothek.*  
 she ran in [the library]<sub>ACC</sub>  
 'She ran into the library.'  
 b. *Sie lief ihm in die Arme.*  
 She ran him<sub>DAT</sub> into [the arms]<sub>ACC</sub>  
 'She ran into his arms.'
- (16) a. *Die Serviette hing in die Suppe.*  
 the napkin hung in [the soup]<sub>ACC</sub>  
 'The napkin hung into the soup.'  
 b. *Die Serviette hing ihm in die Suppe.*  
 the napkin hung him<sub>DAT</sub> in [the soup]<sub>ACC</sub>  
 'The napkin hung into his soup.'

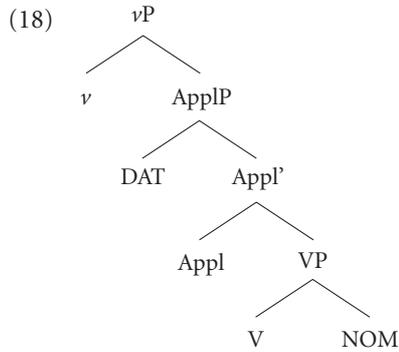
The verbs *laufen* ‘run’ and *hängen* ‘hang’ are intransitives that generally appear without a dative, as shown in the a. examples. The addition of the dative in the b. examples has nothing to do with the verbs themselves, but with the DP embedded in the PP in each sentence and with the general availability of an affected possessor interpretation for datives in German.

The evidence I have presented to this point has shown that indirect objects and sole dative objects behave alike in ways that indicate something deeper than just special case-assignment. Evidence specifically in favor of the argument-structural analysis I am proposing comes from cases where we can observe argument alternations involving subjects and direct objects, with a dative argument remaining constant. If sole dative objects were just direct objects with special case-marking, we would not e.g. expect it to be possible for an accusative direct object to be added without somehow interfering. With certain verbs like *glauben* ‘believe’ and *verzeihen* ‘forgive’, however, this is possible. They take a dative that can appear either with or without a following accusative object. With *glauben*, the dative argument is the person who is believed, while the accusative is the fact that is believed. Note that the semantics (as well as the morphology and the syntax) of the dative *seinem Bruder* is the same, whether it appears on its own in (17a) or with an accusative in (17b).<sup>11</sup>

- (17) a. *Er glaubt seinem Bruder.*  
 he believes [his brother]<sub>DAT</sub>  
 ‘He believes his brother.’
- b. *Er glaubt seinem Bruder die Geschichte.*  
 he believes [his brother]<sub>DAT</sub> [the story]<sub>ACC</sub>  
 roughly: ‘He believes his brother’s story.’

This is precisely what we expect under an analysis where sole dative objects and indirect objects constitute a single argument type introduced in a position distinct from that for direct objects. According to the structure given in (6), verbs like *helfen* ‘help’ are essentially ditransitives minus a direct object. The alternation shown by *glauben* ‘believe’ simply instantiates – with a single verb – the parallel between indirect and sole dative objects.

Now, looked at another way, verbs like *helfen* are unergatives plus an added applicative argument under this analysis. This predicts that there should be unaccusatives with added applicative arguments as well, as sketched out in tree (18).



Of course, at least as concerns the first-merge positions of the nominal arguments, this is precisely the structure we would assume for passives of ditransitives. Alternations directly analogous to the type with *glauben* ‘believe’ are somewhat hard to come by, simply because there are very few German verbs that show a transitive/unaccusative alternation without some sort of morphological marking. But with verbs that do so, like *zerbrechen* ‘break to pieces’, we find that the prediction is correct. Note especially the change in the perfect auxiliary, from HAVE with the transitive version (19a) to BE with the unaccusative version (19b) (see Schäfer 2005, for extensive discussion of such examples).

- (19) a. *Hans hat dem Händler eine teure Vase zerbrochen.*  
 Hans has [the merchant]<sub>DAT</sub> an expensive vase broken  
 ‘Hans broke an expensive vase of the merchant’s.’
- b. *Dem Händler ist eine teure Vase zerbrochen.*  
 [the merchant]<sub>DAT</sub> is an expensive vase broken  
 ‘An expensive vase of the merchant’s broke.’

Similar pairs of sentences where the semantics are parallel, but the alternation between (causative) transitive and unaccusative is marked morpho-syntactically or is expressed with different lexical verbs, are quite easy to come by.

- (20) a. *Mir ist ein Stein auf den Kopf gefallen.*  
 me<sub>DAT</sub> is a stone on the head fallen  
 ‘A stone fell on my head.’
- b. *Er hat mir einen Stein auf den Kopf fallen lassen.*  
 he has me<sub>DAT</sub> [a stone]<sub>ACC</sub> on the head fall let  
 ‘He dropped a stone on my head.’
- (21) a. *Dem Kind ist der Hund weggelaufen.*  
 [the kid]<sub>DAT</sub> is the dog away-run  
 ‘The kid’s dog ran away.’
- b. *Die Katze hat dem Kind den Hund weggetrieben.*  
 the cat has [the kid]<sub>DAT</sub> the dog away-driven  
 ‘The cat drove the kid’s dog away.’

German indirect and sole dative objects are also subject to syntactic restrictions which find no clear explanation in terms of case-assignment. For example, unlike direct objects, they can never control resultative secondary predicates, as shown by the contrast in (22) ((22a) and (22b) are taken from Haider 1997a). The accusative object of *verdrießen* ‘vex’ controls the secondary predicate *zu Tode* ‘to death’ unproblematically in (22a), but neither the dative sole object of *misfallen* ‘displease’ in (22b) nor the indirect object of *machen* ‘make’ in (22c) can do so.

- (22) a. *Etwas verdrießt mich zu Tode.*  
 something vexes me<sub>ACC</sub> to death  
 ‘Something vexes me to death.’  
 b. \**Etwas mißfällt mir zu Tode.*  
 something displeases me<sub>DAT</sub> to death  
 intended: ‘Something displeases me to death.’  
 c. \**Du machst mir Sorgen zu Tode.*  
 you make me<sub>DAT</sub> worries to death  
 intended: ‘You worry me to death.’

The same pattern holds for depictive secondary predicates, so long as an external subject is present (Haider 1997a; Müller 2001).<sup>12</sup> Sentence (23a) shows successful control of the depictive *nackt* ‘naked’ by a direct object, while (23b) and (23c) show the failure of control by an indirect object and a dative sole object respectively.

- (23) a. *Er sah sie nackt.*  
 he saw her<sub>ACC</sub> naked  
 ‘He<sub>i</sub> saw her<sub>j</sub> naked<sub>i/j</sub>.’  
 b. *Er gab ihr den Apfel nackt.*  
 he gave her<sub>DAT</sub> the apple<sub>ACC</sub> naked  
 ‘He<sub>i</sub> gave her<sub>j</sub> the apple naked<sub>i/\*j</sub>.’  
 c. *Er half ihr nackt.*  
 he helped her<sub>DAT</sub> naked  
 ‘He<sub>i</sub> helped her<sub>j</sub> naked<sub>i/\*j</sub>.’

It is difficult to see how morphological case could be responsible for these effects, and in fact there is evidence that it is not. Indirect objects cannot control predication in English either, as shown in (24) from Williams (1980).<sup>13</sup>

- (24) *John gave Bill<sub>i</sub> the dog<sub>j</sub> dead<sub>i/j</sub>*

English doesn’t distinguish dative from accusative. Its indirect objects also show no sign of receiving some sort of abstract inherent Case, i.e. they do indeed become subjects in the passive, as in *The children were given a dog*. Thus a case-based account of these effects is a non-starter. Something based on the argument-structural difference between indirect and direct objects has more promise, since we *do* expect different syntactic structures to behave differently for the purposes of semantic interpretation. Pylkkänen (2002) e.g. argues that restrictions of this kind result from the interaction

between applicative syntax and the semantic integration of the secondary predicate with the rest of the clause. Specifically, she claims that if the depictive were attached in the right place in the structure to modify the applicative argument, it would result in a type mismatch. For the full details, see Pykkänen (2002:26–31).

Another restriction on indirect and sole dative objects comes with nominalizations. In German, much as in English, these can be accompanied by a genitive DP realizing one of the arguments of the underlying verb. Maling (2001) notes that when that verb is a normal transitive, the genitive can be interpreted as either the subject or the object, as in (25a) and (25b) respectively.

- (25) a. *Die Rettungen der Küstenwache verlaufen in der Regel ohne Zwischenfälle.*  
 the rescues [the coast-guard]<sub>GEN</sub> proceed in the rule without incidents  
 ‘Rescues by the coast-guard proceed as a rule without incident.’
- b. *Die Rettung des Heißluftballonfahrers verlief ohne Zwischenfall.*  
 the rescue [the balloonist]<sub>GEN</sub> proceeded without incident  
 ‘The rescue of the balloonist proceeded without incident.’

However, as Maling points out, the genitive cannot be interpreted as an argument that would appear as a dative with the underlying verb. Thus the priest in (26a) can only be the one helping, not the one being helped:

- (26) a. *die Hilfe des Priesters*  
 the help [the priest]<sub>GEN</sub>  
 ‘the priest’s help’ ≠ ‘help given to the priest’
- b. *das Schenken des Jungen*  
 the giving [the boy]<sub>GEN</sub>  
 ‘the giving of the boy’ ≠ ‘the giving to the boy’

Now, one might think that this is just another instance of the phenomenon found in the passive. I.e. maybe nominalization is like passivization in that it absorbs the structural case assigned by the verb, forcing the direct object to raise to a higher position to get structural case. The difference would be that the position is Spec-DP and the case is genitive. As with the passive, dative case fails to be absorbed, so raising to the genitive-assigning position is not possible. However, the parallel with the passive breaks down in one crucial point. The passive is still possible with a verb that takes a dative object, with that object simply remaining dative rather than becoming the nominative subject (as in sentences (2c) and (3c)). If the failure of dative arguments to be realized as genitives with nominalizations were really the same sort of thing, we would expect them to be able to surface there as datives as well. However, as the sentences in (27) show, they cannot. Dative arguments simply cannot be realized directly in nominalizations.<sup>14</sup>

- (27) a. \**die Hilfe dem Priester*  
           the help [the priest]<sub>DAT</sub>  
       b. \**das Schenken dem Jungen*  
           the giving [the boy]<sub>DAT</sub>

So we need a non-case explanation for these facts, and one interesting possibility is suggested by the account being proposed here. If datives of this kind are not directly selected by the lexical verb itself, but introduced by an applicative head, we can simply claim that that head is missing in the structure that is nominalized. Daniel Hole (p.c.) notes that datives are possible in nominalizations if they are essentially compounded to form a single word with the verb, as in (28a) and (28b). Crucially, one can show that this type of nominalization applies to a much larger chunk of structure, a phrasal portion of the extended verbal projection rather than just the verb. For example, it can include adverbial material as well, as in (28c).

- (28) a. *das Dem-Priester-Helfen*  
       b. *das Dem-Jungen-Schenken*  
       c. *das Dem-Priester-zweimal-Helfen*  
       d. *das Dem-Jungen-einen-Hund-Schenken*

That this is a different phenomenon than the sort of examples in (25) is further shown by the fact that when the direct object is included, it shows up accusative, not genitive (see (28d)). The material we're seeing here is not appearing *with* the nominalized verb like the genitives in (25) and (26), but rather is part of what has been nominalized. Since something much larger is being nominalized, it is not surprising that the datives are allowed to appear. Other syntactic phenomena with which dative arguments show restrictions similar to those here are the formation of synthetic compounds and the middle construction. See Maling (2001) as well as Baker (1997) and Bayer, Bader, & Meng (2001) for data and discussion.

#### 2.4 Inherent accusatives

If the defining characteristic of the arguments we have been talking about so far is their argument structure status and not the fact that they bear dative case, we might expect to find arguments showing the same behaviors but with different case-marking. There is some evidence that this is so. In particular, German also has a small number of verbs that take an inherent accusative argument (Wegener 1991; Abraham 1995). The clearest examples are the sole arguments of certain verbs of bodily states as in (29). Since structural accusative can only be assigned when there is a higher structural argument (Burzio's Generalization), the accusative here must be inherent. From the relevant standpoint, their active form is already equivalent to the passive of a transitive verb.

- (29) a. *Mich friert.*  
 me<sub>ACC</sub> freezes  
 'I'm freezing.'
- b. *Mich hungert.*  
 me<sub>ACC</sub> hungers  
 'I'm hungry.'

There is also at least one two-place verb, *interessieren* 'interest', that seems to assign an inherent accusative. Showing that this accusative is inherent is somewhat complicated, because the verb does not allow a passive at all, no matter what case shows up on the relevant argument. Contrast this with the behavior of a superficially similar verb, *ärgern* 'annoy'.

- (30) a. *Mich ärgern solche Leute.*  
 me<sub>ACC</sub> annoy such people  
 'People like that annoy me.'
- b. *Mich interessieren solche Leute.*  
 me<sub>ACC</sub> interest such people  
 'People like that interest me.'
- (31) a. *Ich werde von solchen Leuten geärgert.*  
 I<sub>NOM</sub> become by such people annoyed  
 intended: 'I'm annoyed by people like that.'
- b. \**Ich werde von solchen Leuten interessiert.*  
 I become from such people interested  
 intended: 'I'm interested by such people.'
- c. *Mich wird von solchen Leuten interessiert.*  
 me becomes from such people interested  
 intended: 'I'm interested by such people.'

A plausible explanation for the fact that the passive is completely out is that the nominative argument with *interessieren* is not an external argument. It would then be like *gefallen* 'like/please', which seems to be parallel in every way except that the experiencer argument is dative. If this is correct for *interessieren*, then the accusative argument is actually introduced higher in the structure than the nominative. So again, even in the active, an accusative in that position can only be inherent.<sup>15</sup>

Of course, the traditional GB theory of inherent case can handle the fact that these arguments do not become subjects. If the accusative here is inherent, it will block raising to subject just as well as inherent dative would. The thing to notice, then, is that these inherent accusative arguments again behave syntactically and semantically like the datives we have been discussing so far and unlike structural accusative objects. Semantically, they are all animate experiencers, and syntactically, they fail to control resultative secondary predication, just like the datives.

- (32) a. *\*Mich friert zu Tode.*  
       me freezes to death  
       intended: ‘I’m freezing to death.’  
       b. *\*Mich hungert zu Tode.*  
       me hungers to death  
       intended: ‘I’m starving to death.’  
       c. *\*Es interessiert mich zu Tode.*  
       it interests me to death  
       intended: ‘It interests me to death.’

This would be unexpected if these arguments were structurally just direct objects. We can always say that what they have in common with datives is special case-assignment, but unlike the datives, there is no purely morphological evidence for this. On the other hand, if the crucial property underlying all of this behavior is argument-structural status, it need not come as a surprise that there is some irregularity in the case-marking that shows up.

In this section I have endeavored to show that dative sole objects and indirect objects in German have more in common than just their case-marking and the fact that they cannot become subjects. Evidence from semantics, argument alternations and certain syntactic restrictions all point towards an analysis whereby they represent an argument type that is structurally distinct from direct objects. In the next section I will argue that it is this argument-structural status and not the case-marking that is the defining property of this class, and that the inherent case account of the subjecthood restriction must be abandoned.

### 3. Against a case-based account

We have seen that there is more that distinguishes indirect objects and dative sole objects from direct objects than just the way they receive case, and that there is reason to posit a distinct argument structure position for them. We are now in a position to consider what the real defining characteristic of these arguments is. Does their special syntactic status derive from the fact that they receive dative case, or is this case rather just another reflection of their distinctive argument-structural status? The semantic and syntactic patterns described in Section 2 certainly point towards the latter, but we have seen nothing so far to directly challenge the idea that case is what keeps dative objects from becoming subjects. In this section I will argue that here, too, case is not what is relevant. Thus we will be able to say quite generally about these arguments that morphological case is reflecting the syntactic structure, not steering the derivation.

### 3.1 Separating movement from case

As discussed in the Introduction, a large body of research since the late 1980s has accumulated evidence against the GB connection between morphological case and DP movement. Partially in response to this, Chomsky has made a series of modifications to his Case theory, with the result that now “Case assignment is divorced from movement” (Chomsky 2001: 17).<sup>16</sup> In particular, Chomsky (2001) argues that case-checking is handled in situ by Agree, while potential movement is triggered by the EPP. This move is motivated at least in part by the desire to retain some connection between abstract syntactic Case and morphological case-marking. An alternative sometimes proposed (see Freidin & Sprouse 1991, and the discussion of Icelandic below) is to claim that syntactic Case is still responsible for movement, but is, at least at some times and in some languages, divorced from the morphological case that appears.<sup>17</sup> No matter which of these options is chosen, the connection between morphological case and movement that was central to the GB account of datives is broken. While many other phenomena under the purview of Case theory (e.g. normal passives, ECM and raising infinitives) can be made to work reasonably well in terms of abstract Case without reference to morphology, inherent case cannot. The whole point after all was the connection between special morphology and special syntax. In looking at what has led to this shift, I will focus on facts and issues that are directly relevant to the behavior of dative arguments, directing the reader to Yip, Maling, & Jackendoff (1987); Marantz (1991); Harley (1995a, b); Schütze (1997); Sigurðsson (1989, 2003); McFadden (2004) and references cited there for additional data and discussion leading to this conclusion.

The biggest problem for a case-theoretic account is that dative and other oblique cases actually do not block raising to subject in a number of languages. Best known among these is of course Icelandic, which is especially convenient for our purposes because its case-marking patterns are so similar to those in German. As in German, if a verb with a sole dative object is passivized, the object remains dative and fails to trigger verb agreement (Icelandic data are from Sigurðsson 2003).

- (33) a. *Við hjálpaðum stelpunum.*  
 We helped [girls.the]<sub>DAT</sub>  
 ‘We helped the girls.’  
 b. *Stelpunum var hjálpað.*  
 [girls.the]<sub>DAT</sub> was helped  
 ‘The girls were helped.’

However, in Icelandic such datives pass a series of tests for subjecthood, for example, being realized as PRO in non-finite clauses, as in (34a). Sentence (34b) shows that this is not the case for German.<sup>18</sup>

- (34) a. *Ég vonaðist til [að verða hjálpað.]*  
 I hoped for to be helped (i.e. to PRO:DAT be helped)  
 ‘I hope to be helped.’

- b. \**Ich hoffte*, [*geholfen zu werden*.]  
 I hoped helped to be (i.e. \*PRO:DAT helped to be)  
 intended: ‘I hope to be helped.’

The same applies to datives with verbs that have no external argument in the active, e.g. *líka* ‘like’ or *batna* ‘recover (from an illness)’. Now, if it were really the special assignment of dative case that blocked raising to subject, then Icelandic and German would behave alike. Since they do not, we have some explaining to do.

One response to this set of facts is to say that Icelandic and German simply have different case systems (see Belletti 1988; Freidin & Sprouse 1991, and much subsequent work). Specifically, in Icelandic the morphological dative case assigned by verbs like *hjálpa* ‘help’ is not sufficient to satisfy the requirement for Case licensing. Thus a DP like *stelpunum* ‘the girls’ in (33b) has to move to subject position in order to get abstract nominative, in effect getting one abstract case and one morphological case. However, this doesn’t actually explain the difference between German and Icelandic. It stipulates it and does so in a way that significantly weakens the GB inherent case explanation of the German facts. If case morphology and movement can be divorced in one language, it is difficult to see how we can use the same morphology to actually *explain* movement or non-movement in another. Of course, matters would be different if the difference in subjecthood could be correlated with a morphological difference in the languages. If, for example, dative arguments always became nominative when raising to subject in Icelandic, then we could construct an account that supports the inherent case theory. The problem is, German and Icelandic are strikingly similar in the determination of case-marking for various argument types. Even in instances like the sentences being discussed, where they differ in determining which argument is subject, they follow essentially the same rules for determining which will be nominative, which accusative and so forth (see McFadden 2004: Ch. 2 for data and discussion).

### 3.2 How are German and Icelandic really different?

Motivated by these data, Sigurðsson (1992, 2003, etc.) has argued that movement is not driven by case, and that there must be some other difference between German and Icelandic. One thing which sets the two languages apart, and which has received much attention of late (see e.g. Boeckx 2000; Fanselow 2002; Sigurðsson 2003, 2004a, b; Stepanov 2003), is person agreement. In clauses with a dative above a nominative, the verb can agree with the nominative in number only in Icelandic, not in person. In German, it agrees fully with the nominative (examples from Sigurðsson 2004b).

- (35) a. *Honum mundu alltaf líka þeir.*  
 him<sub>DAT</sub> would.3pl always like they<sub>NOM</sub>  
 ‘He would always like them.’  
 b. \**Honum munduð alltaf líka þið*  
 him<sub>DAT</sub> would.2pl always like you<sub>NOM</sub>  
 intended: ‘He would always like you.’

- c. \**Honum mundum alltaf líka við*  
 him<sub>DAT</sub> would.1pl always like we<sub>NOM</sub>  
 intended: 'He would always like us.'
- (36) a. *Ihm würden sie immer gefallen.*  
 him<sub>DAT</sub> would.3pl they<sub>NOM</sub> always like  
 'He would always like them.'
- b. *Ihm würdet ihr immer gefallen.*  
 him<sub>DAT</sub> would.2pl you<sub>NOM</sub> always like  
 'He would always like you.'
- c. *Ihm würden wir immer gefallen.*  
 him<sub>DAT</sub> would.1pl we<sub>NOM</sub> always like  
 'He would always like us.'

Sigurðsson (2004b) proposes that examples like (35b) are bad because the dative argument actually triggers abstract person agreement, blocking the nominative object from doing so. In German the dative argument does not trigger this agreement, so the nominative is free to do so. It is this abstract agreement relationship that is taken to be correlated with movement and subjecthood, not case.

There is actually very good evidence that German and Icelandic differ in terms of subject movement, but with all subjects, not just datives. An interesting pattern emerges when we consider some of the other tests that have been used to show that Icelandic quirky datives are subjects. Like nominative subjects and unlike clear direct objects, they can occupy the position immediately after the verb in inversion contexts (see (37)), they can occupy the initial position in ECM clauses (see (38)), and they can move into the matrix clause in subject raising constructions (see (39)). In each pair of examples (from Sigurðsson 1992), the first sentence shows the behavior with a nominative, the second with a quirky dative.

- (37) a. *Hefur hún séð myndina?*  
 has she<sub>NOM</sub> seen picture.the  
 'Has she seen the picture?'
- b. *Hefur henni leiðst bókin?*  
 has her<sub>DAT</sub> bored book.the  
 'Has she found the book boring?'
- (38) a. *Ég tel hana hafa séð myndina.*  
 I believe her<sub>ACC</sub> have seen picture.the  
 'I believe her to have seen the picture.'
- b. *Ég tel henni hafa leiðst bókin.*  
 I believe her<sub>DAT</sub> have bored book  
 'I believe her to have found the book boring.'
- (39) a. *Hún virðist hafa séð myndina.*  
 she<sub>NOM</sub> seems have seen picture.the  
 'She seems to have seen the picture.'

- b. *Henni virðist hafa leiðst bókin.*  
 her<sub>DAT</sub> seems have bored book.the  
 ‘She seems to have found the book boring.’

What is interesting is that it is not the case that German datives fail these tests, but rather that the tests are simply not applicable.

First, in inversion contexts, the position immediately following the finite verb is not restricted. Datives can indeed appear there, but so can just about anything else.

- (40) a. *Hat die Frau das Bild gesehen?*  
 has the woman the picture seen  
 ‘Has the woman seen the picture?’  
 b. *Hat das Bild nicht zumindest eine Frau gesehen?*  
 has the picture not at least one woman seen  
 ‘Hasn’t at least one woman seen the picture?’  
 c. *Hat der Frau das Bild gefallen?*  
 has [the woman]<sub>DAT</sub> the picture liked  
 ‘Did the woman like the picture?’

Second, German lacks Icelandic- and English-style ECM entirely. It allows non-finite clauses with overt subjects to be embedded below causative and perception verbs, but this is a distinct construction involving a smaller embedded structure.<sup>19</sup> In these structures as well, there is no designated subject position where datives cannot appear.

- (41) a. *Ich lasse der Frau ein Bild geben.*  
 I let [the woman]<sub>DAT</sub> the picture give  
 ‘I’ll have a picture given to the woman.’  
 b. *Ich lasse mir diese Frechheit nicht gefallen.*  
 I let me this insolence not like  
 ‘I won’t take this insolence.’

Third, with raising predicates like *scheinen* ‘seem’, any constituent can raise out of the embedded clause to the initial position (examples from Ebert 1975).

- (42) a. *Die Einbrecher scheinen die Schreibmaschine gestohlen zu haben.*  
 the burglars appear [the typewriter]<sub>ACC</sub> stolen to have  
 ‘The burglars appear to have stolen the typewriter.’  
 b. *Die Schreibmaschine scheinen die Einbrecher gestohlen zu haben.*  
 [the typewriter]<sub>ACC</sub> seem the burglars stolen to have  
 roughly: ‘The typewriter seems to have been stolen by the burglars.’  
 c. *Gestern scheinen die Einbrecher die Schreibmaschine gestohlen zu haben.*  
 yesterday seem the burglars [the typewriter]<sub>ACC</sub> stolen to  
 have  
 roughly: ‘It was yesterday that the burglars appear to have stolen the typewriter.’

These facts all seem to be a reflex of a lack of subject raising in German, not just with datives, but with subjects of all kinds. That is, unlike English and Icelandic, there is no obligatory movement of a nominal argument to a position like Spec-TP. Note that Haider (1993, 1997b, 2000a, b) has repeatedly argued for this for independent reasons. What German does have is V2-related obligatory movement of a topic-like argument to Spec-CP in normal root clauses, which is what we're seeing in (42), and optional scrambling lower down, which seems to be responsible for the various possibilities in (40). Of course, these movements have nothing to do with case, and neither does the movement which Icelandic has and German lacks.

A large part of the difference between Icelandic and German thus has to do with the behavior of subjects in general, not with the handling of datives in particular. However, this still leaves us wondering about the behavior of datives in control infinitives. Do we still need some vestige of GB inherent case theory to handle German here? A number of recent publications have argued that in fact we do not (Fanselow 2002; Barðdal 2002; Barðdal & Eythórssón 2003; Stepanov 2003). As they point out, this is one of only two phenomena where non-nominative arguments behave differently from nominatives in German, but the same as them in Icelandic. The second is coordination reduction. In Icelandic, an oblique subject in the second conjunct can be deleted when the first conjunct has a nominative subject, but in German this is impossible (examples from Fanselow 2002).

- (43) a. *Ég hafði mikið að gera og (mér) var samt ekki hjálpað.*  
 I<sub>NOM</sub> had much to do and (me<sub>DAT</sub>) was nevertheless not helped  
 'I had a lot to do, and no one helped.'
- b. \**Der Mann mag die Bibel und dem Mann gefällt der Koran.*  
 [the man]<sub>NOM</sub> likes the bible and [the man]<sub>DAT</sub> pleases the Koran  
 intended: 'The man likes the Bible and the Koran pleases him.'

Note then that conjunction reduction in German is not restricted to subjects, but rather can apply generally to arguments that have been fronted to sentence-initial position, as shown by (44a) and (44b). What is interesting is that reduction fails again if the fronted objects disagree in case-marking as in (44c) (examples again from Fanselow 2002).

- (44) a. *Den Arzt unterstützt Hans und der Arzt behindert Maria.*  
 [the doctor]<sub>ACC</sub> supports Hans and [the doctor]<sub>ACC</sub> impedes Maria  
 'Hans supports the doctor, and Maria impedes him.'
- b. *Dem Arzt hilft Hans und dem Arzt assistiert Maria.*  
 [the doctor]<sub>DAT</sub> helps Hans and [the doctor]<sub>DAT</sub> assists Maria  
 'Hans helps the doctor, and Maria assists him.'

- c. \**Dem Arzt hilft Hans und ~~den Arzt~~ unterstützt Maria.*  
 [the doctor]<sub>DAT</sub> helps Hans and [the doctor]<sub>ACC</sub> supports Maria  
 intended: ‘Hans helps the doctor, and Maria supports him.’

Fanselow (2002) and Barðdal (2002) thus argue that the problem with (43b) is that there as well the deleted argument does not match the case of its antecedent, not anything directly related to subjecthood. Icelandic differs, then, in not requiring such case-matching. Stepanov (2003) adopts the same proposal and argues that the examples with and without matching reflect different underlying structures. Both are available in Icelandic, but in German only the matching structure is.

What is really interesting is that, as noted by Barðdal (2002), case-matching is relevant to the PRO data as well. It is indeed impossible to have a dative PRO controlled by a nominative matrix subject in German, as in (34b) repeated here as (45a). However, if the antecedent is dative as well, the sentence improves dramatically.<sup>20</sup>

- (45) a. \**Ich hoffe [geholfen zu werden.]*  
 I hoped helped to be (i.e. \*PRO:DAT helped to be)  
 intended: ‘I hope to be helped.’  
 b. *Mir gefällt es nicht, nicht geholfen zu werden.*  
 me<sub>DAT</sub> pleases it not not helped to be  
 ‘I dislike not being helped.’

Thus the problem with (45a) is not a general ban on German datives becoming subjects, or even a specific one on them being replaced by PRO. Morphological case is at work in these examples, but not in the way assumed in the traditional inherent case account. Rather than generally steering movement, it places a matching-constraint on the appearance of certain empty categories in certain languages.

A number of open questions remain here. Perhaps the most important one is exactly how and when in the derivation the case-matching constraint works, and why it seems to unify conjunction reduction and control infinitival environments. It is to be hoped that an answer to that question would also explain why German has this constraint and Icelandic does not. However, it seems to at least be descriptively correct, whereas the GB inherent Case story is not, since it predicts (45b) to be as bad as (45a). The proper treatment of control infinitives is a matter of consistent and current controversy, (for some recent discussion see Martin 1996; Hornstein 1999; Landau 1999; Manzini & Roussou 2000; Martin 2001; Culicover & Jackendoff 2001; Wurmbrand 2001; Landau 2003; Boeckx & Hornstein 2003) so it is not particularly surprising that it raises questions here as well.

#### 4. Conclusion

The development over the past several years of an account of datives in terms of argument structure is highly welcome as a parallel to the research undermining the

connection between case and movement. I have attempted to show here that the two strands can be brought together to create an account of datives that can handle the data from German as well as Icelandic far better than the GB inherent Case theory. Morphological case-marking is not in fact the defining characteristic of these dative objects. Rather, their special status and restricted syntactic behavior derive from the way they are introduced into the argument structure.

In fact, the simplest assumption would be that the dative case that these arguments receive is also a reflex of the way in which they are introduced into the structure. That is, we can propose that the Applicative head assigns dative case to the argument that it introduces in its specifier.<sup>21</sup> Note that this allows us to retain the GB explanation for why the dative remains under passivization, at least in spirit. While the dative under this conception is no longer lexical in the sense of being assigned by a feature of particular lexical verbs, it is also not structural, since its assignment depends only on which kind of head the argument is introduced by, not on any other elements in the clausal structure like tense, finiteness or the presence of another argument. This contrasts with the structural accusative, which can only be assigned when there is a higher structural argument within the relevant domain. However we formalize this insight, the conditions for the assignment of accusative will no longer be met when the external argument has been removed via passivization. Since passivization will not change the fact that a given argument was introduced in Spec-AppP, it is expected that the dative will still be assigned. Note that inherent case phenomena were one of the areas of GB Case theory where there was the most evidence that morphological case drove aspects of the derivation. If the argumentation presented here is on the right track, this would constitute an important step away from that view, and towards one where morphological case interprets the output of the syntax along the lines pursued for morphology in general in work within Distributed Morphology (Halle & Marantz 1993; Embick & Noyer to appear; McFadden 2004).

## Notes

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1. I will refer to accusatives with normal two-place verbs as direct objects, to datives with two-place verbs as sole dative objects and to datives with three-place verbs as indirect objects. I will use the term dative objects to refer to the last two together.

2. It should be pointed out that GB Case theory did not claim that inherent datives were identical to direct objects aside from their case-related properties. Researchers at the time were indeed aware of many other differences. The point is that case was the one factor that was taken to be responsible for their special behavior under passivization. What subsequent research has revealed is that the other differences are more extensive and systematic than was previously realized.

3. The tree obviously abstracts away from questions of detail not directly relevant here like head directionality.
4. Note that positing a distinct grammatical function in LFG is in general roughly analogous to positing a distinct structural argument position in a GB/Minimalist framework.
5. Blume (1998) is particularly interesting in this respect, who finds the same semantic types occurring as datives in German, Hungarian, Polish, Rumanian, Tongan, Samoan and Maori.
6. Recipients and benefactives also have corresponding negative types which we could call deprivées and malefactives. Pertinence datives are descriptively 'affected possessors'. I.e. they are somehow affected by action on something which is interpreted as their possession. That which is possessed is typically realized as the direct object, but it can also be embedded in a PP as in (9b). See Hole (in press) for extensive discussion of the semantics of possessor datives.
7. As noted in the introduction, so-called low datives seem to be different. Whereas the high datives being discussed here tend to be affected and animate, low datives are typically inanimate and have a locative semantics, thus most recent authors propose a distinct semantic (and syntactic) analysis for them. See the works cited above, especially Cook (this volume) for discussion.
8. Haider (1985) and Chomsky (1986) did assume that a verb can only assign inherent case to an object that it  $\theta$ -marks, but the reason for this is to rule out inherent case-assignment in ECM constructions. As indicated in the quote, a dependency on *specific*  $\theta$ -roles was explicitly denied.
9. The exceptions to this are the real candidates for being treated as lexical. This applies to double accusative verbs like *lehren* 'teach' and potentially also to the verbs like *aussetzen* 'expose' which mark the second object dative. Even with this latter group, however, there is evidence for sub-regularity suggesting that they too require an analysis in terms of a distinct argument structure rather than lexical case-assignment (again, see McFadden 2004; Cook this volume; Meinunger this volume).
10. That a dative should be possible with these verbs is predicted by the analysis of their argument structure sketched above in the discussion of *beglückwünschen* 'congratulate'. In the terms used there, the noun that is 'provided with' the 'X' contained in the verb is syntactically a direct object, thus there is room for an applicative argument in addition to it.
11. The English translations provided do differ, but this reflects a fact about English (that sentences like *He believes his brother the story* are not possible), not anything about the German sentences themselves.
12. Müller (2001) shows that datives *can* control depictives under certain circumstances when no external argument is present.
13. Daniel Hole, p.c., asks whether the reading where *Bill* is dead in (24) might be out simply because a dead person cannot be given anything. However, if we replace *dead* with *naked*, the judgments remain the same. Since naked people certainly can be given things, the problem must indeed lie with the argument structural status of *Bill*.
14. To realize the role played by the dative, one would have to use a different construction where the argument is introduced by prepositions, as in e.g. *das Schenken des Spielzeugs an den Jungen* 'the giving of the toy to the boy'.
15. Daniel Hole, p.c., suggests that (31a) is not really the passive pendant to the stative (30a), but rather an eventive passive of something more like *Solche Leute ärgern mich (schon seit Tagen)* 'Such people have been bothering me (for days now)'. In other words, as suggested by the ex-

planation offered in the text, passivization is only possible when *solche Leute* is an external argument, the agent of an event of bothering. It is not possible where *solche Leute* is understood as the theme of a state of annoyance.

16. Thanks to an anonymous reviewer for reminding me of the relevance of this quote. In fact Chomsky does not quite argue for a complete separation of case assignment from movement. According to the Activity Condition, a DP cannot undergo movement after it has had its case feature specified. Among other things, this is meant to block subject raising out of finite clauses. Note that this still allows in principle for inherent case assignment to block movement to subject, as long as it occurs early enough.

17. It may seem like these two possibilities are just notational variants of one another. However, while there is extensive overlap between abstract Case and the EPP, they do make a number of distinct empirical predictions, largely due to the fact that Case is a condition on DPs while the EPP is a condition on clauses or landing-sites. See McFadden (2004: Ch. 8) and the works cited there for ways to tell the two apart and one attempt to decide between them.

18. For additional evidence for the subject status of oblique arguments of this type, see e.g. Andrews (1976); Zaenen, Maling, & Thráinsson (1985) and Sigurðsson (2003).

19. In English, e.g., the non-finite clause embedded below true ECM verbs has the marker *to* and allows auxiliaries (*I believed John to have left*), whereas the clause below causative and perception verbs allows neither (*\*I saw John to have left* vs. *I saw John leave*).

20. unfortunately, the data are not entirely secure here. Not all speakers of German get a clear contrast between (45a) and (45b). See Barðdal (2002) for discussion.

21. The inherent accusatives discussed in Section 2.4 presumably must be treated as real lexical exceptions. Dative would then be assigned to Spec-AppIP by default.

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