Datives and Other Cases
Between argument structure and event structure

Edited by
Daniel Hole
André Meinunger
Werner Abraham

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**Volume 75**

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Preface

The majority of papers in this volume were first presented at a workshop held on February 25th/26th 2004 during the 26th Annual Meeting of the German Society of Linguistics (Deutsche Gesellschaft für Sprachwissenschaft – DGfS) in Mainz (Germany). The workshop on ‘Datives and similar cases’ was organized by Daniel Hole/Munich and André Meinunger/Berlin, who gratefully acknowledge the overall organization of the meeting by the local organizers at the Johannes-Gutenberg-Universität.

The aim of the workshop was to bring together linguists of diverse theoretical persuasions to assemble a state-of-the-art picture of research into datives, similar morphological cases, and phenomena that are semantically or functionally similar while displaying a divergent constructional make-up. The small workshop turned out to be a success, and the idea to collect the contributions and publish them as a book was brought up immediately.

Soon after the workshop, Werner Abraham completed the editorial team and the list of contributors and established the contact with the publisher and the second co-editor of SLCS, Michael Noonan. At a later stage of the editorial process, the possibility to include Walter Bisang’s paper opened up, an opportunity that we happily made use of, given the overarching and complementing scope of his article.

Each paper was reviewed at least twice. The internal non-anonymous reviewing of each paper was accompanied by an anonymous external review, and more internal or external reviewing cycles followed if deemed necessary by the editors. We would like to take the opportunity and thank the following external referees for their efficient and competent work: Ivano Caponigro (Università degli Studi di Milano-Bicocca), Stefan Engelberg (Bergische Universität Wuppertal), Insa Gülzow (ZAS Berlin), Hubert Haider (Universität Salzburg), Theodor Marinis (Universität Potsdam), Ingo Reich (Universität Tübingen), Halldór Sigurðsson (Lunds universitet), Stefan Trommer (Universität Osnabrück), Niina Ning Zhang (National Chung Cheng University Taiwan), and Gisela Zifonun (IdS Mannheim).

The contributions have been arranged on the basis of whether or not they highlight facts from Germanic, the case systems of this branch of languages being a resounding issue in more than half of the papers. Like this, we avoided separating syntactic and (event) semantic approaches, thereby representing a recurrent conviction of the contributors that the two modules should be seen as two sides of one and the same coin.
We hope that this volume provides readers with up-to-date theory and description in the realm of – Datives and other cases: Between argument structure and event structure.

The editors
PART I

Introduction
Introduction

Datives: Structural vs. inherent – abstract vs. morphological – autonomous vs. combinatory – universally vs. language-specifically configured?

Werner Abraham

The present introduction serves mainly one purpose: to sketch what appear to be relevant topics in the linguistic discussion of Case in general and the Dative in particular. It is not meant as a rundown at whatever density and exhaustion of the contributions contained in this volume. The selection is guided by foci on datives, governed or free, in German, whose research history is rich and long. It is no doubt superfluous to emphasize that there is much more work on datives in the languages sporting overt case morphology that would need at least to be hinted at. I have chosen the following topics to be touched upon: 1. Cases: Modern deep problems vs. older surface issues; 2. Case contingent upon valence-induced case combinations; 3. Case governed by V-incorporated P; 4. Dative as a recipient argument and scalar interpretations; 5. Dative(s): reflexivity and reciprocity; 6. Raised possessors as ergatives in non-ergative languages: the case of Modern German; 7. Paradigmatic and syntagmatic dative relations. A new chapter in case grammar; 8. The dative as adjective governed: Russian vs. German.

1. Cases: Modern deep problems vs. older surface issues

1.1 Case, as a typological and traditional grammatical concept

Case, as a typological and traditional grammatical concept, has always had overt exposition. Case as a deep, invisible concept, had no conceptual space up to the rise of generative grammar, in which deep logical forms and mechanics were devised to account for derivations and templates not visible overtly. Likewise, the distinction between structural and non-structural/inherent/oblique case could not be brought home under traditional pretexts of grammar writing. It is within such perspectives that case in general, and the dative case in particular, received traditional descriptions. See, most
recently, the two volumes edited by Van Belle and van Langendonck (1996) as well as van Langendonck and Van Belle (1998). In this same spirit, dative case assignments have received discriminations by force of thematic roles (Wegener 1985 for German).

The ‘modern’ tradition of case explorations were initiated by Czepluch (1988) – characteristically with a language that sports not only case distinctions on the nominal paradigmatic level: German. What is more, bare morphological case scrambles in the German middle field without changing its morphological looks – as opposed to English and Scandinavian, which more or less generally transform datives to prepositional phrases when moved to the other side of the accusative/direct object (under the terminology of ‘dative shift’). Usually, but no doubt misleadingly, this ‘movement’ is classified under ‘Heavy NP shift’ – i.e., where bare case takes on the form of a PP when moved out of its basic position. We will assume here that there is no ‘Heavy NP shift’, i.e., that bare case moves only when scrambled without any morphological consequences, and that bare-case substitution by prepositional phrases (PPs) in languages such as English and Germanic Scandinavian sidesteps semantic equivocation, the prerequisite of movement.

This paper explores several issues of the dative case exponency. First, the consequences of the universalist view are investigated that case in general, and dative in particular, has a deep, invisible configuration before phonetic spell-out. Once this is accepted, the PF dative (case) exponent essentially has a distinctiveness function. From this follows that the claim that dative case is a function of ‘making sense’ and/or that thematic role information as such has to be called upon from an autonomous module is superfluous. If, furthermore, (dative) case is assigned, or matched, inside vP, as canonically assumed under a generative view, the question arises whether dative DPs must, or may, raise out of vP to match for other functional features (as Sigurðsson 2003 has suggested). Case marking dependent marking of A(gents)-S(ubjects)-P(atients), following Nichols (1986), is hard to interpret in terms of case-frequencies across languages. According to Sigurðsson, around 95% of the 155 ‘relevant’ languages in Nichols’ sample had A-S-P contrasts marked one way or another (i.e. on arguments, at least pronominal, and/or on the verb).

Three approaches to facts of this sort are a priori possible:

1. **The morphological approach**
   The notion of case is purely morphological, hence full DPs in English and all DPs in Chinese are caseless, whereas English pronouns are case marked.

2. **The language-specific approach**
   A language either has or has not a case system. Thus, all English DPs are case marked, overtly or covertly, whereas case is absent from Chinese.

3. **The universal approach**
   DPs are universally case marked, at least abstractly.
Introduction

1.2 Explanations for the existence of two dative positions

There are (at least) three approaches to handling the issue that German permits dative arguments of ditransitive verbs to occur in two different structural positions. These are

a. The inherent/structural case distinction
b. The hidden PP analysis
c. The animacy account

Proposals (a) and (b) are reviewed first and some predictions which automatically follow from each of them are highlighted. Proposal (c) actually refutes the existence of verb government according to (4) above. The main discussion, and rejection, of the animacy account will be deferred until Section 2 where an alternative explanation is developed.

1.3 Inherent vs. structural

One potential solution to the issue of why the dative object of ditransitives has a different base position to that of most others is to assume that the (verb-close) dative of the verbs in (4) is inherent, in contrast to the dative case borne by verbs such as schicken ‘send’, which is assigned (or checked) verb-distally and is assumed to be structural. The actual mechanics of inherent case assignment vary. It may, e.g., be argued that inherent case is assigned directly by the verb so the inherently case-marked object must ‘stay’ verb-close (cf. Molnárfi 1998:552), or that inherent case is assigned/checked only under head adjacency (Czepluch 1988:285). However, the underlying principle is that inherent dative is an idiosyncratic property of certain verbs which requires, in German, that the inherent dative be realized verb-close. For an overview of inherent case and its status within Minimalism, see McFadden (2004:Ch. 4, in this volume). For arguments against dative as a structural case in the first place, see e.g. Haider (1993:108–110; Abraham 2005:Chs. 3 and 5).

The postulation of the inherent/structural distinction for different datives is motivated not just by the difference in position that the two different ‘kinds’ of dative have, but also by the differing behavior of the two kinds of datives with respect to kriegen-passivization. Put differently, the kriegen-passive is said to yield evidence for this claim (cf. Fanselow 2000). Within Government and Binding, at least, the hypothesis that inherent case is a lexical property of some verbs was the basis for ensuring that the assignment of structural case is blocked. With respect to passivization, inherently cased marked objects should not be able to surface as nominative (i.e. structurally case-marked) subjects. So, if the reason for the verb-close position of the dative objects of the verbs in (4) really is that they bear inherent case, a passive operation applying to these verbs should not permit assignment of nominative case, whereas this should be possible for structurally case-marked datives. A construction which is typically used to test this hypothesis is the so-called kriegen-passive. Although it is disputed whether or not this is a true passive construction (cf. Haider 1984, 1986; Reis 1985; Wegener 1985;
Werner Abraham

Fanselow 1987; Abraham 2005: Ch. 5), this term is used for now merely for expository simplicity. The analysis to be proposed in Section 4 will shed more light on whether or not this should be considered a passive construction. Schmitz (in this volume) argues on the basis of acquisitional data datives are learned later and appear to be subject to interference a lot more in the acquisition period of L1-learners because they are not universally structural Case and, thus, are less firmly grounded since lexical/V-inherent.

The introduction to this section might suggest that the morphological and the universal approaches are mutually exclusive. However, as we shall see, they are not. One may conceive of abstract case as a universal feature or phenomenon (as in e.g. Chomsky 1981, 1995, 2000, 2001a), and – in addition – as a prerequisite of structural morphological case-marking in languages that have such marking. I follow Sigurðsson (2005) in this assumption. It should be noted however that ‘Case’ is a somewhat unfortunate misnomer for the universal feature in question, but, for expository ease, I stick to the standard terminology until Section 5 (where I will argue that ‘abstract case’ can be replaced by Argument Licensing adopting a position advocated by Sigurðsson 2005).

The Universal Approach to Case leads to an understanding that is very different from most traditional conceptions of case (Sigurðsson 2005). In particular, it forces us to conceive of morphological case as a PF exponent, whereas abstract case is ‘radically abstract’ in the sense that it is a narrow syntax phenomenon that is not necessarily reflected or expressed in PF (although it often is). Given that language is basically uniform (viz. the Uniformity Principle in Chomsky 2001a: 2), it is inevitably the case that PF is arbitrary to a degree higher than usually assumed, not only cross-linguistically but even language-internally. On the one hand, as pointed out by Sigurðsson (2005), language is ‘over-efficient’, i.e. it is evident that features and categories are commonly present in a particular structure without being expressed in PF (see e.g. many of the facts discussed by Cinque 1999; think of Tense in morphologically non-tensed contexts, or consider null-arguments in non-inflectional languages like Chinese). On the other hand, language may also be abundantly redundant, tolerating a considerable amount of ‘morphological noise’. In such cases, morphological variation has no linguistic function, although it may have some social function (like signaling one’s belonging to a certain social group). Arbitrary inflectional classes are a clear example. Thus, the subdivision of Icelandic nouns into 27 inflectional classes (cf. Svavarsson 1993) has been claimed to have, for the most part, no semantic or linguistic function at all. Yet, by comparison to German as we shall see, case can be seen as one of the more regular morphological categories both paradigmatically and syntagmatically.

At the outset, a clarification of some ‘case-terms’ is in place: Case is a relation between a DP (or an argument) and its syntactic surrounding, and this relation may be semantically associated or not. Semantically associated case is inherent case, whereas case that is not so associated is structural case. Both inherent and structural cases may but need not be reflected by morphological case (m-case). Case that is not morphologically reflected is merely abstract case or deep case. In most European case-languages, abstract cases and m-cases are linked such that the abstract inherent cases are expressed
by the dative or the genitive (and, less commonly, the instrumental, locative or ablative), whereas the abstract structural cases are expressed by the nominative or the accusative (and the genitive DP-internally).

There is plausibly a universal ‘case space’ or case continuum, comprising all the relations that DPs (or arguments) may enter into. Typological research (cf. Blake 2001:157ff.) reveals certain regularities or at least tendencies in the structuring of this continuum. Thus, if two languages, X and Y, have a four case system of the familiar Icelandic/German type, then it is more likely than not that a DP relation R that is expressed by the dative in language X is also expressed by the dative in language Y. Nonetheless, as mentioned above and as we shall see more clearly for German, the correlations between individual m-cases and abstract cases are usually arbitrary to a considerable extent. Thus, it appears that the notion of abstract case can be dismissed if the pertinent relations such as agreement are expressed structurally in an unambiguous way.

2. Case and valence-induced case combinations

2.1 Dative varieties

‘Datives’ – to the extent that the case is still distinct morphologically – clearly come in different denominations: as regards

i. the combinability with other V-governed cases or lexical monovalence (as with helfen ‘help’);

ii. loosely governed (or adjunct), so-called “free” datives;

iii. subject-like datives (as in Icelandic);

iv. in a variety of preposition-like meanings;

v. the near-structural dative allowing for passivization as in the so-called dative/recipient passive;

vi. governing categories other than verbs.

I have myself taken the stance that free (non-valence) datives are not much different from valence-datrices as regards their theta semantics as well as their syntactic behavior (Abraham 2005:Ch. 3). The dative passive has been identified as a secondary predication with the original dative promoting to the passive subject alright. However, what counts more is the fact that bekommen/kriegen ‘get’, the alleged dative passive auxiliary, does not have Aux status at all. Rather, the theta grid of the dative passive predication is determined by the restrictions extended by bekommen/kriegen – a fact that renders this passive construction underived from any active counterpart (Abraham 2005:Ch. 5; but see Reis 1974 for a different view). This takes care of (ii) and (v) above. I will not deal with these issues any further. As for the remainder, my focus will be on (i) and (iv), with subject-datrices left more or less to the existing, competent literature in the field (see Sigurðsson 2002, 2005). Only a few words will be said about (vi) in as much as
the P-governed dative is taken care of under (iv) within an interesting cross-linguistic perspective.

Except for Icelandic and partly Dutch, the Germania follows the whole-sale case syncretism of English, which implies structural clause part identification by position. That is, what are lexically designated datives in German either correspond to verb-proximate bare case direct objects or, semantically undifferentiated, to prepositional case elements in verb-distal and, consequently, non-direct object position. However, there is no English-like semantic equivocation between preposition Case and indirect object function, on the one hand, and verb-proximity and direct object function, on the other, in the rest of the Germanic languages. Askedal (1997, 1999) has demonstrated that what are dative objects in German receive different prepositional Cases in Norwegian. The same holds for Dutch vis-à-vis German. Quite clearly, this reflects different chains of grammaticalization from original dative-Case periods to modern prepositional-Case stages in English, Norwegian, and Dutch. The ensuing discussion takes up (iv) above.2

This raises the question, first, what the trigger is for Norwegian and Dutch assigning different prepositions. In other words, since prepositions have localistic meaning, there are bare datives in German which must be identified to be different in meaning according to what they are semantically co-assigned by their governing verbs. Second, given the total grammaticalization English has undergone in designating no more than one single preposition, to, to indirect Case, it can be investigated which localistic prepositions fuse first to yield the early step in grammatically neutralizing prepositional Case for the purpose of distinguishing it from the direct object. We shall return to this issue in Section 4 below.

Let us first take up what is at the heart of the dative-issue: i.e. (i) from above.

2.2 Regular vs. exceptional patterns in German

It is (i) above and the two questions in the closing paragraph of Section 1 that we pursue further in this sub-section. To complete the picture the total range of Case series in German is inserted. German syntagmatic and paradigmatic morphology distinguishes four different Cases: nominative, accusative, dative, and genitive. The three regular Case patterns, both as regards Case combination and relative linear order, of German verbs are listed in (4). They can be predicted from a small set of simple rules.

(4) one-place verbs: Nominative
    two-place verbs: Nominative Accusative
    three-place verbs: Nominative Dative Accusative

The nominative is always the ‘highest’ (= most verb-distal) argument, accusative the ‘lowest’ (= predicate-proximal). In addition, Case can be determined in an exceptional way in German, too, and an inspection of the range of Case exceptions leads to the following generalizations.
(5) Restrictions on Bare Case combinations in German

GENERALIZATION 1
The highest argument of causative/agentive verbs is never marked exceptionally except in ECM-contexts. In cases other than causative/agentive the highest argument may be exceptional (as in Icelandic) or must not be (as in German). This includes and excludes (\(\ast\)) the following combinations (illustrated on subordinate V-last order).\(^4\)

a. \(\ast\) Gen – Nom *daß seiner sie gedenkt* that him\(_\text{gen}\) she thinks.of
b. Nom – Gen daß sie seiner gedenkt that she him\(_\text{gen}\) thinks.of
c. Nom – Dat – Acc daß sie ihm etwas gibt that she him\(_\text{dat}\) sth\(_\text{acc}\) gives
d. Nom – Acc – Dat daß sie etwas ihm vorzieht that she sth\(_\text{acc}\) him\(_\text{dat}\) prefers
e. Nom – Dat daß sie ihm hilft that she him\(_\text{dat}\) helps
f. * Dat – Nom – Acc *daß ihm sie etwas gibt* that him\(_\text{dat}\) she sth\(_\text{acc}\) gives
g. *Gen – Nom – Acc *daß dessen sie ihn bezichtigt* that this\(_\text{gen}\) she him\(_\text{acc}\) accuses

GENERALIZATION 2
At most one argument of a verb can be marked exceptionally. This excludes the following combinations.

h. Nom – *Gen – Dat – Acc *daß sie dessen ihm etwas gibt* that she this\(_\text{gen}\) him\(_\text{dat}\) sth\(_\text{acc}\) gives
i. *Acc – Nom *daß ihn sie unterstützt* that him\(_\text{acc}\) she supports
j. *Nom – Gen – Acc *daß sie dessen ihn bezichtigt* that she this\(_\text{gen}\) him\(_\text{acc}\) accuses
k. *Acc – Nom – Acc *daß ihn sie etwas lehrt* that him\(_\text{acc}\) she sth\(_\text{acc}\) teaches

l.\(^5\)/nom – Acc/(Dat)\(^5\)/nom* daß sie ihn/ihm etwas lehrt* that she him\(_\text{acc}\)/him\(_\text{dat}\) sth\(_\text{acc}\) teaches

GENERALIZATION 3
Only the lowest (DP-) argument of V can be marked exceptionally. In other words, all patterns are filtered out in which the exceptional Case is not the lowest in the hierarchy.

m. Nom – *Gen – Dat – Acc *daß sie dessen ihm etwas gibt* that she this\(_\text{gen}\) him\(_\text{dat}\) sth\(_\text{acc}\) gives
n. Nom – *Acc – Acc *daß sie etwas ihm lehrt* that she sth\(_\text{acc}\) him\(_\text{acc}\) teaches
o. Nom – *Dat – Dat *daß sie ihm mir\(^5\) hilft* that she him\(_\text{dat}\) me\(_\text{dat}\) helps
This leaves us with the attested patterns in Table 1 below (see also (5b–e) above) – and the possibly problematic case of psychological predicates – see (5q) above and 12 (Acc>Dat!) in Table 1.6

Since dynamic verbs cover the main body of the verbal lexicon GEN 1 says that the nominative has the highest priority in Case assignment (Bayer 2004). German respects GEN 2 in a very obvious, empirically verifiable sense, and so do other languages (see Czepluch 1982; Fanselow 1987; Maling 1993 for Icelandic). The most plausible explanation for GEN 2 is avoidance of parsing difficulties.7 Likewise GEN 3 is plausible as the opposite of GEN 1. However, it faces an apparent problem with Psych-verbs and other ‘inverted’ predicate types as for the valence types 8 and 12 in Table 1. Generally, to restrict structural flexibility to nominative and accusative corresponds closely to very general (bottom up) parsing requirements. It would be counterproductive to their very systematic existence if all Cases could participate alike in structural modification.

Clearly, Case in German is lexically designated. Recall from (3), that, other than in English, morphological Case in German has structural implications in the sense that only accusatives can promote to passive subjects.

There are two more Bare Case Generalizations implicit in (5a–q) and Table 1 based on thematic and characteristics of predicate proximity.

(6) a. GENERALIZATION 4

Non-Nominatives can never be Agents. This implies that secondarily derived Subjects cannot be Agent (ergative=unaccusative)V-subjects, passive subjects, middle construction subjects).

Table 1. Bare Case Combination Patterns in German (the ‘regular’ Case valence combinations appear under 1*, 5*, and 14*)

<table>
<thead>
<tr>
<th>Argument 1</th>
<th>Argument 2</th>
<th>Argument 3</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1*</td>
<td>nom</td>
<td>kommen</td>
<td>'come'</td>
</tr>
<tr>
<td>2</td>
<td>acc</td>
<td>frieren</td>
<td>'be cold'</td>
</tr>
<tr>
<td>3</td>
<td>dat</td>
<td>grauen</td>
<td>'dread'</td>
</tr>
<tr>
<td>5*</td>
<td>nom</td>
<td>sehen</td>
<td>'see'</td>
</tr>
<tr>
<td>6</td>
<td>nom dat</td>
<td>helfen</td>
<td>'help'</td>
</tr>
<tr>
<td>7</td>
<td>nom gen</td>
<td>gedenken</td>
<td>'commemorate'</td>
</tr>
<tr>
<td>8</td>
<td>dat nom</td>
<td>gefallen</td>
<td>'please'</td>
</tr>
<tr>
<td>11</td>
<td>nom acc</td>
<td>lehren</td>
<td>'teach'</td>
</tr>
<tr>
<td>12</td>
<td>nom acc</td>
<td>dat vorziehen</td>
<td>'prefer'</td>
</tr>
<tr>
<td>13</td>
<td>nom acc</td>
<td>gen beziehcn</td>
<td>'accuse'</td>
</tr>
<tr>
<td>14*</td>
<td>nom dat</td>
<td>acc geben</td>
<td>'give'</td>
</tr>
</tbody>
</table>
Table 2. Frequency of case tokens in German and Russian (academic texts)

<table>
<thead>
<tr>
<th>Case</th>
<th>German</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genitive</td>
<td>most infrequent: 16.6%</td>
<td>most frequent; ‘indispensable’: 89.9%</td>
</tr>
<tr>
<td>Dative</td>
<td>most frequent: 31.2%</td>
<td>most infrequent: 5.8%</td>
</tr>
<tr>
<td>Accusative</td>
<td>– (not counted)</td>
<td>– (not counted)</td>
</tr>
<tr>
<td>Nominative</td>
<td>very frequent</td>
<td></td>
</tr>
</tbody>
</table>

(6) b. GENERALIZATION 5

V-proximity reflects localistic reference (referring to the V-Proximity Hierarchy Dative < accusative < genitive < prepositional objects < V, for German/Dutch basic SOV). This is in line with our conclusions about the gradual increase of intensional meaning for prepositional objects by contrast with bare case objects (see the next Section 4). From this follows that accusative is not in V-proximate structural position in the presence of PP. Notice that this leaves open the question whether locally stative PPs are to be distinguished syntactically from directional PPs and, if so, how this is to be administered.

(6) c. GENERALIZATION 6

To account for *Nom-Gen-Gen, *Nom-Dat-Dat, parsing (sentence processing), certainly in a scrambling (discourse functional) language, is called for prohibiting Bare Case Doublets for obvious reasons, since any type of linking (thematic or clause-functional) is an additional load on the interim stack where material which cannot be processed yet has to be waiting for further processing clues. Nom-Acc-Acc is grammatical only in Standard German; in the dialects it is avoided and replaced by Nom-Dat-Acc. The ethical dative, however, appear to double up on valence datives. See (6d).

(6) d. Sie hilft mir ihr.
      she helps me ethical her dat.benefactive
      ‘I can’t believe it, she helps her!’

This confirms the exceptional status of the ethical dative.

Table 2 (according to Stroeva 1968) shows case token differences between German and Russian across the two cases, dative and genitive.

2.3 Abstract vs. overt/morphological Case

The notion of Abstract Case (cf. Chomsky 1981 and subsequent work; Blake 2001: 57–62; Sigurðsson 2003) derives its motivation mainly from three phenomena: the fact that, within one and the same language, overt, or morphologically marked, case is realized only in one nominal category, but not in another; and that overt Case in one language may change diachronically eventually emptying the morphological
paradigm. Finally, subject case is presumed to link to the lexically governed theta role in infinitival embeddings where the subject cannot surface. To illustrate the first motivating phenomenon we may refer to English, Dutch, or West Frisian, all of which have only case marking, viz. on pronominals: Modern English he-him, she-her, Modern Dutch hij-hem, zij-haar as opposed to German er.NOM-seiner.GEN-ihm.DAT-ihm.ACC, sie-ihrer-ihr-sie for the female chain and es-seiner-ihm-es for the neuter. For nominals, on the other hand, no such morphological paradigms exist in English, Dutch, and West Frisian, whereas German has partial overt distinctions: der.NOM Bär.NOM.des.GEN/dem.DAT/den.ACC Bär-en.GEN-DAT-ACC ‘bear’. Case is usually also governed by verbs (lose someone/ him/her/*he/*she) and prepositions: by/from/to her/*she. (7) illustrates an instance of the covert subject nominative in embedded infinitives.

(7) I told him [t0 to PRO.NOM [t0, nominate candidates]]

Since there is only a single formal opposition, languages such as English (and Dutch and West Frisian) may do with the distinction between Nominative and non-Nominative, or Casus rectus vs. Casus obliquus. This may give the impression that Subject can be identified, or linked in a direct formal relation, with Nominative/Casus rectus and that Object corresponds to non-Nominative/Casus obliquus. But no such cross-linguistically unique linking exists. Icelandic, for example, has subjects (more appropriately: subject distributions) in the dative or accusative depending on certain verb lexemes. And certain stages in the development of the Romance languages, such as Old Logudorese (Old Sardinian), provided morphologically oblique (but structural) case (mostly accusative) for subjects (Abraham 2005a). In ergative languages, the transitive subject is morphologically ergative-marked (non-nominative). Thus, if we assume that subjects always take Abstract Nominative (and therefore are not verb-, but VP/ vP- governed), while objects do not (and are always V-governed), the notion of Abstract Case receives some motivation. The step from Abstract Case to Universal Case is but minimal involving any relation of a dependent nominal to its governing head (licensor) as a potential marker of Case. If such a marking relation results in a one-to-one relation the structural position alone suffices to identify Case uniquely. It is for this reason, i.e., to avoid confusion of Case and structural position (or syntactic relation), that Cases are distributed over different structural and non-structural/adjunct/lexical positions (structural vs. inherent vs. lexical etc.) and licensors (vP, thus structural position; or V). But if V as Case licensor does not assign Accusative but Dative, Genitive or PP, no structural status can be assigned. Morphological Case is unpredictable – and thus inherently (or lexically) marked. See Section 1.3 above.

Only structural case partakes in syntactic processes such as passivization. Passivizability can thus be taken as a criterion for structural case status. The literature about the structural vs. non-structural status of the German dative under the passivization criterion is divided. See the following illustration with (8b) vs. (8d).
(8) a. *Er spuckte ihr auf den Bauch.
   he spat her_DAT on [the tummy]_ACC
   ‘He spat on her tummy.’

   she got by him on [the/the tummy]_ACC/DAT spat
   ‘She got spat on her tummy by him.’

c. Sie bekam von ihm auf dem Sofa gespuckt.
   she got by him on [the sofa]_DAT spat
   ‘She got spat by him on her sofa.’

d. Er sah ihr auf den Bauch.
   he looked her_DAT onto [the tummy]_ACC
   ‘He looked at her tummy.’

e. ?*Sie bekam von ihm auf den Bauch gesehen.
   she got by him onto her tummy looked
   ‘She got looked at her tummy by him.’

f. Sie wurde von ihm beim Fensterputzen gesehen.
   she was by him at window cleaning seen
   ‘She was spotted cleaning windows by him.’

g. Sie lief ihm weg.
   she ran him_DAT away
   ‘She ran away from him.’

h. *Er bekam von ihr weggelaufen.
   he got by her run away
   ‘He got run away by her.’

j. Er bekommt den Blinddarm rausgenommen/den Führerschein wegenommen/ den Orden aberkannt.
   he gets the appendix removed/the driver’s license taken away/the distinction revoked
   ‘He has his appendix taken out/his licence taken away/the distinction revoked.’

The main criterion that the bekommen/dative passive heeds is that all passive participles denote perfective, resultative states. This in itself is a near-reliable indication that the construction is on a par with the stative/adjectival passive (Abraham 2005:Ch. 3.8). Consider (8b) vs. (8c) as well as (8e). In other words, the bekommen/dative passive is like the personal passive, but subject to the additional perfective condition (Reis 1974). Furthermore, it seems that it can be argued that (8b) is not a generalizable passive of (8a) mainly because:

i. bekommen ‘get’ maintains its full lexical meaning; in other words, it is not an Auxiliary; see (8d) with ?*bekommt gesehen vs. bekam gespuckt in (8b) and compare (8e), the standard transitive passivization for sehen ‘see’. bekommen, thus, activates its specific lexical selection to allow and disallow complement embedding
ii. In line with (i) above, bekommen typically restricts the complement semantics to something ‘coming in’ to, not to ‘moving out’ from the origo of the lexical. See (8f, g), which illustrate this restriction. Such constraints are untypical for lexically unimpeded syntactic processes.9

But (8j) above leads one to revoke (i). (ii), however, remains intact: Irrespective of mal- or beneficiary as semantic role recipient, the dative referent denotes one that receives something. Brandt and Cook (both this volume) argue in line with (ii) above. Specifically, Cook proposes that the kriegen-construction involves complex predicate formation at the level of argument structure (cf. also Haider 1986). This requires a matching of the argument structures of the light verb bekommen/kriegen 'get' (and Norwegian få), and the embedded passive participle. This match arises only when the argument structure of the embedded predicate involves a beneficiary as thematically highest available argument. In short, it is shown that it is just those dative arguments that bear such a role for which the kriegen-passive is licensed.

Apart from this specificity of the German dative passive, it appears reasonable to say that the theoretical assumption of abstract case appears motivated as long as nominative case is not identified with subject as a syntactic relation.

2.4 Intensional varieties of the German Dative laid bare: The German Dative in cross-Germanic comparison

This section is concerned with cross-Germanic dative distinctions – more precisely, German bare datives as governed by various verbal lexemes, on the one hand, and their bare or prepositional equivalents in Dutch and Norwegian, on the other hand. The idea behind this comparison is that the clearest insights into what exactly the bare dative in German stands for semantically is provided through comparison with equivalents from languages where the datives are rendered as PPs. Take three-place verbs: How do they surface in German, Dutch, and Norwegian: as bare case combinations as in German, or (partially) as prepositional case and, if so, which (local) prepositions are used generally? The position advocated here is that bare case shift to the right yielding prepositional case as in English is not scrambling. True scrambling moves bare case without any morphological change (Haider & Rosengren 2003) since scrambling presupposes semantic equivocation of the moved elements.

Probably the deepest combinatorial insight we gained from the last section was that prepositional phrases never subject-agree with the clausal finite verb, at least not in German. The same holds probably universally (Sigurðsson 2005). This may seem trivial, but it is not against the background of the earlier discussion about quirky subject Case. The question will become virulent when German dative objects are compared with the distribution between bare NP and prepositional phrase correspondents in Dutch and Norwegian. Are there different bare argument/object datives in German...
such that only certain ones lead to bare DPs in Dutch/Norwegian, while other datives need to be rendered as PPs? It will be shown that this is indeed the case in Dutch and Norwegian – but not in English, since Dative shift invariably terminates in just one preposition: to. The prepositions in Dutch and Norwegian, however, surface in various forms and local meanings. If, as we assume, CaseP always governs DP under PP (P-adjuncts) or P-object-P (argumental PP) the question arises whether there are also datives not governed by bare CaseP such that the distribution in (9a, b) can be predicted in a systematic fashion.

(9) a. German DAT > Dutch/Norwegian bare DP
   b. German DAT > Dutch/Norwegian PP

Another topic in this section is opened by the grammaticalizing scenario. All Germanic languages including English derive from a state like modern German and Icelandic. The most radical grammaticalization chain is represented by English with only one grammatical Case preposition, to, albeit only in predicate-distal position. The Scandinavian languages and Dutch obtain middle positions on such a case-grammaticalizing chain in that different lexical prepositions replace the German datives – exactly which prepositional Cases will be the topic of the remainder of the present discussion.

The reason why linear order cannot determine the clausal function in German as well as Dutch is that linear order is determined by discourse functional status – i.e., as thema or rhema. Compare (10a–g) and (10a–e) against the background that personal and reflexive pronouns as well as definite/specific appellatives are category-inherent themata. Indefinite pronouns and indefinite appellatives are categorically rhematic.

(10) a. daß er seiner Mutter den Brief übergab
    that he [his mother]DAT [the letter]ACC handed over
   b. *daß er an seine Mutter den Brief übergab
    that he to his mother the letter handed over
   c. daß er den Brief an seine Mutter übergab
    that he the letter to his mother handed over
   d. dat hij zijn moeder de brief overhandigde
    that he [his mother]DAT [the letter]ACC handed over
   e. *dat hij aan z'n moeder de brief overhandigde
    that he to his mother the letter handed over
   f. dat hij de brief aan z'n moeder overhandigde
    that he the letter to his mother handed over

Table 3 compares three-placers and some of the underlying properties of the four Germanic languages under comparison. The ensuing discussion will relate to this summary.

Table 3 shows that the markedness distributions are satisfied to different degrees across the four languages. German provides topicalization as well as scrambling for...
Table 3. Markedness distributions and graded grammaticalization in positional DP/PP variation – the Germanic cline

<table>
<thead>
<tr>
<th>Language</th>
<th>Class of morpho-syntactic features</th>
<th>Grammaticalizing stage by position</th>
<th>Case identifiability by position</th>
</tr>
</thead>
<tbody>
<tr>
<td>German</td>
<td>Linearly flexible Case-DP</td>
<td>most conservative (ungrammaticalized)</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Never:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P-Case-DP = Bare Case-DP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dutch</td>
<td>Linearly flexible Case-DP</td>
<td>intermediate</td>
<td>±</td>
</tr>
<tr>
<td></td>
<td>Sometimes:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P-Case-DP = Bare Case-DP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norwegian</td>
<td>Linearly flexible Case-DP</td>
<td>intermediate</td>
<td>±</td>
</tr>
<tr>
<td></td>
<td>Infrequently:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P-Case-DP = Bare Case-DP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>Linearly flexible Case-DP</td>
<td>most strongly gramaticalized</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>(Almost) Always:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>to-Case = Bare Case-DP</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All types of IO-dative; Dative valences are categorically different semantically from P-Case. In Dutch free IO-NPs and P-Case are at a balance. Free IO-NP is linearly fixed. Norwegian has no scrambling or topicalization. From this follows that for purposes of context focus Norwegian, much like English, has to take recourse to bi-clausal (pseudo-)clefting. The overwhelming correspondence to German bare-Case IO is German P-Case. Modern English has no linear flexibility whatsoever, and there is only one IO-representation: that by means of to, which is devoid of any local implication, i.e., it is fully Case-grammaticalized.

This yields a distinct distribution across the four languages under investigation. See columns 2, 3, and 4 in Table 3 above. At the same time, these distinct distributions are indicative of the different stages of grammaticalization of Differential Object Marking.

The following corpus aims at supporting the generalizations made in Table 3. Norwegian provides bare Case IOs far less frequently (Askedal 1997, 1999) not only than German, but even than Dutch. The sample of German and Dutch mirrors the results of Norwegian to the extent that Norwegian has even fewer P-distinctions equivocating German bare datives. In other words, Norwegian has covered a longer path of grammaticalization than Dutch in its P-equivocation of the German bare datives. Given the four-way combinability we distinguish 4 classes of German-Dutch(-Norwegian) equivalences. Let us focus on Dutch equivalents of the German dative. To determine the intensional meaning quality of the German Dative type, the following feature types will be used (restricted to concrete local feature types):

I. **Transfer** (of objects from source to recipient irrespective of humanness, animacy, or concreteness of object transferred, of source, and of recipient) (**Trans**);
   **Trans** is invariably concrete, i.e., it is locatable in space

II. **Abstractness** (of objects transferred) (**Abstr**)


III. Go(al)/Benefact/Malfact (Ben/Mal): Person or object to which something beneficiary or maleficiary is being inflicted
IV. Directional movement (Dir)
V. Stative locative movement (LocMov)
VI. (→)/(←) denote directional movement away from (= to the goal)/toward (= to the source/agent) the lexical origo
VII. Fig(ure)/Gro(und): salient event participant/stative background

The fundamental idea behind this is that for semantic (di)transitivity to hold, there must be a source category, an object changing location/possession from source to recipient, and a recipient position. Only such a semantic transitivity template allows for genuine passivization (thus excluding impersonal passivization; see Abraham & Leiss to appear). Only one sample will be added in support of the distinctive types.

(11) German dat = exclusively bare DP:
   sample prove something to somebody

For a specific class of verbs no prepositional Case occurs in Dutch. There are only bare case correspondences. The feature cluster is [+transfer, +abstract] applying to ‘ditransitive’ (dat-acc-v) verbs such as beweisen – bewijzen ‘prove’, erwähnen – noemen ‘mention’, prognostizieren – voorspellen ‘predict’, schwer machen – moeilijk maken ‘make difficult’, vorlesen – voorlezen ‘read to’. An identical intension covers German ‘free’ and inalienable body datives such as ausreden – uit het hoofd praten ‘dissuade’, die Hand drücken – de hand drukken ‘shake hands’.

(12) German dat = optionally bare DP or prepositional Case in Dutch:
   sample betray something/-one to someone; describe something to someone

Four prepositions appear to play a role alternating optionally with bare representations: aan ‘to’, voor ‘for’, tegen ‘toward’, and naar ‘to’. Recall that P-objects are invariably in verb-proximate position if in collocation with bare Case NPs.

(13) German dat = exclusively preposition Case in Dutch
(14) Possessive construction as the only Dative equivalent – body part dative

German gives expression to dative Goal, while Dutch and English do not (see McIntyre in this volume). Since the German Goal is reflexively encoded, the figure-ground relation equals that of Type 5 above.

Table 4. Prepositional intensions of German datives: Verbs of communication

<table>
<thead>
<tr>
<th>Type</th>
<th>Ben</th>
<th>Dir</th>
<th>P-lexeme</th>
<th>Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+</td>
<td>-0</td>
<td>aan ‘to’</td>
<td>verraten – verraden ‘betray’</td>
</tr>
<tr>
<td></td>
<td>-0</td>
<td>+</td>
<td>tegen ‘toward’</td>
<td>sagen – zeggen ‘say’</td>
</tr>
<tr>
<td></td>
<td>-0</td>
<td>+</td>
<td>naar ‘toward’</td>
<td>zuwufen – roepen (naar) ‘call’</td>
</tr>
<tr>
<td>2</td>
<td>+</td>
<td>-0</td>
<td>voor ‘for’</td>
<td>beschreiben – beschrijven ‘describe’</td>
</tr>
</tbody>
</table>
Table 5. Prepositional intensions of German datives

<table>
<thead>
<tr>
<th>Trans</th>
<th>Abs</th>
<th>P-lexeme</th>
<th>Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>+</td>
<td>aan ‘to’</td>
<td>ansehen – iets aan iemand zien ‘read’ (from s.o.’s appearance)</td>
</tr>
<tr>
<td></td>
<td>+</td>
<td>‘aan’</td>
<td>überschreiten – overmaken ‘transfer’</td>
</tr>
<tr>
<td></td>
<td>+</td>
<td></td>
<td>aussetzen – blootstellen ‘expose’</td>
</tr>
</tbody>
</table>

Table 6. Prepositional intensions of German datives

<table>
<thead>
<tr>
<th>Go/Fig</th>
<th>Dir/Gro</th>
<th>P-lexeme</th>
<th>Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 2</td>
<td>+</td>
<td>voor ‘to/for’</td>
<td>ansehen – aan iemand zien ‘read’</td>
</tr>
<tr>
<td>Type 3</td>
<td>+</td>
<td>–</td>
<td>vorführen – opvoeren ‘present’</td>
</tr>
<tr>
<td>Type 4</td>
<td>+</td>
<td>naar ‘to’</td>
<td>Aussetzen – blootstellen ‘expose’</td>
</tr>
<tr>
<td>Type 5</td>
<td>+ (→)</td>
<td>+</td>
<td>abverlangen – verlangen ‘demand’</td>
</tr>
<tr>
<td>Type 6</td>
<td>+ (→)</td>
<td>+</td>
<td>sich anhängen – blijven hangen ‘hang on’</td>
</tr>
<tr>
<td>Type 7</td>
<td>+ (→)</td>
<td>+</td>
<td>unterschieben – schuiven ‘substitute’</td>
</tr>
<tr>
<td>Type 8</td>
<td>+</td>
<td>–</td>
<td>gleichmachen – gelijkmaken ‘make even’</td>
</tr>
<tr>
<td>Type 9</td>
<td>+ (→)</td>
<td>+Abs</td>
<td>nachreimen – traan laten ‘cry for’</td>
</tr>
<tr>
<td>Type 10</td>
<td>+ (→)</td>
<td>+</td>
<td>nachrühmen – achteraf veel lof spreken ‘put praise on’</td>
</tr>
<tr>
<td>Type 11</td>
<td>+ (→)</td>
<td>+</td>
<td>sich gegenübersetzen – gaan zitten ‘sit across’</td>
</tr>
</tbody>
</table>

Table 7. Intensions of German body part datives

<table>
<thead>
<tr>
<th>Poss Pron</th>
<th>Reflexive dative = goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>German</td>
<td>– +</td>
</tr>
<tr>
<td>Dutch/English</td>
<td>+ –</td>
</tr>
</tbody>
</table>

Table 8. Intension of the German body part dative

<table>
<thead>
<tr>
<th>Go/Fig</th>
<th>Dir/Gro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 12</td>
<td>+</td>
</tr>
</tbody>
</table>

Table 9 provides a survey in terms of a syntactic constituents. Recall that Dutch, as opposed to German, has no morphological case on common nouns. Syntactic relation/clause function recognition, and thereby semantic interpretation, is yielded on linearity criteria.

The conclusion of this section is that, although in principle the translational equivalents of the German dative with prepositions in other Germanic languages appear promising for the unraveling of Dative intensions, they are far from conclusive and sat-
Table 9. Comparison of syntactic relations between German and Dutch

<table>
<thead>
<tr>
<th>Class (i)</th>
<th>German</th>
<th>Dutch</th>
<th>P-marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>[DP_{DAT}]<em>i + [DP</em>{ACC}]_j</td>
<td>DP_i + DP_j</td>
<td>–</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class (ii)</th>
<th>[DP_{DAT}]<em>i + [DP</em>{ACC}]_j</th>
<th>(P +) DP_i + DP_j</th>
<th>Bare DP-marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class (iii)</td>
<td>[DP_{DAT}]<em>i + [DP</em>{ACC}]_j</td>
<td>*(P +) DP_i + DP_j</td>
<td>aan, naar, onder, tegen, van, voor</td>
</tr>
<tr>
<td>Class (iv)</td>
<td>[DP_{DAT}]_i + [POSS-REFL]_j</td>
<td>0 + POSS-DP_j</td>
<td>bij, met, over, om, tegenover</td>
</tr>
</tbody>
</table>

isifying. In order to yield more concrete results in terms of genus proprium et differentiae specificae, the P+DP semantics would have to be decomposed in richer spatial-vectorial detail (see Zwarts 1997).

2.5 Methodological conclusions: Parsing distinctions

Much like in German Dutch identifies part of the Dative phrases by position: V > IO > DO, in particular for lexemes of the semantic give-class. Dutch and German, however, differ in that Dutch does not scramble IO and DO. German does so under refocusing. PP-correspondents, on the other hand, are placed behind bare-Case DOs in all four languages again with the exception that only German can scramble for discourse functional purposes. With respect to this criterion of linear inflexibility Norwegian, Dutch, and English are totally alike. See (15a, b) for the corresponding base structures in English/Norwegian and German/Dutch.\(^\text{13}\)

(15) a. English/Norwegian IO-DO > DP > PP/PO

\[
[vp \ V [iop \ DP_{DAT} \ [dop \ DP_{ACC}]]] > [vp \ V [dop \ DP_j \ [po \ P + DP_i]]] \]

b. German/Dutch IO > DO > DP > PP/PO

\[
[vp \ [iop \ DP_{DAT} \ [dop \ DP_{ACC}]] \ V] > [vp \ [dop \ DP_j \ [FR_{AUX} \ [po \ P + DP_i]]]] \ V] \]

In German only the genitive object can be inserted between P-objects and the base position of the finite predicate. Let us translate this proximity to V-last (structurally c-command and m-command) to a narrow predicate phrase. From this follows that Dutch projects a far larger class of V-proximate predicate objects than German does. German, on the other hand, provides far more bare-dative, V-distal objects than Dutch. German, thus, projects the following strict case linearity (see Czepluch 1982).

(16) \[
[vp \ [iop \ DP_{DAT} \ [dop \ DP_{ACC}]] \ [FR_{AUX} \ [po \ P + DP_i]]] \ V(-Aux)_{FINITE}\]

What is it that determines the different prepositions in Dutch as equivalents to the bare case objects in German? Altogether we list ten different lexical prepositions in Dutch, among which the most frequent ones are voor (16), aan (7) and naar (6) in Charts 1-3 above. They are distributed over four semantic verb classes – see (17):
(17) a. German $[\text{DP}_{\text{dat}}]_i + [\text{DP}_{\text{acc}}]_j = \text{Dutch/Norwegian DP}_i + \text{DP}_j$

see the following lexical classes in the governing predicate:

**Verba dicendi**

give-verbs

take-verbs

**Verbs with body part object**

b. German $[\text{DP}_{\text{dat}}]_i + [\text{DP}_{\text{acc}}]_j = \text{Dutch DP}_i + \text{DP}_j$

or $= \text{Dutch DP}_j + \text{PO}_i$

**Verba dicendi:**

aan Goal 6 times

regen Goal 1

vor Benefactive 9

c. German $[\text{VP}_{\text{IOO}} \text{DP}_{\text{DAT}}_i]_{\text{IOO}} [\text{DP}_{\text{ACC}}_j]$ with stressed V-particle (as in vor-tragen, über-lassen) is replaced by a Dutch preposition to mark the German Dat:

aan Goal 3 times

voor Benefactive 7

naar Goal 4

van Source 4

d. in German possessive or Commodi-constructions the reflexive pronoun mirrors the Dutch possessive attribute where 'possessive attribute' reflects the semantics of:

van Source 6 times

voor Benefactive 2 times

Is there some kind of systematics at the bottom of this distribution? What strikes one is the locality differential evinced by the number of prepositions as compared with the German base dative case. No doubt one has to take this locality differential to be dependent on lexical intension of the verbal predicate. By contrast, the uniform dative case in German levels out such lexical differences. Inversely, one can say that bare case morphology is intensionally poorer than the prepositional case constituent, but extensionally richer – which may have contributed to the proliferation of bare case in general. In addition, the non-locality of the intensionally poor dative case allows for scrambling without grammatical consequences. This appears to be different in languages with less extensional, and consequently more intensional, bare case as in Finnish or Hungarian. P-case, by contrast, does not allow unlimited scrambling – compare Dutch. To all appearances, one can say that lexical case intensionality and the option of scrambling are mutually exclusive. And if scrambling is an efficient means of refocusing and D(iscourse)-linking, then the high intensionality of prepositional case is a signal of relatively low discourse prominence. See the correlations in Table 10.

The intensional criteria in the columns are determined by the following oppositions: prepositional object vs. Dative-NP; left-dislocated cleft construction or Pseudo-cleft construction vs. Scrambling; and referential extensionality vs. intensional object lexeme. On the basis of these criteria, the two languages figuring in Table 10 can easily be extended by English and the Mainland Scandinavian languages as shown
Table 10. Correlations of bare Case, Discourse Scrambling, and Case intension

<table>
<thead>
<tr>
<th>SVOV</th>
<th>Bare Dative Case</th>
<th>Scrambling = Discourse functions directly expressed by movement and/or refocusing</th>
<th>Case Lexeme intension</th>
</tr>
</thead>
<tbody>
<tr>
<td>German</td>
<td>+</td>
<td>+</td>
<td>–</td>
</tr>
<tr>
<td>Dutch</td>
<td>– (±)</td>
<td>– (limited)</td>
<td>+</td>
</tr>
</tbody>
</table>

Table 11. Correlations between Case – Discourse function – V-type

<table>
<thead>
<tr>
<th>SVO</th>
<th>Bare Case Dative</th>
<th>Topical Discourse focus expressed by cleft constructions</th>
<th>Lexeme intension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mainland</td>
<td>– (±)</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Scandinavian</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>– (±)</td>
<td>+</td>
<td>– (partly)</td>
</tr>
</tbody>
</table>

in Table 11. Prepositional objects, however, generally do not scramble (amenable, in principle, to 'Dative shift'; see ‘–(±)’ in Table 11). Whatever is subject to scrambling/topicalization and refocusing, and, consequently, discourse-functional change, in German and Dutch can only be expressed by cleft construction in Scandinavian and in English. English restricts the indication of preposition case to to. This P does not trigger any localistic meaning. The typological scale, thus, renders a cline between the pole of German, on the one hand, sporting bare Dative case, and English, as the other pole, providing prepositional objects without any localistic intension (see Table 5 under the term 'lexeme intension' for English).

This furnishes us both with different landmarks on a diachronic path of grammaticalization and with insights into distinct mechanisms of sentence processing. We have seen what the compensatory means between maintenance of bare IO-Dative, in correlation with Scrambling and direct Thema-Rhema-Identification (see Table 4 above), vs. localistic P-objects without direct Thema-Rhema-identification (valid for all of Germanic except German) look like.

3. Case governed by V-incorporated P

As we have seen in Section 2, the majority of irregular dative verbs are morphologically complex to the extent that they are formed by a combination of P + V (= stressed, separable verbal particle + simple verb; see also Meinunger 2000). Typically, such combinations assign case governed by the preposition. The examples are all three-place, while their simple counterparts are two-place or three-place with a prepositional goal object:
(18) a. \textit{Nach}-telefonieren 'after-telephone, try different places to reach so. on the phone':
\begin{center}
\begin{tabular}{l l l l}
\textit{Sie} & \textit{telefonierte} & \textit{ihm} & \textit{Nach} \neq \textit{Sie} \textit{telefonierte} \textit{ihm}.
\end{tabular}
\end{center}
\begin{center}
\begin{tabular}{l l l l}
\textit{she} & \textit{called} & \textit{him} & \textit{N} \textit{ach} \neq \textit{she} \textit{called} \textit{him}.
\end{tabular}
\end{center}
\begin{center}
\begin{tabular}{l l}
\textit{She tried} & \textit{to reach him} \textit{on the phone}. & \textit{She called him}.
\end{tabular}
\end{center}

b. \textit{Vor}-singen 'before-sing, sing to/in front of/for so. ':
\begin{center}
\begin{tabular}{l l l l}
\textit{Sie} & \textit{sang} & \textit{es} & \textit{ihm} \textit{Vor} \neq \textit{Sie} \textit{sang} \textit{es} \textit{ihm}.
\end{tabular}
\end{center}
\begin{center}
\begin{tabular}{l l l l}
\textit{she} & \textit{sang} & \textit{it} & \textit{him} \textit{V} \textit{or} \neq \textit{she} \textit{sang} \textit{it} \textit{him}.
\end{tabular}
\end{center}
\begin{center}
\begin{tabular}{l l}
\textit{She sang} & \textit{it} \textit{to} \textit{him}. & \textit{She sang} & \textit{it} \textit{to} \textit{him}.
\end{tabular}
\end{center}

c. \textit{Ab}-gewöhnen 'off-get.used.to, make s.o. quit doing sth. ':
\begin{center}
\begin{tabular}{l l l l}
\textit{Sie} & \textit{gewöhnte} & \textit{es} & \textit{ihm} \textit{Ab} \neq \textit{ Sie} \textit{gewöhnte} \textit{es} \textit{ihm}.
\end{tabular}
\end{center}
\begin{center}
\begin{tabular}{l l l l}
\textit{she} & \textit{got.used.to} & \textit{it} & \textit{him} \textit{Ab} \neq \textit{she} \textit{got.used.to} \textit{it} \textit{him}.
\end{tabular}
\end{center}
\begin{center}
\begin{tabular}{l l}
\textit{She made} & \textit{him} \textit{give} & \textit{it} & \textit{up}.
\end{tabular}
\end{center}

d. \textit{Aus}-setzen 'out-set, expose' :
\begin{center}
\begin{tabular}{l l l l}
\textit{Sie} & \textit{setzt} & \textit{ihn} & \textit{der} \textit{Kälte} \textit{Aus} \neq \textit{Sie} \textit{setzt} \textit{ihn} \textit{der} \textit{Kälte}.
\end{tabular}
\end{center}
\begin{center}
\begin{tabular}{l l l l}
\textit{she} & \textit{sets} & \textit{him} & \textit{[the cold]} \textit{Out} \neq \textit{she} \textit{sets} \textit{him} \textit{[the cold]}.
\end{tabular}
\end{center}
\begin{center}
\begin{tabular}{l l}
\textit{She exposes} & \textit{him} \textit{to} \textit{the} \textit{cold}.
\end{tabular}
\end{center}

It is not implausible to place separable verb particles (‘preverbs,’ in the typological terminology) and (inseparable) verbal prefixes on one scale of grammaticalizing development (cf. Abraham 1994; Lüdeling 2001; Dehé et al. (Eds.) 2002). Possibly, under this assumption, valence extensions by dative arguments for prefix verbs can also be taken to reduce verbal case government to remnant government of what used to be a preposition before total incorporation into the verb. Examples are:

(19) a. \textit{Ver}-weigern 'deny' :
\begin{center}
\begin{tabular}{l l l l}
\textit{Sie} & \textit{verweigert} & \textit{ihm} & \textit{einen} \textit{Kuß} \neq \textit{Sie} \textit{weigert} \textit{ihm} \textit{einen} \textit{Kuß}.
\end{tabular}
\end{center}
\begin{center}
\begin{tabular}{l l l l}
\textit{she} & \textit{denies} & \textit{him} & \textit{a kiss} \textit{ACC} \neq \textit{she} \textit{‘-nies’} \textit{him} \textit{acc}.
\end{tabular}
\end{center}
\begin{center}
\begin{tabular}{l l l l}
\textit{She denies him} & \textit{a kiss}. & \textit{She ‘-nies’ him}.
\end{tabular}
\end{center}

b. \textit{Er}-klären 'explain' :
\begin{center}
\begin{tabular}{l l l l}
\textit{Sie} & \textit{erklärt} & \textit{ihm} & \textit{die} \textit{Rechnung} \neq \textit{Sie} \textit{klärt} \textit{ihm} \textit{die} \textit{Rechnung}.
\end{tabular}
\end{center}
\begin{center}
\begin{tabular}{l l l l}
\textit{she} & \textit{explains} & \textit{him} & \textit{the bill} \textit{ACC} \neq \textit{she} \textit{‘-plains’} \textit{him} \textit{acc}.
\end{tabular}
\end{center}
\begin{center}
\begin{tabular}{l l l l}
\textit{She explains him} & \textit{the bill}. & \textit{She ‘-plains’ him}.
\end{tabular}
\end{center}

Notice that any such verb-lexical extension is restricted to prepositions that govern (also) the dative (i.e., those prepositions that allegedly govern both the dative and the accusative; but see the principled disclaimer to this traditional view in Abraham 2003). Purely accusative- or genitive-governing prepositions do not appear to V-incorporate. This is in itself indicative of the classification of verbal datives as exceptional, irregular case, at least for more-than-two place verbs.

There are claims to the effect that the German dative is structural the main argument being that it undergoes subject promotion with the \textit{bekommen}/get-passive. However, since this passive is subject to perfective-Aktionsart status of the lexical verb this cannot be maintained as a structural – i.e., more-than lexical – characteristic of
the dative. Undoubtedly, there is more than just one class of datives subject to different diagnostics and classification in this respect. Again, however, the fact that the dative has to evade the verbal case grid once the accusative takes the reference of the dative is indicative of its exceptional (= ‘inherent’) status. See (20).

\[(20) \quad \text{Er pfiff seinen/m Hund.} = \text{Er pfiff seinen/*m Hund herbei.}\]

\[\text{he whistled [his dog]}_{\text{acc/dat}} \quad \text{he whistled [his dog]}_{\text{acc/*dat}} \quad \text{hither}\]

\[\text{‘He whistled for his dog (to come).’ ‘He whistled for his dog to come.’}\]

4. Dative as recipient argument and scalar interpretations

A number of German two-place verbs such as *helfen* ‘help’, *dienen* ‘serve’, *schaden* ‘harm’, and *nutzen* ‘be useful’ display dative marking on their only object complement. Counter to the standard assumption in linguistic theory that these instances of case assignment are entirely lexically determined it can be argued that there is a grammatical mechanism that determines this particular dative assignment. Hence, the lexical stipulation of dative assignment for these verbs need not be necessary.

Engelberg (2005) points out that the helping effect, in order to be understood as such, must be “helpful” or “good” with respect to some benefactive individual. Consequently, the helping-event or helping trigger is judged as “good” if its effect is high on a personal scale of appropriateness. Pursuing this idea further, the dative argument is interpreted as a scalar relation to which the helping effect is relativized. This scalar interpretation of dative arguments has been developed by Brandt (this volume) for too-comparatives with datives in German; see, likewise, Krivokapić (this volume). According to Brandt, constructions involving a dative, in addition to the *too*-comparative, as in (21) are interpreted in such a way that the degree of the comparative is evaluated with respect to a structure that is introduced by the dative argument. Thus, the book in (21) may not be too heavy in general, it might just be too heavy for this particular individual.

\[(21) \quad \text{Der Otto ist mir *((zu) intelligent.}\]

\[\text{the Otto is me}_{\text{dat}} \quad \text{too smart}\]

\[\text{‘Otto is too smart for me.’ [Brandt this volume: the author’s sequent (61)]}\]

Brandt argues that datives, *cipients* in his terms, are located in a special temporal projection, \(tP\), which saturates a locative variable argument that is present in VP.

Much in a Davidsonian spirit, we can take the datives of *helfen/nutzen/schaden*-verbs to be licensed in the specifier of a temporal phrase, \(tP\). See the uniform semantics for all kinds of cipients (including double object constructions, *too*-comparatives, and existential constructions) in (22) (Brandt this volume).

\[(22) \quad \neg \text{AT(Xtheme,PIoc/deg,i)} \& \text{AT(Xtheme,PIoc/deg,i')} \& i < i'\]

[Brandt this volume: his (65)]
(22) reads as follows: \textit{ploc/deg}, a particular (location or) degree predicate, does not hold of \textit{xtheme} (which corresponds to the helping effect here, a covert event argument) at \textit{i}, but it does so later at \textit{i'} when the helping effect is reached. \textit{AT(xtheme,ploc/deg,i')} is an assertion that holds as the result of the helping event. By contrast, \textit{¬AT(xtheme,ploc/deg,i)} corresponds to the state of affairs before the event phase \textit{i} has taken place, with \textit{i} preceding \textit{i’}. The assertion phase can be identified with VP, whereas the pre-result phase is associated with the dative argument (‘cipient’, cf. ‘re-cipient’). In the case of \textit{helfen} ‘help’, the degree of appropriateness, or goodness, must be higher in world \textit{i’} where the helping result has occurred than in world \textit{i} where it has not been reached as yet.

Arguing for a particular event structure of \textit{helfen}-type verbs involves an agent, or a trigger argument which functions as the initiator of the helping result. Second, there is a goal/benefactive argument which carries dative case, relating to a personal scale of appropriateness or goodness. Third, a helping effect arises gradually as a result of the helping action. \textit{helfen/schaden/nutzen} ‘help/be (un)useful’, as events, can thus be seen as perfectives with two mutually implying event phases: an incremental phase, \{i\}, and a subsequent result phase, \{i’\}. Its specific event property is tied to the agentive predicate \textit{do} and the inchoative/perfective predicate \textit{become} (Brandt this volume).

5. Dative(s): Reflexivity and reciprocity

If arguments to the extent of referential datives do not suffice, let us take a fresh look at anaphoric datives, such as reflexives and reciprocals. It will emerge from this brief discussion, quite beyond doubt, that, if structural accusative anaphors are bindees (can be bound by referential NPs), datives are non-structural in that they cannot be bindees. While, quite obviously, this does not yet solve the question whether the contingent properties are syntactic or semantic, at least the discussion of ‘de-agentive’ reflexive derivations reveals that reflexives may have a (quasi-)passive reading given that the bindee anaphor detransitivizes and deagentivizes – processes that are necessary, albeit not sufficient, conditions of passivization.

See the following Russian datives as well as their translations and glosses beneath each sentence. The translations do not quite reflect the essence of these Russian reflexives. These derivatives with the dative of \textit{Experiencer} denote that the state is involitional – it does not depend on the will or intent of the \textit{Experiencer}, since the action may be against his/her will (see the typology of modal-deagentive reflexives in Geniušienė 1987:125–126, 288–289; Geniušienė p.c.).

(23) \textit{Emu ne spit-sya.}  
\textit{him} \textit{not sleep.3SG.PRES-REFL}  
‘He does not feel like sleeping.’

(24) \textit{Mne ne verit-sya.}  
\textit{me not believe.3SG.PRES-REFL}  
‘There is something that prevents me from believing (it).’
According to Geniušienė (p.c.), the dative reflexive denotes a referent who has an intuitive feeling rather than a down-to-earth attitude with respect to what he wants to say: One sees what happens (or something) but does not quite believe one’s eyes.

(25) Emu ne sidelo-s'-domā.
    himdat not sit.3SG.PAST.NEUTER-REFL at.home
    'He did not feel like staying at home.'/'He could not sit at home.'

(26) Nam xochet-sya-spat'.
    usdat want.3SG.PRES-REFL sleep.INF
    'We feel like sleeping.'/'We are sleepy.'

(27) Babushke ne-zdorovit-sya.
    grandmotherdat not-feel.well.3SG.PRES-REFL
    'Granny does not feel well.'

The latter predicate is a reflexive tantum always used with negation.

While 'sleep' as in (23) above does not lend itself to a passive use, 'work' does as in (28).

(28) Mne segodnya ne rabotat-sya.
    medat today not work.3SG.PRES-REFL
    'I do not feel like working today.'

Precisely what does the reflexive suffix achieve on the verb with respect to the dative at the beginning of the clause? The reflexive marker adds the meaning that the state is involitional, directed against what the Experiencer would like to do or feel, as in (23)–(27) which are derivatives from intransitive verbs. The reflexive marker is used in this modal meaning on intransitives, and it occurs on transitive verbs when they are used in an absolute way ('absolutely'), i.e. without a direct object. Similar reflexive constructions occur in German, also with negation or some epistemic adverbial, like wohl 'well'. In all the above examples, (23)–(28), the predicate is used with negation. When used without negation, the meaning is slightly different – see (29).

(29) Mne verit-sya, chto ty zhiva.
    medat believe.3SG.PRES-REFL that younom alive.FEM
    'It seems to me that you’re alive.'

Where does the modal meaning come from? Russian grammars say that it comes from the reflexive affix (Geniušienė 1987:125). But this is not plausible. My hunch is that it is implicated just as modality is for the infinitival preposition zu/to in German and English – consider This is to do (= 'can be done' or 'must be done', due to the more or less weighty underspecification of to, which, originally of the category P, has de-semanticized and grammaticalized in today’s syntactic context; cf. Abraham 2004). Thus, one can consider these clauses derivations from active clauses (without -syu) in a formal sense, but the modal meaning is added due to semantic and categorial underspecification. (23)–(27) are derivations from non-reflexive clauses, and (28) is a
reflexivum tantum. Only originally transitive verbs participate in this construction deriving a passive meaning. Aside from that, it is not clear why, unlike Polish (Frajzyngier 1982), Russian disallows impersonal passives of the -sya-form (cf. Abraham & Leiss to appear).

From the distribution in the following reciprocal examples, the far-reaching conclusion has been drawn that the German base order of case marking is ACC-DAT-V rather than the traditional DAT-ACC-V (Müller 1993; Sabel 2002).

   they introduced [the guests] one.another  particle  
   ‘They introduced the guests to each other.’

   they introduced one.another  [the guests]  particle  
   ‘They introduced each other.’

c. *Sie stellten einander den Gästen vor.  
   they introduced one.another  [the guests]  particle  
   ‘They introduced the guests to each other.’

d. *Sie stellten den Gästen einander vor.  
   they introduced [the guests] one.another  particle  
   ‘They introduced the guests to each other.’

Notice that this conclusion about word order, ACC-DAT-V, is not supported by any other ditransitive orders (Lenerz 1977; Abraham 1986). What is behind the different configuration in (30a–d)? Do the two distinct word orders justify two different generalizations about the order of objects in German?

Now, the reciprocal pronoun, einander, presupposes binding of a referential antecedent. The binding relation is proximity dependent. See (30a, b) as well as (31a, b).

(31) a. *Sie stellten einander vor.  
   they introduced one.another  particle  
   ‘They introduced themselves to each other.’

b. *Sie stellten den Gästen vor.  
   they introduced [the guests]  particle  
   ‘They introduced the guests to each other.’

If einander/sich gegenseitig presupposes binding through either subject or another object and the proximity of binder and bindee determines whether the subject or the object binds, the ungrammaticality of (30c, d) and (31b) follows immediately and without further syntactic stipulation. According to (31a, b), vorstellen ‘introduce’ is a two-place NOM-ACC verb. Adding another theta-role makes the verb NOM-DAT-ACC. However, since the reciprocal bindee einander/sich gegenseitig needs to be in post-binder position, what remains is the GOAL-DATIVE role/case marker. (31b) is excluded because the basic theta role/case grid forbids NOM-DAT/GOAL. (30c, d) are out because the bindee occupies the primary accusative/patient function in the clause. The generalization is that no licit syntactic configuration lies at the bottom of the unacceptable (31c, d) and (31b). What regulates the data is an extra-syntactic pragmatic systematics of binding and the basic valence of the verb involved. The basic word order between datives and accusatives, DAT-ACC, can be maintained without any further stipulation or exception.
6. Raised possessors as ergatives in non-ergative languages: The case of Modern German

There is a type of dative construction in Modern Standard German which bears a striking resemblance to the pre-ergative construction of Vedic (Bynon 2005:15–29, 45–51). The claim that such a relation between German and Vedic is interesting in the present context has to do with Bynon's suggestion that

- the source of the ergative construction of the transitive verb (in Indic and Iranian) was decausative – and not passive as has often been claimed
- it functioned as a modally marked evidential (inferred or reported rather than directly witnessed)
- the agent was by origin a genitive-marked adnominal possessor raised to pre-head position
- and that the ergative construction originated with non-agentive intransitive verbs spreading to transitives through the intermediary of ambitransitive.

Since non-agentive, possessive decausative constructions are a frequently used pattern in German, the typological status of Modern German all of a sudden receives a surprising tint. Conclusions can be drawn in the light of modern typological and theoretical linguistics to the extent whether the status of unaccusativity (or lexical as well as phrasal ergativity) in Modern German (and Dutch) allows a diachronic perspective of lexical-aspectual to structural ergative derivation in languages without morphological distinctions between perfective and imperfective aspect (or Aktionsart).

German has a class of dative constituents which are not governed by the verb directly. The subclass of datives that are crucial here may be classified under the following nomenclatures:

\[(32)\text{ Dativus sympatheticus/(in)commodi:}\]

\[\text{Ich fällt der Krug aus der Hand.}\]

him dat. drops [the pitcher]nom out.of the hand

‘He drops the pitcher.’

\[(33)\text{ Pertinenzdativ (‘inalienable dative’):}\]

a. \((Dies ist)\ dem Vater seine Tochter.\)

this is [the father]ext his daughter

‘(This is) the father’s daughter.’

b. \(Dem Mädchen rinn\ der Regen in den Kragen.\)

[the girl]ext runs [the rain]nom into the collar

‘The rain is running down dat[the girl]’s neck.’

Such datives have a DP equivalent, which makes all the more plausible a predicate-independent analysis. Compare the attribute NPs in (34a, b):
a. \[\text{dem Vater} \text{attribute} \ \text{seine/*eine Tochter} \text{head} \]  \
\[\text{the father} \text{dat} \ \text{his/a daughter} \]  \
\*[\text{eine} \text{Leine} \text{a leash} \]  
\*[\text{dat[the father']s daughter/dat[the dog']s leash}]

b. \[\text{ihm} \text{attribute} \ \text{sein/*ein Krug} \text{head} \]  \
\[\text{him} \text{dat} \ \text{his/a pitcher} \]  
\*[\text{die[the girl']s collar}]

c. \[\text{die} \text{Tochter} \ \text{vom Vater} \]  \
\[\text{die Leine} \ \text{vom Hund} \]  
\*[\text{der[the father] the leash of.the dog}]
\*[\text{der Krug} \ \text{von} \ \text{Mädchen} \ \text{collar} \ \text{vom} \ \text{Mädchen} \ \text{him} \ \text{the collar of.the girl}]

The head of the NP, Tochter 'daughter', requires the possessive pronoun to establish co-reference between the dative attribute, dem Vater, and the referent of possessive sein-. This constraint will matter further down, in the context of illustrations (36)ff. Since the preposition of the possessor component may be taken to be derived from PP-postpositions as in (34c), the constructions under discussion in (35a, b) are called 'raised possessor constructions'. Let us furthermore assume that (35a–c) below project structures different from (33) given that no direct body part relation is extended. How exactly (32) and (33) need be distinguished will be discussed more closely below.

The following examples run under the terminology of “ergative dative-constructions (in German)” (Bynon 2005:46) for the simple reason that the verbs in past participle (PP) form are ergative/unaccusative verbs (=eV), encoding spontaneous inchoative processes without the intervention of an agent. (35b) attests to the assumption that the dative pronoun ihm – in fact, any of the datives in (a) and (c) – cannot function as subject in the coordinated clause – an extra attestation of the body part nominative being an unaccusative.

a. Dem Koch/Köchen sind *(die) Kartoffeln angebrannt.
\[\text{the cook} \text{dat} \text{cooks} \text{dat} \text{the potatoes burned} \]
\*\[\text{It happened to the cook/to cooks that the potatoes got burned.}\]

b. Ihm, ist der/sein, Arm eingeschlafen und *pro, hat ihn unterm Kopf weggezogen.
\[\text{him} \text{dat} \text{is the/his arm in.slept} \text{and} \text{has it under.the head} \text{out-pulled} \]
\*\[\text{His arm had got numb and he pulled it out from under his head.}\]

c. Mir/ *Der Bluse ist die Naht geplatzt.
\[\text{me} \text{dat} \text{[the blouse] dat} \text{the seam burst} \]
\*\[\text{L}/**\text{My blouse burst a seam.}\]

Now, it appears reasonable to say that there is little if anything systematic about the fact that such inchoative/perfective constructions go with the dative. Beyond that, they are all ergative alright, simply on account of their being intransitives AND per-
fectives (as identified by Abraham 1989; see also Kallulli in this volume). All PPs in examples (35a–c) are perfective (see the underscored perfectivizing verbal particles, which always carry main word accent\textsuperscript{15} ): \textit{gebrannt} ‘burned on’, \textit{eingeschlafen} ‘slept in/fallen asleep’, \textit{weggezogen} ‘moved away’, \textit{geplatzt} ‘burst’. Imperfective substitutes of the perfective predicates are ungrammatical. Cf. the pairings of perfective particle verbs vs. the imperfective simple verbs in (105a–f). The slashes separate periphrastic pasts (\textit{sind…* (zu)gefallen}) and present tense (\textit{fallen…zu}) constructions to show that there are no differences in tensing.

(36) a. \textit{Mir sind die Augen *(zu-)*gefallen/fallen die Augen zu.}
\textit{me_{dat} are the eyes closed-fallen/fall the eyes closed}
\textit{‘I was/am so sleepy I couldn’t/can’t keep my eyes open.’}

b. \textit{… sind die Äpfel ver-fault/*gefault/ver-faulen die}
\textit{are the apples completely-rotted/rotted/completely-rot the Äpfel.}
\textit{apples}
\textit{‘My apples have rotted completely/rotted/are rotting completely.’}

c. \textit{… ist das Feuer aus-gegangen/geht das Feuer aus.}
\textit{is the fire out-gone/goes the fire out}
\textit{‘It happened/happens to me that the fire went/goes out.’}

d. \textit{… ist der Kanarienvogel *(weg-)*geflogen/fliegt der K. weg.}
\textit{is the canary away-flown/flies the canary away}
\textit{‘It happened/happens to me that the canary escaped/is escaping/*flew/*is flying.’}

e. \textit{… ist die Milch *(über-)*gekocht/kocht die Milch über.}
\textit{is the milk over-boiled/boils the milk over}
\textit{‘It happened/happens to me that the milk boiled/boils over.’}

The second striking constraint refers to the definiteness of the nominative-DP. Witness (37) alternating with (36) on just this parameter.

(37) a. \textit{Mir sind *(die) Augen *(zu-)*gefallen.}
\textit{me_{dat} are the eyes closed-fallen}
\textit{‘I was so tired I couldn’t keep my eyes open.’}

b. \textit{… ?Apfe/alle Äpfel ver-fault/*gefault.}
\textit{apples/all apples completely-rotted/rotted}
\textit{‘It happened to me that ?apples/all apples rotted completely.’}

c. \textit{… ?Kartoffeln/ein Dutzend Kartoffeln er-froren/*gefroren.}
\textit{… potatoes/ a dozen potatoes telic-frozen/frozen}
\textit{‘It happened to me that ?potatoes/a dozen potatoes froze.’}

d. \textit{Ihm ist *(ein) Feuer/ EIN Feuer aus-gegangen.}
\textit{him_{dat} is a fire one fire out-gone}
\textit{‘It happened to him that *(a fire/one fire went out.’}
All of the above examples appear to have acceptable readings under specific contextualizations, though. Only the definite article is able to establish the type of co-reference with the dative constituent that fuses the single components into the possessor phrase (cf. Vergnaud & Zubizarreta 1992; Hole 2005). Recall (34a, b) above. We might say that only the definite article implies the required possession relation with the dative component.

Let us summarize:

(38) a. Only definiteness (the definite article) implies the possessor relation between the possessor dative and the possessed object: dem Mädchen *ein* der Hut vs. dem Mädchen sein Hut.

b. By contrast to the bare possessor-DP as in (38a) above, encoding definiteness is sufficient in a full predication: dem Mädchen flog sein/der/*ein Hut vom Kopf.

The difference between (38a) and (38b) deserves explaining. I shall return to this later.

Let us now turn to the question what could be a possible base for clauses as in (39). Are they derived, or are they base-generated? The clue to an answer may lie in the person dative and the fact that non-person datives are grammatically questionable in the first place.

(39) a. Dem Koch/*Köchen ist *(der) Braten [the cook]_dat/cooks_dat is the meat verbrannt. ... ergative, decausative burned

‘It happened to the cooks/to cooks that the meat got burned.’

b. Der Koch verbrannte den Braten. ... active, +causative the cook burned the meat

‘The cook burned the meat.’

c. Der Braten wurde vom Koch verbrannt. ... passive, ±causative the meat was by the cook burned

‘The meat was burned by the cook.’

(40) a. Dem Wirt/*Wirten sind die Krüge [(the) innkeeper(s)]_dat are the pitchers zerbrochen. ... ergative, decausative broken

‘It happened to (the) innkeeper(s) that the pitchers shattered.’
b. Der Wirt zerbrach die Krüge. ... active, +causative
   the innkeeper broke the pitchers
   ‘The innkeeper shattered the pitchers.’

c. Die Krüge wurden vom Wirt
   the pitchers were by the innkeeper
   zerbrochen. ... passive, ±causative
   broken
   ‘The pitchers were shattered by the innkeeper.’

(41) a. Ihm ist der/sein Arm ein-geschlafen.
   him is the his arm in-slept
   ‘His arm has turned numb.’

b. Er bringt seinen Hund zum Ein-schlafen. ... active, +causative
   he makes his dog to the in-sleep
   ‘He makes his dog go to sleep.’

c. Er schläfert seinen Hund ein. ... active, +causative
   he sleeps his dog in
   ‘He makes his dog go dead.’

In (39a, b), the dative referents have caused processes that have led to the result that they have not had in their hands to set going or avoid. By contrast, (39c) implies no such causer relation for the dative referent is implied. Let us therefore distinguish the two dative constructions in the following way.

(42) implied causer relation for the dative constituent in (39):
   a. \( \lambda x(\text{verbrennen}(x)) \subseteq \lambda x \lambda y(\text{CAUS}(x,y) \wedge \text{verbrennen}(y)) \)
   b. \( \lambda x(\text{zerbrechen}(x)) \subseteq \lambda x \lambda y(\text{CAUS}(x,y) \wedge \text{zerbrechen}(y)) \)

(43) involitional result for the dative constituent in (108):
   a. (39a) \( \subseteq \) (39b), but (39a) \( \not\subset \) (39c)
   b. (40a) \( \subseteq \) (40b), but (40a) \( \not\subset \) (40c)

(44) – (41a) \( \not\subset \) (41b)

Notice that, while (39a)–(40a) are to be read as de-causatives (DECAUS), (41a) is not, as stated by (42) above. This appears to be in line with lexical de-causativization. See (45).

(45) a. Der Sturm beugt/fällt/legt die Birke (um). ... CAUS
   the storm bends/fells/lays the birch tree (over)
   ‘The storm bends/fells/turns the birch tree (over).’

b. Die Birke beugt sich/fällt/liegt (unter dem
   the birch tree bends/falls/lies (in the
   Sturm).17 ... DECAUS
   storm)
   ‘The birch tree bends/comes down/lies flat (in the storm).’
Perfective de-causatives are unaccusatives (see Abraham 1989, 1994, 2000) – something that is obvious in German, but not in many other languages, among which English. However, see van Hout (2004) for Dutch, Schoorlemmer (2004) for Russian, and Borer (2004) for Hebrew.

7. Paradigmatic and syntagmatic dative relations. A new chapter in case grammar

It is commonplace nowadays to think of case government in terms of a syntagmatic relation. Even in standard work as that by Blake (2001), case is discussed exclusively in terms of syntagmatic linking. See also above in Section 1 on agreement (referring to work by Czepluch, Fanselow, Sigurðsson as well as others), both in terms of the relation between a governing category and the governed case or in terms of the combinability of formal case carriers. It is under such a view that theta role assignment and Fillmore’s “unitary theta role distribution per simple clause” rule was motivated. The division into lexical vs. inherent vs. structural case is but an extension of this view to the extent that the case carriers occupy different positions in the tree structure in regard to the governing predicate. The main body of this introduction was occupied by case discussion under this syntagmatic criterion.

However, in languages and historical language states richer in overt case morphology than Modern English and the majority of the modern Indo-European languages, cases are also distributed paradigmatically. Leiss (1989) has argued convincingly on the basis of concrete patterns (i.e., under theta role identity, but with (in)definiteness effects) that paradigmatic case alternations occur only in true aspect languages such as Old High German, Russian, and Finnish. What follows in terms of illustrations under this view is but a small section of the issue. Notice, first, that in Finnish and Russian, one and the same theta role bearer can appear in more than one case form. The Russian genitive and accusative are alternatives to the single direct object relation under the criterion of indefiniteness vs. definiteness or imperfectivity vs. perfectivity, respectively (the relation being slightly more intricate than simply that; see Leiss 1989). This is the (partitive) case for the non-referential and/or rhematic valence in Finnish (Abraham 1997a). For Modern Finnish (cf. Karlsson 1982), grammarians traditionally speak about resultativity vs. irresultativity, despite the lack of a verbal aspectual paradigm as displayed by the Slavic languages. See (46)–(47) below (from Karlsson 1982:101).

FINNISH
(46) ‘irresultativity’ with a partitive object:

a. Tyttö luki läksy-ä.
girl read homework-part
‘The girl read something for her homework.’
b. Väinö rakensi talo-a.
Väinö built house-PART
‘Väinö was building a house.’

(47) ‘resultative’ clause with an accusative object:

a. Tyttö luki laksy-n.
girl read the.homework-ACC
‘The girl finished the reading task.’

b. Väinö rakensi talo-n.
Väinö built house-ACC
‘Väinö built the house.’

RUSSIAN [aperf]:

(48) a. [–perf]
   On kolo-l drova.
he split-PAST wood ACC [-def]
‘He split (some) wood.’/‘He was wood-splitting.’

b. [+perf]
   On ras-kolo-l drova.
he PERF-split-PAST wood ACC [+def]
‘He split the (pile of) wood.’

c. [+perf]
   On ras-kolo-l drov.
he PERF-split-PAST wood GEN [-def]/[+part]
‘He split the (pile of) wood.’

Near-identical alternations occurred in Old High German, but no longer in Modern German. Compare (50) below (from Abraham 1997a; see also Leiss 1989) and the explanatory Modern German versions in (49).

(49) a. ein- + dp-ACC iff i = individuated . . . einen Helden sehen ‘see a hero’

b. Ø + dp-GEN iff i = non-individuated . . . (‘eines’ Wasser’s) trinken ‘drink water’

Take another verb of eating. As Schrodt (1992:386) has observed, the government of Old Saxon niotan ‘use’ and that of the corresponding OHG verb nozzen ‘enjoy’ is determined in accordance with the semantic and deictic property of the object NP. Since the verb is durative, the genitive on the direct object ther a heimwisti in (50b) below is indefinite, despite the deictic demonstrative ther a, i.e. ‘some home place.’ On the other hand, concrete-definiteness goes with the accusative (drutscaf ‘companion’) as in (50a) below.
Werner Abraham

(50) a. accusative object (Ludwigslied 85 – Old High German):

Ewiga drûtscaf niuzen se iamer, sôsô ih quad, in himile
[eternal friendship]acc enjoy they always as I said in heaven
zi wâre mit Ludowige thare!
alas with Ludwig there
‘They enjoy eternal friendship, as I had said, in heaven there with Ludwig.’

b. genitive object (Ludwigslied 1.18,45 – Old High German):

So thu thera heimwisti niuzist mit gilusti, so bistu
if you [this home]gen enjoy with pleasure then are you

gote liober, ni intratist scadon niemer.
to god dear not dread harm never
‘As long as you enjoy this home with pleasure you will be dear to god and
will not dread harm ever.’

Let us now assume that ‘accusative’ and ‘genitive’, which play such a major role in Russian, Finnish, and, as shown by (50a, b), also in the early stages of the development of German, are somehow distinguished not only by morphological form, but also by structural position. The following options come to mind with respect to (50a): The accusative is a structural(ly defined) case, but the genitive is lexical; or: both were lexical originally, but one (i.e. the accusative) developed to be a structural case. Several issues arise in this context (see, more generally, Abraham 1997a).

Paradigmatic case oppositions, sc. under one identical syntactic-function status and theta role semantics, are adequate substitutes for the distinction of referentiality distinctions such as [+definite] vs. [–definite]) on V-governed NPs as long as specific aspect and/or Aktionsart conditions are met. As shown above, this holds for Slavic languages as well as Gothic and Old High German. There is overwhelming agreement that the classical Indo-European languages reflect the non-tensing, aspectual systematics of...
Proto-Indo-European. If this is generalizable beyond Indo-European, case assignment in strong aspect languages will also involve paradigmatic alternations as illustrated above. More so, since aspect oppositions can induce referential oppositions between thema and rhema status (definiteness, specificity and their oppositions), the conclusion is warranted that aspect languages are (more) discourse prominent languages. Notice that this is in line with other assumptions about typological characteristics of early languages: They are oral coding systems rather than written ones; and they are V-last. (S-O-V or, more aptly, TH(ema)-RH(ema)-V).

If a language loses its strong aspectual paradigm and, consequently, develops article forms, it will develop the definite article category first to mark thematicity, i.e., strong context/discourse coherence. The language in question may even do with the definite article category alone, i.e. not develop a form for the indefinite, or non-referential, determiner at all. Cases in point are Icelandic, Old Irish as well as Sanskrit, Modern and Ancient Greek, all of which have only a definite, but not an indefinite article. Thus, thematicity/topicality marking appears to be of prior value. This may also have to do with emerging SVO, where Rhema, but not necessarily Topic (in the I(nformation)S(tructural)-sense, not the positional sense), are in the rightmost RH-identifying position due to the limited availability of scrambling.

How is the link between an aspectual verb or verbal phrase and the determiner category in terms of case to be imagined? In particular, what is the structural position of the one case against the other? What are systematic positional distributions of the accusative vis-à-vis the genitive? If case is to determine a feature within the DET-category, how are the definite/referential/specific vs. the indefinite/non-referential/non-specific DET-categories distinguished structurally in the first place?

Abraham (1992, 1997b, 2005; and Abraham & Molnárfi 2002) have argued that the referential division of definiteness and indefiniteness, while correlating with perfectivity vs. imperfectivity, marks strong discourse prominence in a language. Only discourse prominent languages distinguish indefinite nominal phrases from definite ones by means of word order (in terms of structural scrambling: Definite nominals move to the left of some structural space of the simple clause, indefinite ones, by contrast, to the right, near the clausal predicate, which is often clause-final as in SOV-German or -Japanese). If definiteness vs. indefiniteness are central exponents of, and mark, Thema and Rhema, respectively, the link between strong aspect distinctions and discourse marking morphology is established beyond doubt. See Tables 12 and 13 below (from Abraham 2005:Ch. 13).

This closes the chapter ‘paradigmatic option genitive/accusative’ for DO. Is there more than this specific type of paradigmatic case alternative – say: ‘dative/genitive’ or ‘dative/accusative’, an alternative that would shed light on the specific characteristics of the dative case under discussion? Which reasoning would exclude, say, ‘dative/accusative’ rather than ‘dative/genitive’? Which case has the largest versatility such that it matches paradigmatically with any other case? Let us assume, under the options just listed, that the case exhibiting the weakest semantic intension (vaguest lexical meaning) and least structural status can be in paradigmatic alternation with structural
Table 12. The link between the clausal structure and discourse functions in German

('Thema/Rhema' in the 3rd column means that topicalized constituents can be in either discourse functions. Capitals mark focus/rhema: A focus constituent or its head may be G(rammatical)A(ccent)-marked if the focused element is in its base position; it is C(ontrastive)A(ccent)-marked if it has been moved out of its base position. Base positions: inside VP for indefinites, outside for definites and personal pronouns; the definite subject is the only constituent which is unmarked in topic position. PART = (modal/discourse) particle)

<table>
<thead>
<tr>
<th>Coord</th>
<th>Thema/Rhema</th>
<th>← Thema</th>
<th>Thema ⇒</th>
<th>Rhema ⇒</th>
<th>Thema, GA ≠ CA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C_i/VP Spec CP/IP</td>
<td>WP (clit.) pronouns</td>
<td>AgrOP [vp]</td>
<td>[vp]</td>
<td>Extraposition</td>
</tr>
<tr>
<td>i</td>
<td>–</td>
<td>warm</td>
<td>–</td>
<td>–</td>
<td>sаг-ts</td>
</tr>
<tr>
<td>ii</td>
<td>Aber</td>
<td>sie</td>
<td>gibt</td>
<td>при</td>
<td>heut</td>
</tr>
<tr>
<td>iii</td>
<td>–</td>
<td>Wieso</td>
<td>–</td>
<td>denn</td>
<td>abgeben?</td>
</tr>
<tr>
<td>iv</td>
<td>Aber</td>
<td>wieso</td>
<td>why</td>
<td>denn</td>
<td>heute?</td>
</tr>
<tr>
<td>v</td>
<td>Wieso</td>
<td>why</td>
<td>–</td>
<td>denn_pünktlich</td>
<td>abgeben?</td>
</tr>
</tbody>
</table>

Table 13. All-rhematic presentational/existential clauses

<table>
<thead>
<tr>
<th>Coord</th>
<th>C_i/VP SpecCP</th>
<th>C_o [wp SpecIP</th>
<th>Infl</th>
<th>Rhema_i ⇒</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>[wp]</td>
<td>[vp] V_o ]</td>
</tr>
<tr>
<td>i</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Es</td>
</tr>
<tr>
<td>ii</td>
<td>Aber</td>
<td>–</td>
<td>–</td>
<td>ubertöpfelten</td>
</tr>
<tr>
<td></td>
<td>But</td>
<td>–</td>
<td>–</td>
<td>principiell</td>
</tr>
<tr>
<td>iii</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>appeared</td>
</tr>
</tbody>
</table>

The values for t_i are as follows:
- der Igel den Hasen
- the hedgehog the hare
- Igel Hasen
- hedgehogs hares
- some dogs in the garden
Introduction

or lexically more heavily laden case. This would yield, beyond 'genitive/accusative', only 'genitive/dative', not, however, 'accusative/dative'. This bears out, at least in the history of German, although the data evidence is by far not as strong as with the genitive/accusative alternation (Paul 1968:452–453). The distributional criteria for the case alternation are 'dative of person' + 'genitive of matter/thing' (the dative often found to alternate with the accusative or a prepositional phrase). The illustrations are pre-Luther (i.e., pre-1500, late Early Modern German; from Paul 1968:452).

(51) a. das mir Gott der Ehren gann →
that me_{gen} god [the honors]_{gen} granted
Mod. German: Ehren
honors_{acc}
‘that god granted dat_{gen/def} honors’ → ‘acc honors’
b. des ich im doch nicht wolt verhengen →
that_{gen} I him_{dat} though not wanted permit
Mod. German: das ich ihm...
that_{acc} I him
‘gen which I did not want to allow him to do’ → ‘acc which I…’

It is to be noticed that the genitive makes room for accusative in Modern German. Genitive government does not preserve except for a few verbs that have a stylistically highly marked (written-only) use. This would allow for the conclusion that intensionally vague case tends to be replaced by either lexically less unintensional dative case or structural accusative case. Notice that this appears to be in line with what we found to be the case for correspondences of the German dative uses and the Scandinavian and Dutch prepositional case phrases: Strong lexical content (P-differentiation) has a tendency to replace weaker semantic intension (bare case morphology). In this sense, the correspondences between the German dative and Scandinavian/Dutch PPs mirror cross-linguistically the longitudinal case shifts with paradigmatic case alternatives within one and the same language, German. And if case erosion cancels dative distinctions as in the histories of English and Dutch, original non-structural datives mutate to structural (notably, passivizable) case.

(52) a. Er hilft ihr_{datt}. → Ihr_{datt} wird geholfen. …German
*Sie_{nom} ist geholfen
b. He helps her_{r}. → She is helped. …English
c. Hij helpt haar_{r}. → Ze_{r} is geholpen. …Dutch

The fact that the verbal genitive is the lexically and structurally weakest case in German is probably reflected by the fact that genitives are in the immediate neighborhood to the left of the governing V. Lexical goal/recipient-datives are happy with V-distances. The (handful of) so-called ‘lower’ datives (see (53b)) are a lot more contentless than the give-goal/recipient datives (cf. Cook this volume; Meinunger this
volume). They are therefore closer to V(last) in German. See (53a–c) – contrastive accents disregarded.

(53) a. Er gab ihr [die Fahrkarte]. ≠ *Er gab [die Fahrkarte
he gave her\textsubscript{DATT} [the ticket]\textsubscript{ACC} he gave [the ticket]\textsubscript{ACC}[ihr [t]].
her\textsubscript{DATT}
‘He gave dat her acc[the ticket].’

b. Er zog [Wein [dem Bier vor]]. ≠ *Er zog
he preferred wine\textsubscript{ACC} [the beer]\textsubscript{DATT} before he preferred
[dem Bier [Wein [t vor]]].
[the beer]\textsubscript{DATT} wine\textsubscript{ACC} before
‘He preferred acc wine dat[to the beer].’

c. Er bezichtigte [sie [des Betrugs]]. ≠ *Er bezichtigte [des
he accused her\textsubscript{ACC} [the fraud]\textsubscript{GEN} he accused [the
Betrugs [sie [t]]].
fraud]\textsubscript{GEN} her\textsubscript{ACC}
‘He accused acc her gen[of the fraud].’

These conclusions not only support generalizations 1–6 discussed in Section 2.2. What is more, they motivate these generalizations on the basis of but two criteria: structural status and semantic content. Prepositional objects are placed in V-proximate position – but only second to the genitive – due to PP-heaviness, an altogether different criterion.

8. The dative as adjective governed: Russian vs. German

German, just as other languages, among which the classical languages Sanskrit, Classical Greek, and Latin as well as many other Indo-European languages, has adjective-governing datives in considerable number (next to prepositional datives): See (54) vs. (55), where the datives in (54) are dative-‘commissioning’ (disregarding the ethical dative reading) only under comparative-selecting zu ‘too’ – the latter, quite obviously, not being adjectival dative government, but the so-called ‘free dative’ reading something like ‘as far as she is concerned’ or ‘to her (dis)liking’.

(54) Sie\textsubscript{Nom} ist ihm\textsubscript{DATT}...
*(zu) hübsch! *(zu) häßlich! *(zu) ängstlich! *(zu) verworren! *(zu)
too pretty too ugly too fearful too confused too
zivilkouragiert.
morally.courageous
<acc>He finds nom her too pretty/too ugly/too fearful/too confused/too courageous."
Introduction

(55) \[\text{Sie} \text{ ist ihm} \text{...}
\text{treu/ergeben/verfallen/verpflichtet/nicht geheuer/verhafst etc.}
\text{faithful/loyal/addicted/indebted/fishy/accurst}
\text{‘She is faithful/loyal/addicted/indebted/seems fishy/is accurst to him.’}

Now compare Krivokapić (this volume) for what appears as a similar dative under adjectival government in Serbian. The sentences under consideration are predicative constructions with a dative DP. See (56)–(57).

(56) \[\text{Ona} \text{ je Marku lepa.}
\text{‘She is pretty to/for Marko.’}

(57) \[\text{Ona je lepa.}
\text{‘She is pretty.’}

Krivokapić argues that (a) syntactically, the dative is generated in SpecDegreeP, and (b) semantically, the contribution of the dative is to relativize the meaning of the adjective to the particular point of view of the referent of the dative phrase. Cf. the German readings under (54) with comparative zu ‘too’. It is assumed that, when there is no dative phrase, pro is generated in SpecDegreeP and is bound by a generic quantifier and the construction is interpreted as a general observation. It is telling that Krivokapić’s analysis is extended to comparative constructions.

Perhaps, the latter observations need to be seen in the context of the attempt to unify all dative occurrences. Fleischer (in this volume) notices that indirect object relative clauses are compared to direct object relative clauses with respect to case-encoding. If direct object relative clauses require overt case marking, then indirect object relative clauses do as well, but not vice versa. In other words, what unifies all syntactic datives is their possibility to access relative clause modification. Non-beneficiary, non-syntactic lexical datives, on the other hand, disallow such relative clause modification.

9. Concluding words: How do semantic roles and argumenthood interact with the syntactic functions of subject and object? Functions of the ‘dative’ other than objecthood?

The present introduction, looked at from a typological bird’s perspective, in fact pursued the general question to what extent argumenthood and semantic roles can be mediated (‘linked’) by morphological case. The treatise about the dative is a subsection within this wider and typologically more promising perspective. Notice that we found the dative to be linked to the semantic role of Beneficiary almost without exception (Cook in this volume, exploiting this fact specifically). To the extent that languages are different with respect to case morphology, it would appear reasonable and exigent to focus on which areas of grammar are covered by more general systematics and which other areas are characterized by highly idiosyncratic – i.e., partly highly autonomous
and to all appearances non-universal – systematics. Such a view has been extended in Bisang’s contribution, which extended its view far beyond (Indo-)European languages. Bisang speaks about ‘low-profile syntactic categories’ and the partial irrelevance of semantic role for the assignment of participants to morphosyntax. The author highlights Japanese and Chinese as languages with syntactic structures being prominent enough to provide independent evidence for an operational link between semantic roles and argumenthood. This means that at least some cross-linguistically valid tests have been established to prove the existence of syntactic categories and the relevance of argumenthood (such as passivization in Japanese and raising and reflexives in Chinese).

However, this should not lure the modern linguist into believing that the correlation between semantic roles/argumenthood and morphosyntax can be taken for granted. Tagalog is a (traditional) case in point, where DPs are open to any semantic role irrespective of any thematic hierarchy. Their assignment to the pivot (‘trigger’) position is primarily based on reference (definiteness) with semantic roles being but secondarily relevant. In other words, for Tagalog the factor that decides whether a given participant is accessible to the pivot position is referential status, not argumenthood. Only when the referential decision is taken argumenthood becomes relevant for assigning other DPs argument status (marked by ng, sa, etc.). Thus, argumenthood is only of secondary importance in Tagalog. In other languages, linearity appears to play the foremost role for identifying syntactic functions and argument status. In a recent study of Liangshan Nuosu, one of the V-final Yi languages (Sino-Tibetan: Tibeto-Burman: SE Tibeto-Burman, Burmese-Lolo), Gerner (2002) shows that the position of the actor and patient roles is sometimes free and sometimes fixed: For the category of ongoing clauses, the word order is actor-patient-verb. If, however, the clause is resultative, the word order is reversed to patient-actor-verb. The privileged syntactic argument is always the linearly first argument of a clause, no matter what its semantic role is, as long as it is an argument.

Addressing more specifically morphological case in general and the dative in particular, datives have been treated in the present collection of papers without exception as object arguments. However, extending one’s view beyond our ethnographic limitations, datives in the languages of the world are far from constrained to objecthood in the first place. Recall, first, dative subjects in Icelandic discussed briefly in Section 2 in this introduction. Second, the marker used for IOs is often also used for certain DOs. Spanish illustrates this, but so do many other Indo European languages with case systems as well as Tibeto-Burmese languages of the Himalayan region (see Noonan to appear, where the phenomenon is described with some bibliographical references). Masica (1991) on Indo-European languages of South Asia describes the spread of this use of the dative and also dative-subject constructions in Indic. In Bhaskararao and Subbarao (2004), a number of articles deal with dative subjects (by Comrie, Dasgupta, Davison, Fischer, Lakshmi Bai, Mahajan and others in languages as diverse as Bangla, Hindi-Urdu, Kannada, Tamil, and Caucasian Tsez). The same holds for Aikhenvald et

Despite the fact that the editors of this volume feel that there was a lot to say about the dative that was novel on the market, it is likewise felt that this is only a fraction of what is there to say in wider typological contexts.

Notes

1. I am grateful to the following persons who have read critically and suggested a great number of amendments: Gerson Klump, Elisabeth Leiss, Lenja Kulikov, André Meinunger, Michael Noonan, Haldor Sigurðsson, and, above all, Daniel Hole.

2. In Japanese, interestingly enough, the suffix \-ni serves to dative-mark the translational equivalents of German datives only as long as they are lexically marked by verbs – i.e., verb-governed. Non-governed datives as the ‘free’ datives in German or adverbial datives have to be marked differently in Japanese. See Ogawa (1999).

3. Illustration for E(xceptional)C(ase)M(arking) in Ich lasse ihn das tun ‘I let him do it’. ihn ‘him’ is accusative object governed by lassen ‘let’, but likewise it is Subject(non-nominative = ‘exceptional’) governed by tun ‘do’.

4. If movement under refocusing is left unconsidered! All starred versions are grammatical under contrastive accent.

5. Ethical dative status of mir excluded.

6. I cannot follow Fanselow’s (2000:5–6) line of argument that Dat is a regular (structural) Case along with Nom and Acc. Fanselow’s main argument is that Dat co-occurs both with the Acc > Nom-turned passive subject and the unaccusative subject as in (jemanden etwas) entgleiten ‘slip off’ and (jemanden etwas) auffallen ‘strike one’. Since the Gen occurs in collocation with passive subjects just as well, the argument is vacuous in the sense of an empirical overgeneralization. Notice the distinction for untensed (non-finite) predicates: jemanden entgleiten ‘someone dat slip off’ and *etwas entgleiten ‘sth. nom slip off’.

7. Which may predict gradient restrictions rather than categorical ones. I refrain from saying more about this claim for the time being.

8. As opposed to ‘extensional’ meaning!

9. Such an ‘appropriateness condition’ resembles the goodness condition discussed in connection with the dative governor, German helfen ‘help’. Engelberg (2005) points out that the helping-effect, in order to be understood as such, must be helpful to the person denoted by the dative argument, i.e., the helping-effect must be ‘good’ with respect to some benefactive individual. A helping-event or a helping-trigger is therefore judged as ‘good’ if its effect is high on a personal scale. Engelberg’s “goodness” predicate relates to the “coming in” condition claimed above. See, however, what is perhaps a contradicting data in (8h).

10. One, however, that is in predicate-proximate position from the viewpoint of Old English and Modern German – a fact that allows diachronic conclusions about typological SOV-status for Old English; see also Krifka (2004).

11. I will not adduce the Norwegian data. They are similar to Dutch (Askedal 1998; Nordgreen 2001) – which is interesting in itself since Dutch and Norwegian are typologically different:
Dutch is non-scrambling SOV with the verb complex VO, while Norwegian is (likewise non-scrambling) SVO (with the V-complex left-branching, VO, by implication).

12. Daniel Hole points out to me that ‘intensional’ as used here has come out of practice in the past years and is practically on a par with ‘opaque’ in regard of ‘context’. What I mean as distinct from this present usage is ‘feature wealth’ vs. ‘feature poverty’. Intensionally high would then be ‘feature-rich’ (and, by implication, extensionally restricted), while low intension is equivocal with ‘feature-poor’ (and extensionally wide).

13. Recall our statement that bare dative is hardly ever equivalent to any PO in German. This does not hold alike for Dutch and Norwegian – although there are cases where bare DP cannot alternate with PO and vice versa.

14. ‘De-agentive’ means that there are agentive correlates with sleep or feel. Clearly, ‘agentive’ is understood morphologically – not semantically, since sleep or feel do not appear to be amenable to involvement of a purposeful agent subject.

15. Main word accent marks the perfective as non-default by comparison with the simple imperfective verb.

16. Yet, as pointed out by Daniel Hole, the definiteness effect is maintained if, under minimal contextualization, the implicit total set or the possessor is definite.

17. Not every de-causative verb allows for the demoted Agent adverbial, as (45) with (umlegen-) liegen shows.

18. As John Nerbonne (Groningen) points out to me.

19. I differentiate between ‘definite’ and ‘indefinite’ as concepts under the general denominator of referentiality. In the modern literature (Ritter 1991; de Hoop 1992) the terms ‘strong’ (for ‘definite’) vs. ‘weak’ (for ‘indefinite’) have been used on the basis of a distinction involving ‘perfective’ vs. ‘imperfective’.

20. Notice that Japanese marks morphologically the Thema (next to the Subject), but not the Rhema. Possibly, -wa marks contrastive topics (Hole, p.c.).

References


PART II

Focus on Germanic
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 nominal object of their verb, as in (2), as well as for those in ditransitive constructions, i.e. indirect objects, as in (3).1

(1) a. Boris hat die Wissenschaftler unterstützt.
   Boris has [the scientists]$$^\text{acc}$$ supported
   ‘Boris supported the scientists.’

b. Die Wissenschaftler sind unterstützt worden.
   [the scientists]$$^\text{nom}$$ are supported become
   ‘The scientists were supported.’
(2) a. Boris hat den Wissenschaftlern geholfen.
   Boris has [the scientists]_{dative} helped
   ‘Boris helped the scientists.’

b. *Die Wissenschaftler sind geholfen worden.
   [the scientists]_{nom} are helped become
   intended: ‘The scientists were helped.’

c. Den Wissenschaftlern ist geholfen worden.
   [the scientists]_{nom} is helped become
   ‘The scientists were helped.’

(3) a. Boris hat den Wissenschaftlern einen großen Auftrag
   Boris has [the scientists]_{nom} [a big assignment]_{acc} given
   ‘Boris gave the scientists a big assignment.’

b. *Die Wissenschaftler sind ein/einen großen/großen Auftrag
   [the scientists]_{nom} are [a big assignment]_{nom/acc} given become
   intended: ‘The scientists were given a big assignment.’

c. Den Wissenschaftlern ist ein großer Auftrag gegeben worden.
   [the scientists]_{dative} is [a big assignment]_{nom} 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 θ-roles, but this could not have served in any obvious way as an explanation for the data in (2). Unlike case, θ-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 2005, 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. 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; Pylkkänen 2002; Anagnostopoulou 2002; Cuervo 2003) and in assuming that the external argument is introduced by an additional, higher head labeled ν (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'.

(6)

\[
\begin{array}{c}
vP \\
\downarrow \\
v' \\
\downarrow \\
v \\
\downarrow \\
ApplP \\
\downarrow \\
\text{Boris} \\
\downarrow \\
\text{DP} \\
\downarrow \\
\text{VP} \\
\downarrow \\
\text{hilft} \\
\text{helps}
\end{array}
\]

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 (2005), 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 \( \text{obj} \) (secondary object), borne by both indirect objects and sole dative objects. 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-structure 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. In German we find what can be described as recipients (7), benefactives (8) and so-called pertinence datives (9). Crucially, these types are found as both indirect objects and sole datives.
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(7) a. Sie gab ihm die etruskische Vase.
   she gave him
   ‘She gave him the Etruscan vase.’

  b. Sie schrieb ihm.
   she wrote him
   ‘She wrote (to) him.’

(8) a. Sie erledigte ihm die Aufgabe.
   she took care of him the assignment
   ‘She took care of the assignment for him.’

  b. Sie half ihm.
   she helped him
   ‘She helped him.’

(9) a. Sie schnitt ihm die Haare.
   she cut him the hairs
   ‘She cut his hair.’

  b. Sie lief ihm in die Arme.
   she ran him 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.² Hole (2005) 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 Pylkkänen (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.8

The theories of Pylkkänen (2002); Cuervo (2003); Hole (2005); 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$^\text{dip}$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 the same eventuality 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.9 Indeed, the dative is productive, which is predicted if it is introduced by a functional head, but
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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 deprivee, i.e. the person from whom the ring was stolen, as in (11c) (see e.g. Wegener 1991; Abraham 1995; Maling 2001; Hole 2005, 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]acc  
    ‘He’s repairing the car.’

b. Er repariert dem Mann das Auto.  
    he repairs    [the man]dat [the car]acc  
    ‘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]acc stolen  
    ‘He stole a ring.’

b. Er hat seiner Freundin einen Ring gestohlen.  
    he has    [his girlfriend]dat [a ring]acc stolen  
    ‘He stole his girlfriend a ring.’ (Benefactive/Recipient)

c. Er hat dem Juwelier einen Ring gestohlen.  
    he has    [the jeweler]dat [a ring]acc stolen  
    ‘He stole a ring from the jeweler.’ (Deprievee)

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.10

(12) a. Den Hof werden wir Ihnen natürlich bebaumen.  
    [the courtyard]acc will    we you,dat naturally betree  
    ‘We will of course plant the courtyard with trees for you.’

b. Kannst du mir die Brezel bebuttern?  
    can    younom me,dat [the pretzel]acc 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 faxed/emailt.*

`he has me_{acc} 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/emailt.*

`I have him_{dat} 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]_{acc}`

‘She ran into the library.’

b. *Sie lief ihm in die Arme.*

`She ran him_{dat} into [the arms]_{acc}`

‘She ran into his arms.’

(16) a. *Die Serviette hing in die Suppe.*

`the napkin hung in [the soup]_{acc}`

‘The napkin hung into the soup.’

b. *Die Serviette hing ihm in die Suppe.*

`the napkin hung him_{dat} in [the soup]_{acc}`

‘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).

(17) a. *Er glaubt seinem Bruder.*
    he believes [his brother]_{DAT}
    ‘He believes his brother.’

    b. *Er glaubt seinem Bruder die Geschichte.*
    he believes [his brother]_{DAM} [the story]_{ACC}
    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 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).

   Hans has [the merchant]_DAT an expensive vase broken
   ‘Hans broke an expensive vase of the merchant’s.’

   b. Dem Händler ist eine teure Vase zerbrochen.
      [the merchant]_DAT 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_{DAT} 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_{DAT} [a stone]_{ACC} on the head fall let
      ‘He dropped a stone on my head.’

(21) a. Dem Kind ist der Hund weggehen.
    [the kid]_{DAT} is the dog away.run
    ‘The kid’s dog ran away.’

      the cat has [the kid]_{DAT} 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 to death
   ‘Something vexes me to death.’

   b. *Etwas* missfällt mir *zu Tode.*
   something displeases me to death
   intended: ‘Something displeases me to death.’

   c. *Du machst mir* Sorgen *zu Tode.*
   you make me 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). 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 naked
   ‘He saw her naked.’

   b. *Er gab ihr den Apfel* nackt.
   he gave her the apple naked
   ‘He gave her the apple naked.’

   c. *Er half ihr* nackt.
   he helped her naked
   ‘He helped her naked.’

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). 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 Pylkkänen (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.

    ‘Rescues by the coast-guard proceed as a rule without incident.’

b. Die Rettung des Heißluftballonfahrers verlief ohne Zwischenfall.  
    ‘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 priest’s help’ ≠ ‘help given to the priest’

b. das Schenken des Jungen  
    ‘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 SpecDP 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.
German inherent datives and argument structure

(27) a. *die Hilfe dem Priester
    the help [the priest]_{DAT}

b. *das Schenken dem Jungen
    the giving [the boy]_{DAT}

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-structural 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.
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(29)  
\begin{itemize}
  \item a. \textit{Mich friert.}  
    \textit{me} \textsubscript{acc} freezes  
    ‘I’m freezing.’
  \item b. \textit{Mich hungert.}  
    \textit{me} \textsubscript{acc} hungers  
    ‘I’m hungry.’
\end{itemize}

There is also at least one two-place verb, \textit{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, \textit{ärgern} ‘annoy’.

(30)  
\begin{itemize}
  \item a. \textit{Mich ärgern solche Leute.}  
    \textit{me} \textsubscript{acc} annoy such people  
    ‘People like that annoy me.’
  \item b. \textit{Mich interessieren solche Leute.}  
    \textit{me} \textsubscript{acc} interest such people  
    ‘People like that interest me.’
\end{itemize}

(31)  
\begin{itemize}
  \item a. \textit{Ich werde von solchen Leuten geärgert.}  
    \textit{I} \textsubscript{nom} become by such people annoyed  
    intended: ‘I’m annoyed by people like that.’
  \item b. *\textit{Ich werde von solchen Leuten interessiert.}  
    \textit{I} become from such people interested  
    intended: ‘I’m interested by such people.’
  \item c. *\textit{Mich wird von solchen Leuten interessiert.}  
    \textit{me} becomes from such people interested  
    intended: ‘I’m interested by such people.’
\end{itemize}

A plausible explanation for the fact that the passive is completely out is that the nominative argument with \textit{interessieren} is not an external argument. It would then be like \textit{gefallen} ‘like/please’, which seems to be parallel in every way except that the experiencer argument is dative. If this is correct for \textit{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.\textsuperscript{15}

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.
German inherent datives and argument structure

   me freezes to death
   intended: ‘I’m freezing to death.’

   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 stipulate that they have special case-assignment like the datives do, 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). 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.

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]$_{\text{dat}}$*
   ‘We helped the girls.’

b. *Stelpunum var hjálpað.*
   *[girls.the]$_{\text{dat}}$ 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.

(34) a. *Ég vonaðist til [að verða hjálpað.]*
   *I hoped for to be helped (i.e. to PRO:DAT be helped)*
   ‘I hoped to be helped.’
German inherent datives and argument structure

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

The same applies to datives with verbs that have no external argument in the active, e.g. *lika '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 allt af lika þeir.
   him.nom would.3pl always like they.nom  
   'He would always like them.'

b. *Honum munduð allt af lika þið.
   him.nom would.2pl always like you.nom  
   intended: 'He would always like you.'
c. *Honum mundum alltæf lika við.
   him\textsubscript{dat} would.1pl always like we\textsubscript{nominative}
   intended: ’He would always like us.’

(36) a. Ihm würden sie immer gefallen.
   him\textsubscript{dat} would.3pl they\textsubscript{nominative} always like
   ‘He would always like them.’

b. Ihm würdet ihr immer gefallen.
   him\textsubscript{dat} would.2pl you\textsubscript{nominative} always like
   ‘He would always like you.’

c. Ihm würden wir immer gefallen.
   him\textsubscript{dat} would.1pl we\textsubscript{nominative} 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 sêð myndina?
   has she\textsubscript{nominative} seen picture.the
   ‘Has she seen the picture?’

b. Hefur henni leiðst bókin?
   has her\textsubscript{acc} bored book.the
   ‘Has she found the book boring?’

(38) a. Ég tel hana hafa sêð myndina.
   I believe her\textsubscript{acc} have seen picture.the
   ‘I believe her to have seen the picture.’

b. Ég tel henni hafa leiðst bókin.
   I believe her\textsubscript{acc} have bored book
   ‘I believe her to have found the book boring.’

(39) a. Hún virðist hafa sêð myndina.
   she\textsubscript{nominative} seems have seen picture.the
   ‘She seems to have seen the picture.’
b. *Henni virðist hafa leiðst bókin.*
   her\textsubscript{dat} seems have bored book\textsubscript{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.

\begin{quote}
(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]\textsubscript{dat} the picture liked
   ‘Did the woman like the picture?’
\end{quote}

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\textsuperscript{19} In these structures as well, there is no designated subject position where datives cannot appear.

\begin{quote}
(41) a. *Ich lasse der Frau ein Bild geben.*
   I let [the woman]\textsubscript{dat} 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.’
\end{quote}

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

\begin{quote}
(42) a. *Die Einbrecher scheinen die Schreibmaschine gestohlen zu haben.*
   the burglars appear [the typewriter]\textsubscript{acc} stolen to have
   ‘The burglars appear to have stolen the typewriter.’

b. *Die Schreibmaschine scheinen die Einbrecher gestohlen zu haben.*
   [the typewriter]\textsubscript{acc} 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]\textsubscript{acc} 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 SpecTP. 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 SpecCP 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 & Eythórsson 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 hjálpð.
   'I had a lot to do, and no one helped.'

b. *Der Mann mag die Bibel und der Koran.
   [the man]nom likes the bible and [the man]dat 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).

   [the doctor]acc supports Hans and [the doctor]acc impedes Maria.
   Maria
   'Hans supports the doctor, and Maria impedes him.'

b. Dem Arzt hilft Hans und der Koran.
   [the doctor]dat helps Hans and [the doctor]dat assists Maria.
   'Hans helps the doctor, and Maria assists him.'
German inherent datives and argument structure

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.20

(45) a. *Ich hoffte, [geholfen zu werden].
   [I hoped to be] (i.e. *pro:dat helped to be)
   intended: ‘I hoped to be helped.’

   b. Mir gefällt es nicht, nicht geholfen zu werden.
   [me:dat 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 in any case 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. 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 SpecApplP, however, 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

1. I would like to thank Tony Kroch, Dave Embick, Alec Marantz, Andrew McIntyre, Philippa Cook, Beatrice Santorini and Florian Schäfer for helpful discussion of the ideas presented here, the last two also for native speaker judgments. Thanks also to Daniel Hole and especially an anonymous reviewer for comments and criticisms on an earlier (and far worse) draft.

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, Romanian, Tongan, Samoan and Maori.

6. Recipients and benefactives also have corresponding negative types which we could call de-prives 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 (2005) 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 θ-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 θ-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 SpecApplP by default.

References

German inherent datives and argument structure


Remarks on the projection of dative arguments in German*

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In this article it is argued that contrary to influential work by Höhle (1982) and Haider (1992, 1993), German ditransitive verbs do not display different base orders in the projection of dative and accusative arguments. The claim that there are three types of ditransitive verbs taking one dative and one accusative object characterized by the relative hierarchization of the given arguments cannot be maintained. It is the result of a misunderstanding of focus projection on the one hand, and the overlooking of some semantic facts with the $\text{DAT} > \text{ACC}$, $\text{ACC} > \text{PP}$ alternation on the other. A closer look at the facts reveals that true dative objects (so-called higher datives) generally precede and therefore c-command accusative arguments. There are no verbs which allow for both orders simultaneously. If dative objects appear to be closer to the verb than accusatives (so-called lower datives), the datives at issue are no true datives, but hidden PPs. The relation between the two non-accusative positions will be analyzed in a lexical decomposition framework as a transformational step creating the allegedly atomic predicate POSS by incorporation of a preposition into the primitive BE (transfer of Kayne’s 1993 theory of the have-be alternation to the inner-lexical domain). Since the quoted work by Haider and Höhle, research has made quite some progress. The ideas laid down in the present article are very close to those developed independently by McIntyre (this volume) and McFadden (2003, 2004). The aim of this article can be characterized as an endorsement for a single universal hierarchy of arguments: $\text{[SU}[\text{IO}[\text{DO}[\text{PP (V)]]]]}$.

1. Introduction

The aim of this paper is to argue that there is a single case hierarchy according to which the arguments of a verbal head are projected – crosslinguistically as well as particularly in German. The case hierarchy, which is in correspondence to the argumental hierarchy in the abstract, i.e. – $\text{[SU}[\text{IO}[\text{DO}[\text{PP (V)]]]]}$, is argued to be valid for three place verbs only. The corresponding case hierarchy would position nomina-
tive before/higher than dative (\textit{Nom} > \textit{Dat}). This ordering is not valid for all predicates, biargumental verbs in particular may realize the arguments differently.\footnote{1}

I will focus on ditransitive verbs of two different types and their relationship: verbs that govern one accusative and one dative object and verbs that govern one accusative object and a PP. I will make the assumption that the (internal) arguments of a verb are projected VP-internally in a binary branching fashion. This implies that out of any two arguments one always asymmetrically c-commands the other. This relation can also be labeled ‘ranking over’. One controversial question is the ranking of dative and accusative objects. As for the basic orders, it has been claimed that all possible rankings are attested (Höhle 1982, for a reprise cf. Haider 1992, 1993). All possible rankings mean: (I) dative is higher than accusative, (II) accusative is higher than dative, and neither ranks over the other, (III) or both are interchangeable. It is claimed that the instantiation depends on the nature of the verb.

\begin{enumerate}
  \item I. \textit{abgewöhnen}, \textit{beibringen}, \textit{verweigern}, \textit{zutrauen}...
    \begin{itemize}
      \item wean, administer, deny, think somebody is able to
    \end{itemize}
  \item II. \textit{aussetzen}, \textit{unterziehen}, \textit{zuführen}...
    \begin{itemize}
      \item expose, submit, bring/feed
    \end{itemize}
  \item III. \textit{geben}, \textit{zeigen}, \textit{empfehlen}...
    \begin{itemize}
      \item give, show, recommend
    \end{itemize}
\end{enumerate}

Indeed, at first glance this division seems to be well motivated. If one asks native speakers of German to form sentences with these verbs, they will with high probability order the arguments in the way the classification predicts. That means that whereas in sentences with verbs of class I dative objects will precede accusative ones, sentences with class II verbs will show the reverse order. Sentences that contain class III verbs will come with both orders. It will be shown, however, that this is not sufficient for the classification proposed by Höhle or Haider.

\section*{2. Difficulties with focus projection and a diagnostic for basic word order}

Höhle (1982) takes the intuitions described above only as a point of departure and develops a test to justify the ‘different-order-hypothesis’ theoretically. He proposes a correlation between basic word order and maximal focus spreading on the one hand, and derived word order and narrow focus on the other. (The regular term is ‘focus projection’. Höhle calls it ‘focus spreading’. This should not cause any confusion, however.) Thus, Höhle’s claim is that focus projection (along the lines of Selkirk 1984) is possible for base generated structures, but impossible for derived orders. I, too, assume that this is the right conjecture. However, I think that one has to be very careful in using focus projection as a reliable test. Later I will come back to the reason for a cautious attitude towards seemingly reliable facts from focus projection. But first, let us look at the data presented and discussed by Höhle.
Remarks on the projection of dative arguments in German

(2) a. dass Carl die Lösung fand (spreading)
   that Carl nom [the solution] acc found
   ‘that Carl found the solution’

b. dass [die Lösung] acc Carl nom fand (no spreading)

(3) class I

a. dass er seiner Frau sein Geld nicht gönnte (spreading)
   that he [his wife] dat [his money] acc not not.grudge
   ‘that he grudged his wife his money’

b. dass er [sein Geld] acc [seiner Frau] dat nicht gönnte (no spreading)

class II

c. dass er seine Kinder ihrem Einfluss
   that he [his children] acc [her influence] dat
   aussetzte exposed
   ‘that he exposed his children to her influence’

d. dass er [ihrem Einfluss] dat [seine Kinder] acc aussetzte (no spreading)

class III

e. dass er seiner Frau sein Geld gegeben hat (spreading)
   that he [his wife] dat [his money] acc given has
   ‘that he gave his money to his wife’

f. dass er [sein Geld] acc [seiner Frau] dat gegeben hat (spreading)

(2) is uncontroversial and shows that nominative must precede accusative to make focus projection possible. This diagnostic device is then applied to the spreading possibilities in the double object examples from (3). However, the data here are less clear. I claim that the confusion comes from a misunderstanding of the relation between questions and focus projection in possible answers. It is arguably not the case that an answer to a wh-question only consists of the open proposition delivered by the question plus the (exhaustive) instantiation of the open proposition. It is very well possible for the answer to contain more material, for example in order to facilitate storing of new information. Krifka (2001), for that matter, distinguishes between acceptable reactions (answers) to questions and congruent answers (a term borrowed from von Stechow 1990). Krifka gives the illustration in (4).

(4) a. What did Mary read?


c. Mary read, and enjoyed, a novel by Wolf von Niebelschütz.

d. Mary read, or perhaps just bought, ‘Die Kinder der Finsternis’.

e. Mary’s boyfriend read ‘Die Kinder der Finsternis’.

f. I don’t know.

g. I won’t tell you...
Whereas (4c) to (4e) are claimed to be acceptable reactions to (4a), only (4b) is (taken to be) a congruent answer. From Krifka’s work it follows that a purely congruent answer is an idealized construct which can be formally defined, but which is not the only possibility. Question-answer sequences come in a variety of realizations. In most conversations one finds felicitous over- and under-informative answers quite often. The latter have become an interesting object of investigation for the notion of topic (especially since Büring 1997). The former, i.e. over-informative answers, have been of less interest. A closer look at them would be very useful for the following argumentation. I dare claim that the answer to a question of the sort What happened? / What’s the matter? need not necessarily be an all-new-utterance. One should be aware that focus projection, question-answer-felicity, context dependent deaccentuation is a delicate matter (see Schwarzschild 1999, especially the introductory comments). It seems to me that a felicitous (but not fully congruent) answer may contain more discourse old material than what is directly obtainable from the question. This means that not everything that is contained in the answer must be focus or new information. Let me give an example.

(5)  A: Why is Mary angry with Paul? What did he do?
    B: Yesterday, he slept with AMANDa.

This dialogue does not have the slightest flavor of oddness. The question asks for information about some action by Paul that caused Mary’s anger. The cause for her anger is Paul’s sex with Amanda, encoded in the VP [VP slept with Amanda]. For some reason, B decided to be a bit more explicit and indicated the time of the action although the exact point in time does not matter for Mary to be upset. The sentence initial position of the temporal adjunct, together with an intonation pattern that puts little weight on it (no contrastive or any other additional stress), but more on Amanda (i.e. regular falling tone), indicates that the temporal information encoded in yesterday is a (sort of non-contrastive) topic. Thus it can be considered as given, see Halliday (1967:206) and may be used as a tail element in the sense of Vallduví (1992). We then have two constituents that are not in focus, but only one of them is delivered by the linguistic context, namely Paul = he. The other one, which contains a deictic expression, can still be easily accommodated. Thus, we see that it is not completely conclusive to consider question-answer pairs as a reliable diagnostic for focus projection. Given a question and a felicitous answer (‘acceptable reaction’ in Krifka’s terms), one cannot claim that all the material which is contained in the answer, but which is missing in the question, must be new information and hence in the range of focus projection.

Now, why this long discussion? It has been claimed that focus projection is sometimes possible if accusative precedes dative, cf. (3f). However, focus projection was understood there as question-answer felicity. Thus, (3f) is regarded as a possible answer to a question Was hat er gemacht? ‘What did he do?’ With the wrong theory about the focus projection test outlined above, this then leads to the conclusion that every constituent (including the verb), but er (he), must be focus. This, however, is not the case. I still claim that the accusative argument in this case may be discourse-related
and focus does not necessarily spread over it. The same line of argument as illustrated with a deictic adverb in (5) can be carried over to discourse old constituents. This is (more) difficult to show, however. This intuition is confirmed by many other native speakers. For example, Steinbach and Vogel (1995) argue that in sentence (3f) focus does not project over both arguments. The accusative DP gets a discourse related interpretation here. In this light, the accusative argument has been scrambled over the dative DP. The structure is not a basic configuration anymore.

In any case, I hope to have shown that a generous interpretation of focus projection without any restriction is not a reliable test for basic word order.

3. The strict word order hypothesis

It turns out that there is a clear and more reliable test for showing that dative is ranked higher than accusative (for both class I and class III verbs). This test is actually not completely unrelated to the focus spreading test, it is mainly a refinement restricting its application domain. According to earlier work of mine (Meinunger 1995, 2000), which is based on Diesing’s (1992) Mapping Hypothesis, I will assume that linguistic material which is introduced into the discourse frame stays in its base generated position. Discourse related constituents (topical material) must be scrambled out of the VP. This view has become relatively popular and can be illustrated as in (6).

(6) [CP... [AgrPs... [[[VP ([discourse new adjuncts]) [ VP... ]]]] topic(s)\(^3\) | comment

Thus we have to examine the order in which new material organizes. Since DPs containing ordinary nouns are not conclusive, we have to look for something else. Most DPs are not conclusive because even indefinite DPs can easily obtain a presuppositional reading. However, DPs containing unstressed indefinite articles are almost perfect indicators of what we are looking for. The best way of showing the linear order of arguments is to use indefinite pronouns that cannot or can hardly have a presuppositional reading. Such elements are jemand, etwas, nichts, wer, wen, was, (‘somebody’, ‘something’, ‘nothing’) and unstressed einer, niemand (‘someone’, ‘none’) and their reduced forms ‘ner, ‘was, and the like. W-pronouns qualify best because they are commonly and uncontroversially assumed to be ‘scrambling resistant’; thus they never move in the middlefield. When one constructs sentences with these pronouns, one finds that verbs of class I behave exactly as verbs of class III in that the dative object must precede the accusative one.
(7) class III

```
\begin{align*}
\text{a. weil er jemandem (et)\ was } & \begin{array}{c}
\text{gezeigt} \\
\text{gegeben} \\
\text{empfohlen} \\
\text{erklärt} \\
\text{geschickt} \ldots
\end{array} \quad \text{hat} \\
\text{since he somebody}_{\text{dat}} \text{ something}_{\text{acc}} \ {\text{has\ shown,\ given,\ recommended,\ explained,\ sent}} \\
\text{‘since he \{showed,\ gave,\ recommended,\ explained,\ sent\} something to someone’}
\end{align*}
```

```
\begin{align*}
\text{b. } \nonumber^*\text{weil er (et)\ was jemandem } & \begin{array}{c}
\text{gezeigt} \\
\text{gegeben} \\
\text{empfohlen} \\
\text{erklärt} \\
\text{geschickt} \ldots
\end{array} \quad \text{hat} \\
\text{(reverse order, i.e. ACC > DAT)}
\end{align*}
```

The same is of course the case with class I verbs, which is already predicted by Höhle's theory.

(8) class I

```
\begin{align*}
\text{a. weil er jemandem (et)\ was } & \begin{array}{c}
\text{abgewöhnt} \\
\text{verweigert} \\
\text{beigebracht} \\
\text{zugetraut} \\
\text{verübelt} \ldots
\end{array} \quad \text{hat} \\
\text{since he somebody}_{\text{dat}} \text{ something}_{\text{acc}} \ {\text{has\ weaned,\ denied,\ taught,\ blamed\ ...}}
\end{align*}
```

```
\begin{align*}
\text{b. } \nonumber^*\text{weil er (et)\ was jemandem } & \begin{array}{c}
\text{abgewöhnt} \\
\text{verweigert} \\
\text{beigebracht} \\
\text{zugetraut} \\
\text{verübelt} \ldots
\end{array} \quad \text{hat} \\
\text{(reverse order, i.e. ACC > DAT)}
\end{align*}
```

As mentioned above, indefinite DPs behave similarly. However, things are more complicated here. The order ACC > DAT itself is not ungrammatical, and the unmarked stress always falls on the verb adjacent argument. In this sense (8a/10a) and (9b/10b) are supposed to be equally good. What distinguishes (9a/10a) from (9b/10b) is that the former may serve for focus projection whereas the latter may not. However, as I have
argued above, the focus spreading test is not appropriate. So I propose that (9b/10b) are infelicitous/inappropriate when the intended reading is such that the indefinite objects are both being introduced into the discourse frame simultaneously.

\[(9)\]

\[
\begin{align*}
\text{class III} \\
n. & \text{weil er einer Frau eine Rose geschenkt hat} \\
& \quad \text{since he [a woman]}_{\text{DAT}} [\text{a rose}]_{\text{ACC}} \text{ given has} \\
& \quad \text{‘since he gave a rose to a woman’} \\
\end{align*}
\]

\[
\begin{align*}
\text{b. } & \text{weil er [eine Rose]_{\text{ACC}} [einer FRAU]_{\text{DAT}} geschenkt hat} \\
& \quad \text{‘since he gave a rose to a woman’} \\
\end{align*}
\]

\[(10)\]

\[
\begin{align*}
\text{class I} \\
n. & \text{weil er einem Freund ein LIED beigebucht hat} \\
& \quad \text{since he [a friend]}_{\text{DAT}} [\text{a song}]_{\text{ACC}} \text{ taught has} \\
& \quad \text{‘since he taught a song to a friend’} \\
\end{align*}
\]

\[
\begin{align*}
\text{b. } & \text{weil er [ein Lied]_{\text{ACC}} [einem FREUND]_{\text{DAT}} beigebucht hat} \\
& \quad \text{‘since he taught a song to a friend’} \\
\end{align*}
\]

I hope to have shown that class I and class III are not different with respect to argument projection and that we therefore should not speak of two different classes.

Let us now turn to class II. If we apply our test (ordering of indefinite discourse-new material) to the verbs of this class, we find that the base order is ACC > DAT indeed. (11) illustrates the fact. However, I have to admit that the ordering test with indefinite pronouns does not work very well here.

\[(11)\]

\[
\begin{align*}
\text{class II} \\
n. & \text{weil ich auf der Party niemand(en) jemandem vorgestellt habe} \\
& \quad \text{since I at the party nobody}_{\text{ACC}} \text{ somebody}_{\text{DAT}} \text{ presented have} \\
& \quad \text{‘since at the party I introduced nobody to anybody’} \\
\end{align*}
\]

\[
\begin{align*}
\text{b. } & \text{weil ich auf der Party niemanden}_{\text{DAT}} jemand(en)_{\text{ACC}} vorgestellt habe} \\
& \quad \text{‘since I at the party I introduced nobody to anybody’} \\
\end{align*}
\]

To make the data clearer we may resort to slightly different examples. It is sufficient to just have one argument which is an indefinite pronoun. The other argument may then be realized as a full DP. The claim is that the relevant indefinite pronoun must be in its base position. Thus it does no harm if the linearly following argument is a structured DP and the pronoun precedes it. Thus as long as the indefinite pronoun is necessarily occupying its base position, the full noun phrase must not have moved either. Then the data become uncontroversial again.

\[(12)\]

\[
\begin{align*}
\text{a. } & \text{weil er jemanden einer schweren PRÜfung unterzog} \\
& \quad \text{since he somebody}_{\text{ACC}} [\text{a difficult exam}]_{\text{DAT}} \text{ submitted} \\
& \quad \text{‘since he submitted someone to a difficult exam’} \\
\end{align*}
\]

\[
\begin{align*}
\text{b. } & \text{weil er einer schweren Prüfung jemanden unterzog} \\
& \quad \text{‘since he submitted someone to a difficult exam’} \\
\end{align*}
\]

\[(13)\]

\[
\begin{align*}
\text{a. } & \text{weil sie niemanden einer großen GeFAHR aussetzen würde} \\
& \quad \text{since she nobody}_{\text{ACC}} \text{ [a big danger]}_{\text{DAT}} \text{ expose would} \\
& \quad \text{‘since she would not expose anyone to a big danger’} \\
\end{align*}
\]

\[
\begin{align*}
\text{b. } & \text{weil sie [einer großen Gefahr]_{\text{DAT}} niemanden}_{\text{ACC}} \text{ aussetzen würde} \\
& \quad \text{‘since she would not expose anyone to a big danger’} \\
\end{align*}
\]
Thus it seems that there are not three classes – instead, there exist at most two: dat > acc and acc > dat. Nevertheless I would like to maintain the claim that dat > acc holds underlyingly.

The acc > dat order can be seen as an epiphenomenon similar to what is going on with the so-called ill-behaved experiencer verbs (cf. next paragraph).

4. Some similarities with experiencer verbs

Ideally, arguments should be projected uniformly and in accordance with a hierarchy, for example the one advocated in Grimshaw (1990), here given under (14) (UTAH: Baker 1988). There are some difficulties with some verb classes, however. One well-known puzzle is the existence of two different types of experiencer verbs. One class of experiencer verbs – the fear class (or Belletti & Rizzi’s 1988 temere class) – is well-behaved. That means that the experiencer, located higher in the thematic hierarchy, becomes the subject of the sentence; the stimulus – in some approaches also called theme or trigger, located deeper – becomes the object. (Cf. Dowty 1991, whose hierarchy works without discrete theta-roles, but the approach offers a good mapping mechanism for subjects and other grammatical relations.)

(14) \((\text{Agent (Experiencer (Goal / Source (Patient/Theme/Stimulus))})\))

(15) Lohengrin fears Elsa’s question.

(16) Alberich likes the Rhine maidens.

However, there is a class of ill-behaved verbs – the frighten class (Belletti & Rizzi’s 1988 preoccupare class).

(17) Alberich frightens the Nibelungs.

Here the experiencer appears as a postverbal object, and the stimulus occupies the subject position. Grimshaw presents a way out of the dilemma. Her proposal is that there is not only one hierarchy scale, but at least two. She shows that the ill-behaved verbs have something to them which the other class lacks. There is a causative element involved such that (17) can be paraphrased by (18).

(18) Alberich causes the Nibelungs to experience fear.

She goes on to state that the causal structure of a predicate also defines a hierarchy, just as the thematic structure does, a hierarchy in which the cause argument is most prominent:

(19) \((\text{cause (…))}\)

She claims that the causativity hierarchy overrides the other one(s) and imposes a structure where the causer is the most prominent argument. Another possible and similar way of capturing the difference between the two classes is more along the lines...
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of Pesetsky (1990). In his theory, too, *frighten* is not merely equal in meaning to *fear* with the theta-roles in the reverse order. The difference lies in the additional causative component, which the well-behaved class lacks, but the ill-behaved class exhibits. This can be captured in the following representation:

(20)  
\[
\begin{align*}
\text{a. } & \quad \text{like/fear: } \lambda x \lambda y \left[ x E y \right] \\
\text{b. } & \quad \text{please/frighten: } \lambda x \lambda y \left[ y \text{CAUSE} \left[ x E y \right] \right]
\end{align*}
\]

If this notation, taken from Haider (1992), is translated into a syntactic tree, we get a specifier position where the causer is licensed in the topmost argument position – a tree that looks quite familiar nowadays in Distributed Morphology approaches working with vPs (projections of little *v* (corresponding to *CAUSE*)). Instead of making the lambda prefix unselectively bind two variables, we can handle the difference syntactically by assuming movement (or another position dependency):

\[
\begin{align*}
\text{(21)} & \quad \text{VP1} \\
& \quad e V' \\
& \quad \quad \text{CAUSE} \quad \text{VP2} \\
& \quad \quad \quad \quad \Rightarrow \\
& \quad \quad \quad \quad \quad y V' \\
& \quad \quad \quad \quad \quad \quad \quad \text{fear} \\
& \quad \quad \quad \quad \quad \quad \quad \quad x
\end{align*}
\]

\[
\begin{align*}
\text{(22)} & \quad \text{VP1} \\
& \quad x_j V' \\
& \quad \quad \text{frighten}_j \quad \text{VP2} \\
& \quad \quad \quad \quad y V' \\
& \quad \quad \quad \quad \quad \quad \quad t_j \\
& \quad \quad \quad \quad \quad \quad \quad \quad t_i
\end{align*}
\]

Thus, decomposition of verb meanings into atomic predicates followed by a related head and phrasal movement may explain the unusual nature of the ill-behaved class of experiencer verbs: *FRIGHTEN = CAUSE + FEAR*. The universal alignment principles are nicely obeyed under such an approach.
5. The DAT > ACC > DAT / PP asymmetry

I would like to claim now that this kind of argument (position) manipulation can be fruitfully carried over to the asymmetry found with ditransitive verbs. It has been observed that (in German) there seems to exist a tendency for the [+animate] or [+human] non-theme object of ditransitive verbs to be realized as a dative object (23a), (24a). On the other hand, when it is not animate or human, it is likely to be expressed in a directional PP (23b), (24b) (see Kaufmann 1993 among others). Another difference, which Kaufmann does not comment on, is the fact that in the animate case the dative object preferably appears before the accusative object; in the inanimate case, the PP must appear after the accusative object, see also Vogel and Steinbach (1988).

(23) a. Sie schickte ihrer Tante ein BUCH.
    she sent [her aunt]_{DAT} [a book]_{ACC}
    ‘She sent her aunt a book.’

   b. Sie schickte das BUCH an die BibliOThEK.
    she sent [the book]_{ACC} to the library
    ‘She sent a book to the library.’

    she brought [her father]_{DAT} [a cake]_{ACC}
    ‘She brought her father a cake.’

   b. Sie brachte einen Kuchen ins BüRO.
    she brought [a cake]_{ACC} into the office
    ‘She brought a cake (in) to the office.’

The claim is that animacy or humanness do not play the key role here. In this respect I completely agree with McIntyre or Cook (both in this volume), who argue very convincingly against a substantial impact of animacy in the cases at hand. Instead the difference, illustrated in the given examples, is mediated through a distinction concerning the interaction of the involved atomic predicates. In a Generative Semantics framework or in Lexical Decompositional Grammar (as in Wunderlich 1997) it is generally assumed that POSS(SESSION) is an atomic predicate. I will argue, however, that it is of great advantage to analyze it as a derived one. For this conjecture I will assume a view of argument structure similar to that found in Speas (1990) and a theory of the broadly discussed have-be alternation much like that in Kayne (1993). My claim is that many ditransitive verbs either refer to a relation between a theme and the theme’s location, or express a process (or a state) in which the dative argument possesses/comes to possess the theme. I furthermore claim that the former relation (location) is underlying and the latter (possession), which contains more information, is derived. As for the constructions with a locational (secondary) predication, I assume that the lexically decomposed structure is as in (25).

(25) [x CAUSE [… BE [y [IN/AT/ON z]]]]
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Thus for *bringen* 'bring' and *schicken* 'send' with a prepositional complement, we would have a tree structure as in (26).

\[(26)\]
\[\text{VP}^5 \quad \text{x} \quad \text{V'} \quad \text{BEP} \quad \text{CAUSE°} \quad \text{BE'} \quad \text{BE°} \]
\[\ldots \quad \text{BE'} \quad \text{PP} \quad \text{BE°} \]
\[\text{bring-, schick-} \quad \text{y} \quad \text{P'} \quad \text{P°} \quad \text{DP} \]

This is the representation for sentences like (23b) and (24b). Now comes Kayne’s idea from 1993 (which goes back to earlier work by traditional grammarians, especially Benveniste 1966, but also to work on the Hungarian noun phrase by Szabolcsi 1981). For Kayne *have* is derived from a preposition which has incorporated into *be*. Transferred into a syntactic theory of lexical (head) decomposition, this may be modeled as incorporation of the deepmost locative *P°* into the primitive BE. This incorporation yields a constituent which denotes the POSSESSION relation. Exactly as with the experiencer verbs, the head movement within the VP triggers the movement of an argument. In the case at hand, it is the former complement of the preposition which becomes the specifier of POSS. (The overt preposition disappears and a possession relationship comes across, see also Kayne.) Semantically, that means that this argument becomes the possessor.

The whole semantic side is in accordance with standard assumptions about datives. Many linguists claim that dative morphology signals possession. Wegener (1985), who presents the most detailed study on the German dative, assigns a vague semantics to this case. For her, dative expresses a meta-role ‘BETR’ (*betroffen* = concerne), whose most prominent subfeature is REC (recipient). In my terms, Wegener’s recipient (REC) is equivalent to POSS (possessor), despite Levin and Rappaport Hovav’s (2002:3) explicit statement that ‘...not all possessors are recipients’. This role expresses some very abstract, and not vague, but very clear and intuitive concept of possession. For more on the impact of possession see Vergnaud and Zubizarreta (1992), Szabolcsi (1981) again on Hungarian and most recently Hole (2005) on German. Furthermore compare the structure in (27), (28) to the applicative analysis by McIntyre (this volume) or McFadden (2004). Their approach is rather static, i.e. representational, not assuming
a movement dependency, but the merger of the dative argument in the specifier position of a semi-lexical head is quite similar to the analysis proposed here. My claim, however, reaches further. It aims farther by decomposing a formerly primitive semantic unit. Thus, my claim is that the possession relation (POSS) encoded by all these predicates is not an atomic head, but that it is the result of internal changes within the verb phrase emerging from the fusion of two primitives.

(27) \[x \text{CAUSE}[\ldots \text{BE}\ [y\ [\text{IN/AT/ON}\ z]]] \Rightarrow [x \text{CAUSE}\ldots [z\ [\text{POSS}\ y]]] \]

This analysis is corroborated by the following facts. The tendency to dativize a [+animate] / [+human] DP (i.e. not having surface it as a PP) is only an epiphenomenon. There is nothing strange about having an [+animate] / [+human] DP within a PP construction.

(29) \textit{weil ich ein BUCH zu meinem Vater gebracht habe}
\textit{since I brought a book to my father’s place}.

(30) \textit{weil ich das FAHRrad zu meiner TANTE geschickt hatte}
\textit{since I sent the bike to my aunt’s place}.

However, the meaning is different from the corresponding \textit{DAT > ACC} construction. (29) and (30) do not tell us anything about possession. (29), for example, expresses that I brought some book to my father’s place. My father needn’t even know about the book. In (30), there is not the slightest hint that the aunt becomes the possessor. On the other hand, the corresponding \textit{DAT > ACC} constructions make a POSS reading much more likely. At this point I have to mention at least the operation of dative shift in
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English. This grammatical phenomenon is very similar to what is going on in German, yet there are important and interesting differences. It seems to me to be impossible not to consider the work by Levin and Rappaport Hovav (2001) and all the work listed therein, and Krifka (2004 among others).

(31) weil ich meinem Vater ein BUCH gebracht habe
    since I [my father]_DAT [a book]_ACC brought have
        ‘since I brought my father a book’

(32) weil ich meiner Tante das FAHRrad geschickt habe
    since I [my aunt]_DAT [the bicycle]_ACC sent have
        ‘since I sent the bike to my aunt’

(31) strongly suggests that now the speaker’s father owns the book. However, my claim is not that POSS necessarily expresses ownership. It merely means that someone is in the (perhaps temporary) possession of something. For example, (32) does not necessarily mean that the ownership of the bicycle changes from mine or someone else’s to my aunt’s. However, the sentence says that my aunt is somehow in conscious possession of the bike. This is not the case with the PP construction in (30). That sentence might describe a situation where I have sent a/my bike to my aunt’s address in Paris. However, for the time being my aunt doesn’t live there and I know that. The only reason for my sending it there was that I want to go to Paris and did not want to take the bike with me on the train. In addition, I don’t trust left-luggage offices, so I wanted to pick up my bike at my aunt’s place rather than at the station. In such a scenario, my aunt need not know anything about that. (32) on the other hand cannot be used to describe such a situation.

This argument is also partly corroborated by the fact that the DAT > ACC vs. ACC > PP alternation is not freely allowed. It is not the case that for every DAT > ACC order there is a corresponding ACC > PP order. This possibility of ACC > PP seems to me to be limited to verbs where the non-accusative object can receive a locative reading in a broad sense. For verbs where this is not possible the ACC > PP construction sounds awkward, as in (33b).

(33) a. weil ich es meiner MUTter geschenkt habe
    ‘since I showed, recommended, … it to my mother’
Now, my own argumentation could be used against the very line of argumentation pursued here. Earlier, what I was doing was dealing with the opposition ‘possession’ vs. ‘location’. Now, I am using the lack of a locational reading with the given verbs as an argument for the lack of the ACC > PP construction. So far, so good. However, if the matters were that uncomplicated, my simple-minded opposition predicts that with the given verbs, we only get a reading where POSS plays a role (as it does with geschenkt only). This, however, is not the case. Here we do not get any (sub)relation which must be identified as POSSESSION. It may be, but does not have to. So what has to be said is that my theory of location to possession change does not explain every DAT > ACC ordering. This, however, has never been my claim. What I claim is only that it covers a considerable part.

An interesting set of data that could partly be covered by the present analysis concerns verbs of communication (cf. Krifka 2004 based on Gropen et al. 1989 for the English dative shift). Verbs of mere utterance action (manner of speaking) may realize the non-theme argument as a pure dative (34), (36), (37) or as a PP (35), (36), (38).

(34) *Sie hat ihm die Wahrheit gesagt.*
She has him\_\text{DAT} [the truth]\_\text{ACC} said
‘She told him the truth.’

(35) *Sie hat die Wahrheit zu ihm gesagt.*
She has [the truth]\_\text{ACC} to him said

(36) *Sie hat (zu) ihm gesagt, dass sie ein Kind möchte.*
She has (to) him\_\text{DAT} said, that she a child wants
‘She told him that she wants a baby.’

(37) *Sie hat mir geschrieben, dass sie ein Kind möchte.*
She has me\_\text{DAT} wrote, that she a child wants
‘She wrote to me that she wanted a baby.’

(38) *Sie hat an mich geschrieben, dass sie ein Kind möchte.*
She has to me\_\text{ACC} written, that she a child wants
The same holds for all verbs referring to means/manner of communication (*faxen* ‘fax’, *emailen* ‘e-mail’ etc.) Verbs that are related to speech acts where the receiver of the message is more involved do not allow for the ACC > PP pattern.

(39) *Er hat mir die Vorgehensweise erklärt.*
He has me\_\text{DAT} the procedure explained
‘He explained me the procedure.’
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(40) Er hat mir erklärt, wie sie vorgehen wollen.

He has me dat explained, how they proceed want

‘He explained to me how they would want to proceed.’

(41) *Er hat die VORgehensweise zu mir erklärt.

He has the procedure to me dat explained

(42) *Er hat zu mir erklärt, wie sie vorgehen wollen.

This is true for verbs like erzählen ‘tell’, beweisen ‘prove’, klarmachen ‘make clear’, berichten ‘report’, antworten ‘answer’, entgegnen ‘reply’ etc. These verbs almost imply that the message has gotten from the source (mostly some speaker) to the addressee (hearer). Thus after a felicitous act of communication, the hearer has gained some new knowledge; he has acquired new information, and he thus qualifies as a possessor in a broader sense. Furthermore, he is more involved (recall Wegener’s semantics for the dative) than in situations like (38). The verbs that allow for both variants are far less implicative concerning the felicitous transmission of the message.

6. Low datives are pps

Now the reader may wonder why I have spent so much effort on the dat > acc vs. acc > pp alternation. The answer lies in the problem tied to the different orders ‘dat > acc’ vs. ‘acc > dat’, which was introduced in Section 3, but for which a solution has not yet been given. The following discussion takes this problem up again and seeks to provide an explanation.

In Section 3 it has been shown that there is no dat > acc vs. dat > acc & acc > dat distinction, i.e. class I and class III have been collapsed. The rather lengthy discussion about the dat > acc vs. acc > pp distinction was intended to prepare for the next verb class collapse; namely, I shall claim that the ‘ill-behaved’ class II verbs are hidden acc > pp verbs. To put it in other words, the dative argument of acc > dat verbs (class II) is actually (the remnant of) a pp (the so-called low datives). That low datives are distinct from true, high datives has been shown at various places. A good overview can be found in McFadden (2004). The criteria he lists are (i) focus projection, (ii) the linearization option under the presence of negation (before or after ‘nicht’), (iii) VP topicalization (a remnant may not contain the higher argument without the closer one), (iv) semantic considerations (possession vs. locative interpretation), and a last, very strong and convincing argument: (v) passivization with kriegen ‘get’ (see also Abraham 1985 among others).

The argumentation to be pursued here will not be very semantic. The only thing I want to mention is that Müller (1993:204, fn. 3), too, admits that the dative arguments of verbs of class II are not goals. What Müller means is that these expressions are not to be interpreted as recipients. I want to go further and say that the datives denote something local. Let us consider the verbs of class II. Haider (1992) gives the following examples:
All these verbs, with one exception, can be morphologically decomposed into a verbal stem and a separable prefix which is identical to a local preposition (underlined). The only exception seems to be *entziehen* (‘withdraw’, ‘deprive (of)’). This verb behaves strangely. In earlier work of mine (e.g. Meinunger 2000) I claimed that it was completely misplaced in Haider’s list. The same argument was brought up by Beermann (2001). The argumentation was the following: even people who accept the Höhle-Haider test of focus projection (spreading) in the context of a question have to admit that the order is dative > accusative.

(44) A: Und was hast du dann gemacht?
   A: ‘And what did you do then?’
      then have I [the water]_{DAT} [the poisonous.substances]_{ACC} away.taken.
   b. ?/# Dann habe ich die Giftstoffe dem Wasser entzogen.

All the more the test for the ordering of indefinite pronouns / or DP shows that *entziehen* behaves like an ordinary DAT > ACC verb (45).

(45) a. *da* weil ich jemandem etwas entzogen habe since I someone_{DAT} something_{ACC} away.taken have
   b. ?/* weil ich etwas jemanden entzogen habe (reverse order)

Cook (this volume), however, makes a very interesting observation. She detects a subtle difference in meaning depending on the order ACC > DAT or DAT > ACC. The former linearization triggers what she calls the ‘withdraw’ reading, the latter the ‘deprive’ reading.
Cook describes possible scenarios that fit the respective realization. Not unsurprisingly does the ‘withdraw’ reading get a reformulation in terms of quasi-locational change ‘...take the child off the father’, whereas the other one, i.e., the DAT > ACC reading ‘deprive’ expresses (‘the expiry of’) a possession relation. Interestingly, one can integrate Cook’s findings into my former work. Stiebels (1996), for different, but related purposes, traces the Modern German particle ent- to a preposition in older stages of German: Gothic and and Old High German int. Both have a locative meaning. This directional, rather purely positional part of the meaning is preserved in ent-, which expresses something like ‘away from’. Thus, in the end all considerations seem to support the claim that ACC > DAT verbs are ACC > PP verbs where the (local) preposition has been incorporated into the verb. The stranded, bare dative is then the reminiscent of some preposition (either incorporated as in the given analysis, or silent as in McFadden 2004). As a final remark, it should be mentioned that over the last decades it has been argued more and more that, in German, dative seems to be the morphological case (whether structural, or by default) assigned by – and characteristic of prepositions; genitive and accusative are either idiosyncratic or induced by additional conditions (see Abraham 1985, 2001; Wegener 1990 and p.c.; but also Haider 1985 for a different view, i.e., P case = accusative).

A clear case where this incorporation can be shown by a related construction is the acceptability of both variants with the verb (zu-)führen ‘bring to’ / ‘add’, examples (46) and (47). I am aware that zuführen is a rather rare case where the proposed transformation from (27, 28) is synchronically understandable. I sketch it here for the sake of illustration. The same would hold for verbs like überziehen, überstülpen (both: ‘cover’, ‘mantle’, ‘suffuse’), vormachen ‘put before / across’ AND ‘show in front of’, vortäuschen ‘put before’, ‘fool’, ankleben, aufkleben (both: ‘stick’, ‘post’, ‘affix’), aufmachen ‘paint on’ etc. The preposition functions either as a true P◦ or as a separable prefix. A slight change is to be observed with the P in, which becomes ein- after incorporation: (e)instechen ‘stab, pierce’, (e)instechen ‘plug in, slot in’, (e)inführen ‘induce, introduce’) and so forth; in many dialects it remains in as prefix, however.

(46) weil sie ein neues Opfer zu ihrem MediZINmann geführt haben
since they [a new victim] acc to their medicine man led have
’since they led a new victim to their medicine man / kahuna’

(47) weil sie Ø ihrem MediZINmann ein neues Opfer *(zu)geführt haben
since they Ø [their medicine man] dat [a new victim] acc to-led have

haben
7. Some problems and speculations

Manfred Bierwisch (p.c.) draws my attention to the fact that a simple-minded analysis in terms of movement from the verb adjacent PP position into the specifier of POSS / GOAL is not without problems (see also Cook this volume again). The reason for
Bierwisch’s objection is constructions where both positions are obviously present and overtly realized.

(50) *Ich habe meinem Freund das Buch nach München geschickt.*

I have [my friend]_dat [the book]_acc to Munich sent

‘I sent the book to my friend in Munich.’

(51) *Ich habe meiner Tante das Rad in die Garage gebracht.*

I have [my aunt]_dat [the bike]_acc in the garage brought.

‘I brought the bike into my aunt’s garage.’

There is clearly more to be said about the relation between the two relevant positions, i.e. the position of the dative DP and the PP. Be that as it may, the data in (50) and (51) point into the direction that there is a referential dependency between the positions. In a construction with a dative DP and a PP, both must not be completely independent. In (51), for example, the garage is understood as the aunt’s property. Thus, one may have to abandon an analysis which declares goal datives underlying PPs and says nothing else. In any case, it must be admitted that there is some referential dependency between both positions, either by movement (chains and indexing as discussed in the preceding sections) or by a relation akin to, but more abstract and loosely than inalienability. A very attractive and well elaborated analysis (binding of phonologically empty, but semantically present pronominal variables) is provided in Hole (2005).

8. Summary

Within the (German) VP, the arguments are projected according to a universal hierarchy of thematic roles and corresponding cases. I have shown that the claim that German displays several base orders (*dat > acc, acc > dat, acc < / > dat*) cannot be maintained. The conclusion that there are different base-orders is the result of a misunderstanding of focus projection on the one hand, and the overlooking of some semantic facts with the *dat > acc, acc > pp* alternation on the other. A closer look at the facts reveals that true dative objects generally precede and therefore c-command accusative arguments. There are no verbs which allow for both orders simultaneously. If dative objects appear to be closer to the verb than accusatives, the datives at issue are no true datives, but hidden PPs. The semantic proof comes from a lexical decomposition of the meaning. Higher ranked datives (high datives) denote arguments with the status of a possessor, receiver, affectee; deeper ranked ones (low datives), which are actually PPs, denote locations or directions. The syntactic evidence comes from the morphological shape of the relevant class of verbs. All verbs that project an *acc > dat* VP, are particle verbs that consist of a verbal root and a prefixed (locative) preposition. I argue that this word-internal structure is the result of the incorporation of the preposition which makes the former prepositional complement surface as a(n apparent) dative argument. The internal structure of verbs projecting a goal argument is the
result of an abstract incorporation of a locative/directional preposition into the semantic primitive BE. This process – similar to Kayne’s have-be alternation (Kayne 1993) – creates a complex part of meaning denoting a possession relation: POSS, which hosts the derived goal or receiver argument in its specifier.

The conclusion of all observations is that the German VP, too, projects according to a familiar hierarchy proposed by many linguists for many languages:

\[(52) \quad [\text{VP} \ \text{SU} \ [\text{IO} \ \text{DO} \ \text{PP} \ \text{verb}()]).\]

Notes

* This contribution is a heavily revised and updated and somewhat elaborated version of a chapter from my thesis, which appeared as a book in 2000 (Meinunger 2000). Many linguists have helped me to clarify my thoughts and to develop the further. In particular I would like to thank the participants of the Dative workshop Daniel Hole, Philippa Cook and Heide Wegener, who commented on earlier versions or answered my sometimes bothering questions. All errors and shortcomings are mine, of course.

1. In particular, this holds for ergative verbs like ausweichen ‘evade’, entkommen ‘escape’, zus-toßen ‘happen to’ and specific psych verbs like gefallen ‘please’/’like’, widerstreben ‘jib’, ‘dispute’, einleuchten ‘make sense to’, ‘be clear’. Here dative precedes and is therefore higher than nominative. For a treatment of such facts see Meinunger (to appear). As for \(\text{PP}(s)\) in this hierarchy: the relevant constituents that are meant are subcategorized prepositional phrases, which in most cases stand for a directional arguments; however theta-governed local expressions and other verb-selected PPs are also assumed to be base-generated in this verb-adjacent position.

2. I will use the following convention: if a sample sentence is not a citation from the indicated work, which I always quote as given in the original, I will indicate main stress by capitals. In most cases this corresponds to a falling tone (H*__) and can be understood as the phonologically marked entity from which focus projection takes place or is supposed to spread up in the tree. I will not indicate contrastive (non-projective) stress. Such a device would only complicate the matter without bringing any advantage in the cases discussed here. In further cases where indicating stress may blur the intended reading I refrain from indication. This is often the case when I use stress-phobic indefinite pronouns. Thus many examples will be without accent information. The line of argument will hopefully not be affected, however.

3. Topics are to be understood as in Meinunger (2000), i.e. as familiar expressions. This use is different from the standard one, where ‘topic’ refers to sentence initial constituents inducing the typical aboutness feeling (in the sense of Reinhart 1981). The terminology is immaterial here, however.

4. Note that this proposal violates (a strong interpretation of) the theta-criterion. In very recent approaches this formerly indispensable module of grammar has been weakened, however. Most versions in Minimalism try to eliminate theta-theory and to do without the theta-criterion.

5. For the sake of harmony I will assume that in German also the VP internal atomic predicates project head finally. This makes the trees appear somewhat less familiar. Nevertheless I think
that this is not an insurmountable problem for the reader. One might alternatively think of a more familiar looking left-branching VP as in (26').

(26')

\[ \begin{array}{c}
\text{VP} \\
\text{x''} \\
\text{CAUSE''} \\
\text{BEP} \\
\text{...} \\
\text{BE'} \\
\text{BE''} \\
\text{PPloc} \\
\text{y} \\
\text{P'} \\
\text{P''} \\
\text{DP=z} \\
\end{array} \]

\[ \begin{array}{c}
a. \text{vP} \\
\text{DPnom} \\
\text{Sie} \\
\text{v'} \\
\text{v ApplP} \\
\text{DPdat} \\
\text{dem Jungen} \\
\text{v Appl'} \\
\text{v Appl} \\
\text{DPacc} \\
\text{V} \\
\text{das Buch} \\
\text{schenkt} \\
\end{array} \]

\[ \begin{array}{c}
b. \text{vP} \\
\text{DPnom} \\
\text{Er} \\
\text{v'} \\
\text{v} \\
\text{DP} \\
\text{die Kinder} \\
\text{V'} \\
\text{PP} \\
\text{Ø der Kälte} \\
\text{aussetzt} \\
\end{array} \]

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Remarks on the projection of dative arguments in German


Receiving and perceiving datives (cipients)

A view from German

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The paper gives an analysis of productively occurring dative constructions in German, attempting to unify what are known traditionally as Double Object and Experiencer Datives. The datives in question – cipients as we call them – are argued to be licensed under two conditions: One, predicates licensing cipients project a theme and a location argument internally; two, interpretation of the predication as a whole involves reference to two dissociated temporal intervals, or more generally, indexical truth intervals. It is argued that the location argument is needed because it provides the variable that is bound by the cipient argument – the variable in question ranges over superlocations of the location argument referent. Reference to two truth intervals is forced because interpreting the cipient structure involves evaluation of two propositional meanings that would contradict each other in a single context. The first propositional meaning is embedded in the predicate; it encodes that something is at a certain location (in quality space). The second propositional meaning is projected as a presupposition that corresponds just to the negation of the first one. The cipient, functioning as the logical subject of the construction, accommodates this second presuppositional meaning; this makes the construction as a whole interpretable. The analysis applies uniformly to what appear to be the two major contexts licensing cipients: ‘eventive’ and ‘too-comparative’ predications, thereby accounting for some striking parallels between them.

1. Introduction

It is important in linguistic theorizing which phenomena are grouped and analyzed together, if the theory is to be evaluated against (hence indirectly to be built on) the phenomena. This paper seeks to show that grouping together a range of constructions featuring dative case-marked arguments in German (and many other languages as well) allows for interesting conjectures about the interface between syntactic and semantic/pragmatic representations (taking for granted that constructions with parallel syntax are interpreted in a parallel fashion). Specifically, productive dative-case mark-
ing correlates with reference to two (vs. one) truth intervals in semantic/pragmatic interpretation, as well as with the presence of indexical elements in the syntactic structure which are mapped onto locations and degrees. The constructions that I argue to have parallel syntactic/semantic structures are exemplified in (1).

(1) a. Die Anna stahl/ gab/ bakte dem Otto einen Kuchen.  
    [the Anna]_{NOM} stole/ gave/ baked [the Otto]_{DAT} [a cake]_{ACC}  
    'Anna stole/gave/baked Otto a cake.'

    [the cat]_{NOM} was [the Otto]_{DAT} to-run/ struck/ too greedy  
    'The cat installed itself at Otto’s’/’The cat struck Otto’/’Otto found the cat too greedy.'

The sentences in (1a) are examples of the familiar Double Object Construction (DOC). The sentences in (1b) exemplify what may be called Dative Experiencer Construction (DEC). I will first argue that the structure responsible for the licensing of dative arguments in a DOC corresponds to the structure of a DEC. Crucially, this structure includes (projects) an indexical location or degree argument that is related to the theme argument (‘location’) as well as to the dative argument (‘inclusion’). The licensing predication relation between the dative subject and its predicate (a thing@loc3 propositional meaning with an abstractable superlocation variable) I propose to be established by a category pertaining to the tense/indexing system of natural language different from traditional T(ense) but reminiscent of Giorgi and Pianesi’s T2 (Giorgi & Pianesi 1991). The DEC variant given last in (1b) does not feature a verbal but an adjectival predicate; more precisely, it involves a too-comparative predicate (cf. Meier 2003).

In the absence of a degree element (too or (not...) enough), no dative is licensed generally with adjectival predicates. We see that a too-comparative licenses a DOC structure as well with verbal predicates that usually do not license dative arguments (Individual Level Predicates (Carlson 1978) in particular):

(2) Der Otto liebte dem Ede die Anna * (zu sehr).  
    [the Otto]_{NOM} loved [the Ede]_{DAT} [the Anna]_{ACC} (too much)  
    'Ede found that Otto loved Anna too much.'

We argue that the degree element in the too-comparative case plays a role parallel to that of the location argument; ‘location’ must then be understood in a wide sense, covering at least ‘degree location’ (fixing the degree to which something (the theme referent) instantiates a certain property). The gist of the proposal can be stated in terms of licensing conditions for dative arguments (in German): the syntactic condition in I and the semantic/pragmatic condition in II have to be met in order for a dative argument to be licensed (see the previous note for (groups of) cases not explicitly discussed here).

I. The lexical predicate of a dative licensing construction comprises an indexical (degree) location argument that is related to the theme (location) as well as to the dative (inclusion in).
II. Interpretation of a dative licensing construction involves the checking of two disjoint truth intervals.\footnote{5}

If I and II are on the right track, then the notions employed in formulating these conditions must capture something that matters in important ways at the interface between syntax and semantics/pragmatics.

The article is structured as follows: In Sections 2.1 to 2.3 I discuss more prominent approaches to dative licensing, including the Larsonian, the possessor raising and the applicative approaches and their problems. In Section 2.4, evidence is presented suggesting that cipient structures always comprise a predicate internal location argument, even if this is not visible on the surface (as is often the case). Section 2.5 presents parallels between DOCs and DECs that suggest that the part of structure relevant for licensing cipients is the same in both cases: the dative is the ‘subject’ of the construction, connected to its predicate by material that pertains to the tense/indexing system of natural language that implements the condition in II. Section 3 develops a unified analysis for (the cipient licensing part of) DOCs and DECs, starting with the verbal domain and the relation between the cipient and the (PP) location argument. According to the proposal, cipients ‘double’ PP locations in a whole–part agreement configuration, akin to a clitic doubling structure. Section 3.2 explores the properties of the location argument important for condition II. Cipient structure interpretation involves reference to two truth intervals. I argue that the cipient predicate projects a presupposition that crucially involves the location argument referent; the presupposition as a whole is the negation of a propositional meaning embedded in the predicate. In the (eventive) verbal case, the propositional meaning – thing@loc for short – encodes that something is at a certain location; in the too-comparative case, it encodes that something instantiates a property to a certain degree. Modulo choice of variables, the representational format is the same for both cases. We suggest that reference to two truth intervals must be made because contradictory propositional meanings do not fit single truth intervals. The last section illustrates the proposed analysis with a basic account of blocking effects associated with the cipient structure and an account of ‘repetitive’ vs. ‘restitutive’ ambiguities found in the construction.

2. Shifting, raising, doubling

2.1 Dative shift

Ditransitive predicates (of the give/send-type) regularly show alternating argument realization frames. This ‘dative alternation’ (cf. Larson 1988; den Dikken 1995) is illustrated in (3) for English and German:

(3) a. *Otto sent Anna flowers.*

    *Otto schickte Anna Blumen.*
b. Otto sent flowers to Anna.

The example in (3a) illustrates the Double Object Construction (DOC), that in (3b) the PP-Location construction. In the DOC, the traditional goal/recipient (cipient) can bind the theme syntactically, but not the other way around. In the PP location construction, binding data indicate that the theme c-commands the PP location, but the relation is more symmetric in that binding from the PP into the theme is marginally possible (cf. Barss & Lasnik 1986; Larson 1988):

(4) a. Otto gave [each worker], his paycheck ([*...his owner [every paycheck]]).
   b. Otto gave [each paycheck], to hisi owner ([?...hisi paycheck to [every owner]]).

In our terminology, the cipient c-commands the theme and the theme c-commands the PP location argument. It seems to have largely escaped notice that unaccusative ‘experiencing’ predicates exhibit an analogous alternation between a ‘bare’ dative D/NP ‘experiencer’ (ципient) realization and a PP location realization:

(5) a. A gangster escaped Otto.
   b. A gangster escaped from Otto.

    [a prophet]DAT appeared [a saint]NOM
    ‘A saint appeared to a prophet.’
   b. Ein Heiliger erschien bei einem Propheten.
    [a saint]NOM appeared at a prophet
    ‘A saint appeared at a prophet’s.’

Pronoun binding data show that c-command relations are as in the ditransitive case: at LF at the latest, the cipient c-commands the nominative theme, and the theme c-commands the PP location:6

(7) a. Hisi (own) mistakes escaped [every reader],
   b. [Every prisoner], escaped from hisi cell.

According to the influential Larsonian analysis of DOCs, what we call cipient and PP location argument are alternative instantiations of one and the same thematic role. It is with the idea that the DOC is transformationally derived from the PP structure (or vice versa), however, that the Larsonian analysis meets serious problems. Consider the following examples of English DECs and DOCs respectively (ципients are subscripted ‘cip’, PP locations ‘loc’):7

(8) a. The enemy escaped uscip [into the thick of the battle]loc.
   b. Otto sent Annacip flowers [TO HER OFFICE]loc.

Structures as (8) appear to license both a cipient and a PP location, which should be forbidden if one were derived from the other as under the Larsonian analysis.8 The
Larsonian tradition according to which the ‘dative alternation’ is a syntactic transformation involving preposition incorporation/absorption and movement (for case) cannot account for the fact that cipients and PP location arguments may cooccur.

2.2 Possessor raising

Given that DOCs typically denote ‘transfer of possession’ and that there often appears to be a kind of possessive relation between the dative and the theme argument in DECs as well, it seems attractive to subsume the cipient construction under a ‘possessor raising’ analysis (cf. among many others Szabolsci 1994; Landau 1999): According to a possessor raising analysis, the cipient would start out as an ‘internal possessor’ of the theme and would then raise to its surface position in a process involving absorption of genitive case or a preposition. Among the largely theory-independent arguments against a possessor raising analysis, two are particularly strong. First, there need by no means be a possessive relation between the dative cipient and the theme, cf. e.g.:

(9) a. Mir is ein Fehler aufgefallen.
    meDAT is [a mistake]NOM up.fallen
    ‘I noticed a mistake.’

   b. Mir ist ein Fehler ins Auge gefallen.
    meDAT is [a mistake]NOM into.the eye fallen
    ‘A mistake caught my eye.’

Examples such as (9) suggest that to the extent that there is something like a possessive relation in the cipient construction, it is between the dative cipient and the PP location. This points to a privileged semantic relation between the two. Furthermore, an ‘internal possessor’ can occur in the presence of and in addition to a dative cipient, and this for practically all arguments:

(10) a. Otto schob Anna sein Auto in ihre Garage.
    Otto pushed Anna his car into her garage
    ‘Otto pushed his car into her(=Anna’s) garage for Anna.’

   b. Otto schob Anna ihr Auto in seine Garage.
    Otto pushed Anna her car into his garage
    ‘Otto pushed her(=Anna’s) car into his garage.’

(11) Otto entkam Edes Huhn.
    OttoDAT escaped [Ede’s chicken]NOM
    ‘Ede’s chicken escaped from Otto.’

If the ‘external possessor’ (shifted dative (cipient)) were the result of absorption on the part of the base position/extraction site, one would expect that the relevant position cannot be occupied in the presence of an external possessor. ‘Multiple possessor constructions’ like in (12) are excluded.

(12) *This is Otto’s Anna’s house.
2.3 Applicative head analyses

Analyzing cipients in terms of applicative heads has recently gained prominence. According to this line of thought, there are special heads that encode possession and that license cipients in their specifier position; this treatment of cipients is reminiscent of the Kratzerian (1996) analysis according to which the agent role is syntactically licensed by a head 'little v' or 'voice'. Arguably, little v in turn descends from the CAUSE predicate of Generative Semantics (Dowty 1979). The applicative analysis is prominently advanced by Marantz (1993) and developed by Pylkkänen (2002) and McGinnis (2001). The latter two authors argue that there are ‘high’ and ‘low’ applicative heads encoding possessive relations, on the one hand between the cipient and an event encoded lower in the structure (high applicatives) and on the other hand between the cipient and the theme (low applicatives). Languages differ as regards whether they furnish ‘high’ or ‘low’ applicatives or both.

While there is good reason to believe that cipients are licensed by a designated head, the applicative head analysis is not convincing for a variety of reasons. We have already seen that the idea that cipients stand in a possessive relation to other material in the structure is problematic (Section 2.2). The claim that English has only low applicatives runs into problems because there are clear cases in English where there is a semantic relation between the cipient and an event (however understood), something that should be excluded under the Pylkkänen/McGinnis approach. A punch, for example, should count as an event – in (13), the theme appears to denote an event then.

(13) Anna gave Otto a punch.
* Otto had a punch.

Furthermore, cipients do not pattern with agents as they would be expected to if they were licensed by a head functioning like little v; cipients, much more robustly than agents, are excluded from processes traditionally assumed to apply in the lexicon, such as word or idiom formation (see e.g. Larson 1988; Marantz 1993). Cf. e.g. the following contrasts in German:

(14) *Altenrentenversprechen, *Kindererzähler
OldDAT-pensions-promise, kidsSTAT-narrator
‘promise of pensions to the old,’ ‘story-teller for children’

(15) Kanzlergabe, Ritterschwar, Vogelgezwitscher
chancellorNOM-gift, knightsNOM-oath, birdsNOM-chirping
‘gift by the chancellor, oath by a knight, chirping by birds’

At least certain agents seem to be more lexical than cipients. Under an analysis assuming applicative heads with a rather specific meaning, cipients would be expected to behave more like agents. The fact that cipients are excluded from processes traditionally assumed to apply in the lexicon suggests that cipients are licensed exclusively in the
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syntax. Under the analysis spelled out below, cipients are clearly functionally licensed, namely by material pertaining to the tense-/indexing system of natural language.

Conceptually, the idea that languages differ with respect to their applicative head equipment goes against the basic assumption that languages are uniform as far as the material substantive to interpretation is concerned (cf. Chomsky 1999). For different languages to have different applicative heads would mean for them to differ substantially with respect to the means they have for expressing certain meanings; this seems to be particularly unlikely for closely related languages like English (claimed to have only high applicatives) and German (which would need to have both high and low applicatives, see Brandt 2003:107ff.). Further, it appears questionable that there is a primitive meaning ‘have’, let alone several ones (cf. already Benveniste 1966; see more recently Belvin & den Dikken 1997).

2.4 The location argument

This section presents evidence that a location argument is always projected in the constructions we are discussing, even if this is not visible on the surface. We propose that the reason why location arguments are needed in the cipient construction is this: Cipients ‘double’ location arguments. Syntactically, cipients are licensed in an agreement relation with a category pertaining to the tense system that depends on a location argument lower in the structure. Semantically, cipients are superlocations of predicate-internal location arguments, and the variable they bind stems from the latter.

2.4.1 LOCs licensing force

A range of patterns suggest that the projection of a location argument is a necessary condition for cipient licensing. Often, and certainly with verbal predicates that can be informally characterized as ‘process’-denoting, cipients are only licensed in the presence of an overtly expressed PP location argument or a locative prefix on the verb; the following pattern is perfectly productive in German (and similarly in e.g. Dutch):

(16) a. Otto\textsubscript{DAT} fiel \textit{die Vase} *(auf den Boden).  
\hspace{1cm} ‘The vase fell to the ground to Otto’s misfortune.’

b. Das \textit{Erbe} war Otto\textsubscript{DAT} *(zu-) gesprochen.  
\hspace{1cm} ‘Otto was granted the heritage.’

The lists in (17) and (18) illustrate the type of predicate that typically occurs in the DEC and DOC in German. It is striking that as a general rule, these predicates are prefixal – for the majority of cases, it is arguably the case that the prefix is related to a locative element that has incorporated into the verbal form (cf. for arguments in favor of the locative origin of the pertaining prefixes a.o. Seebold 2002; Maylor 1998).
‘unaccusative’ predicates occurring in the DEC in German:

\begin{itemize}
\item er-scheinen ‘appear’
\item auf-fallen ‘strike’
\item wider-fahren ‘occur to’
\item gelingen, glücken ‘be crowned by success’
\item ent-kommen, entgehen, entwischen ‘flee, get away, escape’
\item gegenüber-treten ‘oppose’
\end{itemize}

predicates projecting the DOC in German:

\begin{itemize}
\item an-vertrauen ‘entrust’
\item ab-nehmen ‘take away’
\item an-kündigen ‘announce’
\item über-gaben ‘hand over’
\item über-mitteln ‘transfer’
\item über-bringen ‘over-bring’
\item verzeihen ‘forgive’, auf-tragen, be-fehlen ‘order’, aus-sprechen ‘utter’, aus-leihen ‘lend’
\item ver-machen ‘bequeathe’, ver-derben ‘spoil’
\end{itemize}

With few exceptions, the prefixes occurring with the verbal predicates licensing DEC
and DOCs that are transparently locative are in complementary distribution with overt
PP location arguments – this follows if they perform the same function, namely that
of a predicate-internal location argument. The prefixes er-, ver-, zer- are not in com-
plementary distribution with locative PP arguments; arguably, they reflect an inde-
pendent way of encoding ‘comparison of states of affairs’ (inchoative meaning). There
may be interesting (historical) connections with the comparative suffix -er, reflecting
reference to different states of affairs in comparative structures (see Jensen 1934:124).
Note that with unaccusative DEC projecting predicates such as those in (17), locative
prefixes seem more needed than with fully blown DOC projecting predicates such as
those in (18). Adjectival passive DOCs pattern with DECs:

\begin{itemize}
\item a. Der Stein war ihm *(auf-)gefallen.
\item b. Der Brief war ihm überbracht/*gebracht.
\end{itemize}

The verbal passive DOC, projecting an (optionally expressed) agent under standard
assumptions, can live without a locative prefix, but the adjectival passive DOC that
does not project an agent cannot. We will offer a partial explanation for this pattern
in Section 2.5 below, where we argue that the structure of adjectival passive DOCs is
completely parallel to that of DECs.

\subsection{2.4.2 Quantificational binding}

A difference concerning reconstruction of WH quantifiers provides evidence for
the presence of an unarticulated location argument in the cipient construction (see
Reinhart 1983; Bresnan 1994 for syntactic, Maienborn 2001 for semantic/pragmatic
criteria distinguishing location arguments from adjuncts). Consider the following con-
trasts between cipient-licensing predicates (in (a)) vs. non-cipient-licensing predicates
(in (b)):
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(20) a. *Zu welchem von Otto’s Kollegen hat man ihn geschickt?
   to which of Otto’s colleagues has one sent him
   ‘Which of Otto’s colleagues has he been sent to?’
b. *Bei welchem von Otto’s Kollegen hat man ihn gesehen?
   at which of Otto’s colleagues has one him seen
   ‘At which of Otto’s colleagues’ places has he been seen?’

(21) a. *Zu welchem Nachbarn von Otto ist er entwischt?
   to which neighbor of Otto is he escaped
   ‘To which of Otto’s neighbors did he escape?’
b. *Bei welchem Nachbarn von Otto hat man ihn gesehen?
   at which neighbor of Otto has one him seen
   ‘At which of Otto’s neighbors has he been seen?’

We can explain that the (a) sentences are worse than the (b) sentences if in the former, the WH quantifier reconstructs into a location argument position below the theme argument, giving rise to a crossover (Principle C) effect. In the (b) examples, the quantifier reconstructs into an adjunct position that is higher than the position of the theme.11

We see an analogous effect in the domain of degree predication, where too-comparative structures with fronted WH constituents providing information about the actual degree of instantiation pattern with the location argument structures. Structures that lack the too-comparative but that allow ‘degree adjuncts’ pattern with the location adjunct structures ((Marcel Reich-)Ranicki is a famous literary critic in Germany):

(22) a. *Mit welchem Wert auf Ranicki’s Skala war er zu hoch bewertet?
   with which value on Ranicki’s scale was he too highly judged
   ‘With which value on Ranicki’s scale was he judged too highly?’
b. Mit welchem Wert auf Ranicki’s Skala hat man ihn provoziert?
   with which value on Ranicki’s scale has one provoked him
   ‘With which value on Ranicki’s scale did they provoke him?’

Along the location argument vs. adjunct line, we can explain the contrast if the WH constituent in cases like (22a) reconstructs into a degree argument position below the theme whereas the WH constituent in cases like (22b) reconstructs into an adjunct position above the theme.

The analysis predicts, of course, that Reinhart’s c-command condition on bound variable readings is met at LF in the location/degree argument cases, but not in the location/degree adjunct cases. As is often the case with reconstruction phenomena, judgments are again subtle but appear to be clear enough for some speakers. (23) and
(24) illustrate the DOC and DEC case with location, (25) illustrates the DEC case with ‘degree location’:

(23) a. Zu welchem seiner Kollegen hat man [jeden Linguisten],
   to which of his colleagues has one every linguist geschickt?
   sent
   ‘To which of his colleagues was every linguist sent?’
   b. *Bei welchem seiner Kollegen hat man [jeden Linguisten],
   at which of his colleagues has one every linguist vorgestellt?
   introduced
   ‘At which of his colleagues’ places has every linguist been introduced?’

(24) a. Bei welchem seiner Kollegen ist [jeder Linguist], unangenehm
   at which of his colleagues is every linguist unpleasantly aufgefallen?
   up.fallen
   ‘At which of his colleagues’ places has every linguist made a bad impres-
   sion?’
   b. *Bei welchem seiner Kollegen hat man [jeden Linguisten], geküsst?
   at which of his colleagues has one every linguist kissed
   ‘At which of his colleagues’ places has every linguist been kissed?’

(25) a. Mit welchem Wert auf seiner Skala war [jeder Kritiker], zu
   with which value on his scale was every critic too hoch bewertet?
   highly judged
   ‘With which value on his scale was every critic judged too highly?’
   b. *Mit welchem Wert auf seiner Skala hat man [jeden Kritiker],
   with which value on his scale has one every critic provoziert?
   provoked
   ‘With which value on his scale did they provoke every critic?’

2.4.3 Coordination of identical constituents
Another argument for a silent location argument in the cipient construction comes
from patterns of coordination in conjunction with verb raising. It is generally assumed
that only constituents with identical structure can be coordinated. One can say:

(26) Otto sent [[Anna a letter] and [a parcel to Ede]].

If what can be coordinated are constituents with identical makeup, the structure of
(26) must be as indicated in (27):12
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(27) Otto sent Anna \([\text{a letter } [\text{pp } e] \text{ and a parcel } [\text{pp to Ede}]]\).

Similarly, the following examples are acceptable, suggesting that the cipient construction has a location argument in its structure:

(28) a. \(^{(1)}\) The gangsters escaped Otto \([\text{theme } [\text{pp } e] \text{ and theme into the woods } t_{v}]\).
   
   b. The boss promised \(ME\) \([\text{a vacation } [\text{pp } e] \text{ and fewer HOURS to the WORKERS } t_{v}]\).

There is a problem here, however (pointed out to me by Magdalena Schwager): we would expect the second conjunct to be interpreted with respect to the cipient (like the first one), if conjunction takes place below the cipient; this is not the case, though.

A possible solution to the problem builds on the fact that contrastive focus marking is needed for the construction to be felicitous. Contrast on the PP in particular indicates that it is interpreted with respect to a contextually given set of alternatives (Rooth 1985) rather than with respect to the cipient. Some support for this idea comes from data such as (29), where contrastively focus-marked PP locations seem to marginally be able to take scope over cipients, an option that is usually excluded:

(29) \(^{2}\) Otto hat einem Abgeordneten einen Beschwerdebrief in jede Stadt geschickt.

   ‘To every city, Otto sent a (different) member of parliament a letter of complaint.’

2.4.4 Hin und her (hither and thither)

A third argument for a silent location argument in cipient predication is provided by the separable prefixes hin ‘hither’ and her ‘thither’ in German – these elements strictly depend on the presence of a location argument in the structure in which they occur. Intuitively, hin and her signal the ‘directedness’ of an event away from some implicit source to some location (hin) or toward the source from some location (her):

(30) a. Otto fuhr hin.  
   Otto drove thither  
   ‘Otto drove there.’

b. Otto fuhr her.  
   Otto drove hither  
   ‘Otto drove here.’

Predicates that do not contain location arguments are incompatible with hin und her, respectively:
(31) Ein Hase war/hatte... *hin/her-gegessen, *hin/her-geschlafen,
    a hare was/had... hither/thither-eaten, hither/thither-slept,
    *hin/her-gestunken
    hither/thither-stunk

The predicates that do not allow hin and her do not license cipients either, as is predicted:

(32) *Dem Otto war/hatte ein Hase [gegessen, geschlafen, gestunken].
    [the Otto]DAT was/had [a hare]NOM eaten, slept, stunk
    'A rabbit was eaten/had slept/stunk for Otto.'

In the cipient construction, hin und her are possible, indicating the presence of a location argument in the construction:13

(33) Dem Otto war die Blume...
    [the Otto]DAT was [the flower]NOM...
    a. hin-fallen, hin-gestorben, hin-gewelkt.
       hither-fallen, hither-died, hither-withered
    b. hin/her-geschickt worden, hin/her-gebracht worden,
       hither/thither-sent been, hither/thither-brought been,
       hin/her-gemailt worden.
       hither/thither-mailed been

2.5 DOCs minus agentive structure are DECs

In the respects discussed so far, DOCs and DECs behave similarly to each other – we have seen evidence indicating that location argument projection is crucial in both cases and that c-command relations between projected arguments are the same. Both cases share core aspects of meaning, expectedly if they take part in the same type of alternation (Levin 1993, cf. Section 2.1). To repeat, overt expression of a location argument is needed more in adjectival passive than in verbal passive DOCs, bringing adjectival passive DOCs close to (unaccusative) DECs in this respect already. The obvious difference between fully blown DOCs and DECs is that unlike DECs, DOCs project an agent argument. It is theoretically desirable to assume that if an agent is missing, then so is the structure licensing it: under a minimalist perspective, there should be no structure that is not interpreted. Assuming with Kratzer (1996) that agents are licensed by a category little v or voice phrase that links agents to the eventuality they pertain to, little v should be absent in adjectival passive DOCs as in DECs, making them parallel structurally.14 In the following, I argue that adjectival passive DOCs and DECs are indeed structurally equivalent.

Starting with the obvious, German DECs and adjectival passive DOCs are completely analogous on the surface:15
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(34) a. Dem Otto ist ein Huhn (aus dem Stall) entkommen.
    [the Otto]_{DAT} is [a hen]_{NOM} (from the shed) escaped
    ‘A hen escaped from the shed to Otto’s misfortune.’
b. Dem Otto ist ein Huhn (in die Hand) versprochen.
    [the Otto]_{DAT} is a hen (into the hand) promised
    ‘Otto is in the state of a hen having been promised to him.’

Looking at deeper structural properties, coordination facts support the hypothesis that adjectival passive DOCs and DECs share a single structure: DECs and adjectival passive DOCs can be coordinated, and they may share the cipient argument (cf. ‘equi NP deletion’). It is a standard assumption that only categorially identical constituents can be coordinated under ‘Equi Deletion’:

(35) Dem Otto [gefiel zwar die Firma sehr gut], [war aber
    [the Otto]_{DAT} appealed PRT [the company]_{NOM} very much, was but
    kein Job versprochen].
    no job promised
    ‘Otto liked the company very much, but he wasn’t promised a job.’

The coordination patterns speak in favor of the subject status of cipients, and other facts do as well. In Icelandic, what appear to be cipients can bind certain subject-oriented anaphors (cf. Maling 1990); in German, partial extraction from cipients is just as bad as from subjects of Individual Level Predicates, which may be the clearest instances of subjects in a more general sense (being licensed externally at base and being presuppositional). Subjects are traditionally defined as D/NPs that are licensed in the specifier position of the Tense projection. Quite clearly in fully blown DOCs, the dative cannot be in the usual T(ense) projection – this is where the agent argument is (case-) licensed. An argument that cipients (in both adjectival passive DOCs and DECs) are licensed in a designated position that is different from T(ense) can be made on the basis of somewhat more intricate coordination patterns involving Equi Deletion (Höhle 1983; Heycock & Kroch 1993). Let us adopt the assumptions Heycock and Kroch make concerning coordination under Equi Deletion:

(36) a. The coordinated constituents have to be of like category.
b. The deleted element has to be ‘outside’ (≈ higher structurally than) the first conjunct.

Let us assume further that the verb in German verb-second sentences is in the C(omplementizer) position (den Besten 1989). Observe that both preverbal nominative subjects and cipients can undergo equi-deletion, as is predicted given (36):

(37) a. Der Otto hat einen Film gesehen und EC hat dann eine
    [the Otto]_{NOM} has a movie seen and EC has then a
    Bratwurst gekauft.
    sausage bought
    ‘Otto saw a movie and bought a sausage afterwards.’
b. Dem Otto gefiel der Film, aber EC missfiel der Hauptdarsteller.

‘Otto liked the movie, but he didn’t like the main actor.’

c. Den Kindern war das Spielen auf dem Rasen verboten, aber Schien das Schwimmen im See erlaubt.

‘Playing on the lawn was forbidden for the kids, but they seemed to be allowed to swim in the lake.’

The constructions in (37) are fine; here, the part of structure that is coordinated under equi-deletion corresponds to everything below the SpecTP position. A well defined exception to the rule that the shared element has to be ‘outside’ the coordinated constituent is constituted by regular (nominative) subjects: These may be deleted under conjunction, although the verb is in a higher position in verb-second sentences with topicalization of a non-subject:

(38) Das Gepäck schmiss er in die Ecke und EC rannte zum Ausgang.

‘He threw the baggage into the corner and ran to the exit.’

Gipients cannot be the shared constituent under coordination unless they are fronted (i.e., in SpecCP):16

(39) a. *Gestern gefiel dem Otto der Film, aber missfielen EC die Darsteller.

‘Yesterday, Otto liked the movie, but he disliked the actors.’

b. *Gestern war den Kindern das Spielen auf dem Rasen verboten, aber schien EC das Schwimmen im See erlaubt.

‘Yesterday, playing on the lawn was forbidden for the kids, but they seemed to be allowed to swim in the lake.’

As an anonymous reviewer points out in support of these observations, constructions where the dative controls a nominative gap in one of the conjuncts are ungrammatical:
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(40) *Dem Otto gefiel der Film, nicht aber EC mochte den [the Otto]DAT pleased [the movie]NOM not but EC(NOM) liked [the Hauptdarsteller].

main.actor |ACC

‘Otto was pleased by the movie, but he didn’t like the main actor.’

If cipients were licensed in a way analogous to ‘standard nominative subjects’, we would expect them to behave like the latter in the deletion under coordination paradigm, which they do not. The coordination under deletion pattern indicates that cipients are not associated with (licensed by) the standard T projection. The fact that cipient presence gives rise to ‘extra tensing’ options suggests that cipients are licensed in a designated lower position that is just as tense related. Thus ‘small infinitives’ generally forbid independent temporal location of the embedded propositional meaning, but they allow it as soon as a cipient argument is projected:

(41) a. We tried to escape Otto’s party next Sunday.
   b. *We tried to escape next Sunday.

(42) a. The boss tried to give Otto Europe next year.
   b. ?*The boss tried to give Europe to Otto next year.

The conjecture is that while cipients are lower than the standard T(ense) projection, they are still above material that achieves temporal location – specifically, what is temporally located in examples such as (41) or (42) is the expected post states of the attempts that are depicted – for (41) that one be away on the occasion of Otto’s party and for (42) that Europe be with Otto.

It was noted in Section 2.4 that an overt locative prefix is more strictly required in adjectival than in verbal passive DOCs. If what we propose here is on the right track, we have the beginnings of a story why this should be so: We argue that the location argument projected in the cipient construction has a crucial part in furnishing a second index that must be checked when it comes to interpretation; suppose that the locative morphology signals this. If there is agentive structure and associated morphosyntax present, it may be clear from this already that there is reference to two truth intervals involved in the interpretation of the construction. Agents are causes, and causation relates states of affairs at different times. It seems plausible that if agentivity helps signalling presence of two intervals, then locative morphology will be less needed.

3. Location doubling and whole-part agreement

We saw that cipients have certain properties associated with subjecthood, including that they appear to mark a ‘tensed domain’. In the light of the crucial role PP locations appear to play for the construction, we may consider (43) as the structure licensing cipients:
In (43), cipients are licensed in the specifier position of a functional projection that pertains to the tense system of natural language, called here ‘little t’. Depending on the presence of a predicate-internal location argument, t can license a cipient in its specifier position.

The structure in (43) is essentially that of a clitic-doubling configuration. So we find the features of clitic doubling structures associated with the cipient structure. In clitic doubling structures, there appear to be two argument expressions that relate to one and the same role; second, in the presence of a doubling clitic, the source for the doubling may remain unexpressed (like PP locations in the presence of a cipient). Third, clitic doubled arguments show evidence of being external arguments and involve a form of agreement with the doubled element.

From a semantic/pragmatic perspective, clitic doubled arguments behave like ‘subjects’ roughly in Strawson’s sense, that is, as expressions carrying presuppositions of some definite empirical fact (a presupposition of existence in the weakest case). It is argued by Gutiérrez-Rexach (2000) that clitic doubled arguments in Spanish carry existence presuppositions, which squares well with the fact that they regularly appear to take unusually wide scope (e.g., Alexiadou & Anagnostopoulou 1997). Indeed in languages like Greek or Spanish, the cipient structure is realized in a clitic-doubling configuration.

(44) To *vivlio *(tu) aresi tu Petru.
    the book clDAT appeals [the Peter]INT
    'The book appeals to Peter.' [Greek, Alexiadou & Anagnostopoulou 1997:152]

(45) a. La musica *(le) gusta a Juan.
    the music himINT pleases to Juan
b. A Juan *(le)* gusta la musica.
   to Juan him$_{DAT}$ pleases the music
   ‘The music pleases Juan.’ [Spanish, Montrul 1995:183]

The main difference between standard clitic doubling structures (or how they are thought of) and the cipient structure is that while in the former there appears to be perfect identity of reference between the doubled and the doubling element, the semantic relation between cipients and PP locations is of the whole-part kind. Ready-to-use terms are largely lacking in this domain (but cf. Moltmann 1997; Husserl 1913), but we see the relevance of the kind of inclusion relation in shading contrasts like the following:

(46) a. Die Anna$_{NOM}$ saß dem Otto$_{DAT}$ auf dem Schoß.
    [the Anna$_{NOM}$ sat [the Otto$_{DAT}$ on the lap
    ‘Anna sat on Otto’s lap.’

b. ?Die Anna$_{NOM}$ saß dem Otto$_{DAT}$ auf der Kühlerhaube.
    [the Anna$_{NOM}$ sat [the Otto$_{DAT}$ on the hood
    ‘Anna sat on Otto’s hood.’

c. ?*Die Anna$_{NOM}$ saß dem Otto$_{DAT}$ auf dem Tisch.
    [the Anna$_{NOM}$ sat [the Otto$_{DAT}$ on the table
    ‘Anna sat on Otto’s table.’

In an obvious but to be clarified sense, for the average German Otto includes Otto’s lap more than his car, while his car more than his table belongs to Otto the person as a part.

3.1 More on the cipient-PP location relation

We propose that cipients and PP locations have to relate as superlocations to sublocations: PP locations come with additional free variables ranging over superlocations of the PP location referent, and it is such a superlocation variable that the cipient expression binds. The relevant partial LF contributed by PP locations can be represented as follows, where p and w are variables ranging over locations and R is a relation of (at least) inclusion:

(47) PP $\rightarrow$ $\lambda p \lambda x \ [AT(x_{theme},p_{location},i) \& R(p,w)]$
    where $R(p,w) \rightarrow p$ included-in w

Deferring discussion of its contribution to temporal/indexical structure, we can think of the t head as rendering the cipient slot ‘active’ by abstracting over the superlocation variable w. Unlike for PP locations, holding that cipients denote locations seems strange at first. There appears to be a crosslinguistically valid correlation, however, between the ease with which cipients are licensed and the ‘strength’ or ‘prominence’ of the inclusion relation between the cipient and the PP location (cf. the hierarchy for ‘possessor constructions’ proposed by Payne & Barshi 1999). The more prominent
the part of the cipient is that the PP location denotes, the more easily the cipient is licensed. German appears to constitute a worst case as far as the cipient-PP relation is concerned; loose spatiotemporal inclusion as well as metaphorically extended senses make the construction available; thus (48a) is felicitous if we know that Anna has an office in London to which she has some access (which needn’t be physical) and (48b) is felicitous if we know that Anna profits in some way from the translation of the article in question into English:

(48) a. Der Otto hat der Anna den Brief nach London geschickt.  
   [the Otto]_{NOM} has [the Anna]_{DAT} [the letter]_{ACC} to London sent  
   ‘Otto sent the letter to London for Anna.’

b. Der Otto hat der Anna den Aufsatz ins Englische übersetzt.  
   [the Otto]_{NOM} has [the Anna]_{DAT} [the article]_{ACC} translated  
   ‘Otto translated the article into English for Anna.’

There is some evidence from acquisition studies that ‘possession’ might really be derivative of ‘inclusion at a sublocation’ in the relevant sense (Miller & Johnson-Laird 1976). Further, the interpretation of cipients as locations accounts for some properties of cipients that are rather unexpected if they are indeed subjects (external arguments agreeing with tense), such as the general absence of agreement or the unexpectedly ill anaphor-binding properties of cipients. Both may follow from cipients not bearing the ‘right’ features, the ‘right’ features being those defining things and persons, but not the ones defining locations.24

Something like an inclusion relation between cipients and PP locations not only holds at the object level, but also at the level of indexical structure. Consider the following pattern:

(49) Die Vase fiel (dem Otto) zu Boden.  
   [the vase]_{NOM} fell [the Otto]_{DAT} to ground  
   ‘The vase fell to the ground to Otto’s misfortune.’

Every speaker of German interprets the location denoting PP ‘to ground’ as a location prominent in the utterance context in the absence of a cipient. If there is a cipient expressed, the location is interpreted as a location relative (close, usually) to the cipient referent. The point is clearer, in fact, in the comparative case:

(50) Die Suppe war (dem Otto) zu heiß.  
   [the soup]_{NOM} was [the Otto]_{DAT} too hot  
   ‘The soup was too hot (for Otto).’

In the absence of a cipient, the standard needed to know what it means for the soup to be too hot is set in the utterance situation. In the presence of a cipient, this standard is
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The degree to which the soup is actually hot is included, of course, in the set of degrees at which the cipient potentially experiences heat of edibles (the cipient’s ‘quality space’ (Quine 1960) with respect to temperature of edibles).

Note that the cipient appears to set a parameter here that is usually set by the utterance situation. This strongly backs up the claim that cipients are interpreted as definite.

3.2 Two indices and cipient anchors

Let’s turn now to the role of location for the condition under II, viz. that there are two indices involved in interpreting the cipient structure.

It has been noted that there is a link between unaccusativity and aspectual structure (Borer 1994; Levin & Rappoport Hovav 1995 among many others). Unaccusative predicates projecting location arguments in particular regularly give rise to a state change interpretation. Most verbal predicates licensing cipients are state change predicates – DOCs typically encode (abstract) transfer (Oehrle 1976), and most verbal DECs express affectedness of the cipient by some ‘event’ (cf. e.g. Marantz 1993). It is argued here that we can analyze the eventive and the too-comparative cases along the same lines, if we interpret ‘eventhood’ as state-change. An example illustrating the too-comparative construction is repeated in (51).

   [the cat]\textit{NOM} was [the Otto]\textit{DXT} too greedy
   ‘Otto found the cat too greedy.’

   [the cat]\textit{NOM} was [the Otto]\textit{DXT} not greedy enough
   ‘Otto did(n’t) find the cat greedy enough.’

Structures as in (51) are productively available, hence constitute the strongest type of counterexample to an exclusively aspectual approach to cipient licensing. These cipient constructions are stative, ruining the idea that eventhood proper is the criterion for cipient licensing. In the following, it is shown how a uniform semantic/pragmatic analysis of the eventive and the too-comparative cipient structures can be given once we choose a particular format for event representation, namely the one proposed in Dowty (1979, building on von Wright 1965). Accordingly, the analysis offered here provides an argument in favor of the idea that event representations are really built from contradictory propositional meanings (that encode a change of state); it speaks against a view of events as primitives of the ontology (Davidson 1967).²⁵

3.2.1 From change...

Consider a cipient structure like the elephant escaped Otto. What it asserts is that there is a time (in the past) where the elephant in question is not with Otto – but it has to have been with Otto before if the sentence is to be meaningful. In the following I argue that predicates involving verbs like escape trigger presuppositions that correspond to
the negation of what is actually asserted, and that the same holds for *too*-comparative predicates.26

In the case at hand as well as with most verbal/eventive structures licensing cipients, this asserted meaning is what one might call the post state of the event encoded in the structure:27 For the cases discussed here the post state has thing@loc semantics – something is at a certain location at a certain time/index:

(52) a. *The elephant escaped Otto.*

b. $\text{AT(}\text{Otto-subloc,elephant,}i) \land \neg \text{AT(}\text{Otto-subloc,elephant,}i') \land i < i'$

Presupposition                          Assertion

It seems clear that presupposition and assertion have to hold at different indices here – the same elephant cannot be at different locations at the same time. We argue that this is what forces reference to two dissociated indices: Interpreting the cipient structure involves checking contradictory propositional meanings, and contradictory propositional meanings do not fit single contexts. Problems arise, however, with indefinite themes:

(53) *An elephant escaped Otto.*

Under standard assumptions, the theme is existentially quantified at the VP level, so there seems to be no way to bind the theme referent in the presupposition (the negated assertion). None of the following formulae is contadictory:28

(54) $\neg (\exists y, p' \text{ AT}(y,p',i)) \land \exists x, p \land \text{AT}(x,p,i)$

(55) $\exists y, p' \rightarrow \text{AT}(y,p',i) \land \exists x, p \land \text{AT}(x,p,i)$

There is nothing wrong with there not being some $y$ at $p'$ and there being at the same time some $x$ at $p$. Nor is there anything wrong with there being some $y$ and $p'$ not at each other’s places and there being at the same time some $x$ and $p$ at each other’s places. What is needed to arrive at contradictory propositional meanings is for information from downstairs to project up and determine further the propositional meaning given as a presupposition. We want to ensure that the referent of the location argument in particular is the same in presupposition and assertion, and we want to further ensure that the same type of thing is talked about in the presupposition and in the assertion.

3.2.2 ...with kinds at highly specific locations...

Looking at a single context (index), presupposed pre states and asserted post states as defining a certain change of state will contradict each other if it is made sure that the same location and kind of thing are talked about in the two propositional meanings, but not otherwise. There is evidence that cipient predication projects a presupposition with a location argument whose referent is identical with the one denoted by the PP location. Consider:
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(56)  
a. Fidel was reading a book about catholicism when suddenly the Pope appeared.

Fidel was reading a book about catholicism when suddenly the Pope appeared on Cuba/to him.

b. Fidel was reading a book about catholicism when suddenly the Pope had a brilliant idea.

Fidel was reading a book about catholicism when suddenly the Pope had a brilliant idea about Cuba/him.

The example in (56a) contains the cipient licensing predicate *appear*; it is most natural to interpret the unexpressed location argument as picking its referent from what is mentioned in the main clause (Fidel, of whom we know that he is in Cuba). There is no such locative anaphoricity in (56b) where the location of the state of affairs encoded in the embedded clause is free. Sæbø (1996) makes a proposal that offers a good way to understand this contrast. Sæbø argues that

(57)  
A zero Argument is anaphoric iff the predicate triggers a presupposition involving it. (Sæbø 1996:195)

That a location prominent in the matrix clause also locates the embedded state of affairs in (56a) follows if the embedded clause contains a silent location that is anaphorically dependent for referential purposes; if Sæbø is right, then the antecedent location arises from a presupposition triggered by the predicate itself. No such effect is observed with (56b), which does not involve an anaphorically dependent location.²⁹ It is important that the location is anaphoric and consequently does not interact with scope-bearing elements in its clause, since only if the location is specific does one arrive at contradiction between the presuppositional and the actually asserted thing@loc meaning (keeping the evaluation index constant). It is argued here that reference to two indices is forced in the cipient structure exactly because the two propositional meanings lead to contradiction if evaluated at a single index.

Something else is needed, though, to ‘project up’, namely information about what kind of thing the theme is.³⁰ The case for kind information projecting up from the theme is quickly made; it is in exactly the environments we are discussing that we see kind information associated with the theme argument take wide scope with respect to the cipient expression, consider (58).

(58)  
a. She assigned a (??different) student every exercise.

b. She assigned a student every type of exercise.

≈ ‘For any type of exercise, she would assign it to a student.’

Examples such as (58a) illustrate that it is generally impossible for individual-denoting theme arguments to take (non-surface) scope and distribute over cipient referents (‘scope freezing’). (58b) shows that as soon as a kind denoting expression figures as
the theme argument, the theme does seem to be able to take wide scope with respect to the cipient (with a generic reading arising for the complete sentence). Kind information thus projects up to at least the cipient level. Provided that the location argument is anaphoric to a location in a presupposition and that kind information pertaining to the theme argument projects up, we do arrive at contradictory propositional meanings between what we have in the VP and as a presupposition if we prefix the presuppositional meaning with negation:

\[(59) \neg (\exists x \text{ relevant.stuff}(x) \& \text{AT}(x,p,i)) \& (\exists x \text{ relevant.stuff}(x) \& \text{AT}(x,p,i))\]

We now have situations in which there is both nothing and something of a relevant kind at a certain location, and this, we put forward, necessitates reference to different contexts. But why, after all, couldn’t contradictory meanings hold at a single time (interval)? Arguably, this is simply not how language works. Consider, for example, the following:

\[(60) \text{Yesterday I was and I wasn’t at the office.}\]

Although (60) may likely be true under unspectacular circumstances, it is odd. It seems the quantification is over a relevant minimal interval included in the time denoted by the temporal adverb, and that at this interval only one of the propositions \(p\) or \(\neg p\) can be asserted. We submit that restriction of the quantification to a relevant minimal domain is at play in the locative as well as in the temporal domain. This also takes care of another problem: it seems that the location has to be very specific to arrive at contradiction. Physically there seems to be no problem with e.g. there being a stone on Otto’s head already when another one hits him there. What we have to assume is that the location in question is indeed a minimal one.

3.2.3 ... to too-comparative

Paralleling the need for a location argument in the verbal domain, comparative constructions license cipients to the extent that they feature a degree element like too in English, indicating that the property talked about is instantiated to a degree beyond what one may call a ‘standard of appropriateness’ associated with the cipient argument. The dual of too, not... enough, does a cipient licensing job as well.

\[(61) \]

\[a. \text{ Der Otto ist mir *(zu) intelligent.} \]
\[\text{[the Otto]_{NOM} is me_{DAT} *(too) intelligent} \]
\[\text{‘Otto is too intelligent for me.’}\]

\[b. \text{ Der Otto ist mir *(nicht) intelligent *(genug).} \]
\[\text{[the Otto]_{NOM} is me_{DAT} not intelligent enough} \]
\[\text{‘Otto is not intelligent enough for me.’}\]

For the eventive case, the idea is that the cipient is interpreted as its spatiotemporal extension, overlapping with both the index at which the VP thing@loc meaning holds as well as with the index at which its negation holds – cipients thus restrict the possible index values of both propositional meanings and make the structure interpretable
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(see below). In the too-comparative case, it is particularly obvious that the cipient provides information necessary to interpret the structure. To repeat, we need to know the cipient's standard in order to know what it means for something to exceed that standard.

Transforming the essence of von Stechow’s (1984) or Meier’s (2003) counterfactual analysis of too-comparative structures, the following examples with paraphrases bring out the parallel between the eventive and the too-comparative case:

(62) a. *The vase fell to the ground.*
   There is an index i where the vase is not on the ground and there is an index i’ where the vase is on the ground & i < i’.

   b. *The soup was too hot.*
   There is an index i at which the soup is not hot to degree d (such that it would be appropriate for eating) and there is an index i’ where the soup is hot to degree d (such that it is inappropriate for eating) (& i > i’).

In more perspicuous terms, the meanings encoded in the eventive and too-comparative constructions licensing cipients can be represented as follows, where the upper line represents a presupposed propositional meaning holding at a truth interval and where the lower line represents the asserted propositional meaning holding at another truth interval (that does not overlap with the first one). For the state change case, indices are ordered by the precedence relations holding between times; for the comparative case, we may assume that indices (‘worlds/situations’) are ordered by a preference relation (‘being closer to the situation where things accord to standards of appropriateness’):

(63) a. (pre-state) > times
   ................. ↑ post state ↑

   b. (edible) > situations
   ................. ↑ actual ↑

Given the existence of duals in the adjectival domain, the paraphrases and schemata cover state-change structures as well as the following types of comparative structures:

(64) a. *The soup is too hot.*

   b. *The soup is not hot enough.*

   c. *The soup is too cold.*

   d. *The soup is not cold enough.*

The core meaning of the cipient structure can then be written as two simple propositional meanings, one of which is presupposed and the other one asserted; p ranges over locations or over degrees of property instantiation:

(65) ¬AT(x_theme_p_loc/deg,i) & AT(x_theme_p_loc/deg,i’) & i < i’
We have seen that the location argument depends on the cipient for the fixing of its reference; in the absence of a cipient, it is interpreted with respect to a parameter usually thought to be set in the immediate utterance situation (like location, standards, dimensions). In a more formal setting, we want to say that cipients can be interpreted as their ‘spatiotemporal history’ (cf. Carnap 1928; Musan 1995 on the temporal interpretation of individuals) or as their ‘quality space’ (Quine 1960) with respect to a particular property and thing in question; under this view, dative marking signals the application of a function that maps individuals and indices onto locations (in quality space) at particular indices:

\[(66)\quad f: <x,i> \rightarrow \{p \mid AT(x,p,i)\}\]

The spatiotemporal history of an individual is the locations at which that individual is at particular indices; an individual’s quality space is constituted by the degrees to which that individual potentially perceives the instantiation of a certain property.

3.2.4 Remarks on body-part predicates and sense predicates

Some problematic cases remain; for one thing, it appears to be the case that cipients can be licensed in the absence of state change meaning or explicit comparison if the location argument denotes a body part of the cipient. To account for this, one may say that body part predicates come with something like a ‘too close/too much’ relation built in. This idea gets some support from the fact that body-part cipient constructions typically have a meaning involving physical closeness that is at least exciting, often maleficient or harmful. This possibility and supportive observation was pointed out to me by Magdalena Schwager (p.c.).

Another large class of predicates licensing cipients are sense predicates, cf. the pi-acere class of Belletti and Rizzi (1988) (see the Greek and Spanish examples in (44) and (45), Section 3). It seems likely that with sense predicates, there will be many quality-space locations simply stored in memory, so that finding and anchoring a presupposition that defines a pre-state/standard poses no problem (see Husserl 1913:I, 41), who develops the idea that value judgments generally involve contradictory propositional meanings.

3.3 Blocking, repetition and outlook

According to Chomsky (1999), material that can be interpreted must not be kept in syntax; if cipients render the VP/AP interpretable by accommodating the presupposition projected from the material contained in it, then that material will not be able to enter syntactic relations beyond the cipient under normal circumstances. Under the analysis I have developed, cipients achieve the anchoring of the propositional meaning embedded in the cipient predicate, hence blocking effects as occurring cross-linguistically with cipients are predicted (cf. Torrego 1996; McGinnis 1998). Thus, in the following example, the theme cannot be interpreted as an argument of repair and
at the same time be case licensed (which would require establishing an A relation with Tense, hence across the cipient):

(67) a. Das Auto wurde (*?mir) t zu reparieren versucht.
    [The car]_{NOM} was me_{DAT} t to repair tried
b. Es wurde (*?mir) das Auto zu reparieren versucht.
    It was me_{DAT} [the car]_{NOM} to repair tried

‘They tried to repair the car (for me).’
(built on Wurmbrand 1999)

Analogous blocking effects hold in the too-comparative construction:

(68) Die Bahnpreise waren mir zu hoch angesetzt.
    [the railway.fares]_{NOM} were me_{DAT} too high made

OK: ‘In my opinion, the railway-fares were made too high (for everybody).’

‘The r.-fares were made such that they were too high for me.’

It is exactly the most natural and expected reading that is unavailable for (68), namely that the policy of the railway company makes their tickets unaffordable for me (the actual price exceeds the cipient referent’s standard). This follows if the theme argument cannot reconstruct into a (caseless) theta position that is associated with the relevant predicate, due to cipient intervention – again, what is blocked is an A-relation across the cipient argument.40

According to my proposal, the cipient makes the VP/AP complement interpretable because it accommodates the presupposition projected from it; therefore, cipient merger yields a fully saturated VP/AP structure. Assuming that interpretation of cipients in terms of indices is allowed, the indices associated with the referent of the cipient restrict the thing@loc meaning, as well as its negation; the indices at which thing@loc holds are included in the indices for which the function \( f_{loc} \) yields a nonempty set when applied to the cipient, and the indices at which the negation of thing@loc holds overlap with the cipient indices. What the structure ‘proves’ (= is mapped onto in extralinguistic terms) at the relevant stages is shown in (69). We write paraphrases below the symbolic representations for perspicuity.41

(69) a. \( V\text{-PP/DegP} \models \lambda x \text{AT}(x,p,i) \& R(p,w) \)
    ‘the (relevant) stuff/things that is/are at a certain location (in quality space) at a certain index, the location being a sublocation of the cipient’
b. \( VP \models \exists x \text{AT}(x,p,i) \& R(p,w) \)
    ‘There is/are relevant stuff/things at a certain location at a certain index, the location being a sublocation of the cipient’
c. \( t \models \lambda i \exists i',i''x \text{relevant-stuff}(x) \& \text{AT}(x,p,i') \& \neg \text{AT}(x,p,i'') \& i' \cap i'' = \emptyset \& i' \subseteq i \& i'' \cap i \neq \emptyset \)
    ‘The index intervals such that they comprise subintervals \( i' \) and \( i'' \) such that there is/are relevant stuff/things at a certain location at \( i'' \) (assertion) but not at \( i' \) (presupposition), where \( i' \) and \( i'' \) are disjoint’
d. $tP \models \exists i',i'' \forall x \text{relevant-stuff}(x) \& AT(x,p,i'') \& \neg AT(x,p,i') \& i' \in \{i \mid f_{loc}(\text{recipient},i) \neq \emptyset\} \& i'' \cap \{i \mid f_{loc}(\text{recipient},i) \neq \emptyset\} \neq \emptyset$

"There are subintervals $i'$ and $i''$ of the recipient (interpreted as its index extension) such that there is/are relevant stuff/things at a certain location at $i''$ (assertion) but not at $i'$ (presupposition)"

The V-PP/DegP constituent (cf. (69a)) corresponds to a lambda abstract over the theme argument slot; we assume that this slot is saturated via control by the theme argument in the specifier of VP (cf. (69b)). The crucial work is done by the category $t$: It existentially quantifies over two intervals that do not overlap; the first of these intervals hosts the pre-state and standard of comparison; the second one hosts the post-state and actual instantiation. $t$ further abstracts over an interval $i$ containing the post-state/actual instantiation interval and overlapping with the pre-state/standard interval; conversion is with the the recipient argument, interpreted (among other) as its index extension. Recipient merger saturates this slot; under the assumption that the relations in which the intervals $i'$ and $i''$ stand to the recipient interval $i$ sufficiently define $i'$ and $i''$, recipient merger yields a fully interpretable structure (cf. (69d)).

Building on work by von Stechow (1996), interpretive effects with presupposition-triggering adverbs like wieder 'again' in the recipient construction can be accounted for now.42 Wieder triggers different kinds of presuppositions depending on its c-command domain, on the basis of which the presupposition that wieder triggers is computed; in German, the c-command domain of wieder is reflected in its surface position. Looking at the recipient structure, only repetitive readings are available as long as wieder occurs to the left of (/c-commands) the recipient; restitutive readings arise only if wieder occurs to the right of (is c-commanded by) the recipient:43

(70) a. …wieder dem Otto Türen geöffnet wurden.
   …again [the Otto]DAT doorsNOM opened were

b. …dem Otto Türen wieder geöffnet wurden.
   …[the Otto]DAT doorsNOM again opened were
   ‘…doors were opened for Otto again.’

Assuming (69), wieder has in its scope both the pre- and the post-state of the event in (70a); hence, the repetitive reading is triggered according to which a relevant event has occurred before. In (70b), wieder has in its scope the PP complement furnishing post state meaning; hence, the sentence is felicitous as long as a state corresponding to the post state of the event has held before (cf. (69a)).

An analogous effect occurs with too-comparative constructions, which we have argued share with the eventive construction the semantic/pragmatic feature that they involve reference to contradictory propositional meanings (contradictory at a single index, that is; cf. above). To repeat, we propose that the propositional meaning embedded in the predicate (AP/DegP) encodes actual instantiation to a certain degree, while the propositional meaning projected as a presupposition and accommodated by the recipient encodes hypothetical instantiation to a certain standard degree. A little
context is needed though to see the parallel. Assume that Otto has thrown two parties where each time he served a particularly dry wine. In the first scenario, none of his guests complained about the dry wine at the first party, nor did anybody at the second party. In the second scenario, at least one of his guests complained at the first party, but none did at the second. (71a) is only appropriate in the first scenario while (71b) is felicitous in the second scenario as well:

(71)  

a. Es war wieder keinem der Wein zu trocken.  
    it was again nobody\text{DAT} [the wine]_\text{NOM} too dry  

b. Es war keinem der Wein wieder zu trocken.  
    it was nobody\text{DAT} [the wine]_\text{NOM} again too dry  
    ‘Nobody found the wine too dry again.’

Disambiguating paraphrases of (71a) and (71b) are given in (72a) and (72b) respectively:

(72)  

a. It was again the case that nobody’s standard was such that the wine was too dry.  

b. Nobody’s standard was such that the wine was too dry again.

The difference between (71a) and (71b) can be analyzed as follows: In (71a), \textit{wieder} takes wide scope, triggering a presupposition according to which what is asserted (that nobody found the wine too dry) was true on a previous occasion – the relation between standards and actual degrees is the same on both the earlier and later occasion. The presupposition triggered in (71b), in contrast, differs from what is asserted (that nobody found the wine too dry); it is just its negation (somebody did find the wine too dry before). Since the wine’s dryness is the same at both parties, what must be different is the relation between the actual dryness and the standards involved; we expect this to be allowed only if the structure encoding the relation is not as a whole c-commanded by \textit{wieder} – under the analysis offered here, \textit{wieder} has only the actual instantiation (encoded in AP/\text{DegP}) in its scope in (71b), not the standard that is associated with the cipient argument. Put more succinctly, scope relations are as in (73a) for (71a) but as in (73b) for (71b), with W standing for \textit{wieder} and x the cipient that fixes the standard:

(73)  

a. $W \not\exists x [x \text{ finds wine too dry}]$  
b. $\exists x W [x \text{ finds wine too dry}]$

Negation is needed for the scope difference to be visible because it presumably traps the existential quantifier below \textit{wieder}. Without negation, intuitions are as expected but both readings can be gotten for both structures with some context.
Notes

* Many people helped with this paper, which is based on my PhD Dissertation (Brandt 2003) and seeks to improve on some questions that I’ve been chewing on since. For important remarks on and critical help with this particular article, I would like to thank Alexis Dimitriadis, Daniel Hole, Cécile Meier and Magdalena Schwager; special thanks to Alexis for general discussion (early) and detailed comments (late). Thanks also to an anonymous reviewer, Leston Buell, Eric Fuß, Günther Grewendorf, Monika Rathert, Jochen Zeller, Ede Zimmermann and Hong Zhou. Thanks for the important input and intuitions of audiences at UC London, the GGS meeting in Cologne, the 'Datives and similar cases' workshop of the DGiS meeting in Mainz and various seminars. Errors, problems and remarks that could be important for the understanding of an improved future version that will also do more justice to the literature remain.

1. Cf. Husserl’s (1913 [1993:I]) discussion in the introduction to his Logische Untersuchungen ('Logical Investigations').

2. ‘Low datives’ (Steinbach & Vogel 1998; Meinunger 2002) as occurring in constructions that look like DOCs but where the order as well as hierarchical relation between the theme and dative argument appear reversed will be left out of consideration here. The set of predicates projecting this construction is small, virtually exhausted by aussetzen 'expose', ent- or unterziehen 'secure/take away from' and 'let undergo'. Similarly, dative/nominative constructions featuring predicates like helfen 'help', gleichen 'be similar to' and formations like nachfolgen 'follow after' that appear to be unergative will not be discussed.

3. thing@loc is short for: ‘there is something at a certain location’. The spelling with the ‘@’-symbol, denoting a primitive overlap relation, is adopted from Heidi Harley’s (2003) review of my dissertation in GLOT.

4. Ideas relating to the licensing of certain dative arguments in Dutch reminiscent of the condition under I can be found in Hoekstra (1988). Landau (1999) makes a connection between certain constructions in Hebrew being ‘object locating’ and licensing datives. Fong (1997) proposes a condition reminiscent of the one in II to account for the occurrence of transitive case in Finnish. According to Fong, constructions where transitive case occurs have to be ‘biphasic’.

5. A truth interval can be understood to be an ordered set of elements furnishing (tuples with) indexical information (a prototypical case being times. See McGilvray (1991) for a development of Reichenbach’s theory in terms of temporal intervals so decomposed).

6. For the backward binding effects (cf. (7a)), Belletti and Rizzi (1988) assigned the following structure to their ‘piacere type predicates’:

\[
(i) \quad [s \ [NP \ ec] \ [VP \ [v \ piace \ [NP \ questo \ ] \ [NP \ Gianni/\ a \ Gianni ] \ ] \ ]]
\]

Under Belletti and Rizzi’s analysis, the ‘experiencer’ argument c-commands the theme from a canonical adjunct position in (i).

7. The examples in (8) appear to need marked focus intonation on the PP location or ‘bridge accent’ (Büring 1997) to be felicitous, a fact that is going to become important later in Section 2.4.3. Analogous ‘cipient and PP location’ constructions appear to be available in diverse languages, including e.g. Hungarian and Norwegian. See Brandt (2003:66) for examples.

8. It can be shown that the PPs in the examples behave just like PP location arguments in structures not featuring a cipient argument; both cannot be stranded under do so substitution (but
location adjuncts can), cf. Note 11, both cannot be fronted in combination with WH question formation (but location adjuncts can), and both behave alike with respect to certain word order regularities in Dutch; for reasons of space, we refer the reader to Brandt (2003:65ff.) for full demonstration.

9. Cf. also cases in English like

(i) *She shot him a bullet right between the eyes.

10. Judgments are subtle here. Interestingly and supporting our line, the adjectival passive constructions get better with the particle schon ‘already’ that triggers a presupposition of expecting a state of affairs opposite to the one asserted. Cf. Löbner (1989). Tom Roeper (p.c.) points out a fact about English that supports a strong connection between ‘verbal’ particle projection and dative licensing; in the DOC, particles must be ‘stranded,’ unlike in the prepositional construction where they may be pied-piped as well.

(i) a. *He sent me the letter up /*up the letter.
   b. He sent the letter up to me /up the letter to me.

Interestingly in verbal passives, the particle may be pied-piped, but may not be stranded:

(ii) a. *I was sent up the letter.
   b. I was sent the letter up.

The facts point to a PF interface solution of the problem (particle pied-piping being a preferred option but destroying the phonetic case licensing domain for both dative and accusative. See Neeleman & Reinhart 1998 for proposals).

11. That location adjuncts are ‘outside’ the constituent containing the theme argument can be witnessed e.g. in VP fronting structures and in do so substitution structures where location adjuncts but not location arguments may be stranded:

   b. *Throw The Capital he wouldn’t into the bin.

(ii) a. Otto read The Capital in Paris and Ede did so in London.
   b. *Otto threw The Capital into the bin and Ede did so into the oven.

12. One cannot coordinate VPs one of which contains just a theme and the other one a theme and a location argument, cf. e.g.

(i) *Otto schlug die Vase in Stücke und seine Kinder.
   Otto hit the vase into pieces and his kids
   ‘Otto smashed the vase and hit his kids.’

13. In German, hin-/her-prefixation seems no longer productive, and some of the examples given sound archaic. In English, hither-/thither- prefixation does not seem to occur at all anymore. It should be said as well that few examples can be found where hin- or her- occur with DEC projecting predicates; a plausible reason for this is that these predicates typically already feature a prefix and that this blocks further prefixation for semantic reasons, presumably, cf. the grammatical sentence

(i) Sie ist ihm (aufs Dach) hinaufgestiegen.
   She is himEXT (onto.the roof) hither.up.climbed
   ‘She climbed up to him onto the roof.’
14. While there is considerable agreement in the literature at least since Wasow (1977) that adjectival passives do not project agents, the reviewers point out to me that the evidence from German is less clear in this regard.

15. Kratzer (2000) reminds us that adjectival passive constructions can be identified easily in German, since they utilize a form of *sein* 'be' instead of the verbal passive form *werden* 'become'.

16. The sentences are grammatical under an ‘arbitrary’ reading of the second conjunct, but not under the equi reading which is the one that matters for the argument.

17. That small infinitives lack T ense is argued by Wurmbrand (1999); her main argument is exactly that small infinitives cannot be temporally located independently.

18. It may be noted as well that unlike themes and PP locations, cipients can bind into temporal adverbs and temporally modifying clauses:

   (i) a. *The boss promised everybody a day off on his birthday.*
   b. *The judge guaranteed him [every child] on her birthday.*
   c. *The boss promised a day off to everybody on his birthday.*

   (ii) a. *A lot of cows escape [every cowboy] on his first day.*
   b. *[Every cow] escaped this cowboy on its last day.*
   c. *[A lot of cows escaped from [every cowboy] on his birthday.*

Assuming a Cinquean approach to Adverb licensing according to which adverbs are licensed in designated positions depending on what semantic portion of the tree they modify, the binding data suggest that cipients are licensed in or above a projection that encodes temporal information.


20. See Brandt (2003) for more evidence of a correlation between cipient licensing and tense encoding.

21. It has been argued by authors like Schneider-Zioga (1993), Iatridou (1995) and Aoun (1999) that clitic-doubling structures encode predication.

22. Note that across languages, cipients are such that the lighter they are phonetically, the more easily licensed they are. In French for example, only pronouns may occur as ‘bare D/NP’ cipients, while with full D/NPs a prepositional realization is forced. In English, DOCs degrade with increasing heaviness of the cipient.

23. The idea that certain arguments are interpreted as locations can be found in the ‘localist’ tradition as reflected in the work of e.g. Gruber or Jackendoff. Landau (2003) develops the hypothesis that the experiencers in object-experiencer predications denote ‘mental locations’.

24. In more prominently studied agreement systems, the distinctions that matter most are person and number. Evidence is presented in Brandt (2003) that cipients are defective as far as number encoding is concerned, accounting for among other things why cipients cannot bind certain anaphors (like *sich* in German or Dutch). In Bantu languages that have locative agreement, the locative classes unlike most other classes lack number distinctions. Manzini (2001) shows that ‘dative clitics’ in Romance are systematically underspecified for person and number, a fact that is expected if the corresponding interpretive features are absent in cipients. Cf. Brandt (2003:222ff.) and references there.
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25. See Brandt (2005) for development of the argument that eventive and too-comparative structures share a common syntax and semantics.

26. Application of Geurts’ (1999) ‘Presupposition Test Battery’ supports the hypothesis of the presuppositional status of the pre-state and standard of comparison respectively. Thus the pre-state/standard is unaffected by negation (unlike the post state/actual degree of instantiation, cf. (i)), but it is no longer taken for granted if it is mentioned in the antecedent of a conditional (but is locally accommodated, cf. (ii)); the pre-state/standard is also no longer taken for granted if it is explicitly negated (cf. (iii)): 

(i) a. Die Suppe war dem Otto nicht heruntergefallen. 

the soup was [the Otto]DAT not down-fallen

‘Otto didn’t let go of the soup.’

b. Die Suppe war dem Otto nicht zu heiß. 

the soup was [the Otto]DAT not too hot

‘Otto didn’t find the soup too hot.’

(ii) a. Falls Otto betrunken auf die Leiter gestiegen ist, dann ist ihm die Suppe heruntergefallen. 

if Otto drunk onto the ladder climbed is, then is himDAT the soup down-fallen

‘If Otto climbed onto the ladder drunk, then he dropped the soup.’

b. Falls Otto Zahnschmerzen hatte, dann war ihm die Suppe zu heiß. 

if Otto toothache had, then was himDAT the soup too hot

‘If Otto had a toothache, then the soup was too hot for him.’

(iii) a. Otto ist nicht betrunken auf die Leiter gestiegen, und darum ist ihm die Suppe (auch) nicht heruntergefallen. 

Otto is not drunk onto the ladder climbed, and therefore is himDAT the soup (also) not down-fallen

‘Otto didn’t climb the ladder drunk, and therefore didn’t drop the soup either’

b. Otto hatte keine Zahnschmerzen, und darum war ihm die Suppe nicht zu heiß. 

Otto had no toothache, and therefore was himDAT the soup not too hot

‘Otto had no toothache, and therefore didn’t find the soup too hot.’

Cf. Geurts (1999:Chapter I) for discussion of tests for presuppositions.

27. Cf. Dowty (1979), Hoekstra (1988). Kratzer (2000) employs an ‘f-target’ function that takes an event to its ‘target state’; this means that Kratzer’s analysis still involves a primitive event-variable, unlike the approaches of von Wright and Dowty or the one developed here.

28. Thanks to Ede Zimmermann for pointing out this problem.

29. Alexis Dimitriadis points out to me that if the when-clause in examples such as (56a) is strongly destressed and thereby signals backgrounding (accommodation higher up in the discourse structure), the reference of the unexpressed location argument is free as is expected if under normal circumstances, presuppositions accommodate locally.

30. One may wonder whether it is indeed enough for just kind information pertaining to the theme argument to project up, rather than specific information about the particular referent of the theme argument. It seems though that in a situation where the same type of thing is or has
been located at (part of) the location in question, ‘bare’ cipient structures are infelicitous and one is forced to use adverbs like again or particles like another.

31. The example is built on Lumsden’s (1988) observation that kind-denoting D/NPs can take scope in Existential There Sentences:

(i) *There was every *(kind of) linguist at the party.

32. Under the stipulation that utterance time is a single truth interval, it can now be explained why ‘perfective’ (state change) verbs in present tense cannot have present reference.

33. Even if the location argument referent is the same in both cases, the presupposed meaning appears to be too strong. Take the following example:

(i) Otto ist ein Stein auf den Kopf gefallen.

‘A stone fell on Otto’s head.’

It clearly need not be the case that for there to be a stone on Otto’s head at a certain time, there must have been nothing (of the relevant kind) on his head at an earlier or even the same time.

34. The analogous pattern appears to hold in e.g. Hungarian or Greek:

(i) Janos nekem *(tul) intelligens.

John meDAT *(too) intelligens

‘John is too intelligent for me.’ [Hungarian]

(ii) a. *O Yargos mu ine eksipnos.

the John meGEN is intelligent.

(b. O Yargos mu paraune eksipnos.

the John meGEN too-is [sic!] smart

‘John is too intelligent for me.’ [Greek]

It is also telling that in a range of languages, the prototypical ‘goal’ preposition to and the degree element too are (near-) homonyms or have been such at earlier stages (as in English and Germanic more generally as well as in e.g. Hungarian or Greek).

Krivokapić (this volume) discusses Serbocroatian data that seem to undermine our analysis, given that no degree element appears to be needed for cipient licensing. A relevant example from Serbocroatian would be (i).

(i) Ona je Mariji zabavna.

she is MarijaDAT fun

‘Marija finds that she is fun.’ [Serbocroatian]

Krivokapić stresses, however, that it must be the case that the dative experiencer forms an exception to the generally held view; for (i) to be meaningful, everybody else (who is relevant in some sense) must find that Otto is not intelligent. We therefore find contradictory propositional meanings involved in the cipient structure in Serbocroatian as well, only that the presupposed meaning is not that standard of appropriateness for the cipient but for everyone.

35. In fact, genug ‘enough’ without negation appears to license cipients as well. It appears, however, that the construction needs marked focus intonation on genug in the absence of negation to be felicitous. See the remarks in Section 2.4.3 above.
36. To the extent that ‘standards of appropriateness’ are defined in terms of (positive) earlier experience, the ordering in the comparative case could be reduced just to temporal ordering as in the eventive case.

37. Cf. Kracht (2004) using a similar ‘locator’ function. The semantics developed by Kracht for locatives seems to me to be the right tool for properly formalizing what I develop in this paper; a more thorough development of the common semantics of (locative) state change and comparative constructions will have to await another occasion, however.

38. Cf. Quine (1960) for discussion. That the referents can be sets of degrees to which certain properties are instantiated as well as individuals is suggested by the fact that there are predicates that select for just this type of interpretation, cf. German:

(i) "Die Anna [The Anna]NOM genügt dem Otto, was Schönheit angeht."[The Anna]NOM suffices [the Otto]DAT what beauty concerns

‘Anna is sufficient for Otto as far as beauty is concerned.’

What (i) says is that Anna is in the range of degrees defining what is sufficient beauty for Otto. That terms normally referring to individuals can refer to these individuals’ temporal extensions as well as the locations associated with them, which is needed for the eventive case, is shown in the following examples; these examples also make it clear that presuppositionality is a condition for the mapping:

(ii) a. The dinosaur was before the cocker-spaniel.  [presuppositional D/NP]
b. "A dinosaur was before a cocker-spaniel."  [indefinite D/NP]

(iii) a. I was at Otto’s yesterday.  [presuppositional D/NP]
b. "I was at some idiot’s yesterday."  [indefinite D/NP]

39. An anonymous reviewer points out that cases of the following form would appear problematic for the analysis given here:

(i) Sie wusch ihm die Wäsche.

‘She washed his clothes.’

I would argue that such ‘resultative’ structures (cf. Hoekstra 1988) are really hidden comparative structures, containing a predicate ‘being clean to degree d’ and that it is the negation of this predication that is triggered as a presupposition.

40. There is no space to investigate in detail how the available reading comes about; obviously, it is not the cipient’s standard that matters for the interpretation of the actual degree but rather a contextually given (‘everybody’s’) standard. Therefore, cipient merger does not lead to the spellout of the material furnishing the thing@loc meaning, which will be kept until the material establishing a link to the actual utterance context is merged (C(omp)/T(ense) in traditional terms). There are obvious parallels here to recent work by Holmberg and Hróarsdóttir that similarly cannot be developed for reasons of space; as these authors point out, raising across an experiencer dative is usually blocked, but it is allowed if the experiencer is WH-moved. We expect that WH movement “deblocks” to the extent that it makes local accommodation of the presupposition impossible. WH movement of the experiencer would then have an effect similar to that caused by contrastive focus marking, leading to accommodation of the presupposition ‘higher up’. Cf. Section 2.4.3.
41. We assume that the specifier of P and Deg each host a PRO element that is controlled by the theme argument; all variables entering the thing@loc meaning are therefore represented already at this level. The question mark in (69c) is intended to convey that it is undecided yet how and where the projected presupposition can be accommodated.

42. The meaning of wieder can be defined as follows (Egg 1994):

\[(i) \text{ Let } p \text{ be a description of states of affairs and let } i \text{ be an index (interval)}
\]
\[\text{[again]}(p(i)) \text{ is defined only if } \exists i' \ p(i') \land i > i'
\]
Where defined, \([\text{again]}(p(i)) = 1 \iff p(i) = 1\)

43. To be precise, wieder has to occur to the right of the theme for the restitutive reading to be available. This follows if we assume with von Stechow that the case position of the theme (accusative) c-commands a head that encodes causal meaning and that, similar to the t head, makes reference to the pre- and post states of the event encoded.

References


Receiving and perceiving datives (cipients)


The datives that aren’t born equal
Beneficiaries and the dative passive

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It is argued, in agreement with Haider (1992), that some German ditransitives have a basic order \( \text{ACC} \gg \text{DAT} \). It is claimed that it has, however, been overlooked that some of these verbs have a second variant whose unmarked order is \( \text{DAT} \gg \text{ACC} \). We show that the two basic word orders result from two different conceptual structures. In LFG’s Lexical Mapping Theory, this has the consequence that the two variants subcategorise for differing grammatical functions \((\text{gfs})\), requiring two distinct lexical entries. The ‘high’ datives bear the grammatical function \((\text{gf})\) of secondary object whereas the (rarer) ‘low’ datives bear that of oblique. An outcome of the analysis is a streamlined statement of unmarked middlefield order in German whereby argument ordering follows the \( \text{gf} \) hierarchy. The analysis sheds new light on the distribution of the so-called \( \text{kriegen} \)-passive. Although it is often held that the dative of verbs with an \( \text{ACC} \gg \text{DAT} \) basic order cannot surface as nominative in the \( \text{kriegen} \)-passive, there are counterexamples. We offer a more fine-grained ‘argument composition’ analysis of the \( \text{kriegen} \)-passive from which it emerges straightforwardly that it is only in the variant with \( \text{ACC} \gg \text{DAT} \) as basic order that \( \text{kriegen} \)-passive is ruled out. The variant with \( \text{DAT} \gg \text{ACC} \) basic order permits \( \text{kriegen} \)-passive, and it is this (overlooked) variant that occurs in the above mentioned counterexamples. In sum, some of the verbs thought to license only ‘low’ datives are shown to select either type of dative. This alternation is, however, a reflection of differences in conceptual structure. The distribution of \( \text{kriegen} \)-passive with these ditransitives patterns with the conceptual structures.

1. Positions for dative objects of ditransitives

The focus of this paper is the unmarked middlefield order of non-subject dependents of German ditransitives. Whether one adopts a configurational approach to word order with case checked in hierarchically structured positions, or whether one assumes linear precedence constraints over a flat domain, it is necessary to establish the con-
strains on unmarked linearization before further conditions (e.g. scrambling) can be stated. If an explanation can be provided for why datives occupy different basic positions, this is a welcome outcome. In Section 1, we review Haider’s (1992) claim that certain ditransitives, in contrast to the majority, align their accusative argument before the dative, and we discuss two proposals advanced to account for this, as well as a proposal which rejects Haider’s claim. In Section 2, it is shown that some of the ditransitives previously thought to license only one order actually can license either order, but that this correlates with a distinction in conceptual structure. We then show that the different conceptual structures allow and disallow the so-called kriegen-passive respectively. Section 3 examines the linking of conceptual structure to grammatical functions (gf) that arises for the two conceptual structures under the Lexical Mapping Theory of Lexical Functional Grammar. This reveals that each conceptual structure actually maps to a different range of gf, and thus two distinct lexical entries will be required. Finally, Section 4 presents an argument composition analysis of the so-called kriegen-passive which accounts for the variation in the licensing of this construction across the ditransitives.

1.1 High vs. low datives

For the majority of German ditransitives, the unmarked order of objects is such that the dative precedes the accusative (henceforth: DAT > ACC) in the middlefield, as in (1a). The ACC > DAT order in (1b) is marked relative to (1a).2 However, a small group of verbs appears to favour the order ACC > DAT in discourse-neutral contexts, as in (2a). The group of verbs that seem to prefer ACC > DAT, listed in (3), was identified (and assigned these translations) by Haider (1992:7):3

1. a. *Es hat ein Mann einem Kind ein Buch geschenkt.*
   it has a man_{nom} a child_{dat} a book_{acc} given
   ‘A man gave a child a book (as a gift).’
2. b. *Es hat ein Mann ein Buch einem Kind geschenkt.*
   it has a man_{nom} a book_{acc} a child_{dat} given
3. a. *Es hat ein Polizist einen Zeugen einer Gefahr ausgesetzt.*
   it has a policeman_{nom} a witness_{acc} a danger_{dat} exposed
   ‘A police officer exposed a witness to a danger.’
4. b. *Es hat ein Polizist einer Gefahr einen Zeugen ausgesetzt.*
   it has a policeman_{nom} a danger_{dat} a witness_{acc} exposed

In fact, Haider has concluded in recent work (published after this analysis was presented), viz. Haider and Rosengren (2003), that the inclusion of entziehen ‘take away’ here is not straightforward; a point we focus on below. For the time being, we stay with the descriptive situation in (3) and illustrate the justification for the claim that at least
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Höhle (1982) observed that stress on the pre-verbal argument (in V-final clauses) permits focus projection (spreading) only if the word order in question is the basic order. Haider (1992:7), who argues that geben ‘give’ equally permits either order of non-subject functions,4 shows that focus projection is possible with either order, viz. (4), whereas for gönnen ‘not begrudge’ the focus projection test shows that DAT ≻ ACC is the unmarked order, viz. (5):

(4) a. dass er seiner Frau sein Geld gegeben hat
dat he his wife,gatt of his money,acc given has
(bocus projection possible)
b. dass er sein Geld seiner Frau gegeben hat
dat he his money,acc of his wife,gatt has
(bocus projection possible)

(5) a. dass er seiner Frau sein Geld gegönnt hat
dat he his wife,gatt of his money,acc not begrudged has
(bocus projection possible)
b. dass er sein Geld seiner Frau gegönnt hat
dat he his money,acc of his wife,gatt not begrudged has
(no focus projection)

When aussetzen ‘expose’ is subjected to the same test, in contrast to (4) and (5) above, focus projection is possible only in the ACC ≻ DAT order, as in (6a) from Haider (1992:7). This verb thus behaves differently to the ditransitives for which the DAT ≻ ACC order is unmarked, and is correctly assigned to the group in (3).

(6) a. dass er seine Kinder ihrem Einfluss aussetzte
dat he his children,acc of their influence,gatt subjected
(focus projection possible)
b. dass er ihrem Einfluss seine Kinder aussetzte
dat he their influence,acc of his children,acc subjected
(no focus projection)

Considering a second diagnostic for basic order, Frey (1993) established that, in German, basic orders only permit one scope of quantifiers, namely that which accords with linear precedence (for Frey, c-command). Non-basic orders yield scope ambiguity; i.e. an inverse scope interpretation also obtains.5 Frey (1993:183) shows that verbs such as überreichen ‘hand’ and aussetzen ‘subject’ display contrasting behaviour with respect to quantifier scope. In (7), involving überreichen ‘hand’, it is the ACC ≻ DAT (7a) which yields ambiguity and is thus non-basic. In (8), however, involving unterziehen ‘subject’ it is the DAT ≻ ACC order (8a) which yields ambiguity and is thus non-basic. In particular, on the basis of (8), the unmarked order for unterziehen ‘subject’, a verb placed in group (3) by Haider, can indeed be seen to be ACC ≻ DAT. (The complementiser is stressed below to obviate effects of argument focus on scope.)

(7) a. dass er mindestens ein Geschenk fast jedem Gast überreichte
dat he at least one present,acc almost every guest,gatt handed
(ambiguous)
b. dass er fast jedem Gast mindestens ein Geschenk überreichte
dat he almost every guest,gatt at least one present,acc handed
(unambiguous)
The claim that the group (3) verbs have the \textit{acc} \textit{\textbf{\textgreater}} \textit{dat} order as the unmarked case has been illustrated only for two of the listed verbs. In Section 2 the outcome of the application of these tests to some of the other verbs in (3) will reveal that things are not as simple as these examples suggest. In particular, this state of affairs with respect to the diagnostics for basic order will be shown to hold for some verbs assigned to group (3) – namely \textit{zuführen} and \textit{entziehen} – in certain cases only. Crucially, a failure to recognise this fact in the literature of the 90s led to disagreement about whether or not group (3) really exists. However, before considering the non-heterogeneity of the verbs in (3) in closer detail, some existing proposals for accounting for the exceptional behaviour of the verbs in (3) are first introduced.

1.2 Explanations for the existence of two dative positions

There are three approaches to handling the issue that dative arguments of ditransitives have two different base positions. These are (i) the inherent/structural case distinction, (ii) the hidden PP analysis and (iii) the animacy account. Proposals (i) and (ii) are reviewed first. Proposal (iii) refutes the existence of group (3) verbs and is discussed mainly in Section 2.

1.2.1 \textit{Inherent vs. structural case}

One approach to the fact that some dative objects have a different base position to that of most others is to assume that the dative case of the verbs in (3) is inherent, in contrast to the dative case borne by the ‘normal’ ditransitives which is assigned/checked verb-distally and is assumed to be structural. While the actual mechanics of inherent case assignment vary (e.g. assigned directly by the verb so the inherently case-marked object must ‘stay’ verb-close, cf. Molnár 1998:552, or assigned only under head adjacency, cf. Czep 1988:285), the underlying principle is that inherent dative is an idiosyncratic property of certain verbs.

The postulation of the inherent/structural distinction for different datives is allegedly motivated not just by the difference in position that the two ‘kinds’ of dative have, but also by their differing behaviour with respect to \textit{kriegen}-passivisation. Or put differently: the \textit{kriegen}-passive is said to yield evidence for the inherent/structural distinction (cf. Fanselow 2000). Within GB at least, the hypothesis that inherent case is a lexical property of some verbs was the basis for ensuring that the assignment of structural case is blocked. With respect to passivisation, inherently case-marked objects should not be able to surface as nominative (i.e. structurally case-marked) subjects. So, if the verb-close position of the dative objects of the verbs in (3) is due to inherent case, a passive operation applying to these verbs should not permit assignment of nominative case, whereas this should be possible for structurally case-marked da-
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tives. A construction which is typically used to test this prediction is the so-called kriegen-passive, in which kriegen 'get', bekommen 'receive' and erhalten 'obtain' seem to function like passive auxiliaries (but see Section 4) in a construction in which an argument that bears dative case in an active clause (e.g. dem Junge in (9a)) surfaces as a nominative subject (viz. der Junge in (9b)). The participle (Partizip II) is morphologically identical to the passive participle.

(9) a. Die Mutter schickt dem Jungen das Paket. (active)
    the mother sends the boy the parcel
b. Der Junge kriegt das Paket geschickt (von der Mutter).
    the boy gets the parcel sent (by the mother)

‘The boy gets sent the parcel (by the mother).’ (kriegen-passive)

The accusative object remains unaffected in the putative passive. In fact, an accusative object is generally required, or must be implicit as in (10a). For some speakers, some monotransitive dative verbs (e.g. helfen 'help') also occur in the kriegen-passive, (10b).

Although the construction is sometimes termed ‘recipient-passive’, the subject argument is not restricted to the thematic role of recipient, as (11) shows (cf. Askedal 1984:9; Wegener 1985:129).

(10) a. Auch er bekam im November gekündigt. (S. Müller 2002:135)
    also he got in November served notice
    ‘He also got served notice (on his flat/job) in November.’
b. Das Kind kriegt geholfen.
    the child gets helped

(11) a. Er bekam zwei Zähne ausgeschlagen. (Eroms 1978:371)
    he got two teeth knocked out
b. Der Bub kriegt das Spielzeug weggenommen. (Reis 1976:71)
    the lad gets the toy taken away

The prediction of the proposal that ‘low’ datives bear inherent case is that they should be unable to surface as nominative subjects and it seems to have become accepted wisdom that the kriegen-passive is indeed unavailable for the ‘low’ datives, cf. Czepluch (1988:387), Fanselow (2000:183), Molnárfi (1998:566), McFadden (2004:107). Examples such as (12b) and (13b), both involving verbs from group (3), are typically provided to support this claim.

(12) a. Die Mutter setzt das Kind der Kälte aus. (active)
    the mother sets the child the cold out
    ‘The mother exposes the child to the cold.’
b. *Die Kälte kriegt das Kind ausgesetzt. (kriegen-passive)
    the cold gets the child exposed

(13) a. Der Professor unterzog den Studenten der Prüfung. (active)
    the professor subjected the student the exam
    ‘The professor subjected the student to the exam.’
b. *Die Prüfung kriegt den Studenten unterzogen. (kriegen-passive)
   the exam gets the student subjected

However, as early as Eroms (1978:386) one finds the observation that this prohibition applies only to a subgroup of the ACC > DAT verbs. For instance, the kriegen-passive is possible for entziehen as in (14b) and (15b) below, cf. Wegener (1986:17). This is surprising for those who treat all the verbs in (3) as uniformly having an inherently case-marked dative object.7

(14) a. Der Richter entzog das Sorgerecht dem Vater. (active)
   the judge withdrew the custody the father
   ‘The judge took custody off the father.’

b. Der Vater kriegt das Sorgerecht entzogen (von dem Richter).
   the father gets the custody withdrawn (by the judge)
   ‘The father got custody taken off him (by the judge).’ (kriegen-passive)

(15) a. Man entzog ihm den Führerschein. (active)
   one withdrew his the driving licence
   ‘Someone took his driving licence off him.’

b. Er kriegt den Führerschein entzogen. (kriegen-passive)
   he gets the driving licence withdrawn
   ‘He got his driving licence taken off him.’

The claim that the subject of the kriegen-passive must be animate/sentient (Reis 1976: 57) might at first glance account for the contrast between (12)/(13) and (14)/(15) since the subjects in (12b) and (13b) are inanimate. However, this cannot be the correct restriction since the kriegen-passive can occur with an inanimate subject, as in (16):8

(16) a. Beide Konstruktionen erhalten die gleiche Konstituentenstruktur
   Both constructions get the same constituent structure assigned
   ‘Both constructions get assigned the same constituent structure.’

b. dass ein Element, das […] in der Oberflächenausprägung
   that an element that in the surface representation
   den syntaktischen Status einer freien Angabe zugeschrieben
   the syntactic status of an free adjunct assigned
   erhielt
   would get
   ‘… that an element which would get assigned the syntactic status of an adjunct in the surface representation’

Such data are challenging for the view that the two dative positions are distinguished in terms of structural/inherent case. At best, given data to be introduced in Section 2, such analyses must assume that some of the verbs claimed to have inherent dative also
have another variant with structural dative – a fact that would beg explanation. Theoretically too the proposal is not without problems, see Haider (1993) or McFadden (2004:Ch. 4). It is clear that this proposal merely re-describes the facts; failing to explain the cross-linguistic similarities concerning the semantics of arguments that putatively have inherent case. The real questions are:

i. why dative objects of ditransitives are realised in different basic positions

ii. whether there are any shared properties allowing us to propose a generalisation over both types of datives, i.e. to say what it is that dative actually marks in German.

We put forward a lexically-motivated account of the two kinds of datives which provides answers to these questions. First, we briefly review another account of the two dative positions.

1.2.2 Hidden PPs

Meinunger (2000, this volume) discusses differences between double-object and PP realisations of German ditransitives, as in (17). His analysis builds on the well-known claim that many ditransitives alternate between expressing a relation between a theme and the theme’s location, and a process of the dative coming to possess the theme. The double-object construction occurs, Meinunger claims, in the possessor case and the PP construction in the location case. Thus, he claims that (17a) expresses that the book is located at the father not that he comes to possess it, whereas in (17b) the possessor reading is “more likely”. Meinunger’s unmarked order is based on alignment of gfs, but note that the position of PPs must be accounted for separately by specific reference to their syntactic category, viz. (17c).

(17) a. weil ich ein Buch zu meinem Vater gebracht habe
   because I a book to my father brought have
   (PP construction)

b. weil ich meinem Vater ein Buch gebracht habe
   because I my father a book brought have
   (double-object construction)


Now, such facts are well-known but the reason for rehearsing them here is that Meinunger sees in them an explanation for the word order properties of the verbs in (3). Observing the positional parallelism between the ‘low’ dative of the verbs in (3) and the standard position of PP objects, he claims that the verbs in (3) are “hidden-PP verbs” (i.e. underlingly like (17a)). Meinunger suggests that the verbs in (3) have undergone incorporation of p into the verb since these verbs contain a prefix identical to a locative preposition. It is thus a remnant PP that is realised in the PP-position with group (3) verbs. Precisely why/how dative case is assigned is unclear, since some of the prepositions putatively incorporated would assign accusative case.
A graver problem is that Meinunger’s analysis entails, of course, that the verbs in (3) should *always* have \( \text{ACC} \succ \text{DAT} \) as their unmarked order and a location interpretation. Data will be introduced in Section 2 that show this is simply not the case. A further problem is that one verb seems misplaced to Meinunger (2000), namely *entziehen*, since its prefix *ent-* is not a locative preposition.\(^{10} \) However, Meinunger (2000:58) claims that this is expected since *entziehen* actually has a \( \text{DAT} \succ \text{ACC} \) unmarked order, i.e. it is not a group (3) verb at all. This claim diverges from standard claims (but recall Note 7). It will be seen later that Meinunger’s (and Fanselow’s) claim is not wholly false but they have overlooked the fact that the examples they consider happen to be one particular interpretation of *entziehen* which will be discussed in Section 2. In fact, Meinunger (this volume) now agrees with the views put forward in this paper; namely that we are really dealing with two verbs, and two basic orders.

1.2.3 Animacy

After the appearance of Haider (1992), two different viewpoints concerning the verbs in (3) developed. In particular, a challenge to the existence of group (3) came from works claiming that both orders are equally possible for all ditransitives, but that animate arguments precede inanimate ones (cf. Fanselow 2003; Heck 2000; Hoberg 1981; Vogel & Steinbach 1998; Müller 1999; Zifonun et al. 1997). In particular, the ‘tendency’ for animates to precede inanimates is a ‘constraint’ in Vogel and Steinbach, Heck and Müller’s accounts. For these authors, the group in (3) does not exist; its ‘apparent’ existence is an artefact of this animacy effect.

Given the above discussion of the *kriegen*-passive, one may immediately ask how the different availability of the *kriegen*-passive can be explained if group (3) is dispensed of. Vogel and Steinbach, who argue that dative should be systematically treated as an oblique case in German, completely reject the status of *kriegen*-passive as a valid test for structural case on the basis, among other things, that it is unclear whether or not it is a genuine passive construction and because ‘free’ datives can function as the subject of the *kriegen*-passive (see Section 4, however, for discussion of both these issues). Müller (1999) simply does not mention the *kriegen*-passive.

In short, authors supporting the animacy account argue that any sign of a favoured order is simply an epiphenomenon of a stronger constraint placing nominals denoting animate referents before those denoting inanimate referents.\(^{11} \) In the next section, the animacy account will be shown to make wrong predictions in many cases. In fact, the appearance of such an animacy constraint is far more an epiphenomenon of different underlying conceptual structures – to which we turn our attention in the next section. As should become clear shortly, the correct generalisation is that animacy tends to pattern with certain thematic roles and need not, indeed should not, be stated as an independent grammatical constraint.
2. Differences in conceptual structure

Our overall aim is to move towards providing an explanation of why datives occur in different base positions, and why their behaviour with respect to the kriegen-passive differs. With this in mind, in this section, it will be shown that assigning entziehen and zuführen (we will sometimes suppress translations in the text for reasons to become immediately apparent) to group (3) oversimplifies the empirical situation and that these verbs actually have two readings and two different conceptual structures. It will be shown that when the diagnostics for unmarked order are applied to each of the two proposed readings, the results reveal two different unmarked orders. Crucially, though, each unmarked order patterns with a different conceptual structure. However, some of the verbs listed in (3) clearly do have only one conceptual structure and these display just one unmarked word order.

Consider the following data involving entziehen. Comparing the acc > dat and dat > acc orders, one observes that different orders subtly favour different contexts/continuations.

(18) a. Es hat jemand beschlossen, das Kind dem Vater zu entziehen.
   it has someone decided the child_the father to withdraw
   ‘Someone decided to take the child off the father.’
   … the father is incapable; for the child’s safety someone took it away from
   the father.

b. Es hat jemand beschlossen, dem Vater das Kind zu entziehen.
   it has someone decided the father_the child to deprive
   ‘Someone decided to deprive the father of the child.’
   … the father didn’t pay child support so, as punishment, he’s not allowed
   to see the child.

These continuations pattern with different interpretations of entziehen, a difference which is lexicalised in English: (18a) corresponds to ‘withdraw/take x off y’ (neutral transfer) and (18b) to ‘deprive/strip y of x’ (negative transfer). To present a certain word order as unmarked (or to argue that animacy is crucial), one need only adduce examples which favour the reading correlating with the desired word order. With a combination of world knowledge and lexical material forcing one reading, the alternative ordering is more marked but, importantly, it is not marked in general, it is marked for that interpretation.12

2.1 Forcing particular interpretations

The ideal test-case to corroborate the above claim is a context in which only one interpretation is plausible. In such contexts, only one of the word orders should be unmarked (the other order will never be ungrammatical due to the possibility of scrambling). In the following, it will be shown that when a particular reading is forced, this prediction is verified.
2.1.1 Entziehen as 'deprive'

In (19a, b), a 'deprive' reading for *entziehen* is forced by the lexical material. The most neutral order is \( \text{DAT} \succ \text{ACC} \); note that 'withdraw x from y' is infelicitous as an English translation:

\[(19) \ a. \ \text{Es hat eine unheilbare und schwere Krankheit dem Patienten} \]

\[\text{It has an incurable and grave illness the patient} \text{_{DAT}}\]

\[\text{die Hoffnung entzogen.} \]

\[\text{the hope}_{\text{ACC}} \text{ deprived} \]

'An incurable and grave illness deprived the patient of hope.'

\[\ b. \ \text{Es hat eine intensive und isolierende Behandlung dem Menschen} \]

\[\text{It has an intensive and isolating treatment the person} \text{_{DAT}}\]

\[\text{die Würde entzogen.} \]

\[\text{the worth}_{\text{ACC}} \text{ deprived} \]

'An intensive and isolating treatment deprived the person of (their sense of) worth.'

\[c. \ \text{Es hat eine unheilbare und schwere Krankheit die Hoffnung dem Patienten entzogen.} \]

\[d. \ \text{Es hat eine intensive und isolierende Behandlung die Würde dem Menschen entzogen.} \]

If the order of objects is switched to \( \text{ACC} \succ \text{DAT} \), as in (19c, d), the degree of markedness is striking, particularly since the \( \text{ACC} \succ \text{DAT} \) is claimed to be the unmarked order for this verb in discourse-neutral contexts. But what about animacy?

Vogel and Steinbach (1998) argue that cognitive constraints such as animacy come into operation whenever two possible derivations obtain. Müller’s (1999) OT analysis proposes an ordering constraint \( \text{ANIMATE} \succ \text{INANIMATE} \) that is ranked above a \( \text{DAT} \succ \text{ACC} \) linear precedence constraint \( \text{DAT} \). Thus, a violation of \( \text{DAT} \) can be compensated by aligning animate before inanimate arguments. However, these analyses both face problems and they make different predictions in cases where animacy of the objects is not at issue (i.e. where both accusative and dative objects are animate, or both are inanimate). Müller’s account predicts that when the two objects match in (in)animacy, then dative should always preferably precede accusative. He exemplifies this (with *entziehen*, *zuführen* 'bring', *ausliefern* 'extradite') with both objects animate, and shows \( \text{DAT} \) to yield the 'correct' result, his (34e, f). However, when both objects are inanimate, things are not so straightforward, as Müller (1999:813, n. 23) admits. He predicts that \( \text{DAT} \succ \text{ACC} \) should also be preferred in this case but this is the wrong prediction. He is therefore forced to conclude that *unterziehen* 'subject', and *aussetzen* 'expose', form "complex idioms" with their dative object which either resist 'syntactic split', or that they have a dative that is inherent and is not affected by the constraint \( \text{DAT} \).

Vogel and Steinbach (1998) predict that datives may be inserted in either pre- or post-accusative position but that (factors such as) animacy will ultimately determine the dative's position. Therefore (disregarding definiteness), when the two objects match in animacy, the two orders are predicted to be equally unmarked. Whilst Müller predicts
that dative will precede accusative when animacy is not relevant, Vogel and Steinbach predict that either order will be equally unmarked.

As in (19), the lexical material in (20) already favours the ‘deprive’ reading of *entziehen* since one can only sensibly withdraw something already possessed, hence to withdraw *beantragte Förderung* ‘requested funding’ is rather unlikely. Given this lexical material, speakers have a preference for the DAT > ACC order in (20a) over the ACC > DAT order of (20b). We argue that the reason that (20b) is marked relative to (20a) is because the word order in (20b) is the word order that correlates with the ‘deprive’ reading and, as mentioned above, this reading is disfavoured anyway due to the lexical content of this example. The dative and accusative objects are both inanimate yet the DAT > ACC order, (20a), is judged less marked. This is not expected for Vogel and Steinbach (1998) but, when correlating interpretation with word order as we do, it is expected.15

(20) *Es hat der skrupellose Gesundheitspolitiker ... it has the scurpelless health minister ...*

a. *den staatlichen Krankenhäusern die beantragte Förderung entzogen.*
the state hospitals<sub>dat</sub> the requested funding<sub>acc</sub> deprived
‘The health minister without scruples deprived the state hospitals of the requested funding.’

b. *die beantragte Förderung den staatlichen Krankenhäusern entzogen.*
the requested funding<sub>acc</sub> the state hospitals<sub>dat</sub> withdrawn
??‘The health minister without scruples withdrew the requested funding from the state hospitals.’

2.1.2 Entziehen as ‘strip of’
In (21), in which the animacy of the objects is matched (here both are inanimate), the ACC > DAT order is degraded, undermining Vogel and Steinbach’s (1998) prediction. The lexical material induces a reading that we group together with the ‘deprive’ reading, namely ‘strip of’. The preferred order is DAT > ACC even when the animacy of the two objects matches.

(21) a. *Die andauernde Dürre entzieht allmählich dem Boden*
the ongoing drought strips gradually the ground<sub>dat</sub>
*die Feuchtigkeit.*
the moisture<sub>acc</sub>
‘The ongoing drought is gradually stripping the ground of moisture.’

b. *Die andauernde Dürre entzieht allmählich die Feuchtigkeit*
the ongoing drought withdraws gradually the moisture<sub>acc</sub>
*dem Boden.*
the ground<sub>dat</sub>
??‘The ongoing drought is gradually withdrawing/extracting the moisture from the ground.’
This reading (often where a fluid/metal is stripped of a substance), is similar to the ‘deprive’ reading since the dative object is (negatively) affected. There is, however, a second reading, namely ‘extract from.’ Whereas in the ‘strip of’ reading, y is negatively affected, the ‘extract from’ reading denotes a neutral removal process whereby the agent wishes to keep the extracted material and the substance from which it is extracted remains unchanged. Again, in parallel to our claim concerning ‘deprive/withdraw’, we claim that these two readings correlate with two different base orders. In (21b) above, the markedness of the acc ≻ dat order is severe but there are other contexts, e.g. (22b) below, in which the acc ≻ dat order is not so marked. This is, we claim, due to the fact that the other reading of the verb, namely ‘extract’, is contextually less implausible here than in (21b). The issue of which of the two readings is more plausible is crucial in Meinunger’s (2000) claim (cf. Section 1.2.2) that the unmarked order of arguments of entziehen is dat ≻ acc. (22a) is the example on the basis of which he claimed dat ≻ acc to be basic:

(22) a. Dann habe ich dem Wasser die Giftstoffe entzogen.
   then have I the water dat the poisons acc stripped
   ‘Then I stripped the water of poisonous substances.’

b. Dann habe ich die Giftstoffe dem Wasser entzogen.
   then have I the poisons acc the water dat withdrawn
   ‘Then I extracted the poisonous substances from the water.’

Normally pure (not poisoned) water is wanted, and the aim is not to extract some poison from the water (leaving it poisoned) but to purify (affect) the water. Meinunger’s (2000:59 n. 15) (unconventional) claim that dat ≻ acc is the unmarked order is thus only half the story since this judgement applies to just one reading of the verb (as he now concedes in this volume). Meinunger’s (2000) example (22a) favours a ‘strip of’ reading where dat ≻ acc is preferred, but in a context where extracting some poison is plausible, such as (23), informants do not find the acc ≻ dat marked. In fact, they find it less marked, viz. (23b).16 This example, or rather the unmarkedness of the acc ≻ dat here, would be a problem for Meinunger’s previous analysis (but note that he has now been convinced of the correctness of our claim; see Meinunger this volume).

(23) a. Die Dschungelbewohner entziehen dem Baumharz das Pfeilgift.
   the jungle dwellers strip the tree resin dat the arrow poison acc
   ‘The Jungle dwellers strip the resin of the poison for arrows.’

b. Die Dschungelbewohner entziehen das Pfeilgift dem Baumharz.
   the jungle dwellers extract the arrow poison acc the tree resin dat
   ‘The Jungle dwellers extract the poison for arrows from the resin.’

Regarding the animacy claim now, not just Vogel and Steinbach’s (1998) claim that under equal animacy the two orders are equally unmarked is inadequate, but the unmarkedness of (23b) is unexplained by Müller’s account too. Finally, (24) offers a further example in which dat ≻ acc is the unmarked order, even though this violates Vogel and Steinbach’s (1998) animacy constraint.
The datives that aren’t born equal

(24)  

a. Die Subventionskürzungen werden noch den Museen die Besucher entziehen.  
   the subsidy cuts will yet the museums dat  
   the visitors acc deprive  
   ‘The cuts in subsidies will deprive the museums of visitors in the long run.’

b. mDie Subventionskürzungen werden noch die Besucher den Museen entziehen.  
   the subsidy cuts will yet the visitors acc museums dat  
   withdraw  
   ‘The cuts in subsidies will withdraw the visitors from museums in the long run.’

2.1.3 Tests for Basic Order: Substantiating the claim

To substantiate our claim, the tests for unmarked word order outlined earlier are applied. In (25), where entziehen must be read as ‘deprive’ (cf. (19)), a focus accent (indicated by small caps) is placed on the verb-adjacent argument: on the accusative in (25a) and on the dative in (25b). Only in (25a) is focus projection possible. (25b) involves narrow (constituent) focus.

(25)  

a. weil diese unheilbare und schwere Krankheit dem Patienten  
   since this incurable and grave illness the patient dat  
   die Hoffnung entzieht  
   the hope acc deprives  

b. weil diese unheilbare und schwere Krankheit die Hoffnung  
   since this incurable and grave illness the hope acc  
   dem Patienten entzieht  
   the patient dat  
   ‘for almost every patient, this grave illness deprived them of at least one chance of recovery’

It can be concluded that the unmarked order for (25) is dat > acc. Recalling that Frey (1993) shows that scope ambiguity arises when the word order is not basic, the same conclusion must be drawn from (26). In (26), again only compatible with the ‘deprive’ reading, when the order is dat > acc, viz. (26a), only one scope obtains, corresponding to linear order. By contrast, (26b) with acc > dat order is scopally ambiguous. Therefore, it is (26b) which shows a non-basic order in this instance, i.e. the acc > dat order is not basic.

(26)  

a. weil diese schwere Krankheit fast jedem Patienten mindestens  
   since this grave disease almost every patient dat at least  
   eine Abwehrmöglichkeit entzog  
   one defence acc deprived  
   ‘for almost every patient, this grave illness deprived them of at least one chance of recovery’  

∀ > ∃
b. weil diese schwere Krankheit mindestens eine Abwehrmöglichkeit
   since this grave disease at least one defence
   fast jedem Patienten entzog
   deprived
   ‘for at least one chance of recovery, this grave illness deprived almost ev-
   ery patient of it’  $\exists > \forall$
   ‘for almost every patient, this grave illness deprived them of at least one
   chance of recovery’  $\forall > \exists$

2.1.4 Entziehen as ‘withdraw’
The ‘withdraw’ reading of entziehen is the least specialised and it is thus more difficult
to show when a ‘withdraw’ reading is forced. However, in certain contexts, the ‘deprive’
reading is implausible. The prediction is that in such contexts, it is the $\text{ACC} > \text{DAT}$
order that is unmarked. In the context of (27), expressing support for Nazi desertsers
(based on an attested example), under reasonable world knowledge, the dative object
the criminal regime cannot have been “deprived”. The $\text{DAT} > \text{ACC}$ order in (27b) is
considered marked and, importantly, seems more marked than in neutral contexts
such as (18). We conjecture that $\text{ACC} > \text{DAT}$ is preferred since the context forces a
‘withdraw’ reading. Similarly, the context of (28), an animal lover criticising a keeper
who mistreated an animal and then sought to hide this from the public (based on an
attested example), entails that the only plausible interpretation is ‘withdraw.’

(27) a. Es hat der Deserter seine Unterstützung dem verbrecherischen
   it has the deserter his support the criminal
   Regime entzogen.
   regime withdrawn
   ‘The deserter withdrew his support from the criminal regime.’
   b.m#Es hat der Deserter dem verbrecherischen Regime
   it has the deserter the criminal regime
   seine Unterstützung entzogen.
   his support deprived
   #’The deserter deprived the criminal regime of his support.’

(28) a. Es hat die Beschuldigte das Tier der öffentlichen Beobachtung
   It has the accused the animal the public view
   entzogen.
   withdrawn
   ‘The accused withdrew the animal from public view.’
   b.m#Es hat die Beschuldigte der öffentlichen Beobachtung das Tier
   it has the accused the public view the animal
   entzogen.
   deprived
   #’The accused deprived the public of the animal.’
These data are particularly relevant because examples purportedly showing animacy to be the crucial factor in alignment of objects are examples that force a ‘withdraw’ reading. The example employed by Vogel and Steinbach (1998:70), Müller (1999:786) and Heck (2000) is (29). The markedness of (29b) is, however, not conditioned by animacy, but by the interpretation forced by the lexical environment, i.e. it is implausible to ‘deprive’ someone of a bad influence.

(29) a. Es hat ein Mann ein Kind einem schlechten Einfluss entzogen.
   it has a man_{nom} a child_{acc} a bad influence_{dat} withdrawn
   ‘A man has withdrawn a child from the bad influence.’

   b. *Es hat ein Mann einem schlechten Einfluss ein Kind entzogen.
      It has a man_{nom} a bad influence_{dat} a child_{acc} deprive
      *‘A man has deprived a child of a bad influence.’

2.1.5 Tests for Basic Order
In (30), with its ‘withdraw’ reading (note, informants knew the context), focus projection is only possible in (30a) with ACC > DAT order. Stress on the accusative in (30b) permits only narrow focus. Thus, (30) shows the unmarked order to be ACC > DAT. The scope facts in (31) substantiate this. While (31a) permits only one scope, (31b) with DAT > ACC allows both linear and inverse scope.

(30) a. weil die Beschuldigte das Tier der öffentlichen Beobachtung entzog
   since the accused the animal_{acc} the public view_{dat} withdrew

   b. weil die Beschuldigte der öffentlichen Beobachtung das Tier entzog
      since the accused the public view_{dat} the animal_{acc} deprived

(31) a. weil die Tierhalterin mindestens ein Tier
   since the keeper at least one animal_{acc}
   fast jeder Gesundheitsüberprüfung entzog
   almost every healthcheck_{dat} withdrew
   ‘since for at least one animal, the keeper withdrew it from almost every healthcheck’ ∃ > ∀

   b. weil die Tierhalterin fast jeder Gesundheitsüberprüfung
      since the keeper almost every healthcheck_{dat}
      mindestens ein Tier entzog
      at least one animal_{acc} withdrew
      ‘since for almost every healthcheck, the keeper withdrew at least one animal from it’ ∀ > ∃
      ‘since for at least one animal, the keeper withdrew it from almost every healthcheck’ ∃ > ∀
The findings of this section are summarised below:

(32) Summary of the results of the tests for the “forced readings” of *entziehen*

<table>
<thead>
<tr>
<th>Focus Projection</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entziehen</em>¹ ‘deprive’</td>
<td><em>DAT &gt; ACC ✓</em></td>
</tr>
<tr>
<td></td>
<td><em>ACC &gt; DAT ×</em></td>
</tr>
<tr>
<td></td>
<td>→ unmarked order is <em>DAT &gt; ACC</em></td>
</tr>
</tbody>
</table>

| *entziehen*² ‘withdraw’ | *DAT > ACC ×*      | *DAT > ACC ambiguous* |
|                       | *ACC > DAT ✓*      | *ACC > DAT surface only* |
|                       | → unmarked order is *ACC > DAT* |

2.2. Zuführen ‘deliver’ and ‘supply’

To keep the discussion to a reasonable length, the above claims are reinforced just by considering *zuführen*, a verb also assigned to group (3). Despite having been classed as an *ACC > DAT* verb, we claim that in certain lexical contexts *zuführen* favours a *DAT > ACC* linearization, and this correlates with interpretation.

The verb *zuführen* was translated by Haider (1992) as ‘bring to’, but there is a further reading that corresponds to ‘supply with’.¹⁷ Whereas the ‘bring’ (or ‘deliver’) reading denotes a bringing of a theme to a location, the ‘supply with’ reading which we identify denotes the equipping of a beneficiary with a theme. The parallel with the difference in conceptual structure of the two readings of *entziehen* discussed above should be evident. We argue that *zuführen* may surface with differing word orders corresponding to the two readings, whereby the *ACC > DAT* order corresponds to the ‘bring/deliver to’ reading, and the *DAT > ACC* order to ‘supply with’. In an example such as (33), both interpretations are possible and one word order is not more marked than the other, but by using lexical material favouring a particular reading, the interpretational distinction can be made clearer, and preferences for certain word orders become evident, as we see next.

(33) a. *Es hat die Regierung den Strom der Firma zugeführt.*
   *‘The government delivered the electricity to the firm.’*

   b. *Es hat die Regierung der Firma den Strom zugeführt.*
   *‘The government supplied the firm with electricity.’*

2.2.1 *Zuführen as ‘supply with’*

The ‘supply with’ reading of *zuführen* is favoured by the lexical material in (34). It is clear that *subsidies* are not usually ‘brought/delivered’, and the word order correlating to the ‘bring/deliver to’ reading, *ACC > DAT*, is marked *vis-à-vis* the word order that correlates with the ‘supply with’ reading, i.e. (34b).
The datives that aren’t born equal

(34) a. m# Es hat die Regierung die EU-Unterstützungsfonds
   it has the government the EC-subsidiesACC
dem Unternehmen zugeführt.
   the companyDAT delivered
#’The government delivered the EC-subsidies to the firm.’
b. Es hat die Regierung dem Unternehmen
   it has the government the companyDAT
die EU-Unterstützungsfonds zugeführt.
   the EC-subsidiesACC supplied.
   ‘The government supplied the firm with the EC-subsidies.’

Now consider an example involving objects that are not of equal animacy. The unmarkedness of (35b) cannot be attributed to animacy: (35b) with DAT > ACC actually violates the proposed animacy constraint (because inanimate Firma precedes animate Arbeitskräfte) yet it is less marked than (35a). Rather, we argue, (35a) is marked because the ‘deliver’ reading is incongruous in this lexical context. Again, a group (3) verb can be shown, in relevant contexts, to disfavour ACC > DAT order.

(35) a. m# Es hat die Regierung die besten Arbeitskräfte der Firma zugeführt.
   it has the government the best workersACC the firmDAT delivered
   #’The government delivered the best workers to the firm.’
b. Es hat die Regierung der Firma die besten Arbeitskräfte zugeführt.
   it has the government the firmDAT the best workersACC supplied
   ‘The government supplied the firm with the best workers.’

2.2.2 Tests for Basic Order

Both the focus projection and the scope ambiguity test support our proposal concerning zuführen. With the ‘supply with’ reading in (36), the order that allows focus projection is DAT > ACC, i.e. (36b). Thus, it is the DAT > ACC order in (36b) that is unmarked.

(36) a. Es hat die Regierung die EU-Unterstützungsfonds
   it has the government the EC-subsidiesACC
dem Unternehmen zugeführt.
   the companyDAT supplied
   ‘The government delivered the EC-subsidies to the firm.’
b. Es hat die Regierung dem Unternehmen
   it has the government the companyDAT
die EU-Unterstützungsfonds zugeführt.
   the EC-subsidiesACC supplied
   ‘The government supplied the firm with the EC-subsidies.’

The facts concerning scope ambiguity further support this. In the DAT > ACC order, i.e. (37b), we have a scope ambiguity that is absent in (37a):
(37) a. *Es hat die Regierung mindestens einem Unternehmen fast jeden EU-Unterstützungsfonds zugeführt.*

'It has the government at least one company supplied almost every EU-subsidy.

'At least one firm is such that the government provided it with almost every EU-subsidy.'

b. *Es hat die Regierung fast jeden EU-Unterstützungsfonds mindestens einem Unternehmen zugeführt.*

'It has the government almost every EU-subsidy supplied at least one company.

'Almost every firm is such that the government provided it with at least one EU-subsidy'

'At least one firm is such that the government provided it with almost every EU-subsidy'

What is striking in this context is that the order that is felt to be less marked by informants and shown to be less marked on the basis of these tests is the order that was originally claimed to be marked with this verb. Thus, although *zuführen* was classed by Haider (1992) as having *acc > dat* as its unmarked order, this clearly cannot always be the case.

(38) Summary of the results of the tests for the ‘supply with’ reading of *zuführen*

<table>
<thead>
<tr>
<th>Focus Projection</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>zuführen</em> ‘supply with’</td>
<td><em>dat &gt; acc</em> ✓</td>
</tr>
<tr>
<td><em>acc &gt; dat</em> ×</td>
<td><em>acc &gt; dat</em> ambiguous</td>
</tr>
<tr>
<td></td>
<td>→ unmarked order is <em>dat &gt; acc</em></td>
</tr>
</tbody>
</table>

Neither Haider (1992), nor the later studies, exemplify their claim for *zuführen*’s allegedly preferred *acc > dat* order, and it is not quite accurate to say that the *acc > dat* order correlates with ‘bring x to y’. Rather, the ‘bringing concept’ is more abstract, as the examples in (39) with (here, preferred) *acc > dat* order suggest.  

(39) a. *Er hat den Verbrecher der gerechten Strafe zugeführt.*

‘He has the criminal the fitting punishment brought.

‘He has submitted the criminal to the fitting punishment.’

b. *Sie haben die sortierten Verpackungen der Verwertung zugeführt.*

‘They have the sorted packaging the recycling brought.

‘They have submitted the sorted packaging to recycling.’

A full analysis of ditransitives in German (even of just those lacking a *pp*-alternation) is beyond the scope of this paper. Recall, our aim is to explore whether or not closer examination sheds any light on the issue of why dative objects of ditransitives surface in two different positions. It has been shown that some of the verbs in Haider’s group (3) that have, in the literature, been singled out as not being correctly placed there, actually have two variants. One of these variants has a meaning that does prefer *acc >*
DAT order and, in that meaning, it is a verb of group (3). What has gone unnoticed is that, in another meaning, it is not a group (3) verb, and it is this other meaning that has often been used in examples intended to disprove Haider’s original classification.

2.3 Some non-alternating verbs: Aussetzen ‘expose’ and unterziehen ‘subject’

The thematic alternation does not obtain for all of the verbs assigned to group (3). In contrast to the verbs discussed above, aussetzen ‘expose to sth’ and unterziehen ‘subject to sth’ do not have variable orders and have only one interpretation (this is probably also the case for unterwerfen ‘subjugate’ too). In Section 3, it will be shown that the dative argument of these verbs has the GF OBLIQUE (cf. Payne & Cook 2000; Cook 2001). Haider (1992) was thus correct in identifying that such a group exists; although, as should have become clear, the group must be carefully defined to accommodate just one reading of the alternating verbs. Accounts arguing that there is no basis for the distinction between ACC > DAT and DAT > ACC verbs, e.g. those seeking to reduce the distinction to an animacy effect, are too extreme in denying the existence of ACC > DAT verbs altogether.

Little need be said about these ‘non-alternating’ ditransitives, as they are correctly placed in (3). However, under the animacy accounts, these verbs are highly problematic. Vogel and Steinbach (1998) predict both orders to be unmarked under equal/matching animacy of the two objects. Müller (1999) predicts that under equal animacy, the DAT > ACC order is preferred (although he is aware that these cases are problematic). In either case, the judgements for DAT > ACC order are rather severe for aussetzen and unterziehen: Even in cases where animacy is equal – it always yields very severe markedness.

Thus far, it has been established that some verbs previously thought to allow only the ACC > DAT order as basic in fact have two basic orders, each of which correlates with a different conceptual structure. In particular, the ‘high’ datives in the examples considered here have the thematic role of beneficiary or maleficiary (in the following, any comments pertaining to beneficiary also apply to maleficiary), whereas the verb-close or ‘low’ datives have a location/goal argument. This clearly brings us closer to understanding why different datives occupy different positions in German, but it is not yet an explanation. In Section 3, the theory of Lexical Mapping employed within Lexical Functional Grammar is applied to these data and it emerges that the two different dative positions actually house different GFs. Beforehand, some important novel data concerning the distribution of the kriegen-passive with respect to the observations made above are introduced.

2.4 Distribution of kriegen-passive with respect to interpretation

It was pointed out in Section 1.2.1 that if the inherent/structural distinction is rejected as the basis for accounting for the two different dative positions, an alternative account of the kriegen-passive must be forthcoming. In Section 4, we offer an alterna-
tive account, but first of all some new empirical observations that any analysis of the 
\textit{kriegen}-passive must be able to model are presented. These new observations have only 
become possible as a result of our fine-grained approach to the conceptual structures 
of the group (3) verbs. The observation is this: for those group (3) verbs that alternate 
two different conceptual structures, only one of the two interpretations is compatible 
with the \textit{kriegen}-passive. The \textit{kriegen}-passive is available only in the reading in which 
the dative object bears a beneficiary/maleficiary role.

Considering first the abstract ‘bring’ reading of \textit{zuführen} that was shown to have \textit{acc} \textless \textit{dat} base order, it is clear that this prohibits \textit{kriegen}-passive, see (40a, b) which 
are the (ungrammatical) \textit{kriegen}-passive variants of the active examples in (39). By 
contrast, the ‘supply with’ reading of \textit{zuführen} does permit the \textit{kriegen}-passive, as 
can be seen in (41). Note that it cannot simply be a constraint requiring the nominative 
subject to be animate that renders (40) ungrammatical since the nominative arguments in (41) are also inanimate, cf. also (16).

\begin{enumerate}
\item (40) a. *\textit{Die gerechte Strafe} \textit{kriegt \ the criminal} \textit{zugeführt.} 
\textit{the fitting punishment} \textit{som} \textit{gets brought}

\item b. *\textit{Die Verwertung} \textit{kriegt \ die sortierten Verpackungen} \textit{zugeführt.} 
\textit{the recycling} \textit{som} \textit{gets the sorted packaging brought}
\end{enumerate}

\begin{enumerate}
\item (41) a. \textit{Die Firma} \textit{kriegt stets die besten Arbeitskräfte \textit{supplied}} 
\textit{the firm} \textit{som} \textit{gets always the best workers} \textit{acc (by the agency)} \textit{zugeführt.} 
\textit{the firm} \textit{supplied}
\textit{The firm always gets supplied (with) the best workers (by the agency).'}

\item b. \textit{Das Unternehmen} \textit{kriegt die EU-Unterstützungsfonds} 
\textit{the company} \textit{som} \textit{gets the EU subsidies} \textit{(by the government)} \textit{zugeführt.} 
\textit{supplied}
\textit{The company gets supplied (with) the EU-subsidies (by the government).'}
\end{enumerate}

The picture is exactly the same when \textit{entziehen} ‘withdraw/deprive’ is considered. When 
the ‘withdraw’ reading is forced, the argument corresponding to the dative in an active 
sentence cannot function as the subject of the \textit{kriegen}-passive. Recall, the ‘withdraw’ 
reading involves removing a theme from a location. Examples (42a) and (42b) are the 
(ungrammatical) \textit{kriegen}-passive variants of (29a) and (30a) which were shown earlier 
to allow only the ‘withdraw’ reading (due to the lexical content of those particular 
examples). By contrast, when a ‘deprive’ reading is forced or at least strongly favoured 
(again due to choice of lexical material), as was the case in (20a) above, the \textit{kriegen}- 
passive is possible, as can be seen in (43) below. That the availability of the \textit{kriegen}-

\begin{enumerate}
\item (42) a. *\textit{Die gerechte Strafe} \textit{kriegt den Verbrecher} \textit{zugeführt.} 
\textit{the fitting punishment} \textit{som} \textit{gets the criminal brought}

\item b. *\textit{Die Verwertung} \textit{kriegt die sortierten Verpackungen} \textit{zugeführt.} 
\textit{the recycling} \textit{som} \textit{gets the sorted packaging brought}
\end{enumerate}

\begin{enumerate}
\item (43) a. \textit{Die Firma} \textit{kriegt die besten Arbeitskräfte} \textit{supplied} 
\textit{the firm} \textit{som} \textit{gets the best workers} \textit{acc (by the agency)} \textit{zugeführt.} 
\textit{supplied}
\textit{The firm gets supplied (with) the best workers (by the agency).'}

\item b. \textit{Das Unternehmen} \textit{kriegt die EU-Unterstützungsfonds} 
\textit{the company} \textit{som} \textit{gets the EU subsidies} \textit{(by the government)} \textit{zugeführt.} 
\textit{supplied}
\textit{The company gets supplied (with) the EU-subsidies (by the govern-
ment).'}
\end{enumerate}

The availability of the \textit{kriegen}-passive is due to the presence of a beneficiary in the argument structure will be a crucial 
component of the final analysis presented in Section 4.20.
(42) a. *Die öffentliche Beobachtung kriegt das Tier entzogen.
   the public view_{nom} gets the animal withdrawn
b. *Der schlechte Einfluss kriegt das Kind entzogen.
   the bad influence_{nom} gets the child withdrawn

(43) Die Krankenhäuser kriegen die Förderung (durch den Gesundheitspolitiker)
the hospitals_{nom} get the funding by the health minister
   entzogen.
   withdrawn
'The hospitals get deprived of their funding (by the health minister).'

Exactly the same situation holds for the ‘strip of’ and ‘extract from’ readings of entziehen. It was shown earlier that the ‘strip of’ reading involves an affected dative object that precedes the accusative. Meinunger’s (2000) example, (22a) above, is the active variant of (44a) below, and the kriegen-construction is fully grammatical here (cf. also Fanselow 2000:183 n. 7, and our Note 7). But recall, given the lexical material in that particular example, we showed Meinunger’s example to involve the ‘strip of’ (maleficiary) reading and hence a ‘high’ dative. What is interesting here is that an example lexically favouring the non-maleficiary ‘extract’ reading, e.g. the “jungle dwellers” context of (23b), does not allow the kriegen-passive, viz. (44b); or if it does, it demands a re-interpretation such that it must be understood to involve purification of trees (‘strip’), rather than extraction of (required) poison:

(44) a. Das Wasser kriegt die Giftstoffe entzogen.
   the water_{nom} gets the poisons withdrawn
   ‘The water gets stripped of the poisons.’
b. ?Das Baumharz kriegt das Pfeilgift entzogen.
   the tree resin_{nom} gets the arrow poison withdrawn
   ‘The tree resin gets stripped of the poison for arrows.’
   [only ok under re-interpretation to ‘strip’]

To the best of our knowledge, it has thus far gone unnoticed that the availability of the kriegen-passive with group (3) verbs varies according to conceptual/thematic structure. The distribution of the kriegen-passive with respect to interpretation is summarised here:

(45) Distribution of kriegen-passive with respect to conceptual structure

\[
\begin{array}{c|c|c}
\text{kriegen-passive} & \text{semantic roles} \\ 
\hline
\text{aussetzen} 'expose', \text{unterziehen} 'subject' & \times & \text{patient, goal} \\ 
\text{zuführen} 'submit to' & \times & \text{theme, loc} \\ 
\text{zuführen} 'supply with' & \checkmark & \text{ben, theme} \\ 
\text{entziehen} 'withdraw/extract from' & \times & \text{theme, loc} \\ 
\text{entziehen} 'deprive/strip of' & \checkmark & \text{ben, theme} \\
\end{array}
\]

Cursory consideration of the availability of the kriegen-passive with varying lexical material with other ditransitives shows that their behaviour is consistent with our
Philippa Cook

proposal. For instance (46b) is an attested example of kriegen-passive with the verb entnehmen ‘remove’. This contrasts with Wegener’s (1985:133) example in (46a). It is clear that (46b), but not (46a), permits a maleficiary reading for the nominative argument, and that the difference in grammaticality between (46a) and (46b) is thus commensurate with our claim.

(46) a. *Das Buch bekam ein Zitat entnommen.
    the book got a quotation removed

    b. Wenn der arme Mensch die inneren Organen entnommen
       when the poor person the internal organs removed
           bekommt …
       gets
       ‘When the poor person gets their internal organs removed…’

In the next section, we turn to the consequences that the different conceptual structures proposed here have for GFS, and for word order in German.

3. Lexical mapping from conceptual structure to grammatical functions

The pairs of interpretations identified in Section 2 correspond to alternative semantic structures; i.e. different thematic roles.21 This thematic alternation has ramifications for the grammatical functions (GFS) of the two readings since, in LF’s Lexical Mapping Theory (LMT) – which maps argument structure (i.e. thematic roles) to GFS in a principled way – differing thematic structures (can) map to different constellations of GFS. Thus, the assumption of two distinct lexical entries, each corresponding to one conceptual structure, is motivated for the alternating verbs.

3.1 The Dative Alternation and secondary object in English

Before showing the mapping from conceptual structure to GFS for the German data, a summary of Lexical Mapping Theory (LMT) is provided, using the English Dative Alternation in (47) as an example. Although non-LFG accounts assume that the GF of the argument instantiated by a woman is indirect object in both the PP and the double object constructions, in LFG, indirect object is not assumed. Instead, following the typological literature, LFG assumes a restricted (or secondary) object, abbreviated OBJ, as a distinct GF.22 The standard analysis is that in the PP construction (47a), the theme a book instantiates the GF primary object (OBJ), and the PP that of oblique (OBL). In the double object construction, (47b), the GF of the theme argument (a book) is secondary object, and the beneficiary is the primary object (OBJ). This is not a random assignment but falls out from LMT in a way to be made clear below.

(47) a. A man gave [a book]OBJ [to a woman]OBL. (PP construction)
    b. A man gave [a woman]OBJ [a book]OBJ. (double object construction)
In LMT, the grammatical functions are decomposed according to the features restricted \([r]\) and objective \([o]\), grouping the four \(gf\)s into natural classes. These features constrain the way semantic roles are mapped onto \(gf\)s, and in fact reflect cross-linguistically observable tendencies. For instance, \([-r]\) (unrestricted) refers to \(gf\)s that are not restricted in terms of the semantic roles they instantiate (\(subj, obj\)). The functions \(obj_0\) and \(obl_0\) are restricted to certain semantic roles (hence the ‘theta’ subscript), and are thus \([+r]\) functions. The feature \([-o]\) refers to non-objective \(gf\)s (\(subj, obl\)). Assuming negative values to be unmarked, a partial ordering obtains with \(obj [-r, -o] \) the least marked function and secondary object/\(obj_0[+r, +o]\) the most marked function.

(48) decomposition of grammatical functions and the partial ordering

\[-r \quad +r\] subj is least marked and \(obj_0\) is most marked giving a
\[-o \quad subj \quad obl_0\] partial ordering of grammatical functions: \(subj > obj_0\),
\[+o \quad obj \quad obl_0\] \(obl_0 > obj_0\)

Argument Structure (a-structure) is an interface between the semantics and the syntax of predicates. In LFG, a-structure exists as a distinct level and is not identified with an initial syntactic structure from which transformations derive the final syntactic structure. As sketched in (49), the role of the Lexical Mapping Theory is to constrain the mapping from the lexical semantics (or conceptual structure) of a predicate to its a-structure, an ordered list of the predicate’s arguments, which in turn is mapped to a list of the predicate’s \(gf\)s, i.e. its final syntactic structure.

(49) lexical semantics ↓ Lexico-semantic projection
a-structure ↓ Lexico-syntactic projection
final syntactic structure (i.e. grammatical functions)

The underlying lexical semantics of thematic roles determines the intrinsic assignment of the features \([+/r]\) or \([+/o]\) to roles, i.e. the initial mapping between lexical semantics and a-structure. The intrinsic assignments, based on cross-linguistic observations, capture generalisations such as the fact that patientlike roles map to \(subj\) or \(obj\), but agents and locations alternate between non-object functions.

(50) Intrinsic assignment of features according to thematic role (Bresnan 2001:309)
(i) theme/patientlike roles \([-r]\)
(ii) secondary patientlike roles \([+o]\)
(iii) other semantic roles (e.g. agent, locative, goal) \([-o]\)

On the basis of the intrinsic feature assignments, we derive an a-structure for a predicate. The predicate’s arguments are ordered left-to-right in the a-structure according to the thematic hierarchy in (51) (cf. Bresnan 2001; Dalrymple 2001). For instance, the predicate \(buy\), whose lexical semantics has an agent and a theme argument, has an a-structure \(buy <[-o] [-r]>\).
(51) hierarchy of thematic roles
agent > beneficiary > experiencer/goal/recipient > instrument > patient/
theme > location

The arguments listed in the a-structure, as given for buy above, must then be mapped
to grammatical functions. This is handled by default mapping principles and is con-
strained by the well-formedness conditions in (52). The default principles apply af-
after morpholexical operations (e.g. passive, applied benefactive) and before lexical
insertion.23

(52) default mapping principles (cf. Bresnan 2001:311)
(i) The most prominent role classified \([-o]\) is mapped to subj if initial in the
a-structure
(ii) If such a role is unavailable, a non-agentive unrestricted role (a \([-r]\) role)
is mapped to subj
(iii) Other roles are mapped to the lowest role in the partial ordering with
which they are compatible

The intrinsic and default assignments are further constrained by the well-formedness
conditions in (53).24

(53) (i) monotonicity constraint: Function specifications must preserve informa-
tion: they can only add features, not delete or change them
(ii) subject condition: Every (verbal) lexical form must have a subject
(iii) function-argument bi-uniqueness: Every expressed lexical role must be
associated with a unique function, and conversely

To exemplify the mapping of conceptual structure to gfs, we return to the English
Dative Alternation. The lexical semantics of the pp variant of give involves an agent,
a goal and a theme (gave a book\textsubscript{theme} to \textsubscript{him\textsubscript{goal}}) as illustrated in (54). The a-structure
is intrinsically \([-o][-o][-r]\) in keeping with (50). After the default mapping prin-
ciples, the gfs to which the roles map are subj, obl\textsubscript{goal}, obj, cf. (48).25 The intrinsic
\([-r]\) argument (theme) is underspecified (i.e. potentially subj or obj), but must map
to obj by the well-formedness conditions.

(54) Lexical mapping for give \(<[-o][-o][-r]\) \hspace{1cm} (PP Construction)
\begin{align*}
\text{agent} & \quad \text{goal} & \quad \text{theme} \\
- & - & -r & \quad \text{intrinsic assignment} \\
-r & +r & \quad \text{default mapping principles} \\
\text{subj} & \quad \text{obl}_{\text{goal}} & \quad \text{obj} & \quad \text{well-formedness conditions}
\end{align*}

If passive applies (after intrinsic but before default assignments), the thematically
highest argument (the agent) is suppressed and the intrinsically \([-r]\) role, namely the
theme, maps to subj yielding e.g. a book was given to him.
The lexical semantics of the give predicate in the double object construction have an agent, a beneficiary and a theme (gave him beneficiary the book theme). Potentially there are two arguments intrinsically assigned [-r]; namely theme and beneficiary since beneficiary is a patientlike role (see Bresnan 2001:315; Falk 2001:112). However, since it is an asymmetric object language, English does not allow two [-r] arguments to be intrinsically assigned to a-structures.26 To avoid illicit a-structures, asymmetric languages make available a “secondary” linking option for one of the arguments – in the intrinsic assignments of (50) above this was referred to as secondary patientlike. Such roles receive the intrinsic assignment [+o]. In existing LFG work, the role which is treated as secondary in English is the lower of the two on the thematic hierarchy; and thus the function OBJ is said to be restricted to theme in English. The intrinsic a-structure is therefore <[-o][-r][+o]>. Given the default mapping principles, the agent maps to subj and the theme to secondary object/OBJ, with the beneficiary mapping to primary object (given bi-uniqueness).

(55) Lexical mapping for give <[-o][-r][+o]> (double object Construction)

agent beneficiary theme
-o -r +o intrinsic assignment (theme is secondary patientlike in English)
-r +r default mapping principles

subj/obj subj obj obj theme well-formedness conditions

With respect to English word order, if follows from this analysis that the immediately post-verbal argument in English is always obj irrespective of whether it is a beneficiary as in (55) or a theme as in (54).27 This analysis captures the passivisation facts, at least for dialects in which promotion of only the beneficiary is possible. If the highest role (agent) is suppressed, it is the intrinsically [-r] argument (beneficiary) that maps to subj, yielding e.g. he was given the book and correctly ruling out *the book was given him.

3.2 Lexical Mapping for the German data

3.2.1 Verbs with alternate conceptual structures and alternate word orders
The ‘deprive’ reading of entziehen (where dat > acc is the unmarked order) involves an agent, a maleficiary and a theme. In the ‘withdraw’ reading, on the other hand, there is an agent, a theme and a locative (or goal). Let us consider the ‘withdraw’ reading first. The intrinsic a-structure is <[-o][-r][-o]>, cf. the principles in (50). After the default mapping principles, the theme maps to obj and the locative to oblloc.
Lexical mapping for entziehen ‘withdraw’ $\langle[-o][-r][-o]\rangle$

<table>
<thead>
<tr>
<th>agent</th>
<th>theme</th>
<th>location</th>
</tr>
</thead>
<tbody>
<tr>
<td>$-o$</td>
<td>$-r$</td>
<td>$-o$</td>
</tr>
</tbody>
</table>

Intrinsic assignment

| $-r$  | $+r$  | Default mapping principles |

An account of werden passivisation falls out naturally: if the highest role (agent) is suppressed, then, after the intrinsic assignments and given the well-formedness conditions, the $[-r]$ argument maps to subj, and it is indeed the theme argument which may function as subject of a werden-passive, viz. Das Buch wurde dem Jungen entzogen ‘The book was withdrawn from the boy’. It also falls out straightforwardly that the oblique loc argument (the dative) cannot function as the subject of worden passivisation. Discussion of German word order facts, and of why the locative argument bears dative case, is reserved until Section 3.3 below.

Differences emerge when the ‘deprive’ reading is considered. As in the English double object construction in (55), there are two potential $[-r]$ roles since, in addition to theme, the argument structure involves a maleficiary which is, recall, a patientlike role. As the empirical discussion showed, this beneficiary/maleficiary is affected, i.e. it has Dowtyian (1991) proto-patient properties. We thus have two roles that, according to (50), could qualify for $[-r]$ assignment. However, the way in which asymmetric languages deal with this situation is a parameter of variation. Unlike English, where (according to the standardly assumed analysis) it is the thematically lower of the two potentially $[-r]$ roles that has the secondary patientlike assignment $+[o]$, we propose that in German, the role treated as secondary patientlike is the beneficiary/maleficiary (cf. Lødrup 1995). We must leave it open for future research whether German always selects the thematically higher of the two arguments to be secondary object. There is strong evidence from German ‘free’ datives supporting our assumption that the beneficiary object is secondary object, but space prevents further discussion of this. It can, however, be noted that, in contrast to applied benefactives in English (cf. Bresnan 2001:316), applied benefactives in German may not surface as the subject of a passive. Traditionally this is assumed to be because they bear dative case, but in our analysis this is because they bear an intrinsic assignment, namely $+[o]$, that makes them incompatible with the subj function, as will be shown shortly. The fact that German and English differ in this way is not unexpected since which roles count as secondary patientlike is a parameter of variation; Bresnan (2001:321), Falk (2001:114). In summary, then, the mapping to grammatical functions of the ‘deprive’ reading of entziehen, whose intrinsic a-structure is $\langle[-o][+o][-r]\rangle$, involves an object and a secondary object as in (57):
The datives that aren't born equal

(57) Lexical mapping for *entziehen* 'deprive' &lt;[-o] [+o] [-r]&gt;  

agent maleficiary theme  
-o +o -r intrinsic assignment  
-r +r default mapping principles  

In the *werden*-passive, after suppression of the highest role (the agent), the role which is compatible with subject would be, in either mapping of *entziehen*, the theme. In either reading, then, the primary object is the argument that may become subject of a passive, and this is an expected result in an asymmetric language. Thus the fact that, in either reading of *entziehen*, the argument that is marked with dative case cannot function as the subject of a *werden*-passive is straightforwardly accounted for without the postulation of case absorption or prohibitions on it, and without stipulating a distinction between structural and inherent case.

The other verbs of group (3) which were also argued to be subject to a thematic alternation follow the same patterns of lexical mapping as *entziehen*. From the discussion of these verbs, it is clear that in one reading, the conceptual structure involves a beneficiary (cf. supply y with x, hand y x), and a theme object. In the other reading, the accusative object is the theme and the dative a locative (or goal). The fact that the two readings of these verbs differ in the *gf* selected, as was shown in (56) and (57), motivates positing two distinct lexical entries for the alternating verbs.

3.2.2 Non-alternating ACC &gt; DAT verbs

We turn now to two of the verbs from (3) which do not have any thematic alternation, *unterziehen* 'subject' and *aussetzen* 'expose'. Fanselow (2000:182) states that these verbs have an "inverted thematic structure" such that the accusative argument bears the thematic role of experiencer/goal and the (verb-close) dative argument is the theme. This is surely not correct. Firstly, the role of the accusative object is patient-like (it is the participant that undergoes the effect of the actions, cf. Bresnan 2001:11). More importantly, the dative argument is clearly not a theme, since theme (like patient) is typically the thing/person that is affected by the action or that undergoes a change of state. For instance, if someone or something is subjected to cold or to an exam, the cold/exam is definitely not affected. We therefore confer with Haider (1993:109–110) that the dative argument of e.g. *aussetzen* bears the thematic role of goal (though it does not affect the mapping if this were locative), and the accusative that of theme.

Ordering the arguments left-to-right according to the thematic hierarchy (not word order), these are thus 'agent, goal, patient/theme' verbs. The agent and the goal are intrinsically assigned [–o], and the theme/patient is assigned [–r], following intrinsic mapping principle (50i) above.
In particular, given this underlying conceptual structure, verbs of this type have an argument with the function OBlique. Before commenting on the unmarked word order of such verbs, let it be pointed out that this analysis permits a straightforward account of werden passivisation. After suppression of the agent (highest role), the remaining [-r] role compatible with subject is the patient, and this may function as the subject of a werden-passive (viz. Der Junge wurde der Kälte ausgesetzt 'The boy was exposed to the cold'). Promotion of the OBlique goal argument to subject is correctly ruled out (*Die Kälte wurde den Jungen ausgesetzt) without recourse to restrictions based on case-absorption or other stipulations. Why the goal argument bears dative case will be addressed in the next section.

3.3 Word order: Why two dative positions?

Recall that our aim at the outset was to investigate:

i. why the dative object of ditransitives is realised in different positions
ii. whether there are any shared properties allowing us to propose a generalisation over both types of datives, i.e. to say what it is that dative actually marks in German

In the following two subsections, after summarising the status of case in a theory such as Lexical Functional Grammar (LFG), answers to both of these questions are provided.

3.3.1 Case and word order in LFG

In LFG, case is not assigned to particular structural positions and there is no movement for purposes of licensing or checking. Case-marked forms are generated in the lexicon and lexical entries encode information about case features. Case marking is one of several means that languages can employ for identification of GFS (dependent marking). Alternatively, languages may use head marking (agreement morphology on the verb), a mix of head- and dependent marking (as Berman 2003 suggests for German,) or, as in the case of English, GFS may be identified by configurational position. For a rigid word order language like English, it is unproblematic to associate phrase-structure positions with specific GFS. Similarly unproblematic is the fact that languages clearly differ in this respect since in LFG phrase-structure is assumed to vary across languages. Cross-linguistically invariant information, e.g. predicate-argument relations, is represented at f-structure, whereas phrase structure (constituency, precedence etc.) is represented at c-structure. The levels of representation, c-structure and f-structure, exist in parallel and there is an algorithm mapping the levels.
For any sentence, an LFG analysis includes both a c-structure tree and an f-structure, the latter represented as an attribute-value matrix. The c-structure contains annotations constraining the mapping between c- and f-structure. This correspondence between the c-structure and f-structure is mediated via a projection function in which up and down arrows (↑, ↓) located at c-structure nodes refer to the f-structure that corresponds to the c-structure node to which the arrow is pointing. The ↑ arrow refers to the f-structure of the mother node and the ↓ arrow refers to the f-structure of the current node itself. C-structure rules for (the expansion of) IP or VP in English include information (annotations) about GFs, identifying certain structural positions with a particular GF. For instance, (59a) licenses the annotating of the c-structure node SpecIP (in English) with (↑ subj) = ↓ which states that the functional information of that node, SpecIP, is in the subj value of the mother node’s f-structure. Clearly, such configurational identification of GFs is not suitable for a language with free word order such as German (at least, not in a theory without movement such as LFG).

In German, a dependent marking language, case marking can identify the GF of an argument irrespective of its configurational position. Thus, annotations such as those in (59b) may be employed. These are conditional schemata which test for the presence of the given case feature in the f-structure corresponding to the c-structure node to which they are attached. Any NP inflected for case carries with it an annotation as part of its lexical entry. For instance, an accusative NP or DET will come from the lexicon with an annotation (↑ case) = ACC (informally: the case value of my mother node is accusative). This annotation is at a terminal node in the tree, where lexical items stand, though it may in principle percolate up. Now, assume that the language in question uses accusative case to identify the GF primary object (as we may assume German does). If, say, the first schema of (59b) is annotated to the c-structure node dominating the accusative case marked lexical item we just described, the annotation checks for the presence of accusative case at that node. If the left part of the conditional equation (↓ case) = ACC is satisfied (i.e. if the node ↓ does contain accusative), then the right part (↑ obj) = ↓ holds, i.e. the functional information of that node is in the obj value of the mother node’s f-structure. See Bresnan (2001:111) for more detail.

(59) a. English: configurational GF identification
   IP → NP  i'
   (↑ subj) = ↓  ↑=↓
   VP → V  NP
   (↑ obj) = ↓

   b. German: morphological GF identification
   (↓ case) = ACC ⇒ (↑ obj) = ↓
   (↓ case) = NOM ⇒ (↑ subj) = ↓

Thus, case is not tied to position in languages which identify GFs via morphology. From this brief overview, we see that different GFs in German could, potentially, appear in any c-structure position in which arguments occur. This freedom is required to accommodate pragmatically motivated variation. However, there is an unmarked order
of arguments which can be identified, and an aim of this paper is to establish a possible explanation for why dative objects of ditransitives may surface in two different c-structure positions.

3.3.2 Word order and the gf hierarchy – consequences of our analysis
What are the consequences of our analysis for word order in German? Consider the findings concerning a verb such as entziehen ‘withdraw/deprive’. In the ‘withdraw’ reading, viz. (56), the unmarked order is ACC > DAT and the dative argument has the grammatical function OBL. By contrast, in the ‘deprive’ reading, viz. (57), the unmarked order is DAT > ACC and the dative argument is a secondary object, OBJmal. In answer to the two questions above, we propose that:

(60) (i) In German, dative case marks the grammatical functions OBJθ and OBLIQUE.
(ii) Unmarked word order follows the hierarchy of grammatical functions, namely: subj >> OBJθ >> OBJ >> OBL

The combined effect of (60i) and (60ii) is that we now know why dative in German can occupy two different structural positions, and we now know what dative in German marks.

This approach has various advantages over existing ones. First, the generalisation in (60i) does not require postulation of different ‘kinds’ of case. Rather, it falls out as a consequence of an independently motivated theory of lexical mapping. A second advantage is that stipulation of an animacy constraint is not required. The word order generalisation in (60ii) could easily be construed as a linear precedence (or f-precedence) constraint which obviates the need to specify an additional constraint pertaining to animacy. Rather, the effect of animacy on argument ordering falls out as a tendency that is a natural consequence of the thematic role based approach.

The behaviour of scope gives strong support for the hierarchy in (60ii) if we follow Payne and Cook’s (2000) proposal that the relative scope of two operators in the German middlefield can (informally) be read off in two ways; namely from linear precedence or from the gf hierarchy. An operator may take scope over another if (i) it precedes it linearly (f-precedes it) or (ii) it bears a higher gf. When both options are simultaneously available (when a lower gf linearly precedes a higher one in the middlefield), scope ambiguity arises since the two options each yield a different outcome. Evidently, this approach captures the generalisation encompassed by Frey’s Scope Principle without recourse to movement. Furthermore, it offers a straightforward account of the differences in scope ambiguity that we observed for the two readings of, for instance, entziehen. In the ‘deprive’ reading, in which the dative bears the function of OBJθ, the gf of the dative is higher than that of the primary (accusative) OBJ, whereas in the ‘withdraw’ reading, in which the dative bears the gf OBL(ique), the gf of the dative is lower than that of the primary OBJ.31

Our analysis has empirical but also conceptual advantages over covert pp approaches such as Meinunger (2000) or McFadden (2004). In falls out straightfor-
wardly that oblique datives occupy the same position as PPs in constructions involving PP arguments simply because these two types of elements bear the same GF, namely obl(ique), despite their difference in syntactic category. Both Meinunger and McFadden seek to account for the low dative position by linking semantic similarities between low datives and PPs to a structural parallelism, although there is little evidence for the presence of the additional structure they propose. Our account is structurally more economical since there is no need to assume covert structures/incorporation to account for this positional identity. The semantic similarity is captured in terms of thematic role, and thus GF alone. Furthermore, word order can be defined purely by reference to GF and need not make ad hoc reference to category just to accommodate low datives. On an empirical level, although McFadden (2004:116) claims that his analysis accounts for the same range of facts as our analysis, he does not identify the two readings we discuss. Moreover, Meinunger’s and McFadden’s structure-based distinction between the two ‘kinds’ of dative has nothing to say about the distribution of the kriegen-passive, whereas, in Section 4 below, we show that our analysis dovetails perfectly with an argument-composition account of this construction.

A further positive outcome of our analysis is that, by showing that the verb-distal datives are secondary objects, when stating linearization constraints we do not find ourselves in the position of requiring two obliqueness orderings for subject vs. non-subject functions, which is required in some other analyses. Choi (1999), for instance, formulates optimality-theoretic alignment constraints on unmarked order referring to GFs. She requires three constraints just to constrain unmarked ordering. The need to assume two of these is due to the fact that Choi assumes the obliqueness hierarchy to be subj >> obj >> oblθ (as is assumed for English, see Note 30). The relative ordering between accusative objects (for Choi, obj) and dative objects (for Choi, oblθ) is the reverse of the hierarchy that holds for the ordering of subject vis-à-vis the non-subject functions. The conceptual query is: if alignment is an issue of obliqueness, why does it function in reverse for subject vs. non-subjects? The same holds for Müller’s (1999) approach relying (partially) on alignment according to case rather than GFs. His two constraints nom and dative have to encode the same obliqueness reversal, though expressed in terms of case. Moreover, Choi’s account also has nothing to say about the positioning of PPs (as she concedes 1999:61, Note 3) and she does not mention the verbs in (3) at all.

Given the role of case in LF, and the fact that phrase-structure (ordering, constituency) is expected to vary cross-linguistically, it is possible to formulate alignment or linear precedence constraints for the unmarked order over a flat middlefield in German simply by reference to GF alone. One could employ the notion of f-precedence or an OT alignment constraint such as that proposed in Cook (2001) and Payne and Cook (2000), which merely requires arguments in the middlefield to align in parallel with the GF hierarchy. This can, in turn, be interleaved with constraints pertaining to information-structure. To what extent this analysis can be extended to cover other case-frames (e.g. psych verbs, monotransitive verbs taking a sole dative object), is left
open for future research. It may, of course, emerge that such verbs still require lexical stipulation of case requirements.34

4. The kriegen-passive revisited

We are now in a position to return to the issue of the kriegen-passive which, recall, was an argument used in favour of the assumption (which we reject) that high datives in German bear structural case whereas low datives bear inherent case. Since our analysis draws on an existing treatment of Norwegian få 'get', we first discuss that analysis before adding some modifications, and extending the analysis to cover the German kriegen-passive.

4.1 Norwegian få and predicate composition

Norwegian få 'get' bears similarities with German kriegen (erhalten/bekommen). Lødrup (1996) distinguishes an active and a non-active få, either of which could be involved in the ambiguous (61). With active få, the subject is agent of 'repair' (Per manages to bring it about that he repairs the car), whereas the subject of non-active få is a beneficiary (someone repairs the car to the (dis)advantage of Per). Lødrup focuses on the non-active reading.

(61) Per fikk reparert bil-en.
    Per got repaired car-the
    'Per got the car repaired.' (active or non-active)

The kriegen-passive also has an agentive and a non-agentive reading. Fanselow (1987:158) terms the former the 'achievement' reading, cf. (62). Such examples were also discussed by Haider (1984), where he argued against a passive analysis of the kriegen-construction; here due to the fact that a dative argument (underlined) 'remains' dative and thus cannot have to be 'absorbed'. We will not pursue an analysis of the active kriegen construction here, which is presumably best analysed as a control (arbitrary or mixed) construction.

    we get our candidate,ACC PART the party,DAT into.the parliament elected
    'We’ll manage to get our candidate elected to parliament for the party.'

b. […] kriegen wir sein Pferd doch noch dem Tierarzt vorgeführt.
    got we his horse,ACC PART still the vet,DAT shown
    ‘… we still managed to get his horse shown to the vet.’
Lødrup shows that non-active *få* assigns a thematic role to its subject, i.e. it is not an auxiliary, and analyses it as a light verb that forms a complex predicate by argument fusion. He adopts Alsina and Joshi’s (1993) theory of causatives in which causative predicates in some languages have a three-place argument structure, taking a theme argument that is semantically identified with an argument of the embedded predicate. This semantic identification means that one argument realises the role of both theme of the causative as well as realising an argument of the embedded predicate. Which argument of the embedded predicate it is (logical subject or object) is a parameter of variation. The application of this proposal to Norwegian is sketched in (63). The argument structure of (non-active) *få* in (63a) involves a beneficiary, a theme, and a third argument that will be identified with the theme of the embedded predicate; a requirement that is indicated by co-indexing. Non-active *få* fuses its argument structure with that of the (passive) participle in (63b) yielding a complex predicate *få reparert* ‘get repaired’ in (63c). The agent of *reparert* is unlinked (does not have to map to syntax) since the predicate is passive, but it can be realised as an ‘agent phrase’. The theme argument of *få* and that of *reparert* are simultaneously realized by one argument, as shown by co-indexing in (63c).

(63) a. *få*  
   < beneficiary, theme, >

b. *reparert*  
   < agent, theme >

c. *få*-reparert  
   < beneficiary, theme, < agent, theme, >>

This analysis accounts for the fact that non-active *få* can only govern a transitive *vp* complement (unlike active *få* which can take an intransitive). It also accounts for the fact that experiencer verbs are prohibited in the non-active *få* construction. Non-active *få* is not an auxiliary, but the predicate governed by non-active *få* is, however, passive.

4.2 Kriegen et al. and predicate composition

We can modify this analysis to apply to the German *kriegen*-passive. The a-structure of the main verb *kriegen* (our comments concerning *kriegen* also apply to *erhalten* and *bekommen*) involves a beneficiary and a theme. The beneficiary does not bear protopatient properties (it is not affected) and thus it is intrinsically assigned [–o] and maps to *subj*.35

(64) a. Der Mann *kriegt* ein Geschenk.
   the man gets a present

b. *kriegen*<sub>main</sub> beneficiary theme
   –o –r intrinsic assignments
   –r default mapping principles
   subj/obj well-formedness

Moving now to the argument-fusing variant of *kriegen*, which we treat as a light verb (henceforth *kriegen*<sub>lite</sub>), there are some differences between *få* and the German *kriegen*—
passive. Like non-active få, the a-structure of kriegen\textsuperscript{lit}
includes the information that it must fuse with that of another verb. Kriegen\textsuperscript{lit}
must, however, undergo a fusion of both its beneficiary and theme arguments with an embedded predicate, i.e. both of these roles are co-indexed with arguments of the embedded predicate, as in (65a). Fusion thus only occurs when the embedded predicate also has a <beneficiary, theme> argument structure (recall, maleficiary and beneficiary are treated throughout as the same role). There will be one argument which simultaneously realises the beneficiary argument of kriegen\textsuperscript{lit} and the beneficiary argument of the embedded predicate, and one argument which simultaneously realises the theme argument of kriegen\textsuperscript{lit} and the theme argument of the embedded predicate. The kriegen-passive is not a morpholexical passivisation operation but, rather, obtains its passive nature by virtue of the fact that the embedded predicate is a passivised verb form (passive is a lexical rule in LFG, so passive verb forms are available in the lexicon). For expository ease, in (65b) we indicate that geschenkt is a passive verb form by writing agent/Ø, i.e. the agent is suppressed but may surface as a von/durch ‘by’ phrase.

\begin{itemize}
  \item[(65) a. ] kriegen\textsuperscript{lit} < beneficiary i, theme y i, y >
  \item[(b. ] geschenkt < agent/Ø, beneficiary, theme >
  \item[(b. ] geschenkt-kriegen < beneficiary i, theme y, <agent/Ø, beneficiary, theme, y >
\end{itemize}

The argument structure of the complex predicate geschenkt kriegen in (65c) is <agent/Ø, beneficiary, theme >. Although there is an agent role in the a-structure, because the predicate with which kriegen\textsuperscript{lit} fuses must have a “full match” with the argument structure of kriegen\textsuperscript{lit}, this can only be an agent which is ‘suppressed’ and which is thereby unlinked, i.e. in this analysis it falls out as an automatic consequence that the embedded predicate must be a passive verb form, whereas this appears to be stipulated in Lødrup (1996).

The main difference between the German and the Norwegian constructions is that Lødrup argues that only the theme argument of få is linked, whereas we argue for German that both a beneficiary (or maleficiary) and a theme must be linked. This “full-match” requirement is relevant when we consider the availability of the kriegen-passive with monotransitive verbs embedded. (65) above involves a ditransitive verb schenken ‘give as a gift’ which has a selected beneficiary argument; but what happens if a monotransitive verb such as reparieren ‘repair’ or waschen ‘wash’ is the embedded predicate of kriegen\textsuperscript{lit}? As mentioned earlier, German has an independent applied benefactive construction, an argument introducing operation applying at a-structure, namely that found with ‘free’ (in)commodifiedatives. Thus, <agent, theme> verbs such as reparieren ‘repair’ or waschen ‘wash’ is the embedded predicate of kriegen\textsuperscript{lit}? Under passivisation, such a predicate will therefore be able to provide exactly the kind of argument structure that kriegen\textsuperscript{lit} (or its alternants erhalten/bekommen) requires.

One might ask why it is that the beneficiary argument of the complex predicate maps to subject after argument fusion. To put this another way: why do we appear to have ‘conversion’ of a dative case to nominative? Recall that the beneficiary argument of kriegen\textsuperscript{lit} itself is not an affected beneficiary, i.e. it does not bear proto-patient prop-
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erties, and is therefore intrinsically assigned [–o] as an ‘other’ role. The beneficiary argument of the embedded predicate in the kriegen construction must, however, be an affected proto-patient beneficiary, and it is thus treated as secondary patientlike and intrinsically assigned [+o]. The question is: how is such a mismatch resolved under argument-fusion? In Alsina’s (1996) theory of argument fusion, when two arguments are co-indexed in a relation of argument fusion, the argument of the light/embedding verb is said to ‘bind’ the co-indexed argument of the embedded verb. This ‘bound’ argument does not map to syntax. Since, in the case of kriegenlite, both the theme and the beneficiary arguments of the embedded predicate are ‘bound’, neither the beneficiary nor the theme of the embedded verb maps to syntax; it is the arguments of kriegenlite that map to syntax. In particular, the [+o] beneficiary argument of the embedded predicate, e.g. geschenkt/ repariert etc., and not the [–o] beneficiary argument of kriegenlite is a bound argument and does not map to syntax. Hence in the a-structure of the resulting complex predicate in (66b), the beneficiary is [–o], and the theme [–r]. Given the principles of Lexical Mapping Theory outlined in Section 3, the beneficiary argument bears the features [–o, –r] after default assignments and is thus mapped to the subj function.

(66) a. kriegenlite
   <beneficiary, theme γ <iγ>> + geschenkt <ag/O, beneficiary, theme>
   ¬o       ¬r
   ¬o  +o_bound  ¬r_bound

b. geschenkt-kriegen
   <beneficiary, theme, <agent, . . . i, . . . γ>>
   ¬o       ¬r

The dative does not ‘convert’ to nominative, rather this argument must bear the subj function and nominative is the case in which subjects are realised in German. (Recall, German identifies gfs (partly) by dependent marking, cf. (59b)).

Concerning the discussion in Section 2.4 of the distribution of the kriegen-passive with respect to conceptual structure, cf. (45), our analysis immediately accounts for why only the ditransitives that have a beneficiary argument can license the kriegen-passive. In particular, of the alternating verbs, we showed that only the reading that includes a beneficiary argument can license the kriegen construction, viz. (41) and (43). The non-alternating ditransitives, and the variant of the alternating verbs that has a locative argument, do not satisfy the fusion requirements of kriegenlite and thus cannot occur in the kriegen-passive, viz. (40) and (42). It is also clear why, generally, an accusative object (theme) is required; a fact for which e.g. Reis (1985:147) admits she has no account. Under our analysis, this is a direct consequence of the demands made by kriegenlite, i.e. there must be an embedded theme. In turn, this analysis provides further support for the argument made earlier that the role of restricted object (i.e. o8θ) in German is (possibly amongst others) beneficiary. Finally, the fact that kriegen-passive is only possible in constructions where the active variant would involve an agentive subject (see Note 20) falls out from the requirement that the verb with which kriegenlite undergoes argument composition must be a passive verb form. The
so-called (in)commodi datives have been argued to have argument status in German (e.g. Wegener 1991), and these datives bear the role of beneficiary/maleficiary, so it is also consistent with our analysis that these 'free' dative arguments can occur in the kriegen-passive.37

A tentative comment is in order on the possibility for kriegen-passive to apply to other monotransitive dative verbs. In particular, although not accepted by all speakers, certain monotransitive dative verbs can occur with the kriegen-passive, as in (67a). (67b) lists others claimed to permit the kriegen-passive.

(67) a. \textit{Er kriegt geholfen.}
    \begin{itemize}
        \item he gets helped
    \end{itemize}

    b. \textit{helfen 'help', danken 'thank', gratulieren 'congratulate', kondolieren 'console', applaudieren 'applaud'}

Do these verbs satisfy the requirements imposed by kriegen\textsubscript{lit}? It is plausible that they might. Firstly, unlike some other monotransitive dative predicates, these verbs do have an agentive subject, and do permit the impersonal passive, cf. McFadden (2004), so a passivised verb form must exist, whatever analysis one adopts for impersonal passive. While helfen 'help' certainly has a beneficiary object, it is plausible that some of these other listed verbs do too. Finally, it is plausible that they could have an implicit theme object (the thing for which someone is congratulated etc.). Speculative though this may be, it is certainly striking that other monotransitive dative frames which cannot license the kriegen-passive either do not have an agentive subject (the gefallen 'please', gehören 'belong' type) and do not allow an impersonal passive, or they cannot have a beneficiary argument (the folgen 'follow', nachlaufen 'pursue' type).

It must be mentioned that some similar accounts have already been proposed for the kriegen-passive. Abraham's (1995) account also relies on what he terms “argument agreement” between the subject of kriegen and the subject of the embedded predicate; where the subject may be beneficiary or maleficiary. However, Abraham (1995:316) constrains the embedded predicate to being the adjectival participle of a terminative verb, rather than assuming a full argument structure match as we do. Haider's analysis (1986)38 is more similar to our argument fusion approach: the light verb kriegen must fuse argument structure with a verb with a matching argument structure. Instead of an indexing mechanism, Haider (1986:23) describes the θ-structure of kriegen as latent. He claims, like us, that only dative objects that have the same thematic role as the subject of kriegen can function as the subject of the kriegen-passive. There are some problems with the details of Haider's account. Since Haider (1986) assumes kriegen to have a goal subject, the thematic role required for a dative object to be able to permit argument composition is goal. Under Haider's (1986) analysis, it is thus unclear how kriegen-passive is to be ruled out for verbs such as aussetzen 'expose'. Later, Haider (1993:110) rules out kriegen-passive for aussetzen by saying the (dative) goal is incompatible with the subject of kriegen which is, in contrast to Haider (1986), now a possessor. The refinements in Haider (1993) correctly rule out kriegen-passive with verbs like aussetzen but require that the embedded predicate have a dative argument.
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that is a possessor. How this modified analysis could account for constructions involving free datives is unclear, (cf. Das Kind kriegt die Seife aus den Augen gewaschen ‘The child gets soap washed out of its eyes’ – an applied benefactive analysis of Kind ‘child’ seems preferable here). A reviewer draws to our attention that Haider (2001) modifies his account such that kriegen requires an experiencer and a theme with which to merge, thus ruling out the kriegen-passive with non-alternating verbs such as aussetzen which, he claims, have an experiencer-goal structure. Still, since he is not using a lexical theory of passive, he must use mechanisms blocking nominative case assignment which are not required in the analysis we propose here.

Under the hypotheses that we defend, namely (i) that the subject role of kriegen is a beneficiary, (ii) that the dative arguments that function as nominative subjects of the kriegen-passive are precisely those that bear the beneficiary/maleficiary role, and (iii) that verbs such as entziehen ‘withdraw/deprive’ in one of their readings have a beneficiary/maleficiary role, in contrast to those such as aussetzen which are never beneficiaries, an argument composition analysis can account for the licensing of this construction.39

5. Concluding remarks

In this paper, we provide an explanation for the fact that some dative objects of ditransitives occupy a verb-distal ‘high’ position whereas others occupy a verb-close ‘low’ position in the unmarked order found in discourse-neutral contexts. The analysis provided a lexico-semantically motivated basis for distinguishing two dative positions for ditransitives. In doing so, it also explains why there has been disagreement in the literature about which verbs really do have a ‘low’ dative, and indeed about whether or not this group actually exists. The assumption (which we refute) that an extra animacy constraint is required turns out to be a side-effect of the fact that beneficiary/maleficiary arguments are frequently animate, and locations/goals are frequently inanimate, although neither must always be. Furthermore, the proposed analysis explains why only certain dative arguments can be the subject of a kriegen-passive and shows how those that may become subjects of the kriegen-passive actually do so. The results of our closer examination of the conceptual structures of a small group of ditransitives, which reveals that the grs of the two ‘types’ of datives differ, are summarised here:

(68)  kriegen-semantic roles grammatical passive functions

| aussetzen ‘expose’ | unterziehen ‘subject’ | ✓ | PATIENT, GOAL OBJ OBL |
| zuführen ‘submit to’ | ✓ | THEME, LOC OBJ OBL |
| zuführen ‘supply with’ | ✓ | BEN, THEME OBJ OBJ |
| entziehen ‘withdraw/extract from’ | ✓ | THEME, LOC OBJ OBL |
| entziehen ‘deprive/strip of’ | ✓ | BEN, THEME OBJ OBJ |

[39]
A welcome side-effect of this analysis is naturally that it has been shown that the unmarked order of arguments of ditransitives within the German middlefield can be simply captured in terms of a linear precedence constraint referring to grammatical function alone. Extra constraints pertaining to concepts such as animacy, or stipulating category-specific (i.e. PP) constraints and/or 'covert' syntactic structures are not required.

Notes

1. For insightful discussion and helpful comments thanks are due to Gisbert Fanselow, Werner Frey, Daniel Hole, Manfred Krifka, Ewald Lang, Helge Lødrup, John Payne, Kerstin Schwabe, Tom McFadden, Andrew McIntryre, André Meinunger, Stefan Müller, and the participants of the Workshop *Datives and similar cases* at the 2004 meeting of the DGfS in Mainz, as well as the Potsdam Syntax Colloquium. Any errors are of course my own.

2. To minimise effects of scrambling, information-structurally neutral examples are used. Pronominal linearization is not considered. In examples prefaced with m, informants judge the example marked relative to the alternative in the given context. If markedness is so extreme to cause the example to be rejected, we assign m*. Relative markedness arising from semantic incongruities is annotated ms.

3. Haider and Rosengren (2003:217) add *unterordnen* 'subordinate' and *widmen* 'devote'. Other verbs assigned to the group in (3) are: *vorziehen* 'prefer' (Czepluch 1988:280), *entgegensetzen* 'oppose', *vorausschicken* 'to send ahead' (McFadden 2004:139), also *vorschlagen* 'introduce', *angleichen* 'assimilate', *nachbilden* 'copy', *nachempfinden* 'adapt', *anlagern* 'adjoin' (Meinunger 2000:58).

4. There is dispute as to whether *geben* 'give' has DAT > ACC as the unmarked order, e.g. Meinunger (2000), Müller (1999), von Stechow and Sternefeld (1988), or whether both orders are equally unmarked, e.g. Haider (1992), Höhle (1982), Reis (1987). See Meinunger (this volume) for further discussion.

5. Frey (1993) proposes a Scope Principle whereby an operator may scope over an element it c-commands or over a trace it c-commands (inverse scope). For an alternative (non-derivational) proposal, see Section 3.3.2.

6. Although it is disputed whether or not this is a true passive construction (cf. Haider 1984, 1986; Reis 1985; Wegener 1985; Fanselow 1987), this term is used merely for simplicity throughout. The analysis in Section 4 will shed more light on whether or not this should be considered a passive construction.

7. Fanselow (2000:183, n. 7) is aware of such data and removes *entziehen* from group (3), thereby 'predicting' kriegen-passive to be available. He claims that the apparent unmarkedness of ACC > DAT with *entziehen* (i.e. what has led researchers to "mistakenly" class it as a group (3) verb) is merely an animacy effect. In Section 2, we see that the animacy account is not fine-grained enough and in Section 4, we show that kriegen-passive is not always available for *entziehen* – a fact that our account predicts, but for which Fanselow has no explanation.

8. (16a) is from S. Müller (2002:134) who attributes it to Leirbukt via Askedal (1984:23). (16b) is due to Eroms (1978:385), who also mentions several further examples with inanimate subjects.
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9. The *pp* analysis is in itself not new, and has more recently been resurrected by McFadden (2004:114).

10. Although maybe it was diachronically, *viz.* and (Gothic), *int* (OHG) cf. Stiebels (1996:111).

11. Fanselow (2000) is a mixed analysis since he does argue for a distinction between the ditransitives with *dat > acc* unmarked order and those with *acc > dat*. However, he also proposes an animacy constraint.

12. The observation that *entziehen ‘withdraw/deprive’* has two different conceptual structures has been made independently in Haider and Rosengren (2003:219). They do not elaborate further on the consequences of this observation for the description of unmarked word order in German, nor for the distribution of the *kriegen*-passive.

13. I.e. whenever there is a dative involved since datives are free to be inserted in any position.

14. Müller (1999) argues for a uniform D-structure order of direct before indirect object, i.e. *acc > dat*; motivated by binding facts which will not be addressed here. He employs a sub-hierarchy of constraints relating to scrambling, violation of which results in markedness. He places his *dat* constraint within this sub-hierarchy which (when animacy/definiteness match) means that an *acc > dat* structure is more marked than a *dat > acc* one.

15. H. Wegener and M. Krifka point out (p.c.) that certain nouns denoting organisations or bodies could be interpreted as animate since one thinks of the people belonging to such an establishment. The point being made here is *not* that animacy is irrelevant (it clearly determines proto-properties of certain thematic roles). Rather, the point is that stating an independent ‘animacy’ constraint is not the correct way to formalise things.


17. English *supply* has a thematic alternation instantiated by two different *pp* constructions (cf. Channon 1982; Dryer 1986:830); ‘supply x to y’ and ‘supply y with x’. The former is close to ‘bring’; cf. also award, present.

18. The abstract reading is described as bleached by Duden (1999:4658). This is the meaning which favours *acc > dat* (and is presumably the one Haider had in mind). While (39a) seems to be a light verb combination, the other examples have an air of ‘officialese’ about them. The reading we term ‘supply with’ corresponds to one reading listed in the Duden (1999:4658) under ‘zuleiten’, which clearly favours *dat > acc*.

19. For *ausliefern* we speculate that it patterns like the English ‘hand x y’ and ‘hand (over) y to x’ alternation. In the former, the x argument is benefitted by the handing over of the theme y, whereas in the second interpretation, it is a verb of neutral transfer of a theme to a location/goal. The distinction between the two interpretations is less obvious for *ausliefern* than for the verbs discussed above. This is perhaps why this verb is often found with a separate *pp* argument (*lieferen ihn an die Staaten aus ‘handed him over to the US’*). See Bresnan and Nikitina (2003) and Krifka (2004) on the variable availability of the English Dative Alternation that may well be relevant here. Essentially, a distinction that might be made for other verbs by alternating a double-object and a *pp* construction is made via word order for these verbs (presumably since they lack a *pp*-construction).

20. Note the *kriegen*-passive occurs only with a demoted/suppressed subject that is agentive, and thus any forced ‘deprive’ readings which involved a non-agentive subject, e.g. (19a, b), will prohibit the *kriegen*-passive on independent grounds. In the analysis in Section 4, it becomes evident why this is so.
21. In LFG, thematic roles are not primitives but there are differences in what is seen to be their source; either the proto-role classification of Dowty (1991), or the Conceptual Semantics framework of Jackendoff (1990).

22. The evidence for a distinction in terms of primary and secondary object has its origins in typological studies, cf. Dryer (1986), Faltyń (1978), Michaelis and Haspelmath (2003). However, the issue of which argument is ‘secondary’ is handled differently in LFG than in the typological literature where normally the primary object is the single object of a monotransitive verb and the (notional) indirect object of a ditransitive construction.

23. LFG adheres to the principle of Direct Syntactic Encoding (no syntactic operation can replace one function by another). Passive is a lexical operation. Argument structure may be altered by morpho-lexical operations but the intrinsic classifications, which apply prior, cannot be changed. Passive, for instance, suppresses the highest theta role but may only suppress syntactically unmarked roles, i.e. those that lack positive-valued features.

24. Note that the two \text{gfs} that are subscripted with a semantic restriction, \text{obj}_\theta and \text{obl}_\theta, can be multiply instantiated without violating function-argument bi-uniqueness iff they instantiate different semantic roles (e.g. \text{obl}_\text{goal} vs. \text{obl}_\text{loc}).

25. We adopt Dalrymple’s (2001:206) representation, cf. Bresnan and Kanerva (1989), in assigning \([-r]\) to the highest role and \([+r]\) elsewhere, monotonicity permitting. This yields the same outcome as (52) but is visually simpler.

26. The distinction between symmetric and asymmetric languages is a parameter of variation (cf. Bresnan & Moshi 1990:172). Asymmetric languages only allow passivisation of one of the object arguments of a ditransitive, whereas in symmetric languages both objects can be the subject of a passive.

27. Thus, the immediately post-verbal function in both the pp- and the double object construction is \text{obj} in English. This may be appropriate for English since, being configurational, it identifies \text{gfs} by phrase-structure positions, although see Hudson (1992) for arguments against this ‘standard’ analysis.

28. For example, the fact that, of the free datives that are argued to be syntactic arguments (cf. Wegener 1991), (in)commodity datives are beneficiarylike (though pertinence datives are more affected possessorlike). The relevant evidence, then, is that these argumental extra-datives occur only in the presence of an accusative object, which we claim is the case that identifies primary object in German. This is consistent with our analysis since secondary objects can generally occur only in the presence of primary objects. Implicit (i.e. semantically selected) primary objects must perhaps be included here. Thus, a kind of applied benefactive rule is independently required in German in order to introduce these ‘free’ datives, which are very suitable candidates for secondary objecthood. This analysis straightforwardly rules out co-occurrence of beneficiary/maleficiary ‘free’ datives in argument structures already involving a selected beneficiary/maleficiary argument since \text{obl}_{\text{sen/mal}} cannot be instantiated twice with a single predicate; this would violate bi-uniqueness. Thus, the ungrammaticality of simultaneous occurrence of a selected maleficiary with a verb such as \text{stehlen} ‘steal’ and an applied beneficiary is explained (as for example, in ‘Er steht ihn seiner Nachbarn\text{mal} ein Auto ‘he robs for his wife off his neighbour a car’). Wegener (1991:74), in contrast to us, treats what we call the selected maleficiary of a verb such as ‘steal’ as a source and she must thus seek an explanation for this co-occurrence prohibition elsewhere. Her explanation is that accusative and dative are both structural cases, and thus can only be assigned at most once per predicate. This suggestion leaves unclear the issue of why precisely the same kind of effect obtains in e.g. English, as
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Maling (2001:431) points out. If it turns out after further research that other thematic roles (e.g. possessor, experiencer) can also instantiate secondary object in German, then multiple instantiation of secondary object bearing different thematically-restricting subscripts (e.g. an objben/mal co-occurring with an objexp) would be predicted to be possible. lfg does not prohibit multiple occurrence of the same case; rather it prohibits multiple instantiation of an identical grammatical function. Vogel and Steinbach (1998:77) claim that multiple free datives are able to occur and, if this is indeed the case, this is not problematic in our account because multiple instantiations of objθ or oblθ do not violate the Coherence Condition since they are individuated by semantic role (cf. Bresnan & Kanerva 1989:25; Bresnan & Zaenen 1990:51). Vogel and Steinbach’s data are contested as either involving the ethical dative (which does not have argument status), or as being rejected by speakers. We cannot delve into this controversy here but whilst, we only discuss objben/mal, secondary object may well be open to more roles in German.

29. Other verbs which we have not investigated but which may well pattern in this way are preisgeben ‘abandon’, unterliegen ‘be subject to’ amongst others.

30. An alternative is to assume that objθ is situated below obj in the gf hierarchy, as is (usually) assumed for English, and that German marks the ‘special’ status of objθ by placing it in a distinct position (see Dryer 1986 for related comments). However, our choice to position objθ above obj in the hierarchy of gfs is motivated by data concerning scope and partial VP-topicalization. These are both sensitive to the gf-hierarchy (in lfg) but space does not allow discussion here, see the main text for a comment on scope and Cook (forthcoming) for more detail.

31. A similar HPSG approach to scope in German is taken by Kiss (2000) but in contrast to our analysis, he cannot handle the verbs in (3), as he concedes (p. 156, n. 14).

32. Although the most frequent form-function mapping of obl(iques) is to np’s, these obl(ique)s are np’s. One could perhaps employ a form restriction on the realisation of these oblique np’s in the lexical entry of this small number of verbs, but the possibility of np obliques is independently required for genitive objects in German anyway.

33. Phenomena that are assumed to motivate a hierarchical phrase-structure in derivational theories, e.g. binding and scope, are modelled without recourse to the notion of c-command/hierarchical structure in lfg.

34. In very early work on linking in lfg, it was proposed that, in German, lexically case-marked roles obligatorily map to objθ (Zaenen et al. 1985:479). This is stipulative and whilst we cannot dismiss the possibility that such a statement may be required for monotransitive dative frames, at least for ditransitives, it appears that such a stipulation is unnecessary. Concerning the monotransitive dative verbs, McFadden (2004) could be informative here; he argues that monotransitive datives are to be separated into two groups, one in which the dative behaves like the ‘high’ datives described here, and one in which it is like the ‘low’ datives.

35. Kriegen itself cannot be passivised in German (cf. *Das Buch wurde gekriegt ‘*The book was got’). We assume this is simply one of the many idiosyncratic restrictions on passivisation.

36. Operations such as applied benefactive apply at a-structure, after intrinsic assignments and before default assignments. This is a monotonic operation of argument introduction.

37. McFadden (2004:130) stresses that a free dative can be introduced even in the absence of an accusative object, as in er schlug ihm ins Gesicht ‘he hit him in the face’. However, it seems that this is only possible with relational nouns. Relational nouns are assumed to involve an extra semantic argument position which may be overtly bound, or accommodated from the context.
or from world knowledge, cf. Partee (1989). It is thus plausible that a secondary object can be introduced in the presence of a contextually bound implicit argument.


39. Although Wegener (1991:75) argues that Haider’s account is inadequate, the data she introduces as problematic are fully accommodated here since her examples involve subjects of the *kriegen*-passive which she herself classes as beneficiary (or maleficiary).

References


The datives that aren't born equal


The interpretation of German datives
and English *have*

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This study offers an overview of the main classes of German datives, arguing that most of them are interpreted in exactly the same way as subjects of English *have*, a result expressed by treating the datives as inherently case-marked specifiers of an applicative light verb which has the same underspecified meaning as *have*. The datives can relate semantically to either entities (DPs) or situations (VPs). A central new claim is that most datives relate to situations in the same way as subjects of so-called 'experiencer' *have*. Thus, the dative in *Mir fiel ein Stein auf eine Hand* ('Me dat fell a stone on a hand') is interpreted in the same way as *Ich hatte einen Stein in der Hand*. This analysis contrasts with possessor raising and other analyses treating all datives as being primarily possessors of entities. The analysis is extended to possessor datives, beneficiaries, recipients, maleficiaries, privative (source) datives, datives with particle verbs and datives interpreted as causers. I also briefly discuss some types of datives to which this type of analysis should not be extended, the most important of which is a type of dative which is structurally lower than theme arguments.

1. Introduction

This study\(^1\) assesses the hypothesis that German datives (with exceptions noted in Section 10) are interpreted in the same way as subjects of English *have*. Because it tests this claim on many different types of datives, this essay doubles as a descriptive overview of the most important semantic and syntactic classes of datives in German. Despite its focus on German, readers interested in dative/ditransitive and *have*-constructions will find a number of new suggestions worth testing in other languages.

We proceed as follows. Section 2 presents and briefly motivates some assumptions about the syntax of German datives. Most datives are licensed by an inherent-dative-assigning light verb which takes either DPs or (unaccusative) VPs as complement and is semantically equivalent to English *have*. Section 3 discusses the meaning of *have*. *Have*, *get*, *with* and *without* have a number of uses in common. These senses are seen
as manifestations of a single highly underspecified two-place relation between an entity and either an entity or a situation.

Sections 4–9 apply the analysis to various different types of datives. Section 4 analyses *geb* - ‘give’, noting that the *give-have* parallels extend beyond alienable possession. Section 5 discusses so-called possessor datives like (1a) and beneficiary/maleficiary datives. These datives are often possessors of a c-commanded DP. I argue that these datives relate semantically to events, not entities. The c-command requirement, when it does hold, as well as possessor variable binding and affectedness effects, are parallel to those observed with the so-called experiencer reading of *have* in the lower glosses in (1). Section 6 extends this type of analysis to privative (source) datives like (1b). Rather than treating source or NOT-HAVE relations as primitive, I suggest that all such datives relate to a situation as maleficiaries, a subcase of the affectedness relation which experiencer- *have* can express.

(1) a. *Ihm ist ein Hund gestorben.*
   *him*dat is [a dog]nom died
   ‘He had a dog die.’

   b. *Jemand hat mir das Auto geklaut.*
   *someone* has *me*dat the car stolen
   ‘I had someone steal my car.’

Section 7 examines datives with various ‘possessive’ verbs and in recipient constructions, with verbs such as *gehöhr* - ‘belong’ and *send* - ‘send’. The remaining sections deal with more challenging types of datives, including datives with particle verbs (Section 8) and datives interpreted as causers (Section 9). Section 10 notes some classes of datives not addressed here, notably a type of dative which is generated lower than theme arguments and is not introduced by a light verb corresponding to *have*.

2. Syntactic assumptions

(2) illustrates two syntactic structures (omitting clausal structure) I assume for datives. (Section 10 notes some dative classes for which (2) is not claimed to be correct.)

(2) a. *(weil) Anne ihm den Teller zerbrach*
   since *Anne* himdat [the plate]acc broke
   ‘since Anne broke his plate’
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Some arguments are introduced by meaningful light verbs (Pylkkänen 2002). $V_{\text{cause}}$ in (2) introduces a causer/agent. Datives are introduced by a head I call $V_{\text{dat}}$ (the applicative head of Anagnostopoulou 2002; Hole 2005; Lee-Schoenfeld 2006; McFadden 2003; Miyagawa & Tsujigka 2004; Pylkkänen 2002). $V_{\text{dat}}$ has the following properties:

1. $V_{\text{dat}}$ is not a semantically empty case-marking head, but assigns its specifier an interpretation parallel to that found with subjects of English have.
2. $V_{\text{dat}}$ can take a VP or a DP complement, depending on whether the dative relates semantically to an entity or an event. This idea is due to Pylkkänen (2002), but I later query her claim that the head always takes a DP complement in German and English.
3. I assume that German lacks a structural dative and that $V_{\text{dat}}$ assigns inherent dative to its specifier (cf. Anagnostopoulou 2002; Lee-Schoenfeld 2006). This means that there is no syntactic configuration where an argument generated in the spec-
ifier of V\textsubscript{dat} can receive a case other than dative. Thus, stripping (2a) of V\textsubscript{causeP} gives us the unaccusative structure in (3), where dative is preserved and, as expected of structural arguments, the accusative argument becomes nominative. Theories seeing dative as a structural linker for arguments of intermediate prominence (Molnárfi 1998; Stechow 1996:101–105; Wegener 1991; Wunderlich 1996, 2000) seem unable to explain this without incongruous stipulations.

(3) weil ihm der Teller zerbrach
   since him\textsubscript{dat} [the plate]\textsubscript{nom} broke

Some writers see 'alternations' like (4) as evidence that German has structural datives. (4b) is seen as a type of passive where bekomen or kriegen 'get' is an auxiliary allowing the promotion of the dative in (4a) (see Molnárfi 1998; Reis 1985; Wegener 1991; and the critiques in Cook this volume; Haider 1986 and Abraham 1995). I suggest that the paraphrase relation in (4) exists because bekomen is an inchoative of the same HAVE relation as that which is argued below to be the relation which datives have to an event. Proving this would require a separate study, but note that much of the appeal of the passive analysis of (4b) dissipates when we observe that English get, which parallels bekomen closely in other uses (McIntyre 2005), can translate the bekomen structure in (4b) literally, although English lacks a structure parallel to (4a) upon which the get-structure could be based: He confiscated (*me) my/the passport. I see no reason why (4b) should not be directly generated in the same way as its English counterpart with get.

   a policeman confiscated me\textsubscript{dat} [the passport]\textsubscript{acc}
   ‘I had a policeman confiscate my passport.’

b. Ich bekam den Pass (von einem Polizisten) entzogen.
   I got [the passport]\textsubscript{acc} (by a policeman) confiscated
   ‘I got/had my passport confiscated (by a policeman).’

3. The HAVE relation

I now introduce the HAVE relation, which I take to be what V\textsubscript{dat} expresses, and to be present in the meaning of have, get and with(out). Consider firstly the taxonomy below of different uses of HAVE. This draws on earlier literature on have (e.g. Belvin & den Dikken 1997; Benveniste 1966; Déchaine et al. 1994; den Dikken 1997; Freeze 1992; Harley 1998; McIntyre 2005; Ritter & Rosen 1997). To the examples with have I add examples with get (an inchoative of have), with and without, which have much the same array of uses.
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A. Nominal complement uses

A1. Alienable possession: the subject is in an alienable possession (ownership) relation to the object. The external argument must be animate, since inanimates cannot own things.

(5) a. Mary had/got books. *The shelf had/got books.
    b. a person with(out) books; *a shelf with(out) books

A2. Relational: The complement is an inalienable possession or any kind of relational nominal. The external argument need not be animate.

(6) a. The table had/got new legs. The group has/got new members.
    b. The book had/got {good reviews/a catalogue number}.
    c. a table with(out) new legs; a group with(out) new members; a book with(out) {good reviews/a catalogue number}

B. Uses with small clause complements expressing situations

B1. Locational: the complement is a location predication which contains an element coindexed with the external argument of have/get/with (which need not be animate).

(7) a. The wall had/got mud on it; The car had/got dents in its, fender.
    b. a wall, with(out) mud on it; a car, with(out) dents in its, fender

B2. Experiencer: the subject of have etc. is affected by the situation expressed as a small clause in the complement. (I use the term ‘experiencer have’ because it is common in the literature, although it is descriptively and theoretically inaccurate in my view.)

(8) a. He, had/got students walking out of his, lecture. John had/got his, camera {in the water/smashed}. He, had rocks at him/destroy his, car. [The car], had rocks fall(ing) on it,
    b. Lecturers, with(out) students walking out of their, lectures; someone, with their, camera {in the water/smashed}; [a car], with rocks falling on it

B3. Causative: the subject of have or get causes the situation in the complement to come about. (I have found no parallels with with(out).)

(9) a. The piano teacher had/got the student practising octaves.
    b. My boss had me check my work. My boss got me to check my work.

I wish to draw attention to the following points.

1. The complement of have/get/with(out) can be either an entity (as in the DP complement uses in A) or a situation (cf. the B uses with small clauses). I later argue that datives can also relate to either entities or situations.
2. The subject of *have* etc. can be inanimate in the relational and location uses in A2 and B1. We later see that datives and *have*-subjects may be inanimate under similar circumstances.

3. The literature on *have* observes that the locational and experiencer uses in B1 and B2 require that the subject of *have* be coindexed with a pronoun or variable somewhere in the complement (e.g. Belvin & den Dikken 1997; Déchaine et al. 1994; Harley 1998; McIntyre 2005; Ritter & Rosen 1997). After Belvin and den Dikken (1997) I call this the *link requirement*. If this requirement is not met, the experiencer readings like those in B2 become much harder to establish. Causative readings like those in B3 are not subject to the link requirement, and are thus the preferred reading if no anaphoric link is present. (10) illustrates. (10a) is possible if Egbert was not responsible for the location of the car, while (10b), where the link requirement is unfulfilled, strongly prefers the causative reading in which Egbert was responsible for the car's being on the driveway. Unlike earlier studies, I see this requirement as pragmatic, not grammatical, since an experiencer reading for *have* is possible in suitable contexts like (10c) which disobey the link requirement. We later note that the link requirement is in evidence with German datives (in the form of 'possessor raising' effects).

(10) a. Egbert has Gwendoline's car on *his* driveway.
   b. Egbert has Gwendoline's car on Cathbert's driveway.
   c. When the director got to Cathbert's house, where the film was to be shot, he was furious. The film crew were late, the main actor was stoned, and to add insult to injury, he had Gwendoline's car on Cathbert's driveway with the keys locked in it, although he'd wanted it on the street.

4. That the non-cognates *have*, *get* and *with(out)* should all include the uses in A and B1, B2 in their set of meanings cannot be accidental.2 The only way I see of capturing this is to assume that relational, alienable possession, location and experiencer uses of *have*, *get*, and *with(out)* (and most German datives, see below) stem from the same basic meaning.

I notate the basic element of meaning common to the uses of *have*, *get* and *with(out)* as a two-place function \( \text{HAVE}(x,y) \), where \( x \) corresponds to the syntactic external argument of *have* etc. and \( y \) to its DP or small clause complement. (11) is a suggestion for how \( \text{HAVE} \) integrates into structures with *have*, *with(out)* and *get*. (11) follows Harley's (1998, 2002) variant of the hypothesis that *have* structures result from incorporation of a preposition into a copula (e.g. Belvin & den Dikken 1997; Benveniste 1966; Déchaine et al. 1994; Freeze 1992). *With* is a direct spellout of this preposition. The ill-formedness of *the man is with the book* (despite *the man with the book*) follows if we assume that the head chain BE...*HAVE* is obligatorily spelt out with *have*. McIntyre (2005) defends the application of such ideas to *get*. 
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(11) a. *x has y:*
    \( = \text{BE}_{[SC \; x \; [PP \; \text{HAVE} \; [SC/DP \; y]]]} \)

b. *x gets y*
    \( = \text{BECOME}_{[SC \; x \; [PP \; \text{HAVE} \; [SC/DP \; y]]]} \)

c. *x...[pp without y]*
    \( = x...[\text{NEG}_{[PP \; \text{HAVE} \; [SC/DP \; y]]]} \)

d. *x...[pp with y] (in relevant sense)*
    \( = x...[PP \; \text{HAVE} \; [SC/DP \; y]] \)

A proposal for the interpretation of *HAVE(x,y)* is given in (12).³ (Recall that *x* corresponds to the external argument of *have/get/with(out) and *y* to its complement.)

(12) *HAVE(x,y)* asserts of *x* that it is in some relationship to *y*.

Like the work on *have* cited above, (12) assumes that there is an underspecified meaning covering all uses of *HAVE*. *HAVE* does no more than assert that *x* has something to do with or is somehow involved with *y*. *Fred has a book* thus asserts primitively not that he possesses it but that he is in some relation to it. Cultural knowledge tells us that ownership or temporary access is a likely relation between people and books. With the relational use in A2, the semantics of the complement nominal specifies its relationship to certain classes of entities, priming the interpretation for the *HAVE* relationship. If *y* is relational, *x* is obligatorily interpreted as satisfying the relational argument of *x* (cf. obligatory relational interpretations in compounds like *box lid*). Now consider the experiencer-*have* structure in (13a).

(13) a. *Egbert, had his, dog die.*
    b. *Egbert’s dog died.*

Assuming that arguments are indivisible with respect to their predicates (the Homogeneity Presupposition, Löbner 1990), (12) entails that if *HAVE* relates *x* to a situation, *x* will relate to the *whole* situation, so in (13a) Egbert relates to the dog’s death (not just the dog, as in (13b)). (13a) thus invites us to deduce some way in which Egbert could relate to the dog’s death. This is possible if the situation has consequences for Egbert, if it affects him somehow. Egbert cannot be affected by the dog’s death if he is unaware of it (for instance if the dog outlived him), and indeed (13a), unlike (13b) is not usable in this case. Thus, the maleficiary and beneficiary readings spoken of in the literature on experiencer *have* follow from (12). We will see similar affectedness effects with German datives in Section 5.2.⁴

Having explored some of the main properties of the *HAVE* relation, we are now in a position to assess its relevance to various classes of German datives.

4. *Geben ‘give’*

The idea that *give* in the double object construction is a causative of *have* (e.g. Beck & Johnson 2004; Harley 2002; Krifka 2004; Richards 2001) has more in its favour than the fact that *give* and *have* are both ‘possessive’ in their best-known uses. I now apply this to German *geb*: ‘give’, which I see as a spellout of \( \nu^{\text{dat}} \) incorporated into \( \nu^{\text{cause}} \), as in (2b), at least in ditransitive contexts.
Recall from Section 3 that if the complement of have/get/with(out) is a relational noun, the subject may be inanimate. This is precisely what we find with geb- and give, cf. (14). The direct objects in (14) are all possible in the contexts Das Haus hat/bekam... 'The house has/got...'. Analyses not connecting give to have (or, perhaps more exactly, to the configuration expressed overtly in have-VPs) portray these parallels as arbitrary.

(14) a. Siegaben dem Haus
    They gave [the house]_{DAT}
    [einen Namen/einen Preis/eine neue Fassade/Charakter].
    a name/a prize/a new façade/character.
    b. Siegaben dem Projekt
    They gave [the project]_{DAT}
    [Vorrang/Schwung/keine Unterstützung/eine Chance].
    precedence/impetus/no support/a chance.

Brandt (2003:47) views (15a) as evidence against seeing give as a causative of HAVE. If this were so, we would have to abandon the less controversial idea that get is an inchoative of HAVE, for einen Kuss/Fußtritt kriegen 'get a kiss/kick' are possible. Fortunately, the objection is invalid because have is acceptable if untensed, as in (15b). *He has a kick is bad due to extraneous factors: kicks cease to exist once administered, which means that the state in which they are had holds for an interval to small to include a reference time.

(15) a. Siegab Otto einen Kuss/Fußtritt. vs. *Otto hat einen
    She gave Otto_{DAT} a kiss/kick. vs. *Otto has a
    Kuss/Fußtritt.
    kiss/kick.
    b. Otto wollte keinen {Kuss/Fußtritt} haben.
    Otto didn’t want to have a [kiss/kick].

5. Pertinence (possessor) and ficiary (beneficiary/maleficiary) datives

5.1 Pertinence and ficiary datives as event-related and affected

I now discuss datives I see as event-related, i.e. as relating to events, not entities. That German has event-related datives is not opinio communis. Wunderlich (1996, 2000) and Pylkkänen (2002) treat all German datives as entity-related, as relating (e.g. by possession) to entities. Yet entity-related analyses for (16) are implausible on the readings in the glosses, since the datives are not possessors of the DPs, which is especially clear in cases like (16b) where the object’s possessor is DP-internal.
(16) a. Er machte mir (die Tür) auf.
   He made \text{me}_{\text{ext}} \,[\text{the door}]_{\text{acc}} open
   ‘He opened the door for me.’
   b. Sie hat mir Bush’s Ansprache aufgenommen/übersetzt.
   She has \text{me}_{\text{ext}} Bush’s speech recorded/translated
   ‘She recorded/translated Bush’s speech for me.’
   c. Sie streckte dem Mann die Zunge raus.
   She stuck \,[\text{the man}]_{\text{ext}} \,[\text{the tongue}]_{\text{acc}} out
   ‘She stuck out her tongue at the man.’

(17) a. Sie hat mir \{eine CD gebrannt/ ein Buch auf den Tisch gelegt\}.
   She has \text{me}_{\text{ext}} a CD burnt/ a book on the table laid
   ‘She burnt me a CD/She put a book on the table for me.’
   b. Sie haben mir \{das Zimmer vollgequalmt/ das Leben kaputtgemacht\}.
   They have \text{me}_{\text{ext}} the room full.smoked/ the life ruined
   ‘I had them {stink out my room with cigarette smoke/ruin my life}.’
   c. Mir lief jemand auf dem* (frisch gestrichenen) Fußboden
   \text{me}_{\text{ext}} walked someone on the freshly painted floor
   around
   ‘I had someone walk on my *(freshly painted) floor.’

The only other possibility I see is that the datives in (16) are event-related. The datives in (16) and (17) are pretheoretically beneficiaries or maleficiaries (German Dativus \textit{(in)commodi}). I use the term \textit{ficiary datives} to cover both. The datives in (17) \textit{c-command} entities interpretable as possessed by the ficiary. If we overlook (16), the datives in (17) look like prime candidates for entity-related analyses, but the charm of entity-related analyses in (17) fades once we note (i) that entity-related analyses are implausible for (16), and (ii) that (16) and (17) allow a unified analysis in which the datives are entities experiencing negatively or positively evaluable effects of the situation. Seemingly entity-related ficiaries like (17) are commoner than clearly non-entity related ficiaries like (16). Rather than forcing us to analyse (16) and (17) differently, this follows from the fact that it is easy for an event to affect people positively or negatively if it results in the loss or gain of possessions, cf. (17a), or affects their possessions (cf. (17b, c); in (17c), the AP ensures that the floor is affected by the walking). We discuss the affectedness of such datives in more detail shortly, but firstly I wish to introduce another pretheoretic class of dative.

(18) showcases what Germanists call \textit{pertinence datives} (Pertinenzdative). These \textit{c-command} inalienably possessed DPs (either direct arguments or PP-internal DPs).\textsuperscript{5}
The case for the event-relatedness of pertinence datives gains strength from the availability of an event-related account which captures both pertinence and ficiary datives. Hole (2005), Lee-Schoenfeld (2006) and Wegener (1985, 1991) independently note that both types of datives are affected. I do not follow Wegener’s claim that secondary affectedness/involvement (Betroffenheit) holds for all datives, but it is a good descriptive starting point for pertinence and ficiary datives. Wegener stresses that the affectedness/involvement can be either physical or psychological. With pertinence datives, the dative referent is physically involved in the event because the event affects some part of the dative referent. If no inalienable possessions are involved in the event, there is no physical effect on the dative referent, but the dative referent may still be affected psychologically, as with ficiary datives.6

Support for the affectedness idea can be gleaned from (19). If the car is shot at, the dative is acceptable if its referent is in the car, since people in the car are endangered, hence affected. If the dative referent is not in the car, the shot must damage the car, so that the car’s owner is a maleficiary, hence negatively affected psychologically. If the son is shot at, the dative is felicitous only if the shot is fatal, since the dative referent is affected by the loss of her son.7 (19) thus shows that what counts in determining the acceptability of a ficiary dative is not just the relation between the dative and another DP, but whether the situation expressed by VP affects the dative referent. Wegener (1985, 1991) offers much more data illustrating the affected character of datives. The next section tries to derive the affected character of the datives from their status as HAVE subjects.

(19)  Ihr wurde [aufs Auto geschossen/? auf den Sohn geschossen]
her extr was at the car shot/ at the son shot/ 
der Sohn totesgeschossen.
the son dead.shot

‘She had someone [shoot at her car/? shoot at her son/shoot her son dead].’

5.2 Pertinence and ficiary datives as HAVE subjects

I now claim that, with pertinence and ficiary datives, Vdat functions like ‘experiencer’-have (Section 3, B2). (20) compares the underlying syntax assumed for the two constructions. In both cases, a morpheme expressing a HAVE relation relates a DP to a constituent expressing a situation.

(20) a. (weil) ihm ein Sohn starb: [VdatP ihm [VP ein Sohn sterb-] Vdat]
b. (since) he had a son die: [BE [SC he [PP HAVE [SC a son die]]]]
The affectedness constraint found with datives is also seen with have. The dative and have structures in (20) are both bad if the referent of the dative/have-subject was dead, hence unaffected by the death of the son. Recall from Section 3 that have-subjects are construed as affected because this is the only way in which they can relate to a situation as a whole. We can explain the affectedness of datives in the same way if we treat them as HAVE subjects.

Recall from Section 3 the observation in the literature that the experiencer reading of have is subject to the link requirement, i.e. is most felicitous if its subject is represented somewhere in the complement of have. We find an analogous constraint with pertinence and most ficiary datives. (This led to the position I have argued against in which the datives are first and foremost possessors of entities). As noted Section 5.1, the link requirement exists because this makes it easier for the dative/have-subject to be in a relation to the event.

A consequence of the link requirement is that datives and have-subjects are interpreted like binders of the possessor variables of indefinite DPs: the son in (20) is the son of the have-subject/dative referent (see Hole 2005 on this). In German but not English, this is also possible with definites (Ihm starb der Sohn vs. He had {his/*the} son die). ((17b) and (19) also illustrate this.) I will not try to explain this Anglo-German contrast (see Vergnaud & Zubizaretta 1992 for a proposal), except to note that it is not due to differences between the datives and have-subjects, but is part of a generalisation about English articles, cf. (21a). Possessed definites like (21b) are apparently confined to PPs in English.8

(21) a. *I broke/injured/shook/raised {an/my/*the} arm, the ship tore {a/its/*the} sail.
   b. Damage to the left hand ruined the pianist’s career. A bullet in the head would be inconvenient. He hit/poked me in the eye; he rammed me in the fender.

A final point pertaining to the equivalence of datives and have subjects concerns English glossing. Most pertinence and ficiary datives seen above can be glossed with have-constructions, but there are exceptions. Thus, (16c) is not glossable by the man had her stick out her tongue because this wrongly favours the causative reading where the man asks her to stick out her tongue. The maleficiary interpretation is possible if we add a PP fulfilling the link requirement (He, had her stick out her tongue at him).9 This raises the question as to why German datives like (16c) can circumvent the link requirement while the corresponding have construction cannot. I suggest that the link requirement is observed more stringently with have because it serves to distinguish the experiencer reading from the causative reading. This ambiguity problem does not exist with the datives. Since a single event cannot have two causers, datives will not be interpretable as causers if an agent is also present, as in (16c). (In contexts without a competing causer, a causer reading for datives is possible, see Section 9.)
6. Privative datives

Structures like (22) with ‘privative’ or ‘source’ datives entail that the dative lacks or loses the direct argument. I argue that this is not expressed explicitly by the semantics of the structures, but is inferred from a semantics in which the dative is in a HAVE relation to a situation.

(22) a. Maria fehlt mir.
   Maria lacks me$_{\text{D}}$
   ‘I miss Maria.’

b. Dem Tisch fehlt ein Bein.
   [the table]$_{\text{D}}$ lacks a leg
   ‘The table has a leg missing.’

c. Er hat es (mir) geklaut/genommen.
   he has it me$_{\text{D}}$ stolen/taken
   ‘He stole/took it (from me).’

Seeing the datives in (22a, b) as entity-related would raise awkward questions for my syntax. Are fehl-VPs projected from a single head which means roughly ‘not HAVE’ and has the same case-assigning properties as V$_{\text{D}}$ (which would be a coincidence in my theory), or is fehl- a spellout of V$_{\text{D}}$ incorporated into a negation head whose existence would be hard to verify? Fortunately, there is independent motivation for an account where this theory-internal dilemma does not arise. The datives in (22a, b) can be omitted, yielding a sort of lexically negated existential construction asserting that the nominative DP is ‘not there’, i.e. absent or non-existent. If we treat the datives, when they occur, as relating to this absence state rather than to an entity, we simplify the treatment of fehl-. Recall that V$_{\text{D}}$ asserts merely that the dative is in some relationship to the embedded situation. This yields the right interpretation for (22a, b). (22a) implies that the dative is emotionally affected by Maria’s absence. That precisely this reading occurs is less due to properties of the dative than to priming by the VP in the complement of V$_{\text{D}}$. We can detect this from the fact that fehl- without the dative allows constructions like Maria fehlt sehr ‘Maria lacks much’, i.e. ‘Maria is sorely missed’), where the emotional effects of the absence are quantified by a degree modifier. An absence situation can be relevant to inanimates if the missing entity is relational, as in (22b). Note that the same applies to the idiomatic gloss with have.

A similar approach extends to the optional dative in (22c). I take (22c) to assert merely that the dative is in a HAVE relation to an event of theft/taking, i.e. that the event is somehow relevant to the dative, and that the implication that the dative loses the object is a by-product of this, since this is the most salient way in which some- one can be related to the taking/theft. This is plausible given that the subject in the non-causative reading of I had someone take/steal a book is also interpreted as a theft victim/source. The privative reading is not obligatory. In contexts like (23) (see also Wegener 1991:74) datives can be interpreted as beneficiaries because the otherwise strongly primed maleficiary reading is ruled out.10
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(23) *Er hat sich Ottos Auto geklaut*/*genommen.*

he has himself_{dat} Otto’s car stolen/taken

‘He stole/took Otto’s car for himself.’

I thus query whether German has structures explicitly characterising a dative as a source or an individual (who ends up) not having something. This is theoretically welcome, as it obviates the need for arbitrary disjunctions where datives are described as ‘sources or goals’ or as ‘having or not having,’ or enumerations of source and goal applicative morphemes (Pylkkänen 2002; Cuervo 2003). I do not deny *tout court* the possibility that dative/ditransitive structures in other languages may have a source or NOT HAVE semantics – this seems necessary in Chinese, where most double object structures are privative (Zhang 1998) – but it would be worth testing the claim about German on other languages.

7. Datives in various recipient and possessive constructions

The analysis of *give* in Section 4 is not applicable to all cases involving recipients or verbs which seem to encode possession. I now suggest some analyses for these verbs.

7.1 Embedded V_{datP}

The first type of analysis I wish to suggest is one where a V_{datP} with a DP complement is complement of an audible verb. Wegener (1985:148) mentions disapprovingly an analysis in which (24a) is derived from (24b) transformationally. This type of analysis captures the semantic similarities between (24a) and (24b), but the requisite deletion transformations have fallen by the wayside with the search for principled constraints on transformations. In the present theory we can capture the semantic parallels without transformations, since the silent V_{datP} in (24a) expresses a HAVE relation between entities. The difference between (24a) and (24b) is simply a difference in complement selection. (Similar remarks apply to English alternations of the type *allow/permit me to enter* vs. *allow/permit me entry.*)

(24) a. *Sie ließ [V_{datP} den Pflanzen kein Licht V_{dat}].*
    She let [the plants]_{dat} [no light]_{acc}
    ‘She did not let the plants have any light.’

b. *Sie ließ [die Pflanzen kein Licht haben].*
    She let [the plants]_{acc} no light have
    ‘She did not let the plants have any light.’

c. *Ihm gehört das Buch.*
    him_{dat} belongs the book
    ‘The book belongs to him.’
d. Er gehört [eingesperrt/ in die Klapse].
   he\textsubscript{nom} belongs locked up/ in the loony bin
   ‘He ought to be locked up/belongs in the loony bin.’

The hypothesis that gehört- in (24c) is a spellout of $V^{\text{dat}}$ is dubious because it does not cover the uses in (24d), which must be related to (24c) given that the non-cognate belong has both uses. A more explanatory account would treat gehört- is a raising verb expressing deontic modality which selects either a $V^{\text{datP}}$ (as in (24c)) or a small clause headed by a participle/PP, as in (24d). The restriction of uses like (24c) to alienable possession of entities (and for some speakers, nominals like a slap, a punishment) presumably follows from the appropriacy code by which deontic modality is judged.

7.2 Recipient constructions with send, sell etc. as resultative constructions

Verbs like those in (25a) pretheoretically express a possession transfer like that with geb- ‘give’ but are more specific. Since the datives are not obligatory, one could imagine an event-related analysis where the datives are inferred to be recipients, just as datives with stehl- ‘steal’ are inferred to be theft victims. The syntax would be as in (25b).

\begin{equation}
(25)\ a.\ \text{Sie haben mir etwas geschickt/verkauft.}
\text{they have me\textsubscript{acc} something sent/sold}
\end{equation}

However, there is evidence that (25a) requires an entity-related rather than an event-related analysis. I must pause to introduce the relevant test. In (26) wieder ‘again’ is in its post-object position where it has a restitutive reading, which expresses the restoration of the result state, not a repetition of an event (Stechow 1996; Beck & Johnson 2004). DPs whose variables are in the scope of restitutive operators like post-object wieder and its English equivalents re- and back must have the same referents in the asserted and the presupposed situations. Thus, I resealed a window means that I caused a particular window that was formerly in a sealed state to be again in a sealed state, not merely that I brought it about that for a second time there was a sealed window which was not necessarily identical to the window(s) involved in the prior sealed window situation. #He rekilled someone is acceptable only in a fictive context where the same person can be dead more than once. (Contrast this with seal a window again or kill someone again, which have repetitive readings in which the referents of the objects need never have been sealed/dead before.)

\begin{equation}
(26)\ a.\ Ein\ Mann\ hat\ einer\ Frau\ ein\ Buch\ wiedergegeben.
\text{A\ man\ has\ [a\ woman]\textsubscript{dat}\ a\ book\ given}
\text{‘A\ man\ gave\ a\ woman\ a\ book\ back.’}
\end{equation}

$\exists z:\ \text{book}(z), \exists y:\ \text{woman}(y), \exists y:\ \text{man}(x) \& \text{cause (x, again(have(y, z)))}$
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b. Ein Mann hat einer Frau ein Fenster wieder abgedichtet.
A man has [a woman]_DAT a window again sealed
'A man resealed a window for a woman.'
∃z: window(z), ∃y: woman(y), ∃x: man(x) & cause (act(x), have(y, become again(sealed(z))))

Returning to datives, we note that (26a) entails that the book returns to its original owner (not just that some book has some owner again). This makes sense if we assume that wieder scopes over a HAVE predication, and therefore over the variables bound by the dative and accusative DPs. In (26b) wieder presupposes that there had been a period where the window was in a sealed state, but the woman need not have been in any relation to the window during that period. For instance, the window may not have been in a sealed state when she bought the building of which the window is part. Thus, variables of event-related datives are outside the scope of wieder. (27) applies the test just introduced to the recipient structures in (25a). Like the entity-related structure in (26a) and unlike the event-related one in (26b), (27) expresses restitution of a state in which a specific friend has a specific book once more.

(27) Er hat einem Freund ein Buch wieder [geschickt/verkauft].
he has [a friend]_DAT a book again [sent/sold]
'He sent/sold his friend a book back.'

We must therefore reject the event-related semantics implied by the syntax in (25b) in favour of an entity-related analysis where V_dat takes a DP complement. I see two ways of implementing this syntactically. One is the embedding structure in (28a), cf. Pylkkänen (2002). A hidden consequence of this account is that, to capture the productivity of dative constructions, one would need a productive lexical rule changing the verb root's selection from a DP to a V_datP (cf. theories like Hoekstra 1988 where DP complements are replaced by small clauses in resultatives: drink beer vs. drink [SC the bar empty].) I would rather look for alternatives because my (2004, 2005) studies commit me to testing a grammar without lexical operations and because it is unclear to me what characterisation of the relation of schick- to its complement would provide an interpretation for both DP complements (den Brief schicken 'send the letter') and a V_datP complement, which in my theory denotes a stative relation between two entities.

(28) a. [V_cause DP_nom [VP [V_datP DP_dat DP_acc V_dat] schick-] V_cause]
b. [V_cause DP_nom [V_datP DP_dat DP_acc V_dat] [V_cause schick- + V_cause]]
   Lao Zhang sell-give me one classifier house
   'Lao Zhang sold me a house.'

An alternative is (28b), where the verb root is merged directly with V_cause, forming a type of compound or serial verb. Embick (2004) and McIntyre (2004) argue for compounding operations of this ilk with resultatives. The overall structure in (28b) expresses the causation of a HAVE relationship, with the causation asserted to be
identical to the act of sending etc. expressed by the verb root. Chinese expresses the proposed structure overtly, cf. (28c).

Pylkkänen (2002:20) sees incomplete transfers like (29a) as a problem for an analysis like mine involving causation of a HAVE relation. Pylkkänen’s analysis does not block (29b), so incomplete transfer is a challenge to her theory as well as mine. Beck and Johnson (2004:115f.) attribute (29a) to a progressive operator below the causative head, but it is unclear why there should be an inner aspect operator in (29a) but not (29b) and most other causative structures.

(29) a. *Ich schickte ihm ein Buch, aber er bekam es nicht.
   ‘I sent him a book but he didn’t receive it.’

b. *Ich gab/reichte ihm ein Buch, aber er bekam es nicht.
   ‘I gave/passed him a book, but he didn’t get it.’

c. Sie schickten Spione ins Land, aber sie kamen nie über die Grenze.
   ‘They sent spies into the country but they never got past the border.’

d. Mein Chef hat mich nach Rom geschickt, und ich komme morgen an.
   ‘My boss has sent me to Rome, and I arrive there tomorrow.’

e. He reads/hallucinates/imports values into the text that simply aren’t in it.
   I’ve never been in the Oval Office, but I’ve hallucinated my way into it.

The behaviour of resultative constructions with schick- in (29c, d) suggests that (29a) is due to schick- itself rather than the ditransitive structure in which it appears. Schick- expresses manipulation of an object with the intention that it traverse some path. I surmise that the fact that the path is only envisioned somehow coerces the interpretation of the causative structure in which it appears. (Similar coercions seem to be at work in (29e), where the verbs license a counterfactual interpretation of the otherwise causative way- and resultative constructions.)

7.3 Recipients co-occurring with directional PP complements

Some verbs with recipient datives like (25a) may also appear in configurations like (30a, b). Here an entity-related syntax like (28a, b) is wrong because it cannot accommodate the directional PPs (unless they are adjuncts, a claim I cannot motivate). I continue to maintain that (28b) is right for (25a), but that the structures in (30a, b) require the analysis in (30c). The proposal uses the compounding operation in (28b), but this time Vdat selects a VP (whose head, Vgo, is a light verb mediating a predication relationship between the theme and PP).

(30) a. Sie schickte ihm die Unterlagen nach Leipzig/an seine Privateadresse.
   she sent him the documents to Leipzig/to his private.address

b. Sie reichte mir das Tablett ans Bett.
   she passed me the tray to the bed
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Treating the complement of V\text{dat} in (30c) as a VP (rather than a DP as in (28a, b)) predicts that the datives in (30a, b) are event-related. This seems correct. While the contexts in (30a, b) strongly favour a reading in which the datives are recipients, contexts like (30d) which exclude the recipient reading and thus force a beneficiary reading are grammatical. The preference for recipient readings in (30a, b) is due to the fact that the most salient way in which a person can relate to a sending event without being the agent is to be its beneficiary. (30e) applies the restitutive scope test. Here \textit{wieder} clearly has scope over the state of the book’s being in Bitterfeld. The most obvious construal is that Fritz owned the book when it was previously in Bitterfeld, but this need not hold. Imagine an interval i in which Bärbel and her book were in Bitterfeld and in which she intends to give the book to Fritz. After i, Fritz travels to Bitterfeld for the first time, but Bärbel has left Bitterfeld, taking the book with her. She sends it to his hotel in Bitterfeld. (30e) could be truthfully uttered in this context. This reading is not predicted if the dative in (30e) is taken to be primitively entity-related, but does make sense if it is event-related but is pragmatically construed as a recipient.

8. Datives with verb particles and locational HAVE

We now examine datives which at first glance seem to be identified with silent complements of an intransitive preposition (particle). I sketch an analysis similar to that for locational HAVE constructions with particles like \textit{I had a coat on}. I cannot hold forth on the topic at length here, but the following remarks should give some indication as to how my theory could analyse a given construction. See Olsen (1997) and Wunderlich (1996) for other ideas on the subject. Note before proceeding that the remarks in this section apply only to cases where the dative is higher than the theme argument in base word order. Another type of dative with particles is mentioned in Section 10.3. (31a, b) illustrates several problems relevant here.

(31) a. Fritz baute dem Wagen einen Motor \textit{ein}.
   Fritz built [the car]_{\text{DAT}} [a motor]_{\text{ACC}} in
   ‘Fritz installed a motor in a car.’
   b. Fritz baute einen Motor \textit{in} den Wagen \textit{ein}.
   Fritz built [a motor]_{\text{ACC}} into [the car]_{\text{ACC}} in
c. Der Wagen hat einen Motor drin.
   'The car has a motor in it.'

(31a) and (31b) are rough paraphrases. Inanimate datives of the type in (31a) are not used by all speakers, but are attested. (31b) overtly characterises the car as ground of an in-relation. German is fond of complex PPs where the preposition has a cognate copy in the (pre-verb-final, pre-extraposition) position typical of verb particles. (ein and in in (31) are allomorphs.) The dative in (31a) is not assigned by (e)in, since directional in assigns accusative, cf. (31b), and since there are cases like den Koffer einpacken 'the case in.pack' (i.e. pack the case) where the logical complement of ein receives accusative.11

The locational HAVE structure in (31c) is a way of describing the result state of (31a), suggesting that it is at least possible to treat the car in (31a) as an argument of HAVE. I exploit this possibility by analysing (31a) as in (32). The gloss should suffice to make the idea clear. The semantics converts straightforwardly into syntax. The verb root bau- is introduced using the compounding mechanism proposed for resultatives in McIntyre (2004) and Embick (2004) and used above in (28b) and (30c), but for present purposes it would also be possible to use a more standard approach where bau- heads the lowest VP.

\[(32) \text{cause } ([\text{do(Fritz, build)}], [\text{have(car, go(motor, into car))}])\]
   'Fritz does a building activity which causes the cari to have a motor go into iti,'
   \([\text{vcauseP Fritz } [\text{vdatP einem Wagen } [\text{vgoP einen Motor } V^{\text{go}} \text{ ein} ] \text{vdat]} [\text{vcause + bau-}]]\]

The main query about (32) concerns the fact that (31a) does not visibly fulfil the link requirement, unlike in cases like the box, has mud on it, where an overt pronominal appears in the complement of P, and (31c) where the deictic d(a)ri- morpheme functions like a silent pronominal (cf. therein, in there). However, examples like I had a hat on show that implicit complements of intransitive prepositions can license locational HAVE without overt anaphora. I propose that the particle in (31a) functions analogously. (Here it is irrelevant whether the unpronounced anaphora is syntactically represented or merely in the semantics or argument structure of the preposition in some way.)12

Readers may ask whether some kind of entity-related analysis is possible which reflects in grammar the fact that the car in (31a) comes to have the motor. I bypass such analyses because of examples like (33). Here the soldiers/tanks come to have not stones, but stones being thrown at them, so an analysis parallel to (32) is clearly preferable.

\[(33) \text{Sie warfen } [\text{den Soldaten/ den Panzern}] \text{ Steine nach.}\]
   'They threw [the soldiers\textsubscript{dat} [/the tanks\textsubscript{dat}]} stones\textsubscript{acc} after
   'They threw stones after the soldiers/tanks.'
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A can of worms which should not go unopened is the comparison of (31a, b) with (34a, b). The inanimate DP in (31a, b) can appear either as dative or (as preferred by some speakers) as complement of in, while the animate DP in (34a, b) cannot appear inside a PP, making the dative structure de rigeur (cf. Olsen 1997:325f.). The data superficially favour some type of animacy-based view of dative, but I deny that these facts say anything about the dative. The problem with (34b) is that in resists animate grounds (cf. *der Schrittmacher ist im Patienten ‘the pacemaker is in the patient’). The same problem exists with English in, witness the oddness of the lower glosses, though the German in (34b) is worse, comparable to animate grounds for English stative at: *I stood at Mary. I know no good account for these animacy constraints on prepositional complementation, but they suggest that the implicit ground of the particle in (34a) is not the patient himself but some inanimate entity, an inalienably possessed item such as the patient’s body or a contextually inferred body part. (34c) clarifies the semantics; B(x) stands for ‘body (part) of x’. Note in support of this analysis that B can appear in an overt PP, as in (34d). (34c, d) differ from (32) or (31d) in that the HAVE subject is not coindexed to the ground itself but to the argument of a relational noun. This is not problematic, since subjects of overt HAVE can be interpreted in the same way, cf. e.g. er hat einen Vogel auf dem Kopf ‘he has a bird on his head’.

(34) a. Der Arzt hat dem Patienten einen Schrittmacher
   the doctor has [the patient] a pacemaker
   eingeplant/augenoperiert.
   implanted/in.operated
   ‘The doctor implanted/implanted a pacemaker in the patient.’

b. *Der Arzt hat einen Schrittmacher in ihn
   the doctor has a pacemaker into him
   eingeplant/augenoperiert.
   implanted/in.operated
   ‘The doctor implanted/implanted a pacemaker in the patient.’

c. cause([do (doctor, operate)], [have (patient, go (pacemaker, into b(patient)))]

d. Der Arzt hat ihm ein Gerät in den Körper
   the doctor has him a device in the heart/body
   eingeplant.
   implanted
   ‘The doctor implanted a device in his heart/body.’

Though much more can be said about datives with particles, I hope to have shown that the HAVE theory, in particular an analysis analogous to locational have, is a promising way of dealing with the constructions.
9. Unintentional causer readings of datives with unaccusatives

This section briefly discusses the observation of Härtl (2003), Schäfer (2004) and Wegener (1985a:99, 315–320) that datives with unaccusatives can be interpreted as unintentional causers of negatively evaluated events, cf. (35) on reading (a) and (36).

(35) Mir ist heute eine Vase zerbrochen.

a. ‘I had a vase break (due to my clumsiness, carelessness, inactivity).’
   Me_acc opened the door
   ‘The door opened on me.’

b. ‘I had a vase of mine break (e.g. in my absence, due to an earth tremor).’
   Me_acc opened itself the door

(36) Herr Meyer ist dem Chirurgen unter der Hand gestorben.

Mr Meyer is [the surgeon]_acc under the hand died
   ‘The surgeon had Mr Meyer die on him while operating on him.’

The unintentional causer reading of datives is not peculiar to German (Cuervo 2003:186f.; Schäfer 2004), so it is not idiosyncratic, and must follow from general principles. That causer datives require unaccusative contexts follows from the assumption that a causer role for a dative is ruled out if the clause contains another causer/agent, since a single event cannot have two causers, but (37) raises problems.

(37) a. Mir öffnete sich die Tür.
   Me_acc opened itself the door
   ‘The door opened on me.’

b. Mir ging die Tür auf.
   Me_acc went the door open
   ‘The door opened on me (and this was my fault).’

The dative in (37b) can have the causer reading, making it compatible with adverbials like versehentlich ‘by accident’, but Härtl (2001) and Schäfer (2004) note that ‘anticausatives’ (inchoatives formed with reflexives) like (37a) disallow causer datives, although (37a) and (37b) seem near-synonymous if the datives are removed. An obvious response is that the dative cannot be a causer in anticausatives because these have causative structure lacking in the unaccusative variants. However, Schäfer notes that the evidence against implicit causes with unaccusatives is equally applicable to anticausatives, and leaves the problem unsolved. A solution would emerge if it could be shown that the semantics of anticausatives characterises the event as caused by the theme (cf. Brousseau & Ritter 1991:58) or as uncaused, while unaccusative VPs do not encode causation in their semantics. This approach predicts the (im)possibility of a causer dative in the respective structures, whilst capturing similarities between (37a) and (37b).

I cannot yet explain the unintentionality of the causation and the restriction to negatively evaluated events, but the existence of a causer reading of datives is expected in the theory recommended here, since have also has causative uses. Recall from Section 3 that causative have need not obey the link requirement, unlike experiencer have.
This has an analogue in (35) in that the causer reading is strongly favoured if the vase is a possession of someone other than the dative referent, so that the link requirement is unfulfilled. The explanation for this is trivial: if the vase is not mine, the event will not affect me, but I can be related to the event via causation.

10. Other datives not analysed here

To make this piece serviceable as an overview of the German dative, I now note some types of datives not addressed here.

10.1 Probable candidates for a HAVE analysis

Some psych verbs have dative experiencers, cf. (38a, c). A satisfactory discussion would have to discuss accusative experiencers, which is impossible here. Suffice it to note that the HAVE theory leads one to expect there to be psych datives, since experiencers can appear as overt have subjects, cf. rough equivalence between (38a) and (38b) and between (38c) and (d).

(38) a. weil der Frau das Bild gefällt
   since [the woman] the picture pleases
   'since the woman likes the picture'

b. weil die Frau am Bild Gefallen hat
   since the woman on the picture pleasure has
   'since the woman takes pleasure in the picture'

c. Mir graut es vor Spinnen.
   me.fear it before spiders
   'I have a horror of spiders.'

d. Ich habe Angst vor Spinnen.
   I have fear before spiders
   'I am afraid of spiders.'

In (39a) the datives are recipients of information units, realised as CPs or DPs. The productivity of such constructions is seen in their use with new verbs such as mailen 'e-mail' or SMS-en 'send a text message'. I cannot yet decide between two possible analyses, (i) an event-related analysis where the dative referent is a ficiary of a communication event, and (ii) an entity-related analysis where the subject causes the dative to HAVE the information unit and where Vcause conflates with the verb stem in the same way as in resultative constructions (see the paragraph below (28)).

(39) a. Ich {sagte/schrieb/flüsterte} ihr [die Antwort, dass das stimmt].
   I told/wrote/whispered her [the answer/ that that’s right].
10.2 Estimative and ethic datives

The analysis with a V<sub>dat</sub> head meaning HAVE may not apply to the dativeus iudicantis (estimative dative) in (40a). Such DPs seem to distribute identically to the idiom for x’s liking. They c-command AP/AdvP modifiers zu ‘too’ and genug ‘enough’.

(40) a. *Die Idee war mir zu unausgereift/ nicht interessant genug*. 
   the idea was me<sub>dat</sub> [too half-baked/ not interesting enough] 
   ‘The idea was [too half-baked/not interesting enough] for my liking.’

b. *Du gehst mir nicht da rein.*  
   you go me<sub>dat</sub> not there in
   ‘I’ll not have you going in there.’

(40b) is the low-frequency ethic dative, which expresses emotional attitudes towards a situation or proposition. Wegener (1989) argued that such dative pronouns are modal particles. They may alternatively be relatively standard uses of V<sub>dat</sub>, perhaps quite high up in an articulated clausal structure. The possibility of glossing the dative in (40b) with a subject of have is a preliminary indicator in favour of this speculation.

10.3 Low datives

A V<sub>dat</sub>/HAVE analysis should not be extended to the datives in (41). I call these low datives because, unlike the datives studied in earlier sections (henceforth: high datives), they are lower than patient-theme arguments in base word order. By base order, I refer to a sequence unaffected by scrambling. (The simplest test for base order is maximal focus.)

(41) a. *weil der Arzt einen Privatpatienten einer Operation unterzog* 
   since [the doctor]<sub>nom</sub> [a private.patient]<sub>acc</sub> [an operation]<sub>dat</sub>
   subjected
   ‘since the doctor subjected a privately insured patient to an operation’

b. *weil sie ein Kind einer Gefahr aussetzte* 
   since she<sub>nom</sub> [a child]<sub>acc</sub> [a danger]<sub>dat</sub> exposed
   ‘since she exposed a child to a Danger’

c. *weil sie Musiker Priestern gleichsetzt* 
   since she<sub>nom</sub> musicians<sub>acc</sub> priests<sub>dat</sub> likens
   ‘since she likens musicians to priests’
Here I note here the essential points about low datives which, though not well-known, should in my view be part of any overview of the German dative. Low datives fall into three distinct classes. One is the similarity/proximity dative. Here dative marks an entity to which the theme argument is judged to be similar (cf. (41c) or structures like \(x^{\text{Nom}} \text{ähnelt} \ y^{\text{Dat}} \ 'x \text{ resembles } y' \) or \(\text{einem Gott}^{\text{Dat}} \text{gleich} \ '\text{like a god}'\)), or, in a configuration which is the metaphorical basis of the similarity structures, an entity to which the theme is proximal (\(x \text{kommt}^{\text{Dat}} \text{nahe} \ 'x \text{ approaches } y'\)). (41a, b) shows another class of low dative I call the influence dative. Here the theme referent is influenced or controlled by the dative referent. Influence and similarity/proximity datives mostly gloss in English with PPs appearing lower in the structure than themes, never with double object constructions.

Another type of low dative, which I call the stranded ground dative, is the conceptual ground of a particle doubling as a dative-assigning adposition. Instances of particles involved are \(\text{zu} \ 'to' \) (\(\text{dem Ort zueil-} \ 'hurry toward the place') and \(\text{hinterher} \ 'after' \) (\(\text{dem Bus}^{\text{Dat}} \text{hinterherlauf-} \ 'run after the bus'\)). These datives may strand from the adposition. (Stranded ground datives are distinct from the datives with particles discussed in Section 8, where the dative is higher than the theme in base order, though nothing precludes cases where one verb-particle combination can project either a high or a low structure.)

Miyagawa and Tsujigka (2004) note that Japanese has high and low datives, though the low datives are not as restricted as in German. On the German high-low contrast, see Czeplich (1996), McFadden (2003), Molnár (1998), Wegener (1991). Some writers (e.g. Fanselow 2000; Müller 1999; Vogel & Steinbach 1998) try to capture the contrast using a stipulation favouring the positioning of animates before inanimates. The animacy-based view is said to be supported by the correlation in (42) between the (in)animacy of the dative and its position. However, note that the dative in (42a) is a HAVE subject (cf. \(\text{she had her custody rights withdrawn}\)) while that in (42b) is not (cf. \(\ast \text{the influence had a child rescued from it}\)). (42b) is arguably a stranded ground dative, \(\text{ent-} \ '\text{from}'\) being a preposition incorporated into the verb.

\[
\text{(42)} \quad \begin{align*}
\text{a.} & \quad \text{dass sie der Mutter das Sorgerecht entzogen} \quad [\text{High}] \\
& \quad \text{that they [the mother]}^{\text{Dat}} \text{[the custody rights]}^{\text{Acc}} \text{from,pulled} \\
& \quad \text{'that they withdrew/took away the mother's custody rights'} \\
\text{b.} & \quad \text{dass sie ein Kind einem schlechten Einfluss entzogen}^{\text{Low}]} \\
& \quad \text{that they [a child]}^{\text{Acc}} \text{[a bad influence]}^{\text{Dat}} \text{from,pulled} \\
& \quad \text{'that they rescued the child from a bad influence'}
\end{align*}
\]

(43) is intractable under the animacy theory. Here \(\text{zuordn-} \ '\text{assign}'\) appears with a high or a low dative with the same two objects. Comparison of (43a) and (43b) with (43c) and (43d) shows that the high dative is possible if the dative can be in a HAVE relation to the object or the event.\(^{13}\)
(43) a. wenn man **einem** Substantiv ein Genus zuordnet [high dative]
   when one [a noun]_{DAT} [a gender]_{ACC} to.orders
   ‘when one assigns a noun a gender’
 b. wenn man ein Substantiv **einem** Genus zuordnet [low dative]
   when one [a noun]_{ACC} [a gender]_{DAT} to.orders
   ‘when one assigns a noun to a gender (*when one assigns a gender a noun)’
c. A noun has a gender. A noun has a gender assigned to it.
d. *A gender has a noun. *A gender has a noun assigned to it.

11. Conclusions and problems

My main claims were that most German datives are interpreted in identical fashion to subjects of *have*, and can relate either to entities or, as in the majority of cases, to situations. The programme launched here needs much elaboration. In particular, the perennial controversy about the definition and primitive status of *have* has not been settled here, although I hope to have isolated enough non-trivial similarities between datives and *have*-subjects for comparisons to be valid.

Dozens of typological issues remain to be addressed. Despite objections to Pylkkänen’s (2002) assumptions about German, her insight remains valid that languages may differ in the selectional properties of applicative heads. The parameter of whether or not an applicative assigns a distinct morphological case in a language may also have consequences outside morphology. It may for instance explain the (near-)absence in English of arguments paralleling German datives in two-argument contexts like *mir dat explodierte ein Auto* ‘I had a car blow up on me’. Given the lack a distinctive morphological case for English applicatives, a parallel structure in English would yield *I blew up a car*, which would be confusingly identical to an agentive structure. To be sure, some English subjects in two-argument contexts have interpretations resembling those found with German datives (e.g. *I am missing a pen, the guitar broke a string, I tore a muscle*), but these involve situations where an agentive reading for the subject is unlikely, so the ambiguity problem just noted does not arise.

While German datives show restrictions similar to *have*-subjects (as do at least some Spanish datives, cf. Cuervo 2003:69f., 102), nothing forces applicative light verbs in all languages to express a HAVE relation. For instance, Chinese indirect objects are mostly sources (Zhang 1998) while their English counterparts are mostly recipients.

Despite the open questions, I hope that the suggestions presented above have sufficient plausibility to warrant further clarification and testing in other languages in future work.
The interpretation of German datives and English have

Notes

1. I thank Werner Abraham, Daniel Hole and two anonymous readers for comments on earlier versions.

2. This point is strengthened by the fact that German equivalents of have, get, with and without, namely haben, kriegen/bekommen, mit and ohne display much the same array of uses, with the qualification that German lacks analogues to infinitive/progressive participle uses like I had them call(ing) my name (in either the experiencer or causative readings), except with position verbs: sie hat einen Vogel auf dem Kopf sitzen ‘she has a bird sitting on her head’, er hat das Hemd raushängen ‘he has his shirt hanging out’.

3. (12) arguably derives from something else, for instance a metaphorical location of have’s complement w.r.t. its subject (e.g. Benveniste 1966; Freeze 1992; Déchaine et al. 1994; den Dikken 1997). This idea is often taken to entail that have’s subject starts as complement of a preposition. This would necessitate changes to (11) (and, if datives are HAVE subjects, the syntax in (2). It is unclear to me if complicating the syntax in this way is worthwhile. What does seem clear is that related dative shift analyses deriving give her flowers from give flowers to her do not capture semantic differences between the constructions (Krifka 2004).

4. A consequence of (12) less crucial here is that HAVE(x,y) is a claim about x, not y. Put otherwise, x is the topic of the HAVE-relation (but not necessarily of the sentence, as scrambling or topicalisation can make y more topical than x, as a reviewer noted). This is clearest with locational HAVE. The sofa has the dog on iti (unlike the dog is on the sofa) tells us about the sofa, not the dog, and hence is bad as an answer to Where is the dog?

5. Ficiary and pertinence datives are also termed free datives because they are fully productive given the right conditions, and require no mention in the verb’s permanent lexical entry. If a new verb zabb- ‘use a laser gun’ is coined, pertinence and ficiary datives like (i) are instantly acceptable.

(i) Sie hat ihm {den Kopf abgezabbt / in den Arm gezabbt / die Tür aufgegezabbt},
    she has him dat {the head off.zabbed / in the arm zabbed / the door open.zabbed}
‘She zabbed his head off / zabbed him in the arm / zabbed the door open for him.’

6. Lee-Schoenfeld (2006) captures affectedness effects with an applicative head that assigns an affected role to its specifier, which is filled by possessor raising. Possessor raising is argued for using the unacceptability of raising datives out of extraction islands. But (i) violates a complex NP island, and (ii) a coordination island. The left branch violation entailed by possessor raising out of spec,DP is perhaps also problematic. Lee-Schoenfeld accepts that the dative in (i) is not generated by possessor raising, but, coupled with the fact that Zeigefinger is interpreted as belonging to the dative, this calls into question the need for possessor raising in other cases.

(i) Miri fiel der Hammer auf [DP die Spitze [DP des linken Zeigefingers]],
    ‘me-dat fell the hammer on the tip of the left index finger’
(ii) Ihm hat sie [die Zunge k/*i rausgestreckt] und [ins Gesicht gespuckt],
    Him dat has she [the tongue out.stuck] and [in.the face spat]
‘She stuck out her tongue at him and spat in his face.’

7. Werner Abraham (p.c.) noted that the relation between the dative referent and the son need not be kinship. The dative referent need only have an interest in protecting someone else’s son.
It is unclear if possessor raising analyses predict this, for DP-internal possessors (as in ihr Sohn ‘her son’) force the kinship reading.

8. Readers still tempted to see the binding of possessor variables by pertinence datives as evidence for a possessor semantics for datives should note that the nominative agent in (i) is interpreted as binding the arguments of Freund and Hand, although possession is rightly never written into descriptions of agents.

(i) Sie legte dem Freund die Hand auf die Schulter. [cf. the title of Wunderlich 1996]
She laid the friend the hand on the shoulder
'She put her hand on her friend’s shoulder.’

9. (16a, b) and (17a) cannot be glossed by I had him open the door for me, I had her translate the speech for me, I had her burn a CD for me. These strongly favour the causative reading although the link requirement is fulfilled by the complement of for. This is because deliberate causers of events are always beneficiaries.

10. The proposal for (22c) applies to the privative datives in (i), except that in (i) a prefix/particle/PP encodes motion away from (the hands of) a person who is identified with the dative referent. (See Section 8.)

(i) Er hat es mir entrissen/weggenommen/abgeschwatzt/aus den Händen gerissen.
He has it me entrissen [from.ripped/away.taken/from.talked/out of the hands ripped]
’He {snatched it from me/took it from me/persuaded me to give it to him/snatched it out of my hands}.’

11. The data just mentioned do not speak for a theory where dative links an intermediate argument, since this type of dative is found in two-argument structures like (i) and (ii):

(i) Der Idee haftet ein Risiko an.
‘The idea is not risk-free.’

(ii) Der Pflanze wohnen heilende Kräfte inne.
‘Healing powers indwell the plant.’

12. The inanimacy of the HAVE subject in (32) may seem problematic given the claim of Déchaine et al. (1994) that subjects of locational have with intransitive prepositions must be animate, cf. he has his false teeth in; people with hats on vs. the box has books in *(it); tables with lamps on *(them), but Belvin and den Dikken (1997:168, fn. 17) note British speakers who accept the table has a book on. I reject this but accept the tape player has a tape in and the box has no lid on. Thus, inanimate locational HAVE subjects with intransitive prepositions are possible, albeit unstable across varieties. The speaker variation perhaps speaks for my proposal, since inanimate datives like that in (31a) are also variety-specific.

13. (14) and (31a) also show that high datives can be inanimate, provided they are arguments of HAVE. The animacy theory of dative/accusative order in German reminds one of the alleged animacy constraint on English indirect objects usually enlisted to ‘explain’ data like send {me*my address} the book. The real explanation is that people, but not addresses, can have books sent to them. Inanimates can be indirect objects provided they can be in a HAVE relation, cf. the glosses in (14) and (43a, b).
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Dative and indirect object in German dialects
Evidence from relative clauses*

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This paper is about the relationship between dative case and the indirect object, i.e. about the linking between a morphological case and a grammatical role. The primary evidence is taken from relative clause data in German dialects (two other continental West Germanic varieties, Yiddish and a North Frisian dialect, are taken into account as well). The typical morphological systems of some of the varieties treated are briefly discussed and the fact that in contrast to Standard German, some German dialects do not have a separate morphological dative case is highlighted. Then, indirect object relative clauses are compared to direct object relative clauses with respect to case encoding. If relative pronouns in direct object relative clauses require overt case marking, then those in indirect object relative clauses do as well, but not vice versa. Furthermore, case matching plays a decisive role for indirect object relative clause formation in some of the varieties investigated.

1. Introduction

1.1 Accessibility Hierarchy and Case Hierarchy

In their study on relative clauses, deriving generalizations from a sample of about fifty languages, Keenan & Comrie (1977) formulate the Accessibility Hierarchy, a hierarchy consisting of six grammatical relations. If the lowest relations in it, genitive and object of comparison, are not taken into account, it coincides with the hierarchy of grammatical roles posited by relational grammar (see Maxwell 1979:353; Blake 1994:76, 88). The Accessibility Hierarchy reads as follows (the last two grammatical relations are omitted since they are irrelevant for the present study):

Accessibility Hierarchy (adapted from Keenan & Comrie 1977:66)

subject > direct object > indirect object > oblique

The Accessibility Hierarchy is relevant for many syntactic processes. With respect to relative clause formation, the idea is that positions further up on it are more accessible...
to relativization than positions further down, and that languages allow relativization only on a continuous segment of the Hierarchy going down from subject to a certain cut-off point. It would be a natural pattern, for example, for only subjects and direct objects to be accessible to relativization in a given linguistic system via a certain primary strategy, whereas the relations further down on it are either not relativizable at all, or a different strategy has to be used for them (things proved to be somewhat trickier in Keenan & Comrie 1977, but for our purposes these complications can be disregarded).

The indirect object position, which is the main focus of the present study, is labeled “perhaps the most subtle one on the A[ccessibility] H[ierarchy]” by Keenan & Comrie (1977:72). It seems to be rare that the indirect object has a relative clause strategy of its own: “For purposes of relative clause formation, it appears that many languages either assimilate indirect objects to the other oblique cases […] or to direct objects […]” (Keenan & Comrie 1977:72). As we will see with respect to our sample, both patterns occur in German dialects.

For our discussion of indirect object relative clauses in German dialects, the notion of case is essential. Different versions of a Case Hierarchy have been proposed in the literature (see, among others, Blake 1994:157–162). One formulation of it, which would hold for example for Standard German, is the following:

\[\text{Case Hierarchy (adapted from Primus 1999:18)}\]
\[\text{nominative} > \text{accusative} > \text{dative} > \text{other oblique cases}\]

The Case Hierarchy can be viewed as the morphological correlate of the Accessibility Hierarchy: subjects are encoded by nominative case, direct objects by accusative case, indirect objects by dative case and oblique relations by oblique cases.

For relative clause formation, Keenan & Comrie (1977, 1979) make a basic distinction between [+case] strategies and [–case] strategies. A relative clause forming strategy is [+case] “if the nominal element in the restricting clause marks the NP_{rel.} at least as explicitly as is normally done in simple declarative sentences” (Keenan & Comrie 1979:656). For relative clause formation it is a fairly natural and common pattern in a given linguistic system to display a [–case] strategy for the higher relations of the Accessibility Hierarchy and a [+case] strategy for the lower relations, which follows from the idea that the higher relations of the Accessibility Hierarchy are more accessible to relativization, i.e., less morphological encoding is needed for the higher relations. One possible cut-off point between [–case] and [+case] strategies is between direct and indirect object, i.e., the given linguistic system displays a [–case] strategy for subject and direct object, and a [+case] strategy for indirect object and oblique. Another possible cut-off point is between the indirect object and the oblique, i.e., the given linguistic system displays a [–case] strategy for subject, direct object and indirect object, and a [+case] strategy for oblique. As we will see later on, both patterns occur in German dialects.
1.2 Case

It is commonly assumed that “a case is established wherever there is a distinction for any single class of nominals” (Blake 1994:4). Thus, even if a particular linguistic system displays a distinct case form in only one single instance, we have to posit the respective case for the whole system. For the (modern) Germanic languages the following basic finding (which makes them quite odd among the world’s case languages) holds:

In Germanic languages that exhibit a morphological case system it is noticeable that in noun phrases with a determiner, an adjective and a noun it is the determiner that displays the maximum amount of differentiation. (Blake 1994: 103)

Even among articles (and personal pronouns, which are even more prominent in displaying a maximal amount of different case forms), however, the maximum of case distinctions is never realized in all items. For example, in the Standard German feminine singular article and personal pronoun, nominative and accusative are not distinguished (the forms being die and sie, respectively). But since for other items, including the corresponding masculine article and personal pronoun, nominative and accusative are differentiated (viz. der vs. den and er vs. ihn, respectively), two separate cases, namely, nominative and accusative, have to be posited. Similarly, although for example in the first and second plural personal pronoun, accusative and dative are not distinguished (the forms being uns and euch, respectively), two separate cases have to be posited since in the first and second singular personal pronoun, accusative and dative are differentiated (viz. mich vs. mir and dich vs. dir, respectively).

As is well known, Standard German has four cases: nominative, accusative, dative, and genitive. As indicated above, there is a relatively straightforward correlation between the (upper) grammatical relations of the Accessibility Hierarchy and morphological case encoding (this holds for the main or subordinate clause in general and for the relative clause in particular): the subject is encoded by the nominative, the direct object by the accusative, and the indirect object by the dative. The prototypical encoding for the oblique relation in Standard German would encompass prepositional phrases subcategorized by the verb (note that adpositions can be viewed as analytic case markers, following Blake 1994:9–13), but also the rare instances of genitive case subcategorized by the verb belong here.

The German cases are, of course, not confined to encoding the grammatical relations. For example, while traditionally it is common to see the encoding of the indirect object as the prototypical function of the dative, dative is also used as the case required by a large set of prepositions. In terms of frequency, indirect object datives are much rarer than prepositional datives. For a corpus of Alemannic, Nübling (1992:221) finds that 92% of all datives occur after prepositions. Numerically, the “prototypical function” constitutes thus a small minority. In text samples of German dialects, I had great difficulties finding examples of indirect object relative clauses (cf. Section 1.4).
1.3 Dative case in German dialects

Old High German and Old Low German had five cases: in addition to the four cases known from Standard German, an instrumental is attested for some words. From a diachronic perspective, most (though not all) of the synchronically observable case syncretisms in Standard German and in modern German dialects (most of which have reduced their case systems to a far higher degree than the standard language) can therefore be seen as the result of recent mergers, not the continuation of old syncretisms. As holds for the modern Germanic languages in general (cf. Section 1.2), among German dialects case is least often encoded on the noun (although dative inflection of the noun has been preserved or even reinforced in a few German dialect areas; see Mironow 1957:398–400):

> Of the several constituents of a noun phrase, the noun itself is least often inflected for case. More frequently, the case of the noun phrase is exhibited by the determiners and such adjectives as may be contained in it. Noun phrase substitutes – the pronouns – are particularly sensitive indicators of the case of a phrase.

-Shrier 1965: 420

Among German dialects, we can observe some major differences from Standard German with respect to case. Most importantly, the genitive case is virtually non-existent in nearly all German dialects (see e.g. Mironow 1957:392; Shrier 1965:421; Koß 1983). If we take this into account, we are left with three potential remaining cases, namely, nominative, accusative, and dative (there seem to be no traces of the instrumental case functioning as such in any modern German variety). Of these three cases, dative has merged completely with accusative in some dialects. In these dialects, there is thus a two case-system distinguishing a nominative from an “objective” non-nominative case (encompassing direct and indirect object functions). Another pattern, merger of nominative and accusative, can be observed to a certain extent in many dialects as well, but this tendency never affects all parts of speech (for example, personal pronouns, unless specified for feminine or neuter gender, usually still distinguish a nominative and an accusative or non-subject case). Since, according to our definition, “a case is established wherever there is a distinction for any single class of nominals” (Blake 1994:4), this means that a nominative distinct from an accusative or an “objective” non-nominative case is maintained everywhere, although many parts of speech actually do exhibit nominative-accusative syncretism. There is thus no dialect in which we could speak of a “direct” case encompassing subject and direct object functions for all parts of speech.

According to Shrier (1965), the case systems of German dialects can be divided into two broad groups. First, there are “[t]wo-case dialects, in which a Nominative is distinguished from an Oblique case” (Shrier 1965:431). This type is characteristic of many Low German dialects, i.e. for the northern parts of the German language area. In these dialects, there is no separate dative case in any part of speech. If such case
syncretisms can be observed, I will use the designation non-nominative to refer to the case marking in question. Second, there are “[t]hree-case dialects, in which all cases are distinguished in at least one part of speech” (Shrier 1965:431). Three-case dialects are characteristic of High German, i.e. of the dialects in the center and south of the German language area, though this system “is maintained in each dialect area in different degrees” (Shrier 1965:431). Within the three-case dialects, a further subdivision can be made that runs approximately north-south. In many eastern High German dialects, many masculine parts of speech display syncretism of accusative and dative, whereas in the western dialects, dative remains distinguished from accusative in the corresponding items (see Shrier 1965:434). In addition, it deserves special mention that the three-way distinction of nominative, accusative and dative is maintained in most parts of speech in a southwestern central region (see Shrier 1965:434–435).

Four typical case systems are illustrated by the following tables, displaying paradigms of the personal pronouns of the first person singular, third person singular masculine and feminine, the masculine and feminine demonstrative pronoun and the masculine and feminine definite article. In Table 1, a two-case system from a North Saxon dialect is shown. In Table 2, a three-case system displaying syncretism of accusative and dative in masculine items is illustrated by a Bavarian variety. Table 3 shows a three-case system from a West Central German dialect in which many masculine parts of speech maintain a dative form different from the accusative (this holds for the personal and demonstrative pronouns; the definite article, however, displays syncretism of nominative and accusative). Table 4, finally, displays a fairly similar system, the only difference from the system illustrated by Table 3 lying in the fact that here, even the masculine definite article has a nominative distinct from the accusative.

For many languages, it is commonly assumed that prepositional periphrases have compensated for lost case distinctions. For example, instead of a morphological genitive, a periphrasis using the preposition von ‘of’ is used in many German dialects. As far as dative is concerned, I am aware of only two constructions that could be viewed

### Table 1.6 Pronominal case forms in the dialect of the Weser-Trave area (North Saxon, West Low German) according to Lindow et al. (1998:151, 155, 168)

<table>
<thead>
<tr>
<th></th>
<th>1SG</th>
<th>3SG.M</th>
<th>DEM.M.SG</th>
<th>DEF.M.SG</th>
<th>3SG.F</th>
<th>DEM.F.SG</th>
<th>DEF.F.SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM</td>
<td>ik</td>
<td>he</td>
<td>disse</td>
<td>de</td>
<td>se</td>
<td>disse</td>
<td>de</td>
</tr>
<tr>
<td>NON-NOM</td>
<td>mi</td>
<td>em</td>
<td>disseu</td>
<td>den</td>
<td>ehr</td>
<td>disse</td>
<td>de</td>
</tr>
</tbody>
</table>

### Table 2. Pronominal case forms in North Bavarian according to Schiepek (1908:399, 407, 418)

<table>
<thead>
<tr>
<th></th>
<th>1SG</th>
<th>3SG.M</th>
<th>DEM.M.SG</th>
<th>DEF.M.SG</th>
<th>3SG.F</th>
<th>DEF.F.SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM</td>
<td>b, i, o</td>
<td>eo, o</td>
<td>deo</td>
<td>do</td>
<td>sb, si, se, s, eo</td>
<td>doi</td>
</tr>
<tr>
<td>ACC</td>
<td>m, mi</td>
<td>en, ‘n, nan</td>
<td>dem</td>
<td>en, ‘n</td>
<td>sb, si</td>
<td>id, (s)eo</td>
</tr>
<tr>
<td>DAT</td>
<td>mic, m</td>
<td>in, ‘n, nam</td>
<td>dem</td>
<td>en, ‘n</td>
<td>sb, si</td>
<td>id, (s)eo</td>
</tr>
</tbody>
</table>
Table 3. Pronominal case forms in the dialect of Großrosseln (West Central German, Rhine Franconian), according to Pützer (1988: 237, 255, 267)

<table>
<thead>
<tr>
<th></th>
<th>1SG</th>
<th>3SG.M</th>
<th>DEM.M.SG</th>
<th>DEF.M.SG</th>
<th>3SG.F</th>
<th>DEM.F.SG</th>
<th>DEF.F.SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM</td>
<td>ix</td>
<td>ëx, ër</td>
<td>der, der</td>
<td>ëx, ër</td>
<td>ëx, ër</td>
<td>der, der</td>
<td></td>
</tr>
<tr>
<td>ACC</td>
<td>mix</td>
<td>in(än), nà</td>
<td>dem, dem</td>
<td>in(än), nà</td>
<td>in(än), nà</td>
<td>dem, dem</td>
<td></td>
</tr>
<tr>
<td>DAT</td>
<td>mir, mir</td>
<td>in, in</td>
<td>dem, dem</td>
<td>in, in</td>
<td>der, der</td>
<td>dar</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Pronominal case forms in the dialect of Oberschefflenz (Upper German, East Franconian) according to Roedder (1936: 129–130)

<table>
<thead>
<tr>
<th></th>
<th>1SG</th>
<th>3SG.M</th>
<th>DEM.M.SG</th>
<th>DEF.M.SG</th>
<th>3SG.F</th>
<th>DEM.F.SG</th>
<th>DEF.F.SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM</td>
<td>iic, i</td>
<td>ecr, ër</td>
<td>der, der</td>
<td>der</td>
<td>der</td>
<td>ëi, ëi, ëf</td>
<td>ëi, ëi, ëf</td>
</tr>
<tr>
<td>ACC</td>
<td>mic, mi</td>
<td>een, en</td>
<td>den</td>
<td>den</td>
<td>den</td>
<td>sà, sà, sà</td>
<td></td>
</tr>
<tr>
<td>DAT</td>
<td>mii, mii</td>
<td>een, en, m</td>
<td>den</td>
<td>m</td>
<td>m</td>
<td>der, der</td>
<td></td>
</tr>
</tbody>
</table>

as periphrases. On the one hand, in some Alemannic and Bavarian dialects, dative noun phrases can be augmented with the preposition corresponding to Standard German *an* 'at' or *in* 'in', as illustrated by example (1), from Alemannic, taken from Seiler (2003: 15).

(1) *Er* git dr Opfel a mir.

‘He [Nom] gives.3sg [the apple] Acc. PDM me Dat.

While there are many arguments that the preposition in this construction is indeed a dative marker (I therefore call it ‘prepositional dative marking’ following Seiler 2003), at least for Alemannic this strategy cannot be viewed as compensatory. In Alemannic, a dative distinct from accusative is clearly maintained even without taking into account instances of prepositional dative marking (see Seiler 2003: 227).

Apart from prepositional dative marking in Upper German, I could only find one more indication of a parallel construction in Low German by Koß (1983: 1248) quoting Behaghel (1928: 493), who, unfortunately, does not indicate in which Low German dialect this periphrasis occurs and does not provide an example. But this periphrasis can be illustrated by the following example of a Dutch (more exactly: Brabants) dialect, taken from Mironow (1957: 401, Note 1).

(2) *òn u zyster*

‘to the sister’

In Low German, this construction might be viewed as compensatory to the loss of a distinct dative case. From the fact that I could not find any decisive examples of this construction in Low German, I conclude that it is rare and does not play a prominent role in the organization of Low German case systems.
1.4 The data

It proved to be quite difficult to collect the data for the present investigation. First, in spoken language relative clauses are not very frequent, and the same holds for indirect objects. The intersection of these two objects of study, indirect object relative clauses, is very rare. According to Weinert (2004), who includes different corpora of spoken and written German in her investigation, dative relative clauses are practically absent in spoken German (see Weinert 2004:20–21). In collections of German dialect texts, indirect object relative clauses proved to be very rare to almost non-existent. I therefore could not make use of this potential source for the present study.

Second, a major problem related to the topics and methods of traditional German dialectology has to be taken into account:

German linguistic geography has concentrated on phonology and vocabulary; if morphology has been considered at all, the regional fate of isolated morphemes has been plotted without reference to the system. Thus, the regional replacement of *ihm* by *ihn* has been mapped, but without regard to the question whether a surviving *ihm* represents a Dative distinct from an Accusative, or whether it represents a generalized Oblique case. (Shrier 1965:420–421)

For that reason, atlas materials also proved to contain too little information. Therefore, the data of the present study are all taken from grammatical descriptions. Grammars, in the ideal case, have the advantage of providing the fullest picture inasmuch as they should treat their subject exhaustively and give all the relevant data. Even so, grammars can sometimes be shown to give misleading information with respect to relative clause constructions, and possible shortcomings in the interpretation may be traced back to this fact (cf. Section 2.2.1). Also among grammars things proved to be quite difficult. Although many grammarians consider the relative clause worthy of at least brief mention, only a minority of the grammars consulted contain enough information. It is a common pattern for a grammar to mention a relative construction, but to give only one example that may illustrate the subject or the direct object, the indirect object not being especially mentioned. Naturally, the indirect object will be covered more often if it displays structures different from subject or direct object relative clauses. I could find quite a number of descriptions covering such systems, but surprisingly few describing in explicit words the same strategy for direct and indirect object relative clauses. This fact might be only a function of the (supposedly natural) tendency not to give explicit information on a construction that does not display differences on the surface level with respect to another construction already mentioned in the same paragraph.

In natural discourse, relative clauses are embedded in matrix clauses that display, as a minimum, one noun phrase and a predicate. Since case relations of the matrix clause turned out to be important with respect to a certain phenomenon (viz. case matching; cf. Section 3), I usually not only quote the antecedent noun phrase along with the relative clause in the examples, but the entire matrix clause. However, since many grammars only give examples consisting of an antecedent noun phrase and the
relative clause, this is not always possible. Such examples are, of course, to some extent artificial (as data in grammars tend to be), and for some questions, this turns out to be a regrettable shortcoming.

Most of the data discussed in the present paper are from West Central German and Upper German. This is due to the fact that in Low German and East Central German, many dialects seem to display largely identical relative clause patterns with respect to the encoding of case. In West Central German and Upper German, on the other hand, a variety of systems can be observed, and it is a recurring pattern that even closely related dialects diverge with respect to their treatment of the indirect object in relative clauses.

2. Attested relative clause patterns

In a previous study on relative clauses in German dialects, I found with respect to relative clause formation that in virtually every variety a basic opposition exists between the subject and direct object, on the one hand, and the oblique, on the other. The intermediate position, the indirect object, either follows the pattern of the higher grammatical role, or the pattern of the lower one (see Fleischer 2004a:231; most of the data discussed in Fleischer 2004a are presented more extensively in Fleischer 2004b).

In the present follow-up study, the direct object relative clauses of each dialectal system are compared with the indirect object relative clauses of the same dialect (taken from the same source wherever possible) to see if a cut-off point between direct object and indirect object with respect to case encoding can be located along the lines predicted by the Accessibility Hierarchy. The data to be discussed are presented in the following order: in Section 2.1, systems that display [+case] strategies as the only or predominant strategy for direct object relative clauses are discussed; in Section 2.2, systems in which the [+case] strategy for direct object relative clauses alternates with a [–case] strategy are considered; in Section 2.3, systems in which only [–case] strategies for direct object relative clauses occur are treated. It turns out that, for the second and third subgroup, both [+case] and [–case] strategies for indirect object relatives can be observed, whereas for the first subgroup, only [+case] strategies appear in the indirect object relative clause. Since one phenomenon that turns out to be important, namely, a case matching constraint, cannot not be covered by this typology, further data relevant for case matching are discussed in Section 3.

One of the suggestions in a comment on Keenan & Comrie (1977) by Maxwell (1979) was to introduce a distinction between what he calls relative pronoun strategy and anaphoric pronoun strategy. This distinction can be exemplified by the elements encoding case in the relative clause: relative pronouns are elements that encode case and introduce a relative clause. Since they head the relative clause, they are subject to movement (into SpecCP, to use a frequently employed generative term) and are not in their original position. In an anaphoric strategy, on the other hand, the element encoding case does not introduce the subordinate clause. Instead, in a rightbranching tree it is located further to the right within the subordinated clause (usually, it will be
in situ, i.e. in its original position; at most, such a pronoun can be subject to scrambling, but movement into SpecCP is impossible). While it has been challenged whether a distinction between these two types is tenable with respect to a universal definition (see Keenan & Comrie 1979:657), it is useful and unproblematic for the data discussed in the present paper. I will thus make a distinction between relative pronouns and resumptive personal pronouns (which are the case-encoding elements in relative clauses that display the anaphoric pronoun strategy, in Maxwell’s 1979 terminology).

Relative clauses in German dialects, contrary to English, are usually not introduced by a zero element (if evidence from one area at the very northwestern periphery of the German language area is disregarded; see Fleischer 2004a:226; Fleischer 2004b:78–79). Relative clauses are always introduced by at least one overt element. There are two principal types of introducing elements: pronouns and particles. Among pronouns introducing relative clauses (i.e., relative pronouns), the most important type is the pronoun der, die, das (this pronoun is demonstrative in origin and is usually also used in its original demonstrative sense and/or as a strong form of the definite article). Other pronouns, such as welcher ‘which’ or wer ‘who’, are quite rare (see Fleischer 2004a:218, 232–233). The particles da, wo or was, others being quite rare (see Fleischer 2004a:218, 233–234; Fleischer 2004b:64). The most important pattern to be encountered with these particles are relative clauses that are just introduced by them, case not being encoded at all. But in some dialects they may be combined with inflected pronouns. In one recurring pattern a relative clause is introduced by the pronoun der, die, das, which is combined with one of the above particles. In another pattern, the relative clause is introduced by an uninflected element, but displays a resumptive pronoun (usually personal) further to the right. Of these strategies, only particles not combined with pronouns are [–case] strategies; all patterns displaying pronouns, regardless whether relative or resumptive, are [+case] strategies. Thus, although the particles themselves do not encode case, they are not automatically tied to [–case] strategies since they can be combined with case-encoding relative or resumptive pronouns.

2.1 [+case] strategy in direct object relative clauses

If the direct object relative clause displays an inflected pronoun, the indirect object relative clause displays the same inflected pronoun as well. I could not find a single instance of a system in which for the direct object a [+case] strategy can be observed, whereas for the indirect object a [–case] strategy is used.

Systems displaying [+case] strategies for direct object and indirect object relative clauses are quite widespread in Low German and in East Central German (some, especially eastern, varieties of these large dialect areas also display [–case] strategies). They can be illustrated by examples (3)–(4) from the dialect of Altenburg (East Central German, Thuringian), taken from Weise (1900:77), and by examples (5)–(6) from the dialect of the Weser-Trave area (West Low German, North Saxon), taken from Lindow
et al. (1998:174). In these dialects, the relative clause is introduced by the pronoun der, die, das, as in Standard German.

(3) die Frau, die du gesehen hast
    [the woman]_nom REL.SG.F,ACC you_nom seen have.2sg
    ‘the woman whom you have seen’

(4) das Kind, dem du das Geld gegeben hast
    [the child]_nom REL.SG.N,DAT you_nom [the money]_acc given have.2sg
    ‘the child to whom you have given the money’

(5) Ik heff dat Peerd, dat ik an Weihnachten
    I_nom have [the horse]_nom REL.SG.N[non-nom] I_nom on Christmas
    kregen harr, nu doch bi de Kusen keken.
    got had.1sg now still at the molars looked
    ‘I did now look in the mouth (more lit.: ‘at the molars’) of the horse that I had got on Christmas.’

(6) De Fauljack, den se schreven harr, anter
    [the sluggard]_nom REL.SG.M[non-nom] she_nom written had.3sg answers.3sg
    nich.
    not
    ‘The sluggard to whom she had written does not answer.’

2.2 [+case] strategy alternates with [–case] strategy in direct object relative clauses

Systems in which direct object relative clauses allow both [+case] and [–case] strategies are widespread among West Central German and Upper German dialects. Furthermore this pattern occurs in Yiddish as well. For the time being, it can be illustrated by example (7), representing the dialect of Großrosseln (transitional area of Rhine and Moselle Franconian, West Central German), taken from Pützer (1988:268), and by example (8), from Yiddish, adapted from Mark (1942:130); further examples are given below. In the West Central German variety, direct object relative clauses can, but need not display an inflected relative pronoun (bracketed in (7)), whereas the particle wo seems to be obligatory. Similarly, in Yiddish, a direct object relative clause introduced by the particle vos can, but need not cooccur with a resumptive personal pronoun within the clause (bracketed in example (8)). If the optional inflected pronouns in examples (7) and (8) are left out we are dealing with [–case] strategies, but if they are present we are dealing with [+case] strategies. Case marking in these instances is truly optional and it seems to be the case that only stylistic, not grammatical criteria determine whether the [+case] strategy or the [–case] strategy is chosen.\textsuperscript{11}
Dative and indirect object in German dialects

(7) as kind (das) vo: ix men, is gręng. [the child]nom rel.sg.nacc part Inom mean.1sg is.3sg sick
'The child that I mean is sick.'

(8) ikh hob bagegn maynem a fraynd, vos ikh hob (im) Inom have met [mine a friend]acc part Inom have.1sg himacc shœyn etlekhe yor nit gezem.
already several years not seen
'I have met a friend of mine whom I have not seen for years.'

Dialects that form their direct object relative clauses according to this pattern can be subdivided according to the behavior of indirect object relative clauses. In some dialects, the [+case] strategy in indirect object relative clauses is obligatory or strongly preferred (i.e., pronouns have to be used in indirect object relative clauses), whereas in others it can, but need not appear (i.e., pronouns seem to be optional in the relative clause). These subgroups will be discussed in Sections 2.2.1 and 2.2.2, respectively.

2.2.1 [+case] strategy obligatory in the indirect object relative clause

In many dialects in which direct object relative clauses can, but need not be of the [+case] type, the indirect object relative clause is obligatorily of the [+case] type, or this is at least strongly preferred. This can be illustrated by examples (9)–(10), from a Palatinate dialect (Rhine Franconian, West Central German), taken from Henn (1978a:53–54). In the direct object relative clause, there are three alternative constructions: the relative clause can be introduced by wo alone (the [-case] strategy), by the combination of der, die, das + wo and by der, die, das alone (the latter two being [+case] strategies). In the indirect object relative clause, however, only the two [+case] strategies are possible, whereas the [-case] strategy, i.e. wo alone, is ungrammatical. The same pattern, though realized with different particles and pronouns, can be illustrated by Yiddish, which displays, as illustrated by the above example (8), optionality of the case-encoding resumptive pronoun in the direct object relative clause. But in the indirect object relative clause the resumptive pronoun cannot be dropped, as illustrated by example (11), from Jacobs, Prince and van der Auwera (1994:416).

(9) der Mann, wo / den wo / den wir kennen [the man]nom part / rel.sg.macc part / rel.sg.macc wenom know.1pl
'the man we know'

(10) der Mann, *wo / den wo / den ich das [the man]nom part / rel.sg.mdat part / rel.sg.mdat Inom thatacc gegeben habe
given have.1sg
the man I’ve given it to’

(11) a melamed, vos es iz imm?O zeyer shlekht gegangen [a teacher]nom part it is.3sg himdat/O very badly gone
’a teacher that was very bad off’ (lit.: ‘...to whom it went very badly’)
The same state of affairs seems to hold for the variety of Munich (Central Bavarian, Upper German), as illustrated by examples (12)–(13), adapted from Merkle (1975:148–149). In this variety, as in Palatinate, relative clauses may be introduced by a combination of der, die, das plus wo or by one of these elements alone. According to Merkle (1975), it is impossible to drop the pronoun in an indirect object relative clause, as illustrated by example (13), whereas example (12), illustrating a direct object relative, is grammatical. Note, however, that the antecedent noun phrase in (12) is accusative. As a matter of fact, as discussed by Bayer (1984:221), Merkle’s indication that the direct object pronoun can be missing seems to be incorrect. Instead, a case matching constraint seems to be at work, which will be treated in Section 3.2.

(12) den Mandll, wo i kàffid hàb
    [the coat]acc part I nom bought have.1sg
‘the coat that I’ve bought’

(13) deà Mõ, *(dem) wo dees keàd
    [the man]nom rel.sg.mdat part that nom belongs.3sg
‘the man this belongs to’

2.2.2 [+case] strategy optional in the indirect object relative clause
Systems like those treated in the preceding paragraph, with the indirect object relative clause obligatorily displaying a [+case] strategy while this [+case] strategy is optional for direct object relative clauses, are quite widespread. Optionality of case marking for the indirect object seems to be rare. It seems to occur for example in the dialect of Großrosseln (transitional area of Rhine and Moselle Franconian, West Central German). As illustrated by the above example (7), in this dialect direct object relative clauses can, but need not display a case-encoding demonstrative pronoun. Exactly the same pattern seems to hold for indirect object relative clauses as well, as suggested by example (14), taken from Pützer (1988:268). But note that in example (14) the preceding noun phrase displays dative case, a fact not discussed by Pützer (1988:268). This peculiarity may again be indicative of a recurring case matching constraint, which will be discussed in Section 3.2.

(14) der fra: (der) wo: s gofèd gàxérd xøn
    [the woman]dat rel.sg.fdat part [the store]nom belong.3sg have.1sg
ix bùlnà gebrùn.
I nom flowers acc brought
‘I brought flowers to the woman who owns the store.’ (more lit.: ‘I brought flowers to the woman the store belongs to.’)
2.3 \([-\text{case}]\) strategy in direct object relative clauses

Among German dialects, systems that have only \([-\text{case}]\) strategies for direct object relative clauses are probably less frequent than those that display optionality of case marking in these relations. Still, this is quite a common pattern, especially among Upper and West Central German dialects. Furthermore, it is typical of North Frisian, i.e., a Germanic language neighboring Low German dialects, and it seems to occur in some Low German dialects as well (not covered by the present study). Again, a subdivision can be made according to the behavior of indirect object relative clauses: there are dialects in which a \([+\text{case}]\) strategy for indirect object relative clauses occurs, whereas in others, the same \([-\text{case}]\) strategy as for direct objects is used.

2.3.1 \([+\text{case}]\) strategy in indirect object relative clauses

In some dialects displaying \([-\text{case}]\) strategies for direct object relative clauses, a \([+\text{case}]\) strategy appears in the indirect object relative clause. Such a system can be exemplified by examples (15)–(16), illustrating the dialect of Wissembourg (Rhine Franconian, West Central German), taken from Siegfried (1952:186), or by examples (17)–(18), illustrating the dialect of Zurich (High Alemannic, Upper German), taken from Weber (1964:299). In the Wissembourg dialect, the direct object relative clause is introduced by \(\text{wo}\) only, whereas the indirect object relative clause displays a relative pronoun depending on a reinforcing preposition.\(^{13}\) In Zurich German, a direct object relative clause is introduced by the particle \(\text{wo}\), while for the indirect object, a resumptive personal pronoun has to appear within the clause.

(15) \(\text{do }\ddot{\text{e}}\text{sl }\text{vu }\text{is'}\text{ gh\'fd}\text{ h\'bh}\)

\[\begin{array}{l}
\text{[the donkey]}_{\text{nom}} \text{ part } I_{\text{nom}} \text{ bought have.1sg} \\
\text{‘the donkey that I’ve bought’}
\end{array}\]

(16) \(\text{do }\ddot{\text{b}}\text{a }\text{in }\ddot{\text{d}}\text{m }\text{vas }\text{ge\'v }\text{h\'s}\)

\[\begin{array}{l}
\text{[the boy]}_{\text{nom}} \text{ PDM REL.SG.MDAT part=it.acc given have.2sg} \\
\text{‘the boy to which you’ve given it’}
\end{array}\]

(17) \text{Bikanti, }\text{won i scho lang n\'ume gsee h\'a}

\[\begin{array}{l}
\text{acquaintances}_{\text{nom}} \text{ part } I_{\text{nom}} \text{ already long no seen have.1sg} \\
\text{‘acquaintances I haven’t seen since long’}
\end{array}\]

(18) \text{L\'u\'t, }\text{wo me ne mit em beschte wile n\'ud cha h\'allsfe}

\[\begin{array}{l}
\text{people}_{\text{nom}} \text{ part } \text{one them.DAT with the best will not can.3sg help} \\
\text{‘people who one cannot help with all the will’}
\end{array}\]

2.3.2 \([-\text{case}]\) strategy in indirect object relative clauses

In some dialects in which a \([-\text{case}]\) strategy is used for direct object relative clauses, the same \([-\text{case}]\) strategy is also used for indirect object relative clauses. Such systems can be exemplified by examples (19)–(20), taken from Steitz (1981:126), illustrating the dialect of Saarbrücken (transitional area of Rhine and Moselle Franconian, West
Central German), displaying wo as the particle introducing the relative clause, or by examples (21)–(22), from Jörgensen (1978:23), illustrating a North Frisian variety in which an equivalent of German was occurs as relative particle.

(19) \( as \) bu:x, vo: \( da \) le:rr\( \_ \)nom has.3sg [the book]\_nom [the teacher]\_nom \( \)geb, part \( \)given
   [\( \)the \( \)book]\_nom part [\( \)the \( \)teacher]\_nom has.3sg [\( \)the \( \)boy]\_dat given
   vat \( \)a fe:vol.
   was.3sg [\( \)a \( \)primer]\_nom
   ‘The book the teacher has given to the boy was a primer.’

(20) \( da \) bu:ch, vo: \( da \) le:rr\( \_ \)nom has s bu:ch geb,
   [\( \)the \( \)book]\_nom part [\( \)the \( \)teacher]\_nom has.3sg [\( \)the \( \)book]\_acc given
   kan \( \)\( n\_{\_}d \) \( \)lec exporters.
   can.3sg yet \( \)not read
   ‘The boy the teacher has given the book to cannot read yet.’

(21) \( di \) moon, wat ik s\( \_ \)n\( \_ \)h\( \_ \)h\( \_ \)w
   [\( \)the \( \)man]\_nom part I\_nom seen have.1sg
   ‘the man I’ve seen’

(22) \( di \) dring, wat ik en m\( \_ \)ark d\( \_ \)n\( \_ \)j h\( \_ \)w
   [\( \)the \( \)boy]\_nom part I\_nom [\( \)a \( \)mark]\_nom\_nom given have.1sg
   ‘the boy I’ve given a mark to’

In Section 3.2 further data that might belong to this subgroup are discussed, but for those cases a restriction with respect to the case of the antecedent noun phrase may play a role. The antecedent noun phrase has to display dative case, it has thus to match with the case required by the verb of the relative clause. Note that in the above two examples, this restriction does not apply: example (20) displays nominative in the antecedent, whereas in North Frisian no separate dative exists.

3. Case matching

In some dialects, a case matching constraint on indirect object relative clauses displaying [–case] strategies seems to exist. In these dialects (which, to be sure, have [–case] strategies for direct object relative clauses) it seems to be the case that, as mentioned in passing in Sections 2.2.2 and 2.3.2, [–case] strategies in the indirect object are only possible if the antecedent noun phrase displays dative case. Otherwise, a (relative or resumptive personal) pronoun displaying dative case within the relative clause has to appear, i.e., if the head noun displays another case than dative, the [+case] strategy is obligatory.
3.1 Case matching in free relative clause formation in Standard German

Case matching phenomena have been observed primarily with respect to free relatives. Thus, for (Standard) German it is usually stated, as indicated by Pittner (1991:341), that free relative clauses obligatorily display case matching (but see below). If a case conflict between the subcategorization frames of the subordinate and the matrix verb occurs, different things may happen. For Finnish Bresnan & Grimshaw (1978:373), in their seminal paper on free relatives, observed that “[w]hen the case requirements of the matrix and subordinate verb conflict, the head of the free relative clause agrees with the subordinate verb”. But this holds only in certain configurations (for which the notion of ‘unmarked case’, corresponding to structural case, is crucial; see Bresnan & Grimshaw 1978:374).

As a matter of fact, in situations of case conflict the Case Hierarchy introduced in Section 1.1 seems to be relevant. For (Standard) German free relatives, Pittner (1991:342) has formulated a rule according to which the case of the matrix verb need not be realized if it is higher in the Case Hierarchy than the case of the subordinate verb. If it is the other way around, the free relative clause is ungrammatical. This generalization explains the grammaticality of examples (23) and (24a), taken from Pittner (1991:341–342). In example (23), the matrix verb requires accusative and the subordinate verb requires dative case. The free relative displays dative case, as required by the subordinate verb, which is lower in the Case Hierarchy than the case required by the matrix verb. Hence, the result is grammatical. In (24a), however, the matrix verb requires dative case, while the subordinate verb requires accusative. If the free relative clause displays the case required by the subordinate verb, and this case is higher in the Case Hierarchy than the case of the matrix verb, the result is ungrammatical, as illustrated by (24a). Note that in such a configuration, it is altogether impossible to form a free relative clause. If the relative pronoun fulfills the subcategorization requirements of the matrix verb while neglecting those of the subordinated verb, the result is equally ungrammatical, as illustrated by (24b) (the same patterns have been observed for Finnish free relative clauses; see Bresnan & Grimshaw 1978:373).

(23) Sie lädt ein, wen sie zu Dank verpflichtet ist.
   she3sg invites 3sg PTCL who3dat she3sg to thank obliged is.3sg
   ‘She invites whom she is obliged to thank.’

(24) a. *Er vertraut, wen er kennt.
   he3sg trusts 3sg whoacc he3sg knows.3sg
   intended: ‘He trusts whom he knows.’

b. *Er vertraut, wen er kennt.
   he3sg trusts 3sg who3dat he3sg knows.3sg
   intended: ‘He trusts whom he knows.’

It is crucial that the constraints on free relative clause formation that can be explained in terms of the Case Hierarchy relate to surface case, not to case at a more abstract level (see Pittner 1991:342). For instance, although a configuration consisting of a subordi-
nated verb requiring nominative and a matrix verb requiring accusative would be ruled out as ungrammatical, this configuration is grammatical if the pronoun involved displays nominative-accusative syncretism. This explains the difference in grammaticality of examples (25) and (26), taken from Pittner (1991:342). Example (25) is ungrammatical (the pronoun distinguishes a nominative *wer* 'who' from an accusative *wen* 'whom'), but example (26) is grammatical (the pronoun does not distinguish between a nominative and an accusative form, both are *was* 'what').

(25) *Er zerstört, wer ihm in die Quere kommt.*
he\textsubscript{nom} destroys.3sg who\textsubscript{nom} him\textsubscript{dat} in the way comes.3sg
intended: 'He destroys who crosses his path.'

(26) *Er zerstört, was ihn behindert.*
he\textsubscript{nom} destroys.3sg what\textsubscript{nom} him\textsubscript{acc} impedes.3sg
'He destroys what impedes him.'

3.2 Case matching in relative clause formation in German dialects

The patterns to be observed in Standard German free relative clause formation are parallel to the phenomena observed, e.g., in Bavarian headed relative clause formation, as pointed out by Pittner (1996:136), quoting data from Bayer (1984). Similar patterns also occur in other German dialects, which are to be discussed now.

Unfortunately, in many instances the data is somewhat problematic. Many grammatical descriptions give examples of indirect object relative clauses with a preceding dative noun phrase (while the antecedent noun phrases of their examples for subject or direct object relative clauses display nominative) without discussing this peculiarity. It is very likely that in these cases the case matching constraint is actually the reason for the grammaticality of the respective examples, but one cannot be completely sure on this. This holds, e.g., for Pützer (1988), who describes the dialect of Großrosseln illustrated by the above examples (7) and (14), and the same holds for Wanner (1908:348), who describes the dialect of Zaisenhausen (Rhine Franconian, West Central German) and who furnishes us with example (27). In this variety, relative clauses are introduced by *wo* alone, and this seems to hold also for the indirect object cases, as illustrated by (27). But this example displays dative case in the antecedent noun phrase, a fact not discussed by Wanner (1908). Thus, for the dialects of Zaisenhausen and Großrosseln, it is very likely that the case matching constraint for indirect object relative clauses does exist, but this cannot be stated with certainty since the respective grammatical descriptions give no explicit information on this phenomenon (a similar example illustrating an Upper Saxon variety is treated in Fleischer 2004a:223–224, 2004b:72, Note 7).
Dative and indirect object in German dialects

(27) i hans tæm man ksaait, wu tv kaatz

I nom have.1sg=it acc [the man] dat said part [the garden] nom

belieks.3sg

'I've said it to the man the garden belongs to.'

In some grammars the case matching constraint is described more explicitly. In the dialect of Oberschafflenz (East Franconian, Upper German), direct object relative clauses are introduced by the particle wo not accompanied by any pronoun. In the indirect object, the same construction is possible, as illustrated by example (28), taken from Roedder (1936:132).

(28) dør [the man] nom part I nom that acc given have.1sg

'the man I've given it to'

Yet, Roedder (1936:132) comments that such a structure is rare and that one would rather find (29) instead.

(29) dem maat, wu i des gewo hab, der hot gsaat.

[the man] dat part I nom that acc given have.1sg this nom has.3sg said

'The man I've given it to has said.' (more lit.: 'To the man I've given it to, this one has said.')

This construction displays two differences compared to the construction of example (28). The antecedent noun phrase displays dative case, and the subject of the matrix clause is resumed by a demonstrative pronoun after the relative clause (note that for example (28), Roedder 1936 does not give a matrix verb). Such a construction is sometimes referred to as 'inverse attraction' (attractio inversa). Since there is resumption of the subject of the matrix clause by a demonstrative pronoun, such a construction should probably be viewed as an instance of left dislocation, as argued by Pittner (1996:123), who discusses among other things a parallel Middle High German example.

Even clearer is the description given by Schiepek (1899:52), illustrating a dialect of the Egerland (North Bavarian, Upper German). In this variety, relative clauses may be introduced by the particle was not accompanied by a pronoun, and this seems to hold for subject, direct object and indirect object relative clauses alike. Such indirect object relative clauses are possible only if the antecedent noun phrase displays dative case, though. Example (30a), in which the antecedent is in the nominative, can only be interpreted as being a subject relative clause. But if the antecedent noun phrase is in the dative, as in example (30b), which furnishes a minimal pair with (30a), it is interpreted as an indirect object relative clause.
(30) a. *Mensch, woI Pfennig gitt
   [a man]_{nom} PART nobody_{nom} [a penny]_{acc} gives.3sg
   ‘a man who doesn’t give a penny to anybody’ (impossible reading: ‘a man nobody gives a penny to’)

b. *Menschn, woI Pfennig gitt
   [a man]_{dat} PART nobody_{nom} [a penny]_{acc} gives.3sg
   ‘to a man nobody gives a penny to’

Examples such as (29) and (30b), but probably also (14) and (27), for which I suspect that the authors of the respective grammatical descriptions did not capture (or mention) this particularity, are thus instances of a case matching constraint. It can be stated as follows: the [+case] strategy that the respective dialect uses for direct object relative clauses can only be used for indirect object relative clauses if the antecedent displays dative case.

As indicated above, in some Bavarian varieties not only indirect object relatives seem to be subject to such a case matching constraint. As discussed in Section 2.2.1, in the variety of Munich relative clauses are either introduced by a combination of the pronoun *der, die, das* with the particle *wo* or by one of these elements alone. But contrary to many West Central German systems illustrated in Section 2.2, dropping of the pronoun seems to be impossible for direct object relatives in which the relativized noun displays masculine gender, as illustrated by example (31), taken from Bayer (1984:216).\(^\text{17}\) Dropping of the pronoun is possible though if the masculine antecedent noun phrase displays accusative case, as in example (12). Dropping of the pronoun with feminine, neuter or plural nouns is equally grammatical, irrespective of the case of the antecedent noun phrase, as is illustrated by example (32), also taken from Bayer (1984:216), which displays nominative case in the antecedent noun phrase.

(31) Der Mantl *(den) woI kaffd hab wor z’rissn.
   [the coat]_{nom} rel.sg.m,acc PART I_{nom} bought have.1sg was.3sg torn
   ‘The coat that I bought was torn.’

(32) Die Lampl *(die) woI g’seng hab wor geißlich.
   [the lamp]_{nom} rel.sg.f,acc PART I_{nom} seen have.1sg was.3sg ugly
   ‘The lamp that I saw was ugly.’

These data suggest that it is not a property of the direct object as such to allow dropping of the pronoun. Rather, case matching is decisive. If the cases of the antecedent and the demonstrative pronoun introducing the relative clause match, the latter may be dropped; otherwise, the pronoun is obligatory. Note, however, that the case matching constraint again relates to the surface form, not to case at a more abstract level, as we have seen in Section 3.1 with respect to free relative clauses in Standard German, and might thus be renamed ‘case form matching constraint’. Since in the feminine gender, nominative and accusative of the demonstrative pronoun display the same forms, (32) is grammatical, although the antecedent displays nominative case while the relative pronoun is in the accusative. In (31) the nominative form of the relative pronoun,
required by the matrix verb, would be different from the accusative required by the
subordinated verb, hence dropping of the pronoun is ungrammatical. As a matter of
fact, also in indirect object relative clauses, contrary to the indications given by Merkle
(1975), dropping of the pronoun is grammatical if the antecedent noun phrase displays
dative case – just as in many other varieties discussed above. This can be illustrated by
example (33) from Bayer (1984:221).
(33) Sie
they
nom
gem’s
 give.3pl
=it.acc
 dem Mo (dem) wo mir g’hoifa
 the
.dat
 [the man] rel.sg.m.dat
 part
 help.1pl
 have.1pl
 ‘They give it to the man whom we have helped.’
In other words, for Central Bavarian, at least, it is not the direct object as such that al-
 lows dropping of the pronoun, but rather the case matching constraint. For the direct
object, dropping of the pronoun is impossible for masculine noun phrases if the an-
tecedent noun phrase displays nominative, because here, case matching is not fulfilled.
But in the feminine, neuter, and plural, dropping is grammatical since here, nominative
and accusative display the same case forms. In these instances, the pronoun is thus
optional, its use is not subject to grammatical, but rather to stylistic conditions.
The question now arises whether the other varieties allowing dropping of the pro-
noun in indirect object relative clauses could be analyzed in the same way. For many
varieties, this question can, for the following reason, not be answered in a conclusive
way. In many varieties displaying optionality with respect to case encoding for the di-
rect object, case syncretism of nominative and accusative plays a major role – most
importantly in the paradigms of the demonstrative pronoun (contrary to Bavarian). It
is thus possible that in these grammars, the case matching constraint exists, but applies
vacuously in the direct object relative clauses. If there is total syncretism of nominative
and accusative in all genders, configurations in which a conflict with the case matching
constraint could appear do not exist – contrary to the situation with the dative.
In one instance, however, the case matching constraint can be shown to play no
role for direct object relative clauses, namely, in the East Franconian variety described
by Roedder (1936). In this dialect, as illustrated by Table 4, the masculine demonstra-
tive pronoun as well as the definite article display accusative forms distinct from
nominative (and dative). Therefore, as in Bavarian, there is no matching of the overt
cases between an antecedent displaying nominative case and a relative clause in which
the verb of the clause requires accusative (or dative). Yet, Roedder (1936), who, as
discussed above, describes the matching constraint for indirect objects, gives no in-
dication that anything similar holds for the direct object. It thus seems plausible to
conclude that for this variety, at least, the matching constraint plays no role for the
direct object. Rather, the fact that no pronoun is required in direct object relative
clauses irrespective of gender seems to be a property of this grammatical role, not of a
matching constraint.
Table 5. Summary

<table>
<thead>
<tr>
<th>DO = [+case]</th>
<th>DO = [+case]</th>
<th>DO = [+case]</th>
</tr>
</thead>
<tbody>
<tr>
<td>IO = [+case]</td>
<td>Altenburg</td>
<td>Yiddish</td>
</tr>
<tr>
<td>North Saxon</td>
<td>Palatinate</td>
<td>Wissembourg</td>
</tr>
<tr>
<td>IO = [+case]</td>
<td>–</td>
<td>Großrosseln [match.?]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Central Bavarian [match.]</td>
</tr>
<tr>
<td>IO = [+case]</td>
<td>–</td>
<td>–</td>
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</table>

Key: DO = direct object relative clause, IO = indirect object relative clause, [+case] = [+case] strategy as the only possible construction, [±case] = [+case] strategy optional (alternating with [–case] strategy), [–case] = [–case] strategy as the only possible construction, match. = case matching constraint applies, – = not attested

4. Summary

The data presented in Sections 2 and 3 are summarized in Table 5. It cross-classifies direct and indirect object relative clauses according to their case-marking behavior. In addition, it is indicated whether the case matching constraint plays a role with respect to some [–case] strategies.

5. Conclusion

In Section 2, we discussed relative clause formation with respect to case encoding. It turned out that [–case] strategies for indirect object relative clauses exist in many varieties, including the dialect of Saarbrücken (West Central German) and North Frisian. The same pattern also occurs in a Westphalian variety (West Low German) or in a Low Alemannic dialect (Upper German); see Fleischer (2004a:221–222, 224–225, 2004b:65, 75). On the other hand, we have seen that in many dialects that have [–case] strategies for the direct object, this strategy is impossible for the indirect object. This is the case in Palatinate (West Central German), in the dialect of Wissembourg (West Central German), in the dialect of Zurich (High Alemannic, Upper German), and in Yiddish. Another logically possible pattern, the direct object displaying a [+case] strategy while the indirect object displays a [–case] strategy, does not occur. We can therefore generalize that if the direct object displays a [+case] strategy, the indirect object does so as well (but not vice versa), i.e., indirect object relative clauses have to be at least as explicit with respect to case encoding as direct object relative clauses. This finding fits in with the generalizations made by Keenan & Comrie (1977) with respect to quite a different sample of languages (cf. Section 1.1).
In Section 3.2, we saw that a case matching constraint might interfere with this typology of case encoding. In some dialects, [–case] strategies are only possible if case matching with the antecedent is given. This criterion seems to play no role for the varieties already mentioned (in which the antecedent may display nominative case, at least judging by the examples given in the sources), but it plays a decisive role in the varieties of the Egerland (North Bavarian) and Oberschefflenz (East Franconian), and most likely also in the varieties of Großrosseln and Zaisenhausen (both Rhine Franconian, West Central German), as well as in an Upper Saxon variety discussed in Fleischer (2004a:223–224, 2004b:72, Note 7).

If we look at the geographical distribution of these different systems, no clear areal pattern can be discerned. Quite to the contrary, even closely related dialects tend to diverge with respect to indirect object relative clauses. In the dialect of Saarbrücken, for instance, the indirect object displays a [–case] strategy not requiring case matching, whereas in the dialect of Großrosseln, case matching seems to take place. The two dialects are neighboring (Großrosseln is almost a suburb of Saarbrücken). The same can be stated with respect to two Low Alemannic dialects, discussed in Fleischer (2004a:231, 2004b:80). Therefore, for the time being, we have to restrict ourselves to the statement that there seems to be little correlation between the morphological type of a certain dialect and its treatment of indirect objects in relative clauses. The indirect object seems to be relatively unstable in the German diasystem.

There is no doubt that cross-linguistically, the indirect object is a valid category. As discussed by Keenan & Comrie (1977:72–73), it is indispensable for the description of the relativization strategies of some of their sample languages. But the question may be asked if we need the indirect object for the description of individual grammatical systems if we can find no evidence of differing behavior in comparison with other grammatical roles. The status of the indirect object as a grammatical role distinct from both the direct object and the oblique in German and Alemannic is established by Seiler (2003:188–193) by using a series of different criteria (relative clause formation being one of them; other criteria are morphological encoding, passivization and binding phenomena). For dialects displaying a dative case distinct from accusative, the fact that we do find special morphological encoding for the indirect object is one argument in favor of establishing the indirect object as a separate grammatical relation for the respective dialect. But for the varieties not displaying a distinct dative case (namely, North Saxon and North Frisian in our sample), the question can be raised if the indirect object is a necessary category. In the North Saxon variety covered in the present study, there is no difference between direct object and indirect object relative clauses (both display a [+case] strategy). The same holds for the North Frisian dialect (here, direct and indirect object relative clauses both display [–case] strategies). These varieties (which are probably representative of large parts of the northwestern German language area and for North Frisian, respectively), contrary to the other systems discussed in the present paper, display total merger of accusative and dative. An empirical generalization that can be derived from this fact is that dialects that display total syncretism of accusative and dative (i.e., a two-case system opposing a nominative to a
non-nominative) do not display asymmetries between direct and indirect objects with respect to relative clause formation. It could therefore be the case that for these varieties, no indirect object has to be posited at all. This can be shown to be incorrect, however, if one looks beyond relative clause data. Even in dialects that do not have a dative case and that display the same strategy for direct object and indirect object relative clauses, there is still evidence that an indirect object exists as a syntactic role of its own. In English, passivization of indirect objects is fully grammatical (viz. *he was given the book*), but this does not hold for Low German, as becomes quite clear from the indications given by Keseling (1970:355)18 – although the West Low German and English case systems are largely identical. Thus, although for relative clause formation the indirect object is not a necessary category for a grammatical description of these varieties, such a description nevertheless cannot do without reference to the indirect object if we look beyond relative clause formation. Since these varieties display total syncretism of accusative and dative, it can be stated that the indirect object, at least for these varieties, does not depend on morphological case marking.

To conclude, we can state that Keenan & Comrie’s (1977:72) observation that the indirect object “is perhaps the most subtle one” on the Accessibility Hierarchy is also valid if a sample of closely related linguistic systems is investigated. In this study it has been shown that German dialects (and two other West Germanic varieties) all sharing the same roots and spoken in a relatively small region display many differences with respect to indirect object relative clause formation.

Notes

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1. Note that this statement encompasses a definition of the indirect object (and the other grammatical relations) via case: the indirect object is encoded by phrases subcategorized by the verb that display dative case. This provisional definition will not do for all of the varieties covered by the present study, as will be discussed below (see Section 5).

2. I refrain from the possibly more usual designation ‘oblique case’ in order to avoid confusion: the term ‘oblique’ is also used for one of the roles of the Accessibility Hierarchy.

3. The original, heterogeneous transcriptions of the sources have been maintained throughout this paper. This means that some of the examples appear in different systems of phonetic transcriptions while others display a dialect orthography or are even given in a Standard German equivalent. For one source (Steitz 1981), the original transcription has been simplified insofar as suprasegmentals (indication of primary and secondary stress, linking etc.) have been left out.

4. The demonstrative pronoun is also used as a relative pronoun in many varieties. The definite article is a shortened form of the demonstrative pronoun and in many varieties retains clear sim-
ilarities to the latter, but in some varieties, a secondary demonstrative pronoun, an equivalent of Standard German *dieser*, can be found.

5. Note that, for the third person singular personal pronouns, if syncretism of accusative and dative can be observed, it is not unusual that the former accusative and dative forms are distributed according to a new criterion: quite often, the former accusative form is used as a clitic, whereas the former dative functions as a full form (see Shriber 1965:424, Note 2, 426). In some dialects the merger seems to extend only to the full (i.e., former dative) form, while the clitic form can only be used as an accusative; this holds for example for the Bavarian variety described by Weiβ (1998:87).

6. The following abbreviations are used in the tables and glosses: acc – accusative; dat – dative; def – definite article; dem – demonstrative pronoun; f – feminine; m – masculine; n – neuter; nom – nominative; non-nom – non-nominative; part – (relative) particle; ptcl – verbal particle; pdm – prepositional dative marking; pl – plural; rel – pronoun introducing the relative clause; sg – singular.

7. In the examples quoted, the following conventions with respect to punctuation have been followed. If an example consists of a full matrix clause in which the relative clause is embedded, the example ends with a full stop, and the translation begins with a capital and ends in a full stop as well. If an example only consists of an antecedent noun phrase plus a relative clause, no full stop is used, and the translation neither begins with a capital nor ends in a full stop.

8. It is most likely that these "particles" are in the C^0-position and are thus actually conjunctions. Since the exact categorial nature of these uninflected items is irrelevant for the present paper, however, I will continue to speak of particles, basically emphasizing that the respective elements do not exhibit inflection.

9. Diachronically, *was* derives from a pronoun 'what', originally only interrogative, but subsequently used in relative clauses as well in some varieties. In many dialects it gave up its original pronominal behavior and eventually grammaticalized into a particle (see Fleischer 2004a:223, 233; Fleischer 2004b:71–72, 80).

10. Unfortunately, the grammatical descriptions consulted tend not to give clear information about the criteria that trigger the choice of the [+case] or [–case] strategy. It is for this reason that I conclude that the variation is merely stylistic, but closer investigation might reveal other criteria being at work.

11. In other instances to be discussed further down, grammatical criteria are decisive, though. Sometimes the [+case] strategy is obligatory unless there is case matching with the antecedent noun phrase (cf. the discussion in Section 3.2) – which may also hold for indirect object relative clauses of the variety described by Pützer (1988) and illustrated by examples (7) and (14).

12. This comes out quite clearly from the description given by Henn (1978b:342; italicization added): "In der Mundart kann zur Einleitung eines Relativsatzes *wo* oder *der wo* oder *der* unter bestimmten Bedingungen verwendet werden. […] In der Mundart kann die syntaktische Position unmarkiert bleiben, wenn es sich um Nominativ, Akkusativ oder lokale Angaben handelt. […] Immer markiert dagegen ist die syntaktische Position, wenn es sich um Dativ handelt […]." 
"[In the dialect investigated, *wo*, or *der wo*, or *der*, may be used to introduce a relative clause under certain conditions. […] The syntactic position may be left unmarked in the dialect investigated for nominative, accusative or local complements […]. But the syntactic position is always marked when it is a dative […]."; my translation; J.F.]
13. On prepositional dative marking, see Seiler (2003). According to Seiler (2003:18, 263 [map 1]), prepositional dative marking is quite rare in the northern parts of the Alsace, to which Wissembourg belongs. Note that prepositional dative marking occurs almost exclusively in Upper German dialects. The dialect of Wissembourg belongs to West Central German, though, but it is located very close to the Upper German area.

14. Note that the version of the Case Hierarchy used by Pittner (1991) differs in one respect from the version introduced in Section 1.1. In Pittner’s (1991) version, dative and other oblique cases (which are, in the case of German, mainly prepositional cases) are conflated in one category. Since our discussion only relates to possible differences between dative and the cases higher up in the Case Hierarchy, this difference can be disregarded.

15. The classical notion of attractio covers constructions in which the relative pronoun displays the case that is required by the matrix verb rather than the case required by the verb of the relative clause (it shares the case of its antecedent noun phrase, hence the term ‘attraction’). In attractio inversa, the opposite occurs: the case of the relative pronoun required by the verb of the relative clause is taken over by the antecedent noun phrase. Thus, in the Latin example *Hunc adulescentem quem vides, malo astro natus est* ‘That young man which you see was born under an evil star’, the case of the relative pronoun *quem*, accusative, is taken over by the antecedent accusative noun phrase *hunc adulescentem* ‘that young man’, in this case the subject (see Lehmann 1984:185, from which the example is taken). Note that for this analysis, one has to exclude the possibility that *hunc adulescentem* has been topicalized within the relative clause and really belongs in the matrix clause. There are important differences between this Latin construction and the East Franconian construction of example (29). Most importantly, in East Franconian there is no pronoun displaying dative case within the relative clause. Still, there is a shared element: the antecedent displays the case that would be required in the relative clause – even if in the East Franconian example dative case does not appear overtly within the relative clause.

16. The description given by Schiepek (1899) is quite explicit with respect to indirect object relative clauses: “Der Gebrauch des undeclinablen *wos* unterliegt allerdings gewissen Beschränkungen. Als unveränderliche Relativpartikel kann es den Unterschied der Casus nicht ausdrücken, und deshalb tritt es nie für einen Casus obliquus (= dem, der, denen) ein, falls das Bezugswort nicht in dem gleichen Casus steht und so auch mit seiner Form auf das Relativ hinüberwirken kann” (Schiepek 1899:52). [“The use of uninflected *wos* is subject to certain restrictions, though. Being a non-inflectable relative particle, it is unable to express the difference in case, and therefore it is never used to represent an oblique case (= dem, der, denen), unless the antecedent bears the same case and may thus have an effect on the relative particle.”; my translation; J.F.]

17. Bayer (1984) does not indicate from which source his data are taken, but since he quotes Merkle (1975), I conclude that they are representative for a Central Bavarian variety. Note that in this dialect separate accusative and dative masculine forms of the pronoun *der, die, das* functioning as a relative pronoun exist, as illustrated by example (31), displaying accusative *den* vs. examples (13) and (33), displaying dative *dem* – seemingly contrary to the North Bavarian variety described by Schiepek (1899, 1908), where we find accusative–dative syncretism for the respective pronoun, at least in its demonstrative usage (see Table 2).

18. “In einigen niederdeutschen Mundarten, wie z. B. im Ostfriesischen, sind Dativ und Akkusativ morphologisch zusammengefallen, so daß in diesen Mundarten nur ein einziger Objektskasus existiert; Sätze mit indirektem Objekt unterscheiden sich aber weiterhin dadurch, daß nur die ersteren ins Passiv transformiert werden können […]” (Keseling 1970:355). [“In some Low German dialects, as for instance in East Frisian, dative and accusative have merged in terms
of morphology, such that in these dialects there exists only a single object case; but sentences
with an indirect object continue to be distinguished in that only the former may be transformed
to become a passive [ . . . ”; my translation; J.F."

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Indirect objects and dative case in monolingual German and bilingual German/Romance language acquisition*

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The present article discusses the acquisition of German dative case by monolingual German as well as bilingual German/French and German/Italian children. The data presented here contradict two acquisition models put forward in the literature: that (i) the acquisition of morphological marking of the dative proceeds at only a slightly slower pace than that of the accusative but without major difficulties in both monolingual and bilingual children; (ii) once the correct marking has been acquired, indirect objects are no longer omitted, i.e. morphological case marking precedes the correct production of syntactic objects. It will be shown that bilingual children acquire the correct marking of case, in particular of the dative, with a clear delay compared to monolingual children: until age 5;0 the marking is not target-like. Furthermore, a detailed analysis reveals that the morphological marking of the dative and the correct production of indirect objects develop independently, with the acquisition of the dative generally lagging behind the mastery of indirect objects. These facts will be explained in terms of a cross-linguistic influence from the Romance language leading to the delay which is mostly due to the complexity of the German case system.

1. Introduction

Previous research on the acquisition of the dative in German is not extensive: only a very small number of studies for monolingual children and a single study dealing with data from bilingual German/French children. All studies suggest two facts: (i) the acquisition of the morphological marking of the dative takes place at only a slightly slower pace than that of the accusative, but it does not constitute a major problem for monolingual or bilingual children; (ii) once the correct marking has been acquired, indirect objects are no longer omitted, i.e. morphological case marking precedes the correct production of syntactic objects. The acquisition of morphological case marking is hardly ever studied.
The present study will disprove these findings. The detailed analysis, originally proposed by Schmitz (2004a) to explain the numerous and persisting omissions of indirect objects in German double object constructions, sheds new light on the acquisition of the dative in German/Romance (Italian and French) bilingual children over a long period of investigation (approx. from 2;0 to 5;0). This study analyzes the order in which the dative and accusative are acquired, verifies criteria for the occurrence and direction of cross-linguistic influence, which is an important issue in the research of bilingual language acquisition. The study confirms cross-linguistic influence, as predicted on the basis of the criteria developed by Hulk and Müller (2000) and Müller and Hulk (2001).

The article is organized as follows: Section 2 presents the target system and summarizes previous studies on the acquisition of the German case system, in particular the German dative case. Section 3 outlines the theory of cross-linguistic influence developed by Hulk and Müller (2000) and Müller and Hulk (2000, 2001) and their predictions for the acquisition of German dative case in bilingual children. The detailed analysis of dative case errors is presented in Section 4. The results are discussed in Section 5.

2. The target system and the acquisition of the dative in German

This section gives an overview of the German target system and its acquisition. Due to space limits, the discussion of the theoretical status of dative (structural vs. lexical) cannot be presented in this article. This is done in the other contributions of the present volume as well as in Van Belle and Van Langendonck (1996) and Van Langendonck and Van Belle (1998), among others.

2.1 The target system

Generally, German designates case overtly on nouns, determiners, adjectives and pronouns (in contrast to French and Italian which only employ case-marked strong and clitic personal pronouns). The case marking of nouns, determiners and possessive pronouns is designated either by suffixes or by portmanteau stems or by suffixes as the example cited from Müller and Riemer (1998) illustrates.

\[(1) \text{Der Student} \quad \text{gibt dem Sohn seines Freundes} \quad \text{einen Teddybären.} \]

\[
\begin{align*}
\text{[the student]_{nom}} & \quad \text{[the son]_{gen}} & \quad \text{[a teddy bear]_{acc}} \\
\text{gives} & \quad \text{[his friend’s son]} & \quad \text{‘The student gives his friend’s son a teddy bear.’}
\end{align*}
\]

While this example suggests that the case suffixes are unambiguous for each case, Tables 1 (the case paradigm for personal pronouns) and 2 (the case paradigm of determiners) show a number of syncretisms.

Form overlaps (syncretism) occur in both paradigms. Only some very striking ones need to be mentioned: first, the identity of the personal pronouns in the plu-
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Table 1. Case marking on personal pronouns

<table>
<thead>
<tr>
<th>Case</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominative</td>
<td>ich, du, er, sie, es</td>
<td>wir, ihr, sie</td>
</tr>
<tr>
<td>Accusative</td>
<td>mich, dich, sich, ihn, sie, es</td>
<td>uns, euch, ihnen, sich</td>
</tr>
<tr>
<td>Dative</td>
<td>mir, dir, sich, ihm, ihr, ihm</td>
<td>uns, euch, ihnen</td>
</tr>
<tr>
<td>Genitive</td>
<td>meiner, deiner, seiner, ihrer, seines</td>
<td>unser, euer, ihrer</td>
</tr>
</tbody>
</table>

Table 2. Case marking on determiners

<table>
<thead>
<tr>
<th>Case</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominative</td>
<td>der, die, das</td>
<td>ein, eine, ein</td>
</tr>
<tr>
<td>Accusative</td>
<td>den, die, das</td>
<td>einen, eine, ein</td>
</tr>
<tr>
<td>Dative</td>
<td>dem, der, dem</td>
<td>einem, einer, einem</td>
</tr>
<tr>
<td>Genitive</td>
<td>des, der, des</td>
<td>eines, einer, eines</td>
</tr>
</tbody>
</table>

This syncretism might constitute a major complexity in language acquisition, in particular in bilingual children acquiring a Romance language alongside which has far less syncretism and does not dispose of comparable case paradigms.

A further potential difficulty may lie in the following two facts regarding the number and type of case markings within the DP:

i. In a German DP, case may be coded several times: on the determiner, on the noun as well as on the adjective (if there is one).

ii. An additionally operating strong-weak contrast in the inflection paradigm of adjectives leads to the fact that the marking within the DP is non-congruent: The adjective in a complex dative DP may be marked only once in the presence of a determiner: *mit einem/dem kleinen Hund* (vs. *mit kleinem Geld*) ‘with a dat/the dat little dog (vs. with small dat money).’ From the viewpoint of the Romance language, congruent marking could be expected. Superficially, accusative markers look more congruent although the same restriction holds: *ohne den/einen kleinen Hund* (vs. *ohne kleine Hunde*) without the acc/a acc little acc dog (vs. without little dogs).

A child acquiring a Romance language might expect a congruent system in which all marking is consistent, either once or several times in each DP. Additional difficulties may arise because of the low phonological salience of the case suffixes.
2.2 The acquisition of Dative: Literature overview

The survey of studies which treat the acquisition of the German dative starts with findings from monolingual German children. Mills (1985) and Tracy (1986) show that the acquisition process is late and slow. The marking of the dative starts around age 2;6 (age is always indicated in years; months). Pronouns marked as dative appear before determiners and nouns marked as dative. Sources of errors in monolingual acquisition are the choice of case with prepositions and the obligatory amalgamation of some prepositions with case marked determiners, which lead to the over-generalization of the accusative case. According to Eisenbeiß (1991), the dative case may also be over-generalized with direct objects (normally marked as accusative) if they precede indirect objects immediately in double object constructions, in which the dative is taken to be structural. In all other cases (objects of two-place verbs, prepositional objects, dative marked adjuncts), Eisenbeiß (1991, 1994) analyzes the dative as a lexical case which is frequently replaced by an accusative marking.

The following studies with monolingual German children connect the acquisition of morphological marking to that of overtly dative marked DPs as indirect or prepositional verbal arguments.

Eisenbeiß (1994) as well as Clahsen, Eisenbeiß and Penke (1996) study the acquisition of both the accusative and dative case mainly within the context of the development of agreement in relation to the development of the determiner system (DP). The authors assume that the acquisition of consistent accusative case marking leads to the integration of AGR(O)P into the child’s grammar and that the syntactic effects of this functional projection (e.g. scrambling) should only be visible after the acquisition of regular accusative marking. This view has become known as the Lexical Learning Hypothesis. Within this framework, the authors assign each case its own agreement phrase where the respective N-features are checked: in AGR(O)P for direct objects and in AGR(IO)P for indirect objects. Before the acquisition of these agreement phrases, children should consequently be unable to check the N-features of direct and indirect objects, a prediction which the authors find evidence for in their studies.

Clahsen et al. (1996:149) compare the development of the determiner system with the increase of production of direct and indirect objects in the five German children under investigation. They assume that when 90% of adjectives and strong determiners in the relevant contexts are marked correctly that one can speak of an acquisition of a regular accusative and dative case paradigm. Their major findings can be summarized as follows: the acquisition of direct objects takes place at the same time as that of AGR(O) (Annelie 2;8, Hannah 2;6, Mathias 3;1, Simone 2;4 and Svenja 2;9). The correct marking of the accusative case on DP-objects after DP acquisition varied between 75% and 100%. The acquisition of AGR(IO), however, is clearly later than that of AGR(O) in some of the children (Annelie >2;9, Mathias >3;6 and Svenja >3;3). These children also used three-place predicates without DP indirect objects after the acquisi-
tion of DP (omission rates of 73–100% in obligatory contexts). The other two children acquired AGR(IO) at the same time as AGR(O) and did not omit indirect objects.

To sum up, the studies based on the Lexical Learning Hypothesis (LLH) propose the acquisition order “lexical element before syntactic position”. Put differently, the acquisition of target-like morphological case markings precedes the production of the correct syntax for case-marked objects.

Against this background, one can next examine the acquisition study done by Drenhaus (1999). Although Drenhaus investigates the role of the feature [± animacy] in German monolingual acquisition, his results showing an over-generalization of the accusative are interesting for the present study as well. Drenhaus (1999) first illustrates and discusses the role of the feature [± animacy] for complement order in different types of double object constructions. He shows that in three-place verbs like geben/schenken/zeigen ‘give/give as a present/show’ the order of lexical direct and indirect object is not fixed.

(2) a. indirect lexical object direct lexical object
   [+ animate] dative [± animate] accusative
b. direct lexical object indirect lexical object
   [± animate] accusative [+ animate] dative

The possible combinations of (2) are illustrated in (3) (Drenhaus 1999:1, 3).

(3) a. Der Mann will der Frau das Buch geben.
   the man wants [the woman]_{DAT} [the book]_{ACC} give
   ‘The man wants to give the woman the book.’
b. Der Mann will das Auto dem Kind zeigen.
   the man wants [the car]_{ACC} [the child]_{DAT} show
   ‘The man wants to show the car to the child.’

If, however, the accusative object is a pronoun and the indirect object a lexical DP, the order is fixed as shown in (4) and illustrated in (5):

(4) a. pronominal direct object indirect lexical object
   [± animate] accusative [+ animate] dative
b. *indirect lexical object pronominal direct object
   [+ animate] dative [± animate] accusative

(5) a. Der Mann will ihn [= den Stuhl] der Frau geben.
   The man wants it_{ACC} [= the chair] [the woman]_{DAT} give
   ‘The man wants to give it [= the chair] to the woman.’
b. Der Mann will ihn [= den Hund] der Frau zeigen.
   The man wants it_{ACC} [= the dog] [the woman]_{DAT} show
   ‘The man wants to show it to the woman.’
c. *Der Mann will dem Kind ihm [= den Stuhl] zeigen.
   The man wants [the child]_{DAT} it_{ACC} [= the chair] show
   ‘The man wants to show it [= the chair] to the child.’
d. *Der Mann will dem Mädchen ihn \[= den Hund\] geben.
   The man wants [the girl]_{dat} \[= the dog\] give
   'The man wants to give it \[= the dog\] to the girl.'

In order to investigate whether the feature \[\pm\ animacy\] influences the derivation process in the two target structures and whether this feature is part of the grammar of the child, Drenhaus (1999) conducted an experiment with 22 German monolingual children aged 3;9 to 6;8 (without group division). The children were asked to repeat sentences with the above mentioned three-place verbs which contained an accusative pronoun and a lexical dative object. Drenhaus’ major results (1999:8f.) were as follows:

i. The structures with accusative pronouns as first objects as in (5a/b) were produced in a target-like way in 77.9% of the relevant stimulus sentences. Drenhaus interprets this as “acquisition without problems”, but he does not define a proper criterion for such an evaluation of the results. Drenhaus did not find evidence for difficulties in the marking of accusative on object pronouns, either.

ii. The marking of the dative turned out to be problematic if a non-animate accusative pronoun preceded a lexical dative object as in (5a). In this case, the children applied the accusative to the indirect object, which prompts Drenhaus to interpret the accusative as the default case. In structures with an accusative marked DP as first object, the children showed more difficulties in repeating the target structure – only 44.9% of the repeated utterances were target-like, but there were no problems with the marking of the accusative direct object. When a non-animate accusative object (a DP in the experiment) preceded the indirect object as in (3b), the latter was again marked accusative by default.

Summing up, while the few studies on the acquisition of the dative case in monolingual German children are inspired by different theoretical models (or assumptions), they have some results in common: Dative marking on DPs – in PPs or in verbal arguments – is mastered later than accusative marking, the latter also being used as a default case in situations of conflict. All studies assume a relationship between case marking and the realization of objects.

In the following, one study of the acquisition of case marking in bilingual children bears mentioning because it addresses the second focus of the present article. Meisel (1986) investigates the acquisition of the dative case in bilingual German/French children and concludes that both monolingual and bilingual children acquire the accusative and dative case simultaneously. The developmental processes are qualitatively comparable, e.g. with regard to the developmental steps and results. One particular example is pertinent to the present study: Meisel concludes that the children do not have difficulties with the acquisition of prepositions which select only one case in the target system. But he also finds some typical errors among the bilingual children: they tend to mark case only once in a construction or to use “neutral” markings (i.e. to omit a clear marking) and seem to have difficulties with correct case markings with preposition allowing for more than one case. Meisel assumes that dative case does not
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constitute a conceptually more difficult acquisition task in itself, but that the problems are caused by the particular morphology to encode the dative.

To sum up this survey of the pertinent literature, the studies suggest two facts which shall serve as the hypotheses for the present paper:

(A) Monolingual German and, according to Meisel, bilingual German/French children as well do not have major problems with acquiring the dative, which takes only slightly longer than accusative;

(B) The acquisition of the correct morphological case marking is a prerequisite for the correct production of (dative marked) objects: as soon as it is acquired, the children no longer omit (indirect) objects.

The analysis of the data from the bilingual children in Section 4 disproves both hypotheses: (A') Bilingual children show a clear delay when compared to monolingual children; (B') The acquisition process of the correct morphological case marking does not precede the correct production of syntax for direct and indirect objects, but remains incomplete while at the same time the omissions of indirect objects steadily decreases.

In the case of bilingual German/French and German/Italian children, we will observe that some of them do not show mastery of the German case system until the end of the period investigated (5;0). Moreover, prepositions with only one case remain problematic (contrary to Meisel’s results). One possible explanation for this delay is to assume cross-linguistic influence from the Romance languages which will be considered in Section 5.

Before turning to the analysis of the data, some background information about current research in bilingual language acquisition is in order.

3. Bilingual first language acquisition

The research in bilingual first language acquisition has been guided mainly by two approaches. It has either been assumed that children who are exposed to two languages from birth are not able to separate their two languages from early on (Volterra & Taeschner 1978; Taeschner 1983) since the two languages seem to influence each other; or it has been claimed that there is evidence for very early language separation and a lack of cross-linguistic influence (e.g. Meisel 1989; Genesee 1989; Genesee, Nicoladis, & Paradis 1995; see Müller et al. 2002 for a more detailed survey of the literature). More recently, a third position has arisen which claims that despite the assumed early separation of the languages, the two systems can influence each other in some grammatical domains for a certain period of time (see e.g. Müller 1998; Hulk & Müller 2000; Müller & Hulk 2000, 2001). In what follows, this third position will be presented in more detail and related to the acquisition of (the dative) case in bilingual children.

Cross-linguistic influence in bilingual children has three manifestations: Transfer relates to the incorporation of a grammatical property from one language into
Another. Acceleration means that a certain property emerges earlier in the grammar than would be the norm in monolingual acquisition while delay designates the contrary, i.e. that bilingual children may lag behind monolingual ones in the acquisition of (certain aspects of) the target languages. Cross-linguistic influence can thus have positive and negative effects. Recent studies which have observed cross-linguistic influence have explained its occurrence by language dominance (Schlyter 1994; Tracy 1995; Gawlitzek-Maiwald & Tracy 1996; Hulk 1997). Müller et al. (2002) showed, however, that the three kinds of manifestation of cross-linguistic influence are independent of language dominance and depend rather on the grammatical phenomenon at hand. According to Hulk & Müller (2000) and Müller & Hulk (2001), cross-linguistic influence is expected to occur in exactly those areas which are equally problematic (albeit to a lesser extent) for monolingual children. They assume that one prerequisite for cross-linguistic influence is a certain amount of overlap between the two languages in the bilingual child: some construction in language A allows for more than one analysis (from the child’s perspective), and language B provides positive evidence for one of those possible analyses. A second prerequisite is the interface character of the grammatical phenomenon, i.e., the concerned grammatical domain connects two different modules, e.g., syntax and morphology. This criterion has been developed by Müller & Hulk (2001), but this was not the main focus of their research. The domain of the case under scrutiny here will test for the first time in a systematic fashion the interface criterion.

The criteria mentioned above only predict the probability of influence but do not specify the direction of influence, whereas, significantly, Müller et al. (2002) adapt the criteria proposed by Jakubowicz (1999) to predict the direction of influence. Jakubowicz (1999) combines computational complexity with general properties of grammatical phenomena as in (6).

(6) Computational complexity (criteria from Jakubowicz 1999:1)

a. The syntactic computation in a given language is LESS COMPLEX when a merged functional category must be present in EVERY sentence. The syntactic computation is MORE COMPLEX if a merged functional category is present in SOME sentences. Such a functional category expresses semantic information and is added to the obligatory functional skeleton.

b. The syntactic computation in a given language is LESS COMPLEX when a (pronominal) argument is canonically merged with a predicate (i.e. merged in a lexical domain). The syntactic computation is MORE COMPLEX when a (pronominal) argument is non-canonically merged with a functional category (i.e. merged in the functional domain).

Using assumptions based on efficiency, Müller et al. predict that bilingual children will choose the less complex analysis for both languages.

Schmitz (2004b) applied the criteria to test the probability of cross-linguistic influence and its direction to the domain of dative case marking. In the two investi-
gated combinations of languages, German/French and German/Italian, only German exhibits morphological case markings (apart from the case marked object clitics in the two Romance languages which are not considered here). Therefore, the overlap criterion has not been fulfilled – German does not have structures in its system of morphological cases which are ambiguous from a child’s perspective which could at the same time be made less ambiguous by the Romance systems. On the other hand, since the acquisition of the case system involves both syntax (checking of case features) and morphology (paradigms of case marking), we confront an interface phenomenon and, by the criteria mentioned above, a domain where one of the conditions for transfer is fulfilled. Now, the crucial question is if fulfilling only one of the two prerequisites is sufficient. This point has not been discussed by Hulk & Müller (2000) and Müller & Hulk (2000, 2001). Schmitz (2004b) assumes that the fulfilment of one condition is sufficient and predicts that influence should be possible in this domain. The direction of influence is evident since the Romance languages do not give any positive evidence. The acquisition studies presented in Section 2 suggest that the influence is manifested as delay.

4. Dative case errors: An analysis of longitudinal data

This section analyzes empirically the data on errors in case marking in German first found in Schmitz (2004a).

The two hypotheses presented in Section 2.2 were tested in two steps: First, all above mentioned contexts were analyzed (according to the criteria explained below) for the entire investigation period which allowed a more complete survey of the acquisition process (Section 4.1). Moreover, the use of dative vs. accusative with some chosen prepositions was investigated in order to test Meisel’s (1986) assumption that prepositions requiring only one case are not problematic in the acquisition process. In the second part (Section 4.2), the incidences of case errors and of the omission of indirect objects by each child were compared with reference to their developmental phases. Both parts of the analysis use all utterances (with and without verbal forms) which were produced in the investigation periods listed below. They were only evaluated with respect to those contexts involving datives, i.e., contexts in which Dative forms should have been used, but were not, or dative forms were used erroneously; case errors of the type “nominative instead of accusative” (or vice versa) were not included. All incomplete or broken-off utterances as well as utterances with gender or preposition errors were excluded. In other words, the analysis includes only contexts with reference to a person or thing in which the child used a correct gender and number, in order to avoid erroneous marking of target-deviance due to form syncretism. Furthermore, only DPs with obligatory visible case marking were considered, i.e. fixed determinerless expressions like mit Absicht ‘on purpose’, generic PPs like Kakao mit Sahne ‘cocoa with cream’ as well as PPs with proper names or kinship terms like mit Mami ‘with mum’ were excluded as well. The following error categories were defined:
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i. Nominative instead of dative (Nom/DAT)
   
   ex.: mit der mann 'with the nom man';

ii. Accusative instead of dative (Acc/DAT)
   
   ex.: mit den mann 'with the acc man';

iii. Ambiguity/DAT (Amb./DAT)
   
   exx.: die in mit die frau 'with the woman' or mit die kinder 'with the children', may
        be Nominative or Accusative;

iv. Incomplete or zero marking of a target language determiner (Ø/DAT)
   
   exx.: mit de mann 'with the defective man', mit ein boot 'with a defective boat, mit
        mann 'with man';

v. Target-like use of dative (DAT);

vi. Dative instead of accusative/Over-generalization of the dative (Dat/ACC).

Concerning the error categories (ii) and (iv), when the transcript records that a lengthen-
ning as in mit ein' boot 'with a boat' was clearly heard by a trained transcriber, this
PP was analyzed as mit einen boot 'with a acc boat' and classified as an instance of error
type Acc/DAT.

A further possible error type was “dative instead of nominative”. It occurred very
rarely (once per child). Therefore, this category was not considered as statistically
relevant. Its occurrence was marked separately, but was not discussed. Furthermore,
genitive case marking and possible errors in relation to the dative were not consid-
ered since there was not a single error in any of the investigated corpora. Finally
empty boxes in the tables below mean that there was no context requiring the use
of a morphologically marked dative case morpheme in the target variety.

Table 3 provides information about the children investigated, one of whom was
a German monolingual while the others were bilingual German/French and Ger-
man/Italian. The investigation period covers all available recordings, except for those
of the monolingual child, who produced target-like dative at the stable rate of 90% of
the obligatory contexts at the age of 4;6. The dominance information for the bilingual
children is based on quantitative and qualitative investigations which are documented
in detail in Kupisch et al. (2005).

The results of both analyses are given in percentages. Since absolute numbers are
interesting in order to see the statistical base of the investigation, in particular for the
longitudinal perspective of Section 4.1, they are given for each child in the tables of
the Appendix.

Table 3. Overview of the investigated corpora

<table>
<thead>
<tr>
<th>Child</th>
<th>Language(s)</th>
<th>Dominance</th>
<th>Investigation period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chantal (C)</td>
<td>German</td>
<td>–</td>
<td>1;10,18–4;6,4</td>
</tr>
<tr>
<td>Céline (CE)</td>
<td>German/French</td>
<td>yes (German)</td>
<td>2;0,9–5;0,15</td>
</tr>
<tr>
<td>Alexander (AL)</td>
<td>German/French</td>
<td>no</td>
<td>2;2,6–5;2,21</td>
</tr>
<tr>
<td>Carlotta (CT)</td>
<td>German/Italian</td>
<td>no</td>
<td>1;8,28–5;0,15</td>
</tr>
<tr>
<td>Lukas (LU)</td>
<td>German/Italian</td>
<td>yes (German)</td>
<td>1;7,12–5;0,2</td>
</tr>
</tbody>
</table>
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4.1 Longitudinal analysis of the use of the dative case

The analysis starts with the overview of the dative case in the data of the monolingual German child Chantal. The first relevant context appears in the first recording (2;1,19). Figure 1 shows that by the end of the investigation period (4;6,4), Chantal had mastered dative marking in 100% of the obligatory contexts. Her main error sources were over-generalizations of the accusative (Acc/DAT) on the one hand and missing or incomplete DP’s (Ø/DAT) on the other as Figure 1 shows. (7) provides some examples.

(7) a. an den kann man sich verschlücken/ (C 2;11,15)
   ‘at this can one choke
   ‘this can go down the wrong pipe’

   b. eh - eh mama ruft in schimmbad   an/ (C 3;0,15)
   INTERJECTION mum calls in swimming.pool PARTICLE
   ‘er, mum calls the swimming pool’

Target-deviant use of Dative instead of Accusative (Dat/ACC) occurs very rarely.

In a next step, the use of the dative case in the bilingual German/French children is presented, starting with Céline during her investigation period (2;0,9–5;0,15). Figure 2 shows that Céline – like Chantal – produced dative case markings at a 100% rate between 4;5 and 5;0,15 in several recordings. Unlike Chantal, however, Céline’s dative marking errors increase again toward the end of the investigation period. They come from almost all categories (Acc/DAT, Amb/DAT, Ø/DAT). Some examples are given in (8).
Figure 2. Errors in Dative case marking (Céline)

(8) a. aber das sieht schön aus mit den herz
   but that looks nice out with the acc heart
   guck mal hier/ (CE 4;1,3)
   look here
   ‘but this is beautiful with the heart see here’

b. musst mal mit ein zopf versuchn/ (CE 4;3,19)
   must once with a defective braid try
   ‘must try a braid’

An over-generalization of the nominative was observed in only two recordings (2;8,2 and 3;9,18). Comparing Céline’s results with Chantal’s, there are much higher incidences of Dat/ACC. Furthermore, there are three instances of Dat/NOM at the age of 3;11.

The second German/French bilingual child, Alexander, exhibited a stage at the beginning of his investigation period (2;2,6–2;2,21) during which he used dative case markings exclusively in a target-like way (2;3,24–2;11,6). This stage, however, cannot be considered representative since the statistical base consisted of one to three contexts in each of the recordings of this period (see Table A3 in the appendix). Furthermore, the first recording did not contain any purely German utterance with a relevant context. Since dative contexts and also errors increased from 2;11 on until the end of the investigation period (3;2), this time span represented the real acquisition process of the dative. Figure 3 illustrates that it was not completed at the end of the investigation period. Alexander mostly produced errors of the category Ø/DAT, followed by Acc/DAT and Amb/DAT. (9) presents some examples of this:
Indirect objects and dative case

Figure 3. Errors in Dative case marking (Alexander)

(9) a. also das sind die sachen von mein' bruder/ (AL 4;1,26)
   so this are the things of my\textsubscript{ACC} brother
   ‘So these are the things of my\textsubscript{ACC} brother’

   b. und das kann ich mich auch was kaufen?/ (AL 4;1,26)
   and that can I myself\textsubscript{ACC} also something buy?
   ‘and that can I buy myself something too?’

Nom/DAT and Dat/ACC errors are rare and limited to a few recordings.

We now turn to the use of the dative in the German/Italian bilingual children, starting with Carlotta. The analysis covered the period from 2;2,4 until the end of the investigation period (5;0,15). Figure 4 shows that Carlotta reached only at one point (at 4;4,6) the 100% level of target-like use of dative case markings, and at one later point a 90% level (4;11). Generally, the rate of target-like dative production amounted to 70–80%. The most important error type category is Ø/DAT, immediately followed by Amb/DAT, exemplified in (10):

(10) a. das is die mutter von die barbies/ (4;4,20)
   this is the mother of the\textsubscript{Nom/ACC} barbies
   ‘this is the mother of the barbies’

   b. die gehen in wald spazieren/ (CT 4;10,13)
   they go in forest wandering
   ‘they go wandering in the forest’

Dat/ACC was mostly found between 2;11 and 3;2, and only seldom later. Dat/NOM occurred only once in one recording from the same period (2;11,27).

Finally, we turn to the use of dative case markings in the bilingual German/Italian child Lukas. His first contexts for dative use occurred at the age of 2;0,5, where the anal-
Figure 4. Errors in Dative case marking (Carlotta)

ysis started. Lukas was the only one of the bilingual children who reached a steady level of 90% target-like uses from the age of 4;9 onwards, a result which remained constant until the end of the investigation (and recording) period (at 5;0,2). Figure 5 shows that his most frequent error type was Acc/DAT, followed by Ø/DAT, as exemplified in (11).

(11) a. *das war nicht bei den geschäft/ (LU 4;7,26)*
   this was not at this_{acc} shop
   ‘this was not at the shop’

  b. *das war von ein eis/ (LU 4;3,28)*
   this was from an_{defective} ice-cream
   ‘this was from an ice-cream’

There was also a relatively short but intense phase (3;4–4;1) during which he also over-generalized the dative over the accusative. At the age of 2;7,29, he marked with the dative two DPs which are not overtly case-marked in the target-system.

In summarizing these first results, it is striking that only one of the bilingual children characterized as “German dominant” (Lukas) reached a steady target-like level while the others, mainly those who were characterized to be from a linguistically balanced environment, reached the 90% level either only for a short period, or not at all. The main error types in all children were incompletely marked DPs (Ø/DAT) and Acc/DAT. The error categories Nom/DAT and Amb/DAT were less important. All bilingual children tended toward Dat/ACC more frequently than the monolingual child.

This survey can be completed by presenting the results of an investigation of the use of the dative and accusative with prepositions selecting only one of the two cases. As has been claimed by Meisel (1986), bilingual (German/French) children do not have problems with these prepositions in the acquisition of the German case system.
The following prepositions were chosen as test cases: für ‘for’, which takes only the accusative, and mit ‘with’, which takes only the dative. This analysis is based on the same investigation period as the first one. Since it focuses on the over-generalization of the dative or accusative, other error categories were included under “other”. Figure 6 shows the use of the different cases with the two prepositions by all children together in percentages during the entire investigation period. The following picture emerges: The monolingual German child uses für ‘for’ with accusative in 100% of the contexts while the use of target-like dative with mit ‘with’ reaches only 70%, along with the use of target-deviant accusative (10%) and other errors (20%). The bilingual children use accusative with mit ‘with’ in less than 20% of the cases, as, for instance, witnessed by Chantal. A fundamental difference between the monolingual child and all bilingual children concerns the over-use of the dative with für ‘for’ (35–70% of all relevant contexts). Overall, the rate of errors with mit ‘with’ amounted to 40–50%. This analysis shows not only a clear quantitative difference between monolingual and bilingual children, but also a qualitative difference, namely the target-deviant selection of dative with the preposition für ‘for’, which exclusively takes the accusative case. These results disprove Meisel’s (1986) assumption.

4.2 The use of the dative case and correct reproductions of indirect object by phases

This section reports on the use of the dative case in examples where the five children correctly produced indirect objects. Schmitz (2004a) organized the analysis of object omissions and correct reproductions in phases, using the development of the com-
plementizer system as an independent developmental criterion: Phase 1 represents a period without any evidence for the c(omplementizer)-system, phase 2 has subordinate clauses without complementizers and phase 3 subordinate clauses introduced by complementizers. The present analysis combines statistical results regarding correct production of indirect objects in the developmental stages with the dative case error categories already applied in Section 4.1.

The analysis starts with the monolingual German child Chantal who provides relevant contexts for all three stages (C[hantal]1, C[hantal]2, C[hantal]3) mentioned above. Figure 7 shows the case error types in the three stages mentioned above. In phase C1, Chantal already uses dative casemarkings, but she does not relate them systematically to triadic verbs in the few attested contexts. In phase C2, again, only few contexts for dative were given and correctly produced in the target-like way. In phase C3, the target-like realizations of dative decrease to 75% while the realization of indirect objects increases to 80%. These results demonstrate that the development of indirect objects and the dative case markings are not parallel (although the results are similar) and constitute evidence against a simple causal relationship between the two phenomena.

Figure 6. Use of case marking with FÜR and MIT (monolingual and bilingual children)

Figure 7. DATIVE errors and IO realizations by phases (Chantal)
Indirect objects and dative case

Figure 8. DATIVE errors and IO realizations by phases (Céline)

Figure 9. DATIVE errors and IO realizations by phases (Alexander)

In the next step, the bilingual children were analyzed, starting again with the German/French children. Céline exhibited only two of the three expected phases: phase CE[1] without evidence for the C-system and phase CE3 with subordinate clauses containing complementizers. Stage 2 (subordinate clauses without complementizers) is skipped. Figure 8 shows the development of the dative and indirect objects in phases CE1 and CE3. There was a clear increase of target-like dative case markings from 20% to 60% of the relevant contexts, and an increase in the correct production of indirect objects (from 66.6% to 87%). Thus, the two developments proceed in a parallel fashion but the target-like rate of dative markings lags clearly behind that of indirect objects. This result disproves the assumed acquisition logic "dative > indirect objects".

Alexander, the second German/French bilingual child, runs through each of the three stages (AL1, AL2, AL3). Figure 9 shows that there are only very few contexts for dative case markings in the first two phases, and he always has correct target-like reproductions. Since indirect objects are completely omitted during AL1, we can assume that Alexander did not extend his use of dative case markings to indirect objects. The rate of 100% realization of indirect objects in phase AL2 depends on a very small statistical base and thus is not representative. In stage AL3, the target-like dative case marking rate amounted to only 40% while indirect objects were correctly produced in 65% of the relevant contexts. Thus, both domains display a noticeably different development, which constitutes further evidence against a simple causal relationship.
Let us now turn to the German/Italian bilingual children, starting with Carlotta, who exhibited evidence for all three stages (CT1, CT2, CT3) like Alexander. In her German corpus, she uses triadic verbs at a very late point (only in stage CT3). Therefore, phase CT1 does not contain relevant contexts for indirect objects – the same holds here for dative marking. In phase CT2, the first contexts for dative markings occur. Only stage CT3 allows us to compare the two phenomena. Figure 10 shows that the correct target-like reproductions of dative marking are comparably high in stage CT2 and CT3 (ca. 60%). In stage CT3, indirect objects were correctly produced in 78% of the obligatory contexts. Thus, in Carlotta’s corpus, target-like dative marking also lags plainly behind the use of target-like indirect objects and constitutes evidence against a systematic relationship between use of the dative and the correct production of indirect objects.

The second German/Italian bilingual child, Lukas, again passed through the three stages (LU1, LU2, LU3), which all contain contexts for dative case marking. On the other hand, however, he employed contexts for indirect objects only in stage LU1 and LU3. Figure 11 shows that Lukas reached – on a very small statistical basis – target-like dative case markings in 100% of the contexts in phase LU1, in phase LU2 this rate drops to 55%. In phase LU3, target-like dative markings increased again slightly to 60%, but the correct production of indirect objects amounted to 88.4%. Thus, in Lukas’ corpus, target-like dative case marking also manifestly lagged behind the correct production of
indirect objects. This result constitutes yet more evidence against a direct relationship between the correct production of objects and dative case marking.

To summarize the results of this second analysis: it clearly turns out that the developments of target-like dative marking and the correct production of indirect objects are not directly related, i.e. a possible acquisition order such as ‘acquire dative marking first, then produce indirect objects’ correctly does not hold true. In the corpus of the monolingual German child, the developments of the two domains are contrary, while in the bilingual children, the development of target-like dative marking lags behind the development of correctly reproducing indirect objects.

5. Discussion and conclusion

The results presented in Section 4 do not confirm hypotheses (A) and (B) from Section 2.2, which are repeated here for convenience.

(A) Monolingual German and, according to Meisel (1986), also bilingual German/French children do not have major problems with the acquisition of the dative, which takes only slightly longer to acquire than the accusative;

(B) The acquisition of the correct morphological case marking is a prerequisite for the realization of (dative marked) objects: as soon as it is acquired, the children no longer omit (indirect) objects.

Hypothesis (A) has been disproved by the results of Section 4.1, showing that bilingual children mark dative case incorrectly until the age of 5:0. The analysis of case errors with the prepositions für ‘for’ and mit ‘with’, selecting only one case each in the target system, disproves the assumptions made by Meisel (1986), in particular, according to which prepositions governing only one case are not problematic in the acquisition process.

Hypothesis (B) has also been disproved: The analysis in Section 4.2 indicates that the development of dative case marking and the correct production of indirect objects differs from the expected pattern. Therefore, the two domains must be at least partly independent in the acquisition process. This independence does not exclude a parallel development, however. Since the analysis shows similar results for different language combinations (French/German, Italian/German), this independence seems to be substantial. Thus, the acquisition of dative markings cannot constitute the (only) prerequisite for the correct production of indirect objects.

At the same time, these results represent a problem for Chomsky’s (1995) Checking Theory (and all acquisition studies relying on it), which emphasizes the role of features in syntax: The results from the present study suggest that the delay of a target-like production of indirect objects cannot be explained syntactically in terms of the effects of features. All case features (in our case the features of nominative, dative and accusative) are considered to be [–interpretable], other distinctions are not made.
Katrin Schmitz

For this reason, this independence must be rooted in the morphological marking itself, i.e., in the proper language-specific production of the (dative) case feature. The next question which arises is which aspect of the morphological marking system in German it is that complicates the acquisition process, in particular for bilingual children. There are two explanations which are possible from these results of studying bilingual children:

i. Like monolingual children, bilingual children perceive the phonological complexity along the lines illustrated in Section 2.1. They have acquired the syntax for correctly reproducing indirect objects, but they resort to a strategy of deficient dative case marking.

ii. The simultaneous acquisition of the Romance language influences the acquisition of German in a specific, indirect way: Among the data analyzed in Section 4, there are examples of structures like *ich geb das zu sie* ‘I give this to her’ which fall into the error category Ambiguity/Dat. They suggest that the children use the surface structure from the Romance language. The prepositional object is the target-like way to produce indirect objects in French and Italian.

Evidence in favor of (i) are the long periods of inexact or missing dative case marking in all four bilingual children during which an increase of correctly produced indirect objects takes place, as is the case in the monolingual German child. However, there is both a quantitative difference between monolingual and bilingual children (increased amount of errors and length of development) and a qualitative difference revealed by the analysis of case-markings with the prepositions *für* ‘for’ and *mit* ‘with’. The monolingual German child did not over-generalize the dative case with *für*, but all bilingual children did. These facts are better explained by assuming cross-linguistic influence. This cross-linguistic influence may lead to a delay in the development of the target-like markings of dative case. However, this explanation does not yet cover the over-generalization of the dative case with prepositions requiring accusative only, i.e. the case often used in conflict situations.

Evidence in favor of (ii) is the use of various markings instead of the required dative case marking. However, (ii), which specifies the type of cross-linguistic influence, cannot explain why the bilingual children over-generalized dative case markings with the preposition *für* ‘for’, but at the same time did not correctly produce the dative case consistently with the preposition *mit* ‘with’, which requires the dative. If Abraham’s (2001) proposal were correct that all German prepositions govern the dative while the government of the accusative with some prepositions displaying “double government” is only an epiphenomenon, we would expect that the children would correctly use the dative with *mit* and overgeneralize it with *für*. However, cross-linguistic influence may lead bilingual children to misinterpret the contexts in which the apparent character of the government of accusative is relevant. This option has to be properly tested in further research.

An third possible explanation may be based on an observation made in Schmitz (2004a): She notes an asymmetry with regard to correct production of direct and in-
direct objects, namely all monolingual and bilingual children in her study consistently differentiated direct (accusative-marked) from indirect (dative-marked) objects. In German double object constructions, consistent use of accusative objects is observed earlier than that of dative objects. This may be interpreted as evidence for the assumption that dative case is lexical and acquired in a way different from structural accusative. As such, the bilingual children have to learn the correct and morphologically complex case-marking properties of each preposition in an item-by-item fashion. A specific effect of the Romance influence could result from the fact that all prepositional phrases in Romance are marked equally: preposition + DP (with abstract, non-visible case). The general delay might be caused by the complex interplay of all characteristics of the German case system (syncretism, the number of required case markings, missing congruency). It may lead the bilingual children to commit more errors and to resort to the strategy of using deficient case markings for a longer time.

Generally, it may be plausible to assume influence from the Romance languages, but the precise character of this influence remains to be determined.

In the context of bilingual language acquisition, the analysis in Section 4 leads to another important result: A delay is observed in all bilingual children, independently of the language combination and the fact that two of the bilingual children had German as the dominant language. In other words, dominance of German does not accelerate the acquisition of the dative. This delay suggests that language dominance cannot explain or predict (the direction of) cross-linguistic influence. The decisive role may rather be played by the characteristics of the specific grammatical phenomenon at hand. It was shown in Section 2.1 that the domain under scrutiny here is characterized by numerous overlaps and multiple case markings in DPs. Furthermore, the marking within a single dative DP is not formally congruent.

In conclusion, two important results concerning the acquisition of the dative stand out: With respect to its interaction with the acquisition of indirect objects, the morphological marking of the dative does not constitute a prerequisite for the latter, but their developments succeed in a largely independent manner. The delay and the extended acquisition period are common to both. The study of bilingual corpora and their comparison with data from a monolingual German child shed direct light on the question of cross-linguistic influence. The assumption of cross-linguistic influence in the acquisition of the dative case, as predicted in Section 3, was confirmed. At the same time, another fundamental question of bilingual first language acquisition could be answered: language dominance did not play a role – the delay in the acquisition of dative case marking holds across the board for different individuals with and without language dominance and also across different language combinations.
Appendix: Tables indicating absolute numbers of dative case errors (Figures 1–5)

Table A1. Dative case errors in Chantal

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<th>Nom/DAT (%)</th>
<th>Acc/DAT (%)</th>
<th>Ambig/DAT (%)</th>
<th>Ø/DAT (%)</th>
<th>DAT trg. (%)</th>
<th>Dat/ACC (%)</th>
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Indirect objects and dative case

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Table A5.  Dative case errors in Lukas

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Notes

* I would like to thank all reviewers and the editors for their numerous and helpful comments. I am further indebted to Natascha Müller for valuable comments and discussion and to E. Jeff Richards for his assistance in correcting my English.

1. Note that the theoretical underpinning of the studies by Eisenbeiß (1994) and Clahsen, Eisenbeiß & Penke (1996) does not correspond to the current model of minimalist theory, in particular their positing of agreement phrases. Since their results are independent of their
assumption regarding agreement phrases, these studies have been integrated into the present one.

2. All data were collected in the research project “Early Bilingualism: Comparing German/Italian and German/French”, financed by the Deutsche Forschungsgemeinschaft and directed by Prof. Natascha Müller, at the Special Research Centre “Multilingualism” at the University of Hamburg (1999–2005).

3. Unlike in example (9a) from Alexander, no lengthening of the indefinite article ein occurred.

4. No separation of languages in the first recording (with a majority of French utterances).

5. The German part of the third recording does not contain any analyzable utterances.

6. The recording contains three errors of the type Dat/NOM, e.g. wie dir kann er’s auch machen 'like you dat can he do it too' instead of wie du nom kann er’s auch machen, which was required in the relevant context.

References


PART III

Beyond Germanic
From Albanian to Tagalog
Unaccusatives with dative causers
and experiencers
A unified account*

Dalina Kallulli
Universität Wien

This article develops a new hypothesis for an integrated theory of argument realization with special emphasis on the syntactic projection of dative arguments in overtly dyadic unaccusative constructions. The central claim that I put forward is that unaccusative morphology of all shapes suppresses a feature in a predicate structure. Ultimately, this article offers a formal and uniform analysis of various construction types involving unaccusative morphology (to wit the passive, anticausative and middle construction). These various construction types are claimed to differ only in terms of the respective building blocks that enter syntactic computation, but crucially, they all arise through the same operation, namely suppression of a feature in v.

1. Introduction

The idea that the unaccusative and unergative verb classes are distinguished syntactically finds its expression also in the Minimalist Program (Chomsky 1995, 2001). In Chomsky’s shell theory, the internal arguments of a verb occupy the positions of specifier and complement of V in (1), with the external argument (in the sense of Williams 1981) occupying Spec of vP. Further, it is argued that “the v-VP configuration can be taken to express the causative or agentive role of the external argument” (Chomsky 1995:315), and that “only unaccusatives lacking agents would be simple VP structures” (Chomsky 1995:316).
For the purposes of the present article, two ideas are especially important here. First, in shell theory the semantic concepts of agency and causativity are related to the presence of little \(v\). Second, the presence of an external argument depends on the presence of little \(v\), and vice versa, meaning that unaccusativity is structurally expressed not by the lack of an external argument, but by the absence of the \(v\)-projection. In this paper I will show that although theoretically attractive, this view is far too simplistic as it fails to accommodate a systematic range of data across several languages.

While Chomsky (1995, 2001) and also Kratzer (1996) collapse the semantic concepts of agentivity and causativity in terms of their syntactic encoding, I will argue, following Davis and Demirdache (1995) and Demirdache (1997), that agentive and causative predications are universally derived from distinct frames (see also Pylkkänen 2002 and Reinhart 2002). The empirical core of this paper consists of a set of data from Balkan languages involving dyadic unaccusatives with involuntary (that is, non-agentive) dative causers and experiencers. The Balkan patterns are – albeit partly – also found in other languages, such as German and Spanish, which I will extend my analysis to. Setting out from these facts, I will argue that causative predicates differ from activity predicates in that the former project a [+cause] feature whereas the latter a [+act] feature in the syntax. These features are in \(v\). Crucially, I will argue that irrespective of whether a predicate denotes a causative event or an activity, agentive predications of both varieties (i.e. both agentic causatives and agentic activities) contain a [+intent] feature (which stands for intentionality i.e. true agency), also projected in \(v\). Put differently, I will argue for a syntactic distinction between agentive and non-agentive causatives on the one hand, and agentive vs. non-agentive activities on the other. In other words, neither an actor nor a causer is necessarily an agent; an actor or a causer becomes an agent only if the feature [+intent] is licensed. That is, I will show that the feature [+intent] is relevant to syntactic computation and that the semantic distinction between agents on the one hand and actors or causers on the other, manifested explicitly in a variety of languages, is due to the presence or absence of this syntactic feature. I will also show that the distinction between the primitives cause and act offers a way to provide a unified syntactic account for dative arguments expressing the roles of (involuntary or unintentional) causer and experiencer in constructions with unac-
Unaccusatives with dative causers and experiencers

This article is organized as follows. In Section 2 I present the core data, namely two particular readings of what I will refer to as the dative unaccusative construction. These readings are the involuntary state reading and the unintended causation reading. Section 3 introduces the other possible readings of the dative unaccusative construction and discusses whether these different readings are due to ambiguity or vagueness. Section 4 provides a review of previous analyses of the dative unaccusative construction. Finally, in Section 5 I put forth an alternative analysis, which rests on my claim that unaccusative morphology of all shapes operates on a purely linear and therefore fully predictable fashion in the syntax. This analysis has certain ramifications concerning the purported structural distinction in terms of vP vs. VP between unergative and unaccusative verbs, respectively, which I also discuss in due course.

2. Unaccusatives with dative causers and experiencers

2.1 The core data: Involuntary states and unintended causations

The Balkan sentences in (2) have an involuntary state reading, rendered for lack of a better alternative through ‘feel like’ in the English translation. Indeed the construction has sometimes been referred to as the feel-like construction (Dimitrova-Vulchanova 1999; Marušić & Žaucer 2004a, 2004b). As will be explicated below, the construction type in (2) is a passive-like formation combined with a dative DP – for the moment, note the presence of non-active (nact) and reflexive (refl) morphology in the glosses. According to Rivero (2004), with the exception of Greek and Rumanian, this construction type is found in all the languages of the Balkans.

(2) a. Benit i ha-hej (një mollë). (Albanian)
   BenDat DAT.CL.3S eat-NACT.P.IMP.3S [an apple]NOM
   ‘Ben felt like eating (an apple)’ or: ‘Ben was (apple-)hungry.’

   b. Benit i ndërto-hej (një shtëpi). (Albanian)
   BenDat DAT.CL.3S build-NACT.P.IMP.3S [a house]NOM
   ‘Ben felt like building (a house)’ or: ‘Ben was in a (house-)building mood.’

   c. Jadoxa mi se jabëlki. (Bulgarian)
   eat.P.3PL.FEM IREFL apple.PL.FEM
   ‘I felt like eating apples.’

   d. Ivici su se jelo baksje. (Serbo-Croatian)
   IvicaDat aux.3P.PL REFL eat.3P.PL.FEM baklava.PL.FEM.NOM
   ‘Ivica felt like eating baklavas.’
On the other hand, all the languages of the Balkans share constructions of the type in (3), in which a dative (or in Greek, a genitive) combines with an anticausative core, yielding among other possible interpretations a reading best described in terms of unintended causation, in the sense that the dative/genitive DPs here are interpreted as involuntary (i.e. unintentional) causers of the events specified by the verbs.\(^5\) The unintended causation reading obtains also in other languages, such as in German (Wegener 1985; Härtl 2003) and Spanish (Cuervo 2003; Rivero & Savchenko 2004), as shown in (4a) and (4b), respectively. That is, the sentences in (4) have among other possible interpretations that are discussed in Section 3 an unintended causation reading.

\[(3)\]
\[\begin{array}{ll}
\text{a. } & \text{Benit } i-u \text{ thye dritarja.} \quad \text{(Albanian)} \\
& \text{Ben}_{\text{dat}} \text{ dat.cl.3s-nact broke.aor.3s window}_{\text{nom}} \\
& \text{‘Ben unintentionally broke the window.’} \\
\text{b. } & \text{Tu Ben tu kaike } i \text{ supa.} \quad \text{(Greek)} \\
& \text{[the Ben]_{gen} him.gen.cl burn-nact.p [the soup]_{nom}} \\
& \text{‘Ben unintentionally burned the soup.’} \\
\text{c. } & \text{Na Ivan } mu \text{ se šcupixa očilata.} \quad \text{(Bulgarian)} \\
& \text{to Ivan him.gen.cl refl broke.3pl glasses} \\
& \text{‘Ivan unintentionally broke the glasses.’} \\
\text{d. } & \text{Lui Jon } i \text{ se sparse ferestrea.} \quad \text{(Rumanian)} \\
& \text{john him.dat.cl refl broke.3s window} \\
& \text{‘John unintentionally broke the window.’} \\
\end{array}\]

\[(4)\]
\[\begin{array}{ll}
\text{a. } & \text{Dem Ben } ist \text{ das Fenster zerbrochen.} \quad \text{(German)} \\
& \text{[the Ben]_{dat} is [the window]_{nom} broken} \\
& \text{‘Ben unintentionally broke the window.’} \\
\text{b. } & \text{A Pedro } se \text{ le rompió el coche.} \quad \text{(Spanish)} \\
& \text{To Pedro refl dat.cl broke the car} \\
& \text{‘Pedro unintentionally broke the car.’} \\
\end{array}\]

In spite of the interpretive differences between the sentences in (2) on the one hand and those in (3)/(4) on the other (that is, the difference in terms of involuntary state vs. unintended causation), all the predicates in (2) through (4) qualify as unaccusative by several criteria. It is well known that in many languages, notably Indo-European, unaccusatives systematically involve morphological marking that is shared by reflexive and/or passive predicates, involving a pronoun, a clitic or verbal inflection. Accordingly, the predicates of the sentences in (2) through (4) qualify as unaccusative firstly by the fact that they bear unaccusative morphology: non-active voice in Albanian and Greek, reflexive in Bulgarian, Rumanian, Serbo-Croatian and Spanish, and they select the auxiliary sein ‘be’ and not haben ‘have’ in German perfect tenses.\(^6\) Second, the predicates in (2) through (4) are non-agentive, that is the dative/genitive causer and/or experiencer here has no control over the event named by the verb. This contrasts with their transitive unergative counterparts, which can (though need not) have a truly agentive interpretation. To illustrate, the Albanian example in (5) is the transitive unergative counterpart of the sentence in (2a).\(^7\) As such, its predicate is in the
active voice. While the transitive unergative sentence in (5) can be uttered truthfully only in a situation in which Ben was eating (an apple), its unaccusative (i.e. non-active) counterpart in (2a) is true also if Ben was not eating (an apple). Indeed (2a) is a purely stative construction, and as such devoid of an agent.

(5)  Beni  ha-nte  (një  mollë).
        eat-act.p.IMP.3S  [an  apple]acc

  Benom  eat-act.p.IMP.3S  [an  apple].

Ben was eating (an apple).'

The same holds also for the other Balkan languages that have this construction, in spite of the fact that unlike Albanian, these languages use reflexive instead of non-active morphology. It seems then that non-active morphology in Albanian and reflexive morphology in Bulgarian/Serbo-Croatian changes the aspectual properties of the predicate.

The lack of true agency can also be argued for the unintended causation construction type illustrated above through the examples in (3) and (4). Consider the Albanian sentence in (6), which is the transitive unergative counterpart of (3a). Again, the verb is in active voice.

(6)  Beni  theu  dritaren.
        break-act.AOR.3S  windowacc

  Benom  break-act.AOR.3S  windowacc.

Ben broke the window.'

Both the active predicate in (6) and the non-active predicate in (3a) can be used to describe a situation in which Ben inadvertently breaks the window. However, unlike the active causative predicate in (6) which may also describe an event that is wilfully brought about by the human causer, the non-active causative predicate in (3a) only specifies unintended causation. It seems then that true agents (in the sense: volitional participants, or participants capable of intentionality) are excluded from non-active causatives. Again, the same facts hold also for the other Balkan languages used to illustrate the construction type in (3), as well as for German and Spanish.

Finally, the predicates in (2) through (4) qualify as unaccusatives by their inability to undergo impersonal passivization. In this context, note that in all the languages of the Balkans impersonal passives also involve non-active and/or reflexive morphology. And as is well-known also from other languages (e.g. German), passive-like formations (and reflexives) cannot passivize further. If the dative argument is removed from the sentences in (2), the resulting structures would be (impersonal) passives. On the other hand, if the dative argument is removed from the sentences in (3) and (4), the resulting structures are anticausative.

In sum, it can be stated that the predicates in (2) through (4) are unaccusative. The sentences in (2) through (4) may then be described as dative unaccusative constructions, irrespective of the fact that the sentences in (2) have an involuntary state reading whereas those in (3) and (4) have an unintended causation reading. Note in this context that the unaccusative constructions in (2) are purely stative (that is, atelic) aspectually. As such, these data constitute strong evidence that the aspectual analysis
of unaccusativity, which assumes, roughly, that all unaccusatives are telic (Abraham 2000; Borger 1994, 2004; van Hout 1996, 2004, among others), is indeed not tenable, as has been suggested before (e.g. Reinhart 1996, 2002).

2.2 The distribution of the involuntary state and unintended causation reading

Let us now try to define the scope of the phenomenon under scrutiny, namely when exactly the involuntary state reading and the unintended causation reading come about in the dative unaccusative construction. Specifically, I pointed out that the involuntary state reading has a more restricted distribution cross-linguistically than the unintended causation reading. However, this is not very telling for the languages in which both readings of the dative unaccusative construction obtain. In particular, the question arises whether it is possible to systematically predict one or the other reading. This is important for two reasons. First, the dative unaccusative construction is highly productive in the languages of the Balkans, which manifest the interpretive distinction between the involuntary state and the unintended causation reading. As discussed in Kallulli (1999a, b) for Albanian, any morphologically active/non-reflexive predicate can be affixed with non-active and/or reflexive morphology and combined with a dative argument, yielding among other possible readings (discussed in Section 3) the involuntary state reading and/or the unintended causation reading. Secondly, as I have pointed out in previous work (Kallulli 1999a, b) and as will be detailed below, both the involuntary state reading and the unintended causation reading may obtain with one and the same predicate. Given this state of affairs, the question of what generalisation (if any) explains the distribution of these readings is solicited.

While the unintended causation reading is missing in (2), both the involuntary state reading and the unintended causation reading may obtain with one and the same predicate, as illustrated through the Albanian examples (7a, b).

(7)  a. Benit i-u thye dritarja.
    Ben DAT DAT CL 3S-NACT break AOR 3S window NOM
    (i) ‘Ben unintentionally/involuntarily broke the window.’
    (ii) ‘Ben felt like breaking the window.’

b. Benit i thy-hej dritarja.
    Ben DAT DAT CL 3S break-NACT PIMP 3S window NOM
    (i) ‘Ben felt like breaking the window.’
    (ii) ‘Ben unintentionally/involuntarily broke the window.’

The Albanian sentences in (7a) and (7b) differ with respect to their grammatical aspect only. As is obvious from the glosses in (7a, b), Albanian has two forms for the past tense, which differ in their aspectual value: Aorist, which is perfective, and Imperfective. Only the perfective sentence in (7a) but not the imperfective in (7b) can get an unintended causation reading. On the other hand, with imperfective aspect only the involuntary state reading but not the unintended causation reading obtains. Note that the verb in (7a, b) is one that participates in the so-called causative-anticausative
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alternation, that is an external causation verb (Levin & Rappaport Hovav 1995). Let us now see what happens with a verb that unlike *thyej* ‘break’ in (7) is not an external causation verb. Consider the Albanian examples in (8).

(8) a. *Benit* i ha-je *(një molë).*
   Ben_dat DAT_CL.3S eat-NACT.P.IMP.3S [an apple]_nom
   (i) ‘Ben felt like eating (an apple).’ Or: ‘Ben was (apple-)hungry.’
   (ii) ‘Ben unintentionally ate (an apple).’

b. *Benit* i-u hëngër *(një molë).*
   Ben_dat DAT_CL.3S-NACT eat-AOR.P.3S [an apple]_nom
   (i) ‘Ben felt like eating (an apple).’ Or: ‘Ben was (apple-)hungry.’
   (ii) ‘Ben unintentionally ate (an apple).’

Again, (8a) and (8b) differ with respect to their grammatical aspect only: (8a), which is a repetition of (2a), is imperfective whereas (8b) is perfective. However, in spite of this difference, only the involuntary state reading but not the unintended causation reading obtains. Unlike the sentences in (7) that contain a predicate which in its active form has causative meaning, the sentences in (8a) and (8b) feature a verb that in its active form (recall example (5)) denotes an activity (i.e. a process) and as such has no causative meaning ingredient. It is then not surprising that no unintended causation reading obtains.

I have so far established that the unintended causation reading in a dyadic unaccusative construction arises only with verbs which participate in the causative-anticausative alternation. It is especially important to delineate this insight in the context of discussions on the semantics (and syntax) of anticausatives. The fact that the unintended causation reading obtains only with verbs that participate in the causative-anticausative alternation constitutes evidence for Levin and Rappaport Hovav’s (1995) position that both the transitive and the anticausative forms involve Cause.

Having presented the main facts, let me now turn to the question of what generalisation underlies the distribution of the involuntary state reading and the unintended causation reading. In Kallulli (1999a, b) I argued that the relevant generalisation is the following: the unintended causation reading obtains in sentences which describe telic or bounded events, it does not obtain in sentences which describe atelic or unbounded events. This generalisation accounts for the fact observed in (7b), namely that the unintended causation reading here does not arise, since in spite of the fact that the predicate here is inherently telic, the aspectual value of the sentence in (7b) is atelic due to imperfective aspectual morphology. Thus, the distribution of the unintended causation reading is not determined exclusively by the inherent aspect (aktionsart) of the predicate, but also by VP-external operators, because aspect is not solely a property of verbs or verb phrases but a property of the entire sentence determined compositionally by the aspectual structure of the predicate in combination with predicate external operators (Verkuyl 1972; Dowty 1986; Krifka 1992; Pustejovsky 1991; Smith 1991, among many others). Note however that though perfective aspectual morphology is a necessary condition for the unintended causation reading to obtain, it is not sufficient,
since, as (8b) shows, it fails to induce telicity. That is, the unintended causation reading does not obtain with predicates that are not inherently telic even when these occur with perfective aspectual morphology. The question of course arises as to what the exact nature of the interaction between the inherent aspect of a predicate and predicate external operators is. I argued above that in (7b) the unintended causation reading does not arise because in spite of the fact that the predicate here is inherently telic, the aspectual value of the construction in which it occurs is – due to imperfective morphology – atelic, violating in this way the aforementioned generalisation. However, as already pointed out, the fact that (8b) contains perfective aspectual morphology obviously does not suffice to change the aspectual value of the sentence from atelic into telic (or bounded), since (8b) is still obviously stative. It seems then that the stativizer here invariably scopes over the aspectual operator. Why this is, as well as other issues concerning the exact specification of the relationship between inner and outer aspect, remain issues for further study well outside the scope of the present article.

3. Other readings of the dative unaccusative construction: Ambiguity or vagueness?

As mentioned in the previous section, the sentences in (2) through (4) may, depending on the interpretation of the dative/genitive DPs in them, also have other readings in addition to the involuntary state and/or unintended causation reading. For instance, the dative DP in the Albanian sentence in (2b), repeated here under (9), can, in addition to being interpreted as the experiencer of an involuntary state, also be interpreted as a benefactive or possessor, as shown in (9) (ii) and (iii), respectively.

\[
(9) \quad \text{Benit }\text{ i }\text{nndërto-hej }\text{(një shtëpi). (Albanian)}
\]

\[
\text{Ben}_{\text{nat}} \quad \text{DAT.CL.3S} \quad \text{build-N.ACT.P.IMP.3S} \quad [\text{a house}]_{\text{vom}}
\]

(i) ‘Ben felt like building (a house).’ Or: ‘Ben was in a (house-)building mood.’

(ii) ‘A house/something was being built for Ben/on Ben’s behalf/as a favour to Ben.’

(iii) ‘Ben’s house was being built.’

Likewise, \text{Ben} in the Albanian sentence in (3a), repeated in (10), can in addition to being interpreted as an involuntary or unintentional causer also be interpreted as a somehow affected participant (such as a benefactive/malefactive) or as a possessor.

\[
(10) \quad \text{Benit }\text{ i-u }\text{ thye }\text{ dritarja. (Albanian)}
\]

\[
\text{Ben}_{\text{nat}} \quad \text{DAT.CL.3S-NACT} \quad \text{broke.AOR.3S} \quad \text{window}_{\text{vom}}
\]

(i) ‘Ben unintentionally broke the window.’

(ii) ‘Ben was (somehow) affected by the window breaking.’

(iii) ‘Ben’s window broke.’
At this point, one imminent question is whether the different readings are due to ambiguity or vagueness. I believe that the constructions are truly ambiguous between an involuntary state or an unintended causation reading, an ‘affected’ reading, and a possessor reading, familiar from the so-called possessor dative construction in Hebrew (Borer & Grodzinsky 1986; Landau 1999) and German (Hole 2005). Let me start with the possessor reading.

The datives in the sentences in (9) and (10) cannot be interpreted as possessors in the presence of an overt possessor. This is shown in (11) and (12), the respective counterparts of (9) and (10).

(11) Benit i ndëro-hej shtëpia e Anës.
    Ben DAT cl.3s build-NACT.p.IMP.3s house NOM AGR Ann DAT
    (i) ‘Ben felt like building Ann’s house.’
    (ii) ‘Ann’s house was being built for Ben / on Ben’s behalf / as a favour to Ben.’
    (iii) ‘Ben’s house was being built.’

(12) Benit i-u thye dritarja e Anës.
    Ben DAT cl.3s- NACT broke.AOR.3s window NOM AGR Ann DAT
    (i) ‘Ben unintentionally broke Ann’s window.’
    (ii) ‘Ben was (somehow) affected by the breaking of Ann’s window.’
    (iii) ‘Ben’s window broke.’

Note that the overt possessors in (11) and (12) are also expressed through datives morphologically. However, unlike the datives in (9) and (10), the overt dative possessors in (11) and (12) follow the head noun, which is indeed the canonical order of nominal elements within the Albanian DP. Due to the fact that overt possessors in Albanian (as well as in other Balkan languages) have the same morphological case as involuntary experiencers, unintentional causers, or affected participants, namely dative (or in Greek genitive), in the absence of an overt possessor nothing would prevent a dative/genitive DP from receiving such an interpretation. In other words, the ambiguity possessor vs. other of the dative participant is expected in the absence of overt possessors.

A similar argument can be construed to account for the remaining ambiguity, namely between the involuntary state or unintended causation reading on the one hand, and the affected reading on the other. Given that the distribution of the involuntary state and unintended causation reading can be described as complementary, the fact that each of these readings is related to the semantic make-up of the predicate seems trivial. That is, if the involuntary state and unintended causation reading were due to pragmatic considerations rather than the semantics of the verb, we would expect all constructions with dyadic unaccusative verbs to receive the same range of interpretations at least when they occur in identical morphological environments. This is however contrary to fact, as witnessed by the semantic opposition between (7a) and (8b), which differ only with respect to the choice of the verb (‘break’ vs. ‘eat’). One argument suggesting that the involuntary state and the unintended causation reading...
are structurally different from the affected reading involves the following facts. In the presence of an oblique argument expressing a causing participant, the dative can only be interpreted as an affected (and/or possessor) but not as an unintentional causer.\textsuperscript{18} This is shown in the Albanian examples in (13) and the German examples in (14).\textsuperscript{19}

(13) a. Anës i-u shkatërrua dritarja nga
\textit{Ann\textsubscript{DAT} dat.Cl.3s-nact destroy.aor window\textsubscript{NOM} from/by era / i shoqi. wind / husband}
(i) ‘The wind / her husband destroyed the window to Ann.’
(ii) ‘Ann’s window was destroyed from the wind / by her husband.’
(iii) ‘Ann felt like destroying the window through the wind / her husband.’
(Or ‘Ann felt like having the window destroyed from the wind / by her husband.’)

b. Anës i-u thye dritarja nga
\textit{Ann\textsubscript{DAT} dat.Cl.3s-nact break.aor window\textsubscript{NOM} from/by era / i shoqi. wind / husband}
(i) ‘The wind / her husband broke the window to Ann.’
(ii) ‘Ann’s window broke from the wind / her husband.’
(iii) ‘Ann unintentionally broke the window through the wind/her husband.’

(14) a. Der Anna ist das Fenster durch den Wind
\textit{the Anna\textsubscript{DAT} is [the window]\textsubscript{NOM} through [the wind]\textsubscript{ACC} zerbrotchen. broken}
(i) ‘The wind broke the window to Ann.’
(ii) ‘Ann’s window broke from the wind.’
(iii) ‘Ann unintentionally broke the window through the wind.’

b. Der Anna ist das Fenster von ihrem Mann
\textit{the Anna\textsubscript{DAT} is [the window]\textsubscript{NOM} by [her husband]\textsubscript{DAT} zerbrotchen worden. broken become}
(i) ‘Her husband broke the window to Ann.’
(ii) ‘Her husband broke Ann’s window.’
(iii) ‘Ann unintentionally broke the window through her husband.’

Another argument can be adduced in support of the idea that the constructions under discussion are truly ambiguous. When an overt adverbial meaning ‘unintentionally’ or ‘inadvertently’ is inserted in the Albanian sentence in (10) or the German sentence (4a), the affected reading is excluded (unless an overt causer in a prepositional \textit{by-}
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phrase is inserted or implicit, in which case the resulting construction is a passive, similar to the sentences in (13) and (14)). This is shown in the examples in (15).

(15) a. Beni\textsubscript{dat} i-u thye dritarja padashje. (Albanian)

\begin{verbatim}
Ben[dat] DAT.CL.3S-NACT broke.AOR.3S window[nom] inadvertently
\end{verbatim}

(i) ‘Ben unintentionally broke the/his window.’

(ii) *‘Ben was (somehow) affected by the window breaking.’

b. Dem Ben ist das Fenster \textit{unabsichtlich} zerbrochen. (German)

\begin{verbatim}
[i] the Ben[dat] is [the window][nom] inadvertently broken
\end{verbatim}

(i) ‘Ben unintentionally broke the/his window.’

(ii) *‘Ben was (somehow) affected by the window breaking.’

In sum, the different readings of the dative unaccusative constructions seem due to ambiguity, not vagueness. Although it may not be possible to completely isolate the unintended causation from the affected reading semantically (in the sense that whenever the unintended reading is possible the affected reading can, in one way or another, also be construed), this is by no means proof that the unintended causation reading is due to pragmatics.\textsuperscript{20} In particular, it would be wrong to assume that the affected interpretation, notoriously difficult to formalise as it has proved to be, is nonetheless the primary or most basic one. For instance, in a sentence like the Albanian (16a), or its German counterpart (16b), which contain constituent negation, the preferred (or most easily accessible) reading seems to be that Ben and not Eva was responsible for the window breaking (i.e. the unintended causation, not the affected, reading).

That is, these sentences do not deny that there was a window-breaking event, but deny the identity of the participant that is responsible for this event (or, less accessibly, the identity of the participant affected by it).

(16) a. Dritarja ime u thye, por nuk i-u

\begin{verbatim}
window[nom] my NACT broke.AOR.3S but not DAT.CL.3S-NACT
\end{verbatim}

thye Evës por Benit. (Albanian)

‘My window broke, but it was not Eva but Ben that it broke to.’

b. Mein Fenster zerbrach, aber nicht der Eva, sondern dem

\begin{verbatim}
[i] my window][nom] broke but not [the Eva][dat] but [the
\end{verbatim}

Ben. (German)

‘My window broke, but Ben not Eva was responsible for that.’

Second, assuming as is normal within generative grammar that initial syntactic relations reflect semantic relations and that both syntactic and semantic relations are hierarchical and compositional, even if these readings are indeed impossible to dissociate semantically, this could be due to the way syntactic (and/or semantic) composition proceeds in the constructions under discussion. In fact, the analysis that I provide in Section 5 predicts that whenever the unintended causation reading is possible, the affected reading can also in one way or another be construed.
4. Previous analyses

In this section I review several previous analyses of dative unaccusative constructions in Balkan languages and state my objections to these analyses. I believe that some of these objections apply also to accounts of what appears to be (the counterpart of) a dative unaccusative construction in other languages (e.g. Russian, as explored in Benedicto 1995).

4.1 Hubbard (1985)

An early exposition of the Albanian dative unaccusative constructions cast in the framework of Relational Grammar is provided in Hubbard (1985). Hubbard claims that this construction involves ‘Inversion’, a Relational Grammar rule which has the effect of demoting the subject to an indirect object. Although Hubbard discusses only some of the readings that obtain with the dative unaccusative construction (notably the involuntary state reading), implicit in his discussion is the idea that the meaning nuances of the construction result from the demotion of the subject. While this might be a useful insight, my objection concerns the lack of a principled explanation of how exactly these meaning differences of the dative unaccusative construction come about.

4.2 Kallulli (1999a, b)

Rappaport Hovav and Levin (1998) distinguish between two types of morphological operations, one that simply alters the argument structure of verbs and/or grammatical relation alignments with arguments (i.e., operations which only affect the lexical syntactic representations of verbs), and one that alters lexical meaning with possible effects on the grammatical relation status of arguments (i.e., operations that derive new lexical semantic representations). Operations that affect verb meanings alter either the aspectual template of a predicate or the pairing of a (predicate) name (i.e., a constant) with an aspectual template.

Inspired by these ideas and adopting the model of lexical meaning proposed in Pustejovský (1991), in Kallulli (1999a, b) I analyse Albanian non-active morphology as an operation that affects the lexical-semantic structure of a predicate by changing either its aspectual template, or the name associated with it. More specifically, in these previous works I analyse non-active morphology as an event functor that applies to a given event type to yield a lower event type, by suppressing either the initial subevent in the event structure of a predicate, or the name associated with this subevent. Crucially, all the various readings of constructions with non-active morphology are under this analysis derived from their active counterparts. (In Kallulli 2004a, b I extend this analysis to reflexive and other unaccusative morphology, too.)

Though my previous analysis uniformly derives the various readings of constructions with non-active and/or reflexive morphology, my motivation for the present
alternative account is related to the fact that, ceteris paribus, an analysis that does not involve a disjunction is conceptually desirable and therefore superior.


To account for the interpretive differences arising with the dative unaccusative construction within the Balkan languages, or between Albanian and Bulgarian on the one hand, and Greek and Rumanian on the other (recall that the involuntary state reading introduced in (2) for Albanian, Bulgarian and Serbo-Croatian does not obtain in Greek and Rumanian), Rivero (2003, 2004) proposes two alternative interpretive procedures with rather different properties, namely D-Disclosure (‘Dative Existential Disclosure’), and the E-Strategy (‘Ethic Strategy’). Rivero argues that D-Disclosure is a rule of formal grammar that operates in Albanian and South Slavic passives and impersonal passives but not in anticausatives, whereas the E-Strategy is found in all the languages of the Balkans, may apply at the interface with discourse grammar with different effects in passives/impersonal passives, anticausatives, and other constructions, and is inferential. In particular, Rivero assumes that anticausatives undergo Argument Suppression in the lexicon (Reinhart 1996), which means that anticausatives lack a formally represented causer argument both in syntax and semantics.

Thus, Rivero’s analysis contrasts with Kallulli (1999a, b), who does not derive the involuntary state reading from a passive (and/or impersonal passive) construction, nor the unintended causation reading from an anticausative construction.

The opposition (7a) vs. (7b) (that is, the fact that the unintended causation reading of a verb participating in the causative-anticausative alternation does not obtain with imperfective aspect but that the involuntary state reading obtains instead) speaks against the analysis of the dative unaccusative construction along the lines of Rivero (2003, 2004) and also Rivero and Milojević-Sheppard (2003), since under such analyses one would have to assume nonetheless that aspectual morphology may indeed affect the argument structure of a verb (or in Rivero’s terminology, induce D-disclosure effects, certainly an undesirable result). In fact, in Rivero and Savchenko (2004) an alternative analysis of anticausatives is presented, according to which anticausatives are assigned a formally represented causer (that is, the causer argument is not interpreted inferentially).21

4.4 Marušič and Žaucer (2004a, 2004b)

Marušič and Žaucer (2004a, 2004b) provide an extensive discussion of the dative unaccusative construction in Slovenian, also from a comparative and typological perspective. However, their discussion deals exclusively with the involuntary state reading, which as pointed out in Note 2, Marušič and Žaucer refer to as the feel-like construction. Marušič and Žaucer analyse this construction as involving a biclausal structure, consisting of a phonologically null lexical psych verb feel-like in the matrix clause and an overt verb in the embedded clause.
In my opinion, while intuitive, the biclausal analysis of the dative unaccusative construction raises the following concerns.

First, if all there is to the involuntary state construction is an empty, inherently reflexive/non-active psych verb in an upper clause, then the same structure should be posited also for the passive, middle, lexical reflexive constructions, as well as for the other readings of the dative unaccusative construction (i.e. the affected, possessor and/or unintended causation reading), since all these involve the same morphology in the languages of the Balkans, namely non-active or reflexive. Likewise, the different semantic interpretations across these constructions should ideally be formally and uniformly derived, which seems rather hard to do if the null verb in these constructions is the same (psych) verb that Marušič and Žaucer postulate for the involuntary state construction. Following recent proposals by van Riemsdijk (2002, 2003) on the existence of (different) null verbs in various languages, one could claim that the various readings of the dyadic (as well as monadic) unaccusative constructions in Balkan and other languages involve different (possibly semantically related) null verbs. However, while the theoretical and empirical arguments for this hypothesis in van Riemsdijk (2002, 2003) are compelling for the languages and verbs that he discusses, if one were to borrow this proposal and apply it to the case at hand, the question still remains how to account for the fact that, depending exclusively on aspectual morphology, either the unintended causation reading or the involuntary state reading, but not both, obtain. Thus, Marušič and Žaucer's biclausal analysis faces the same major empirical problem as Rivero's (2003, 2004): as it stands, it cannot account for the semantic difference between (7a) and (7b).

Second, Marušič and Žaucer's syntactic arguments for their position centre on the use of adverbial diagnostics, such as the co-existence of non-agreeing temporal adverbs and relative order reversibility of adverbials. To illustrate, in the Slovenian example in (17) (from Marušič & Žaucer 2004a) two adverbs co-occur.

(17) Zdjale se mi res ne gre jutri domov.

Now refl I really not go.pr tomorrow home
'Right now I really don’t feel like going home tomorrow.'

Marušič and Žaucer (2004a) take this as evidence for the existence of two independent events, the feel-like event and the home-going event, each being modified by one adverb. Though phenomena involving adverbial modification and placement are interesting, they have also proved to be notoriously difficult to accommodate in linguistic theory, with even crucial issues remaining far from settled, as Marušič and Žaucer themselves acknowledge at various points (to wit their discussion of Parson's 1990 frame vs. temporal adverbial dichotomy, their reflection of current debates on whether adverb placement and modification is semantically or syntactically motivated, the (non-)universality issue of adverbial ordering (Ernst 2002; Svenonius 2002)). In view of these non-trivial issues, I believe that any argument relying on adverbs as a diagnostic for structure is to be handled with care (and solicited suspicion). Given what is at stake, such arguments need at any rate to be backed up by more solid ground. At
a more empirical level, assuming adverbs to constitute a reliable diagnostic for structure, much of what Marušić and Žaucer state about their placement in the involuntary state construction also applies to the middle construction, since at least in Albanian (but also in Slovenian, as Rok Žaucer points out to me in personal communication), adverbs can easily reverse order also in these constructions. Also, evidence from what seem to be monoclausal constructions with overt psych verbs and non-agreeing temporal adverbs in Albanian, as in (18), casts doubts on the validity of the claim that the existence of non-agreeing temporal adverbs necessarily points to biclausality.22

(18) Sot më kujtohen fjalet/robat e Annës dje.

T oday I recall Anna’s words/clothes of yesterday.

In view of the considerations discussed here, I believe that a biclausal analysis of the dative unaccusative construction is problematic and not necessary.

5. The syntactic visibility of intentionality

This section presents a new analysis of the dative unaccusative construction that crucially relies on the idea that intentionality (i.e. true agency) is a feature relevant to syntactic computation (see also Dowty 1991). Before dealing with the issue of intentionality as a primitive, I will however first discuss the features [+act] and [+cause] that enter the syntactic computation depending on the event structure of the predicate to be projected.

5.1 A simple event ontology and its syntactic projection

Following Pustejovsky (1991, 1995), I assume an event ontology that distinguishes between states, processes (or activities) and transitions.23

For the purposes of this article, abstracting away from state-denoting verbs, I will simply assume that (the roots of) activity predicates differ from (the roots of) causative predicates in that the former project an [+act] feature in v whereas the latter a [+cause] feature. In other words, I will assume that [+act] and [+cause] are primitives. Clear empirical evidence for this ontological distinction comes from the data in (7a) vs. (8b). Specifically, the question arises as to why the pattern in (7a) does not replicate in (8b). The only possible explanation must be that non-active morphology interacts differently with different (feature) primitives. That is, the lexical (and consequently syntactic) feature composition make-up of (the root of) break is different from that of eat.
5.2 Predicate structure

5.2.1 The structure of causative predications

Davis and Demirdache (1995) and Demirdache (1997) argue that agentive and causative predications are universally derived from distinct frames. The basic idea behind their analysis is that an event participant identifying the instigation (or initiation) of a causative event is an agent if and only if that participant can volitionally or intentionally bring about such initiation, that is, if the causing participant has control over the event. To illustrate, Demirdache provides the example in (19) and argues that Rosa in (19) is an agent iff “Rosa performs some action of melting which causes the ice to be melted. In contrast, Rosa is a causer (but not an agent) when there is no intrinsic relation between the causing event and the resulting change of state – e.g. Rosa accidentally turns off the refrigerator and the ice melts” (Demirdache 1997:129).

\[(19) \text{Rosa melted the ice.}\]

While what is meant by “intrinsic relation” may not be equally intuitive for everyone, it is clear what Demirdache means: Rosa is an agent iff she intentionally does something in order to obtain a certain result, namely have the ice melt.24

I believe that intentionality (or lack of it) can be successfully captured through the feature \([\pm \text{intent}].\) I contend that there are two types of causatives, agentive and non-agentive, which differ in their lexical (and consequently syntactic) feature composition make-up. Specifically, while agentive causatives can be defined as an ordered tuple containing the features [+intent] and [+cause] in \(v,\) as in (20), non-agentive causatives lack the feature [+intent] in \(v,\) as in (21).25 Accordingly, when \(v\) has a feature [+intent], an agent will be projected in the specifier position of the head where this feature is projected, as in (20). In contrast, when there is no such feature in \(v,\) what will be projected in the higher specifier position will not be an agent argument, but a causer, as shown in (21).26

\[(20) \text{The structure of agentive causatives}\]

\[
\text{vP} \\
\text{Spec: Agent Anna} \\
\text{v} \\
\text{<[+intent],[+cause]>} \\
\text{break} \\
\text{VP} \\
\text{Spec} \\
\text{V'} \\
\text{V Compl}
\]
The structure of non-agentive causatives

\[
\begin{array}{c}
\text{Spec: Causer} \\
\text{Anna} \\
\text{\langle+cause\rangle} \\
\text{break} \\
\text{Spec: V Compl} \\
\text{V Compl}
\end{array}
\]

Reinhart (2002), on the other hand, argues that the agent role is composed of the features [+c] and [+m], which stand for cause and mental state, respectively. Note however that the feature [±intent] which I have proposed as a syntactic primitive cannot be equated with Reinhart’s feature [±m], since, as has been observed independently in Rivero and Savchenko (2004), no feature or feature cluster in Reinhart’s system given under (22) can capture an involuntary (or unintentional) causer role; while the cluster [+c+m] expresses the agent role, [+c–m] expresses an instrumental causer role (i.e. an extrinsic instigator, such as a natural or other force). (Indeed Rivero & Savchenko 2004 suggest the inclusion of a feature Volition [v] in Reinhart’s 2002 system.)

\[
\begin{array}{l}
\text{a. [+c+m]} - \text{agent} \\
\text{b. [+c–m]} - \text{instrument} \\
\text{c. [–c+m]} - \text{experiencer} \\
\text{d. [–c–m]} - \text{theme/patient} \\
\text{e. [+c]} - \text{cause (Unspecified for m); consistent with either (a) or (b).} \\
\text{f. [+m]} - ? \\
\text{g. [–m]} - (Unspecified for c): subject matter/locative source \\
\text{h. [–c]} - (Unspecified for m): goal, benefactor typically dative (or PP).
\end{array}
\]

Likewise, the feature animacy suggested in Folli and Harley (2005), while necessary, is not sufficient, because animate participants can still cause events without intending to do so. On the other hand, intentionality entails animacy, so the validity of the insights and generalisations presented in Folli and Harley is still preserved.

5.2.2 The structure of activity/process predications

I claim that, like causatives, activity predications fall into two different types: agentive and non-agentive. Agentive activities differ from non-agentive activities in terms of their lexical (and consequently syntactic) feature composition: agentive activity predications are ordered tuples consisting of the features [+intent] and [+act] in v, as in (23), whereas non-agentive predicates lack the feature [+intent], as in (24). Accordingly,
when \( v \) has the feature \([+\text{intent}]\), an agent will be projected in the specifier position of the head where this feature is projected, as in (23). In contrast, when there is no such feature in \( v \), what will be projected in the higher specifier position will not be an agent argument, but an actor, as shown in (24).

(23) The structure of agentive activities

\[
\begin{array}{c}
vP \\
\text{Spec: Agent} \\
\text{Anna} \\
\text{\( v \)} \\
\text{\( \langle [+\text{intent}],[+\text{act}]\rangle \)} \\
\text{\( \text{eat} \)} \\
\text{\( \text{Spec} \)} \\
\text{\( \text{V} \)} \\
\text{\( \text{Compl} \)}
\end{array}
\]

(24) The structure of non-agentive activities

\[
\begin{array}{c}
vP \\
\text{Spec: Actor} \\
\text{Anna} \\
\text{\( v \)} \\
\text{\( \langle [+\text{act}]\rangle \)} \\
\text{\( \text{scream} \)} \\
\text{\( \text{Spec} \)} \\
\text{\( \text{V} \)} \\
\text{\( \text{Compl} \)}
\end{array}
\]

In other words, I contend that a sentence containing an activity predicate as in (25) is ambiguous between an agentive and a non-agentive reading.

(25) \text{Rosa screamed.}

Specifically, \text{Rosa} in (25) is an agent if and only if she intends her action (e.g. she could stop screaming if she so willed). In contrast, \text{Rosa} in (25) is an actor but not an agent if she does not intend her screaming activity (for instance, if she has taken drugs that make her unaware of what she is doing).

5.3 Defining non-active morphology: Deriving the various constructions (and their readings)

Much research has maintained that certain morphological operations apply either in the lexicon, or in the syntax. To wit, passivization, and/or reflexivization have com-
monly been treated as operations that suppress either an argument position (external or internal), a theta role in the thematic grid of the verb, or some element in the lexical-semantic structure of a predicate (depending on the theory) (cf. Baker, Johnson, & Roberts 1989; Grimshaw 1990; Levin & Rappaport Hovav 1995; Reinhart & Siloni 2004, among others). Similarly, non-active and/or reflexive morphology has been treated as an operation that suppresses the external argument in Massey (1991) and Embick (2004), and, as discussed in Section 4.2, as an operation that suppresses either the initial subevent of a predicate or its name (constant) in Kallulli (1999a, b, 2004a, b). In this spirit, I will, here too, analyse non-active (and/or other unaccusative) morphology as a suppression operation. However, unlike the types of suppression just cited, I believe that non-active morphology operates in the syntax solely and purely in a linear fashion fully ignoring the content of the element that it affects. Specifically, I define non-active (and/or other unaccusative) morphology as in (26).

(26) Definition of non-active/unaccusative morphology
Non-active (and/or other unaccusative) morphology suppresses the first feature in a predicate structure.

5.3.1 Deriving the unintended causation reading
I contend that the unintended causation reading of the dative unaccusative constructions in (3) and (4) is derived from (dyadic) agentive causative predications, the structure of which was given in (20). Specifically, when the definition in (26) applies to the structure in (20), the outcome is the representation in (27), since the first feature in (20) is [+intent].

(27)

The question arises, since a feature is suppressed here, what happens to the argument whose projection this feature has partly been responsible for, namely the agent in (20)? I believe that due to the feature suppression, the argument in its specifier position is not visible to further computation any longer. On the other hand, for the derivation to converge the feature [+cause] has to be saturated. The only way for this feature to be licensed is by another argument moving to the specifier of vP. I claim that the dative argument projected in the Spec of VP is the one that fulfils this role. Let us assume
that what licenses the projection of the dative argument in Spec of VP is a [+affected] feature in V, which is why the dative here will be interpreted as an affected participant. When non-active morphology suppresses the feature [+intent] thereby eliminating the argument in its specifier position from further computation, the dative argument moves in its place from Spec of VP so that the [+cause] feature is licensed. This is precisely why, to the extent that the dative argument in an unaccusative construction can be interpreted as an unintentional causer, it will also always be possible to construe the affected reading, unless pragmatic considerations (dis)favour one of these readings.27

5.3.2 Deriving the involuntary state reading

In close analogy with the discussion in the previous section on the derivation of the unintended causation reading from dyadic agentive causatives, I claim that the involuntary state reading of the sentences in (2) is derived from (dyadic) agentive activity predications. The structure of dyadic agentive activities was given in (23). When the definition in (26) applies to this structure, the outcome is the representation in (28), since the first feature in the structure in (23) is [+intent].

(28)

Paralleling much of the discussion in the previous section, the suppression of [+intent] here eliminates the agent argument in its specifier in (20) from further computation. However, for the derivation to converge the remaining feature in v, namely [+act] has to be saturated. As in the previous case, the only way for this feature to be licensed is by another argument moving to the specifier of vP. Again, I claim that the dative argument introduced in the Spec of VP by the feature [+affected] in V moves to Spec of vP to license the [+act] feature. However, due to the bundling of the features [+affected] and [+act] upon movement of the dative argument to Spec of vP, its resulting theta role will be something like an affected actor, which, metaphysically speaking, comes rather close to experiencer, which is how the dative argument is interpreted in the sentences in (2). So the intuitive idea here is that experiencers are always affected participants, though not the other way round. That is, affected participants are not necessarily experiencers. They become experiencers only if another feature is combined with affectedness. I suggest that [+act] is one of the features that make for an experiencer when combined with [+affected] but this does not mean that it is the only one. (Recall that the no-
tion 'affected' here is used in a sense similar to benefactive/malefactive, which is quite different from how this term is used in Tenny 1994.)

While the analysis in this section so far accounts for data like (2), the question arises whether and how the semantic complementarity in terms of the unintended causation vs. involuntary state reading between (7a) and (7b), repeated here for ease of reference, can be captured by the present analysis.

(7) a. Benit i-u thye dritarja.
   Ben\textsubscript{dat} DAT.CL.3S-NACT break.AOR.3S window\textsubscript{nom}.
   (i) ‘Ben unintentionally/involuntarily broke the window.’
   (ii) *‘Ben felt like breaking the window.’

b. Benit i thy-hej dritarja.
   Ben\textsubscript{dat} DAT.CL.3S break-NACT.P.IMP.3S window\textsubscript{nom}.
   (i) ‘Ben felt like breaking the window.’
   (ii) *‘Ben unintentionally/involuntarily broke the window.’

Both (7a) and (7b) contain the same verb. As discussed earlier, (7a) and (7b) differ only with regard to aspectual morphology. While the unintended causation reading of (7a) is straightforwardly derived under the analysis in Section 5.3.1, this cannot explain how the involuntary state reading of (7b) comes about. On the other hand, recall that as a causative root, break does not have the event structure of a process but that of a recursive transition. As such, it is expected to project a [+cause], not a [+act] feature in the syntax. However, if it does not project a [+act] feature the analysis in the previous section cannot readily account for the involuntary state reading of (7b) either.

I suggest that though the event structure of break is that of a recursive transition, due to a procedure such as event composition (Pustejovsky 1991), it projects a [+act] (not a [+cause]) feature in the syntax. Specifically, I assume that imperfective morphology is an event functor that invariably shifts the event type of a predicate into a process. The idea here is that reiteration of causative events yields an activity.

5.3.3 Deriving the anticausative, passive, and middle construction
I contend that the anticausative, passive, and middle constructions are derived from non-agentive predications, the structure of which was given in (21) and (24) for causative and activity verbs, respectively. Non-active/reflexive morphology was in (26) defined as an operation that suppresses the first feature in a predicate structure. Note that the first feature in the structures in (21) and (24) is [+cause] and [+act], respectively, so when this feature is suppressed by non-active/reflexive morphology, the outcome of this operation will be a monadic unaccusative structure, as in (29) and (30).
The structure in (29) is that of the anticausative construction, which is derived when non-active/reflexive morphology operates on the structure of an aspectually telic non-agentive causative (recall the semantic complementarity between the perfective (7a) and the imperfective (7b)). The distinction between a passive and a middle is, I believe, due to the difference between different aspectual operators. Specifically, the middle construction is derived when the verb in the structures in (29) and (30) is under the scope of a dispositional operator, such as the imperfective (though the notion ‘imperfective’ does not seem to be semantically homogenous, see Lekakou 2005). In contrast, passive obtains when the verb in (29) and (20) is under the scope of a non-dispositional aspectual operator (such as generic-habitual or episodic).

Space limitations prevent me from discussing the irrelevance of arguments bearing on facts such as the sanctioning of by-phrases, controlling into purpose clauses, and the ability to combine with so-called agent-oriented adverbs in passives vs. their impossibility in anticausatives and middles in English for the analysis that I have outlined here. However, I have discussed these issues in detail elsewhere (Kallulli to appear a, b), so the interested reader is referred to these works.
6. Conclusion and open questions

The main purpose of this article was to examine the properties of the dative unaccusative construction and the ensuing ramifications for the shell theory, in particular as concerns its construal of unaccusativity. A range of unaccusative constructions, to wit, the dative unaccusative construction and its various interpretations, the anticausative construction, the passive and the middle, can be formally and uniformly derived by combining the idea that agentive (both causative or activity) predications and non-agentive (both causative or activity) predications are universally derived from distinct frames, specifically, feature tuples, and that unaccusative morphology is a feature-suppression operation in the syntax that invokes linearity, a well-supported principle of cognitive processing.

From the material presented in this paper, several other conclusions can be drawn. For instance, as already mentioned, telicity is not a semantic determinant of argument expression, in the sense that it does not determine grammatical function, which following Levin (2000), I take to be the core of argument expression. Also, the data presented here support the claim in Rappaport Hovav and Levin (2002) that although argument expression is not determined entirely on the basis of its lexical feature composition make-up, a verb's (or its root's) lexicalized meaning is nonetheless important to determining or constraining its argument expression options.

The analysis that I have proposed makes several clear predictions. First, it predicts that non-agentive verbs of internal causation (e.g. 'blush', 'tremble', etc.) can't appear in the dative unaccusative construction. Second, the analysis outlined here predicts that verbs of emission can't appear in the dative unaccusative construction, either. Another prediction is that extrinsic instigators cannot appear in the dative unaccusative construction. To my knowledge, all three predictions are borne out in all languages that have the dative unaccusative construction.

I have glossed over some aspects which need to be dealt with in the framework of an integrated theory of the syntactic projection of unaccusatives. First, I haven't gone into issues concerning the inability of accusative case assignment, but this specific aspect can in general be dealt with along the lines of Bennis (2004). Another open question is why the involuntary state reading which obtains in the rest of the Balkan languages does not obtain in Greek and Rumanian, which further scrutiny notwithstanding, seem to have the formal ingredients necessary for the licensing of this interpretation. Finally, a discussion of the so-called Finnish desiderative construction (Pylkkänen 2002; Nelson 2003), which seems to be the Finnish counterpart of the involuntary state reading of the dative unaccusative construction, need to be addressed in future work.
Notes

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1. However, the idea that the presence of a small \( v \) is necessarily connected to the presence of an external argument, which in turn is interpreted as an agent/causer, is of course too simplistic. For instance, Bennis (2004) brings non-agentive, unergative stative constructions to bear on this issue that if the \( v \)-projection is associated with a particular meaning type, the unergative-unaccusative distinction cannot be captured in these structural terms (i.e. \( vP \) vs. \( VP \)), and argues following Kratzer (1994) that \( v \) can be either dynamic or stative. When \( v \) is dynamic, the external argument is interpreted as agent (e.g. John greets the audience). In contrast, when \( v \) is stative, the external argument is interpreted as experiencer/possessor (e.g. John knows the audience). For a more extensive list of the ‘flavours’ of \( v \), see Folli and Harley (2005).

2. Though not crucial, I prefer the label ‘involuntary state construction’ for two reasons. First, I think that the ‘feel-like’ label biases the discussion towards a biclausal analysis, as has indeed been proposed in Marušić and Žaucer (2004a, 2004b). Second, I contend that what the construction really means is to be in a certain state that is not volitionally brought about by the experiencer. It seems to me that the ‘feel-like’ label is less neutral in this respect and may bias towards an interpretation whereby the experiencer of the state volitionally brings about a certain state (i.e. it has a somewhat causative or reflexive flavour).

3. The following abbreviations are used in the glosses in the examples: \textit{acc} (for accusative case), \textit{act} (for active voice), \textit{aor} (see Note 14), \textit{cl} (for clitic), \textit{dat} (for dative case), \textit{fem} (for feminine), \textit{gen} (for genitive case), \textit{imp} (for imperfective), \textit{nact} (for non-active voice), \textit{nom} (for nominative case), \textit{p} (for past tense), \textit{pl} (for plural), \textit{pr} (for present tense), \textit{refl} (for reflexive), \textit{s} (for singular).

4. Outside of the Balkan Sprachbund the construction seems to exist in Russian (Schoorlemmer 1994; Benedicto 1995) albeit with certain restrictions that do not apply in the Balkan languages. Further scrutiny notwithstanding, it also seems rather similar to the so-called Finnish desiderative construction (Pylkkänen 2002; Nelson 2003), as well as reminiscent of Icelandic quirky subject constructions (Holmberg & Platzack 1995).

5. As discussed in Kallulli (1999a, b) and Rivero (2004), the datives/genitives here can also be interpreted as possessor, or as a somehow affected participant, such as a benefactive/malefactive subject. These other readings are discussed in detail in Section 3.

6. Albanian and Greek have two distinct conjugational paradigms, active vs. non-active, corresponding (roughly) to the unergative/unaccusative distinction (the latter including passive, lexical reflexive, middle, and deponent predicates). This correspondence is rough by virtue of the fact that while unergatives are always active morphologically, some unaccusative verbs appear in this voice (i.e. are morphologically unmarked) too. For details, see Kallulli (1999a, b) on Albanian, Alexiadou and Anagnostopoulou (2004) on Greek. Crucially, however, in neither language can unergatives be formally non-active, just as passives, lexical reflexives and middles cannot be formally active.
7. In view of the fact that the dyadic predicates in the sentences in (2) through (4) are in a way transitive (in spite of being unaccusative), I use the term “transitive unergative counterpart” to refer to their morphologically active (and/or non-reflexive) counterparts. Note that this subsumes what is usually referred to as the “transitive” alternant of a transitive/inchoative alternant verb.

8. As obvious from the examples, the arity of the predicate is not relevant for the phenomenon under scrutiny. In other words, the involuntary state reading can obtain both with verbs that in their active form are (used as) one-place or two-place predicates (e.g. eat vs. eat an apple, or sleep vs. read a book). Also, the incremental theme here can be a referential expression, i.e., yielding Ben felt like eating this apple.

9. In fact in Kallulli (1999a, b) I analyse Albanian non-active morphology as an operation that affects the lexical-semantic structure of a predicate by changing either its aspectual template, or the name (constant) associated with it. In Kallulli (2004a, b) I extend this analysis to reflexive and other unaccusative morphology. I discuss these previous analyses and problems with them in Section 4.

10. The fact that passivization and reflexivization are incompatible points to, if not a common origin, at least some shared properties, as has indeed been argued in much previous work starting with Marantz (1984). There is some empirical evidence for this. As already pointed out, in Albanian (and Greek) passives and lexical reflexives have the same morphological clothing, namely non-active. Another piece of evidence is that in Albanian the non-active paradigm is built by three linguistic means with a well-defined distribution: (i) special suffixes for all simple tenses apart from the Aorist; (ii) the pre-verbal reflexive clitic \( u \) for the Aorist (Demiraj 1986 argues that the element \( u \), though invariable, is derived from the Indo-European reflexive pronoun \( su \)); (iii) the Albanian counterpart of \( be \) + participle verbal form for all periphrastic tenses. So here one sees very clearly how grammaticalized the reflexive is; recall that non-active morphology is not just used to encode reflexive relations but also others (passive, deponent).


13. The notion ‘affected’ is throughout this paper used intuitively, in a sense similar to benefactive/malefactive, which is however different from the notion ‘patient’.

14. Traditional grammars of Albanian distinguish between genitive and dative case, and postulate that overt possessors such as in (11) and (12) bear genitive case. However, genitive and dative are homomorphous in Albanian, although it is true that overt possessors are always preceded by an agreement marker (glossed \( agr \) in (11) and (12)). However, this element, which is taken as evidence for a special genitive case in traditional grammars, is not restricted to possessors but occurs also with adjectives (Kallulli 1999a).

15. Note also that all the languages that have the dative unaccusative construction (Balkan, German, Spanish) are so-called free word order languages, potentially another factor contributing to ambiguity.

16. This complementary distribution is seen along two different levels: first, there are verbs with which only the involuntary state reading but not the unintended causation reading obtains (re-
call the opposition in (7) vs. (8)), and second, for those verbs with which both readings obtain, their distribution is complementary depending exclusively on the value of aspectual morphology (recall the opposition (7a) vs. (7b) in Section 2.2).

17. See also Note 8.


19. Unlike in English, in Albanian both extrinsic instigators (i.e., forces of nature etc.) and agentive participants may be introduced by the preposition nga ‘by’, as shown in (13). (Alternatively it may be stated that nga means both ‘by’ and ‘from’.) German differs both from Albanian and English, in that there are two distinct structures altogether, a so-called adjectival passive, as in (14a), and a verbal passive, as in (14b) (Kratzer 2000).

20. Daniel Hole (personal communication) suggests that the two readings can indeed be truth-conditionally differentiated. On the unintended causation reading, a condition of spatial contiguity between the dative participant and the nominative participant is probably part of the truth conditions, which is however not the case on the affected reading.

21. Since Rivero and Savchenko’s account is intended to cover Russian anticausative constructions with genitives only and not as an overall analysis of the dative/genitive unaccusative construction in all its varieties, their specific implementation is not relevant for the purposes of this paper.

22. The element dje ‘yesterday’ in (18) seems to be an adverb not a noun since it does not require a genitive/dative, or a preposition. Henk van Riemsdijk (p.c.) points out to me the possibility of it being similar to the equivalent of postnominal adjectives in languages like German. These are not exactly adverbs, but they are like predicative adjectives (uninflecting), as in his example ein Auto groß (*es) genug um 5 Leuten Platz zu bieten – ‘a car big (*neut.) enough to seat five people.’ The question then is whether there might be a silent copula here, in which case, however, an adjective and not an adverb would be expected. If, however dje in (18) is really an adverb, assuming that adverbs are a reliable testbed for structure, then, depending on its objects, the silent verb would have to have a wide a range of meanings (‘speak’ when the object is ‘words’, ‘have on’ when the object is ‘dress’, etc.), an obviously problematic take.

23. On the other hand, Levin (2000), Levin and Rappaport Hovav (1999) and Rappaport Hovav and Levin (2002) forcefully argue that it is the dichotomy simple vs. complex event which is crucial to lexical semantic representations. With respect to causatives, Levin and Rappaport Hovav argue that what is essential to a causative event is that its subevents are not necessarily temporally dependent, which is what distinguishes them from accomplishments. Accomplishments are in their view events whose perceived subevents are necessarily temporally dependent, and unlike causatives, linguistically they are treated as a simple event. That is, causation and telicity are according to these authors not to be equated.

24. Several colleagues have remarked that the fact that the instigator of an event is not necessarily an agent (or an event participant capable of agency) does not make its relation to the (sub-)event less intrinsic. Further scrutiny notwithstanding, these two types of causation seem to be different from Kratzer’s (2005) notions of direct vs. indirect causation.

25. As will become clear, the notion ordered tuple is central for the analysis that I put forward here. While this might seem costly, the basic underlying idea is that syntax is only interested in the order(ing) but not in the foundations of this ordering, which are part of our conceptual organization.
26. Though this point is not crucial for the discussion here, technically I assume that the (verbal) root break is merged under V and moves to v subsequently.

27. Note that the implication here is only one way: datives do not need to be interpreted as unintentional causers. They are only interpreted as such when they are high up in the syntax (i.e. in Spec of vP).

28. Crucially, however, this insight can be recast also in a non-lexicalist framework. What is important here is the order of syntactic operations, specifically as concerns the projection of the relevant features in v and/or their manipulation by vP external operators.

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Dalina Kallulli

Unaccusatives with dative causers and experiencers


Putting things into perspective

The function of the dative in adjectival constructions in Serbian*

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The aim of this paper is to provide a formally explicit analysis of the syntax and semantics of the dative case in adjectival constructions in Serbian. The sentences under consideration are predicative constructions with a dative DP, as in *Ona je Marku lepa* 'She is pretty to Marko', where 'Marko' corresponds to the dative-marked DP. This construction is contrasted with the predicative construction without the dative (*Ona je lepa* 'She is pretty'). I will argue for the following: (a) syntactically, the dative is generated in SpecDegP; (b) semantically, the contribution of the dative is to relativize the meaning of the adjective to the particular point of view of the referent of the dative phrase. When there is no dative phrase, *pro* is generated in SpecDegP and is bound by a generic quantifier (adapting Epstein 1984) and the construction is interpreted as a general observation. The proposal is formally developed within the framework of Kennedy’s (1997) theory of the semantics of adjectives. The analysis is extended to comparative constructions.

1. Introduction

This paper examines how the dative DP interacts with adjectives in Serbian. The construction to be discussed is given in (1). The main property of this construction is that the nominal (DP) in the dative case is used to express the perspective of the individual denoted by the dative DP on the situation described in the sentence, as exemplified in the contrast between (1) and (2):¹

(1) *Ona je Mariji zabavna.*

she_{nom} be,3SG.CLITIC Marija_{DAT} fun,F.SGnom²

'She is fun datMarija.'

(2) *Ona je zabavna.*

she_{nom} be,3SG.CLITIC fun,F.SGnom

'She is fun.'
Sentence (2) expresses a general observation, a general point of view. Sentence (1) relativizes the semantic content of the sentence to the particular point of view of the referent of the dative phrase in (2). In the remainder of this paper I will discuss how these interpretations are arrived at, starting with the discussion of the syntactic structure of the dative sentences, followed by a semantic analysis.

2. Syntactic properties

2.1 Overview

Serbian has relatively free word order (Kunzmann-Müller 1994; Stevanović 1970), but the basic word order is assumed to be SVO (Bošković 1997; Kunzmann-Müller 1994; Stevanović 1970). I will show that the basic word order of the dative construction examined here is as given in (1), and that the dative DP is generated in SpecDegP. I assume that the dative DP checks its case in SpecDegP, parallel to the genitive in SpecDP. Like the possessive nominal, the dative nominal does not bear a thematic relation to the lexical head and just checks its case in situ. The structure of sentence (1) will be shown to be as given in (3).³

![Diagram of sentence structure](image)

Other positions of the dative DP are derived by topicalization, which I will discuss in Section 2.2, and by cliticization, as in (4).

(4) *Ona mi je zabavna.*

'She is fun datI.'

Serbian has a developed second-position clitic system. The exact nature of clitics in Serbian is not agreed upon (cf. Bošković 2001 for an overview of the existing theories of clitics in Serbian). For the present discussion, it is important that the linear order of
the clitics in clitic clusters is fixed and is, for the dative, as given in (4). The proposed structure is shown in (5).

\[(5)\]

When the dative DP is not realized, as in example (2), I will assume that \textit{pro} is generated in SpecDegP, adapting a suggestion originally proposed by Epstein (1984).4

The reason to assume the structures in (3) and (5) is that syntactic tests, examined in 2.3, suggest that the dative is in a functional projection above AP. Furthermore, semantic reasons, examined in Section 3, suggest that the dative DP is in SpecDegP.

2.2 Is the dative DP a “quirky” subject?

The dative DP can be overtly realized higher in the tree than the nominative DP. Both of the word orders in the embedded clauses in (6) and (7) are perfectly natural. In (6) the dative DP is higher than the nominative DP, and in (7) the nominative DP is higher than the dative DP.

\[(6)\] Marko je rekao da je Mariji
Marko$_{\text{nom}}$ be.3SG CLITIC say.PART M.SG that be.3SG CLITIC Marija$_{\text{DAT}}$
Tanja zabavna.
Tanja$_{\text{Nom}}$ fun.F.SG$_{\text{Nom}}$
‘Marko said that Tanja is fun$_{\text{DAT}}$Marija.’

\[(7)\] Marko je rekao da je Tanja
Marko$_{\text{nom}}$ be.3SG CLITIC say.PART M.SG that be.3SG CLITIC Tanja$_{\text{Nom}}$
Mariji zabavna.
Marija$_{\text{DAT}}$ fun.F.SG$_{\text{Nom}}$
‘Marko said that Tanja is fun$_{\text{DAT}}$Marija.’

I assume that the dative DP is topicalized in (6), i.e., the dative DP is not a “quirky” subject, because sentences (8) to (10) suggest that the dative DP originates in a lower
position than the nominative DP and then topicalizes. The reason is the following: there are two different possessive pronouns in Serbian, for 3m.sg they are svojoj and njegovoj, and svojoj is a reflexive pronoun that needs to be bound and njegovoj has to be free. In (8) svojoj ‘his refl’ is bound by svaki dečak ‘every boy’, but in (9) it is not. Condition A is not violated in (8) by the dative DP, so the nominative DP has to be higher than the dative DP at D-Structure, the dative DP topicalizes at S-Structure, reconstructs at LF and the reconstructed anaphor then satisfies Condition A (Lasnik & Stowell 1991). In (9) the anaphor is within a nominative DP, which is generated higher than the dative DP, there is no topicalization, reconstruction does not apply and Condition A is violated. In (10) reconstruction (which is optional) does not take place and Condition A is satisfied. Note that there are no Weak Crossover effects (WCO, Wasow 1979) in (8) and (10) because topicalization does not induce WCO effects (Lasnik & Stowell 1991).6

(8) a. Svojoj/Njegovoj majci je svaki dečak, ‘every boy, his mother,’
(9) a. \( \text{Njegova}_j /\text{Svoja}_j \text{ majka} \) je \text{svakom} \( \text{dečaku}_i \) \( \text{genijalna} \).

\[ \text{His mother is brilliant every boy.} \]

b. 

\[
\begin{array}{l}
\text{IP} \\
\text{DP} \\
\text{Njegova}_j /\text{Svoja}_j \text{ majka} \\
\text{his}_\text{NOM} \text{ mother.f.SG NOM} \\
\text{je} \text{3SG.CLITIC be.3SG.CLITIC every.M.SG DAT} \\
\text{svakom} \text{dečaku}_i \text{ genijalna}.
\end{array}
\]

(10) a. \( \text{Svakom} \text{ dečaku}_i \) je \( \text{svoja}_j /\text{njegova}_j \text{ majka} \) \( \text{genijalna} \).

\[ \text{His mother is brilliant every boy.} \]
Furthermore, the bound reading is available in (8) and (10) but not in (9). Thus in (8) and (10), but not in (9), *svakom ‘every’ has the needed wide scope at LF. If the dative DP is generated lower than the nominative DP, this is expected: in (8) the position of the dative DP is the result of topicalization; the dative DP reconstructs at LF to its base-generated position, thus the needed scope for ‘every’ is achieved. In (9) the dative DP cannot move at LF above the nominative DP without WCO effects, so the bound reading is not possible. In (10) the dative DP is topicalized but it does not reconstruct at LF; the LF scope is as given in the surface representation. As there are no WCO effects and there is reconstruction, following Lasnik and Stowell (1991) it can be concluded that the dative DP has topicalized in sentences (8) and (10), i.e., the dative DP has to originate lower than the nominative DP.

Further evidence that the dative DP is generated lower than the nominative DP comes from Superiority effects, shown in (11) and (12).7

(11) a. *Kome li je ko lep?
   who3sg.dat li be3sg.dat who3sg.nom pretty3sg.nom
   ‘(I wonder) Who is pretty?"

b. *[(CP kome) li je [IP ko [DegP tj lep]]]
(12) a. Ko li je kome lep?
    whoNom li be.3sg.clitic whoDat pretty.m.sgNom
    ‘(I wonder) Who is pretty dat who?’
b. [CP ko li je [IP tₐ [DegP kome lep]]]

The contrast between (11) and (12) can be explained if the dative DP is base-generated lower than the nominative DP: in (11) the dative DP cannot move to SpecCP because the nominative DP is superior to the dative DP.

I will take the binding and superiority facts as evidence that the dative DP is base-generated lower than the nominative DP. If the dative DP occurs higher than the nominative DP, as in (6), this is the result of topicalization. Accordingly, the structure for the topicalized dative DP sentence (6), repeated below in (13a), is as given in the partial tree in (13b).

(13) a. Marko je rekao da je
    MarkoNom be.3sg.clitic say.ppart.m.sg that be.3sg.clitic
    Marija Tanja zabavna.
    MarijaDat TanjaNom fun.f.sgNom
    ‘Marko said that Tanja is fun dat Marija.’
b.

To summarize this section: the dative DP is generated lower than the nominative DP. I will turn now to the structure of the dative DP and the adjective.
2.3 The structure of [dative DP + AP]

The internal structure of the [dative DP + AP] construction will be examined based on ellipsis and preposing data. It will be argued that the dative DP is higher than the AP and forms a constituent with it. Evidence from control properties and restrictions on movement will further corroborate this conclusion.

Ellipsis of the [dative DP + AP] sequence in (14a), with the structure in (14b), shows that the deleted part is a constituent (the boxed nodes refer to the relevant constituents).

(14) a. Marija je meni lepa za devojčicu a
   Marija\textsubscript{nom} be.3SG.CLITIC I\textsubscript{DAT} pretty.F.SG\textsubscript{nom} for girl.F.SG\textsubscript{acc} and
   i Tanja je.
   too Tanja\textsubscript{nom} be.3SG.CLITIC
   'Marija is pretty for a girl \textit{I}, and Tanja is too.'

b. The AP ['very' + A + PP] alone can also be elided, as in (15a), with the structure in (15b), showing that the AP is a lower constituent than the dative DP.

(15) a. Marija je tebi jako visoka za devojčicu
   Marija\textsubscript{nom} be.3SG.CLITIC you\textsubscript{DAT} very tall.F.SG\textsubscript{nom} for girl.F.SG\textsubscript{acc} and
   a Tanja je meni.
   Tanja\textsubscript{nom} be.3SG.CLITIC I\textsubscript{DAT}
   'Marija is very tall for a girl \textit{I}, you, and Tanja is \textit{I}.'
However, the deletion of the dative DP and the A, stranding the PP, is ungrammatical, as shown in (16), which yet again shows that the dative DP is higher than the PP.

(16) a. *Slavica je Marija lepa za devojčicu. 'Slavica is pretty for a girl.

b. *

\[
\text{b.}
\]

\[
\text{CONJ}
\]

\[
\text{IP} \quad \text{a and} \quad \text{IP}
\]

\[
\text{DP} \quad \text{I'} \quad \text{DP} \quad \text{I'}
\]

\[
\text{Marija} \quad \text{Infl} \quad \text{DegP} \quad \text{Tanja} \quad \text{Infl} \quad \text{DegP}
\]

\[
\text{je} \quad \text{is} \quad \text{je} \quad \text{is}
\]

\[
\text{tebi you}_{\text{DAT}} \quad \text{Deg} \quad \text{meni}_{\text{DAT}} \quad \text{Deg}
\]

\[
\text{Ø} \quad \text{Ø} \quad \text{Ø}
\]

\[
\text{趋于} \quad \text{趋于} \quad \text{趋于}
\]

\[
\text{AP} \quad \text{AP} \quad \text{AP}
\]

\[
\text{lepa} \quad \text{za devojčicu} \quad \text{lepa} \quad \text{devojčicu}
\]

\[
\text{for a girl} \quad \text{for a girl}
\]

\[
\text{for a grown-up woman} \quad \text{for a grown-up woman}
\]
These tests show that the dative DP is higher than the AP. Further evidence for this comes from preposing tests, exemplified in sentences (17) to (20). In (17a), with the structure in (17b), the AP ([A + PP]) is preposed, establishing that the A and the PP form a constituent.

   Lepa za 10.god. devojčici j
   pretty.f.sg.nom for 10.year.old.f.sg.acc girl.f.sg.acc be.3sg.clitic
   Marija nom Tanja DAT
   ‘Marija is pretty for a 10 year-old girl dat Tanja.’

b.

Preposing [dative DP + A], and stranding the PP, is ungrammatical, as can be seen in (18). This shows that the dative DP and the A do not form a constituent.

(18) a. *Meni lepa je Marija za desetogodišnju
   Idat pretty.f.sg.nom be.3sg.clitic Marija nom for 10.year.old.f.sg.acc
deviočicu.
girl.f.sg.acc
   ‘dat’ Marija is pretty for a 10 year-old girl.’
Marija.nom
‘Marija is pretty for a 10 year-old girl.’

Sentence (19), where the whole DegP ([dative DP + AP]) is preposed, is unacceptable to some speakers, but is still better than (18), so [dative DP + AP] is a constituent.8
Finally, the AP can be preposed without the PP, as shown in (20).

\[(20) \quad \text{Lepa je Marija Tanji za desetogodišnju devojčicu.}\]

‘Tanja Marija is pretty for a 10 year-old girl.’
So preposing tests (sentences (17) to (20)) confirm that the dative DP is highest in the structure of the DegP.

Another distributional property of the dative is that it can appear prenominally, as shown in (21), but it cannot precede the demonstrative, as shown in (22).

(21) a. *Ona meni mnogo lepa devojka opet nije ponela kišobran.*

The girl who is very pretty, again didn’t take the umbrella.
(22) a. "Meni ona mnogo lepa devjka opet
     I$_{\text{DAT}}$ that$_{\text{SGNOM}}$ very pretty$_{\text{SGNOM}}$ girl$_{\text{SGNOM}}$ again
     nije ponela kišobran.
     not.be.3sg take.PPART.FPL umbrella.M.SGACC
     ‘The girl who is very pretty$_{\text{DAT}}$ again didn’t take an umbrella.’
Putting things into perspective

The fact that the word order in (22), with the dative DP preceding the demonstrative, is ungrammatical, shows that the dative DP must be inside the subject DP. In the prenominal position the dative DP is less common, but it is possible, and it has the same interpretation as in the predicative use. The prenominal dative DP leads to the conclusion that the dative DP is generated within a functional projection above the AP and below the DP.

A question arising in this context is why the dative DP cannot topicalize in (22). The reason is that the dative DP in (22) is within a specific DP. This specificity effect (Chomsky 1973) can also be seen in sentences (23) and (24): (23) is grammatical, and the reason that (24) is ungrammatical is that the cliticized DP should be in second position, adjoined to Infl, (recall that Serbian has second-position clitics), but since it cannot move out of the specific DP ‘that pretty girl’, it cannot be in second position. The same effects can be observed with other determiners.

(23) a. Ja sam video onu njemu lepu

'I saw that girl who is pretty.'
(24) a. *Ja sam mu video onu
    I_{NOM} be.1sg.clitic he.1sg.clitic see.3sg.m.sg that.3sg.acc
    lepu devojku.
    pretty.3sg.acc girl.3sg.acc
    'I saw that girl who is pretty dat he.'
Sentences (23) and (24) lend further support to the argument that the dative DP is base-generated within the DP onu lepu devojku 'that pretty girl', as the reason that prevents the dative DP from cliticizing in (24) is the specificity of that DP.

Examples (21) and (22) showed that the dative DP can occur prenominally. Crucially, this fact provides evidence for positing the dative DP within a functional projection that is above the AP and below the DP. This conclusion fits with all the syntactic tests presented (i.e., binding, ellipsis and preposing data), and I will therefore assume that the dative DP is base-generated in SpecDegP.

2.4 Pro in SpecDegP

When there is no overt dative DP, I will assume that pro is generated in SpecDegP, adapting Epstein’s (1984) analysis of control structures in English. I will argue that control properties require an argument in SpecDegP, and that pro fulfills this requirement when there is no overt dative DP. Consider the sentences (25) and (26).
The interpretation of (25) is that I am the one playing, thus PRO in SpecIP of the infinitival clause is controlled by the dative DP.

(25) a. \[\text{Meni, je PRO_\text{\textit{ig}}rati košarku zabavno.}\]
\[
\text{I\textsubscript{dat} be.3SG.CLITIC PRO play.INF basketball.F.SG.ACC fun.N.SG.NOM}
\]

\[\text{‘To play basketball is fun \textit{dat}I.’ (I am the one who plays)}\]

\[\text{b.}\]
\[
\text{TopP}
\]
\[
\text{DP}
\]
\[
\text{Meni,}\]
\[
\text{I\textsubscript{\text{\textit{ig}}rati košarku zabavno.}}
\]
\[
\text{Top’}
\]
\[
\text{IP}
\]
\[
\text{je n is}
\]
\[
\text{DP}
\]
\[
\text{I’}
\]
\[
\text{Infl}
\]
\[
\text{DegP}
\]
\[
\text{DP}
\]
\[
\text{Deg’}
\]
\[
\text{AP}
\]
\[
\text{Ø zabavno fun}
\]

In sentence (26) the dative DP is not overt:

(26) a. \[\text{PRO_\text{\textit{ig}}rati košarku je pro_\text{\textit{zabavno.}}}\]
\[
\text{PRO play.INF basketball.F.SG.ACC be.3SG.CLITIC pro fun.N.SG.NOM}
\]

\[\text{‘To play basketball is fun.’}\]

\[\text{b.}\]
\[
\text{IP}
\]
\[
\text{DP}
\]
\[
\text{I’}
\]
\[
\text{Infl}
\]
\[
\text{DegP}
\]
\[
\text{DP}
\]
\[
\text{Deg’}
\]
\[
\text{AP}
\]
\[
\text{Ø zabavno fun}
\]
Putting things into perspective

The meaning of (26) is that in general it is fun for people if they play basketball. We can interpret this as an instance of generic quantification, introducing a generic quantifier (GEN) in the LF representation given in (27).11

\[(27) \quad \text{GEN}(x,s) \rightarrow [x \text{ plays basketball in } s] \rightarrow [s \text{ is fun for } x]\]

In (27) the two instances of x (ranging over individuals) and s (ranging over situations) are bound by the generic quantifier, corresponding to the interpretation of (25). This interpretation is straightforwardly derived if \( \text{pro} \) (corresponding to the individual variable) is generated in SpecDegP and controls PRO in SpecIP of the infinitive, similar to (25), in which the dative DP controls PRO.12 Given this interpretation, I will assume that when the dative DP is not overt, \( \text{pro} \) is generated in SpecDegP and controls PRO.13

To summarize the discussion so far: syntactic evidence (binding facts, constituent tests, the fact that the dative DP can occur prenominally within a DP, restrictions on cliticization and topicalization and evidence from control properties) lead to the conclusion that the dative DP (or \( \text{pro} \)) is in a functional projection above the AP. This leaves the possibility that the dative DP is in SpecDegP or in the specifier of some other functional projection. In the following section it will be shown that there are good semantic reasons that argue in favor of the dative DP in SpecDegP.

3. Interpreting the dative

3.1 The semantics of adjectives

The meaning of the dative DP in \([X \text{ copula } \text{DP}_{\text{dative}} \text{ AP}]\) is that it relativizes the meaning of the adjective to the particular point of view of the referent of the dative DP. To make this interpretation formally explicit, I will use Kennedy’s (1997) scalar theory of adjectives. This section provides a necessarily very brief introduction to this theory.

In scalar analyses, gradable adjectives are expressions that denote relations between objects and points on a scale, i.e., degrees.14 A scale is a linearly ordered set of degrees, i.e., a set where a relation ‘greater than’ is defined. A degree on a scale represents the amount of the gradable property an object has. In other words, the adjective orders objects along a scale of degrees, depending on how much of the property expressed by the adjective they have.

Kennedy postulates different degree heads for different degree constructions. For the absolute construction, Kennedy gives the following semantics: the meaning of adjective constructions is derived by comparing two degrees, namely the degree of the standard and the degree of the reference.15 The sentence John is tall has the interpretation ‘The degree to which John is tall (the degree of the reference) is at least as great as some standard for tallness (the degree of the standard)’. Kennedy implements this by positing that in absolute constructions a null degree morpheme Ø is generated in Deg, with a semantic representation as shown in (28) and explained below.
This degree morpheme is defined through two functions, ABS and STND. The function ABS is the main function of the degree morpheme, in the sense that it computes the degree comparison. The first argument of the function ABS is \( G(x) \) – the degree of the reference value (which is the degree to which the subject has the property \( G \)). The function ABS returns truth values, as defined in (29):

\[
\text{([ABS}(d_1)(d_2)] = 1 \text{ iff } d_1 \geq d_2
\]

ABS yields the truth value 1 (true) when the first argument, \( d_1 \) (the reference value), is higher on the scale of the adjective than, or equal to, the second argument, \( d_2 \) (the standard value), and it yields the truth value 0 (false) otherwise. This corresponds to the intuition that the sentence "John is tall" is true iff John’s height is above, or equal to, what, in one way or another, is determined to be the standard for tallness. So for example if John is mapped onto \( d_5 \) on the scale in (30) and the standard of tallness is \( d_4 \), then the sentence "John is tall" is true. If John is mapped onto \( d_3 \), and the standard is \( d_4 \), the sentence is false.

While the determination of the first argument (\( d_1 \)) of the ABS function is dependent on both a syntactically realized subject and the property \( G \), the second argument is often not determined by a syntactically overt constituent. The second argument is \( \text{STND}(G)(P) \) – the degree of the standard value. This degree is calculated by the function STND, by taking into account the comparison class \( P \) for the property \( G \), which can be realized as the PP "for a girl" in "Mary is tall for a girl." When the comparison class is not explicitly introduced, there are two possibilities: \( P \) receives a default value, so \( \text{STND}(G)(P) \) is a global standard for property \( G \), independent of the subject, or as in (31) below, \( P \) is determined by a context-dependent function, \( p(x) \), where \( x \) is the subject, (so the comparison class is determined by the subject). In this way, in the example "John is tall," the degree of the standard will be a standard for tallness for male humans.

The compositional analysis of the sentence "John is tall" is given in (31), where the degree morpheme defined above is shown:
In (31), John determines the reference value and the function STND returns the standard value, i.e., the degree which is the standard for tallness for male humans. The function ABS (which is the semantic content of the degree morpheme $\emptyset$) compares the reference value and the standard value. The truth value of the sentence is determined by the truth condition in (29).

3.2 The dative DP with adjectives

The dative DP relativizes the meaning of the adjective to the point of view of the referent of the dative DP. I suggest that this meaning is achieved in the following way: the dative DP determines the standard degree and the ordering of the elements along the scale of the adjective. I will first discuss adjectives in absolute constructions and then in one type of comparative constructions.

How the dative is interpreted is the same for all adjectives, but I will exemplify it first on measure adjectives (these are adjectives which order elements on a scale according to some measure like height, length etc.), in the sentence (32):

(32) Marko mi je visok.

In measure adjectives the ordering of objects along a scale is always the same, because there is an exact way to determine the amount of the property that an object has. So the position of Marko on the ordered scale of the adjective will always be the same (Marko has a specific height, univocally measurable in, say, centimeters). However, where the standard value – in this case the standard of tallness – is set, depends on the dative: Marko has a particular height, but different people might have different
opinions about whether he should be considered tall or not. Without the dative DP the sentence *Marko je visok* ‘Marko is tall’ means that the standard value is set according to some global standard for male humans. With the dative DP the sentence means that the standard value is set according to the individual denoted by the dative-marked DP.

The intuition is that the dative has its prespecified role in the computation of the meaning of the adjective, contributing to the identification of the standard. Syntactically, this can be captured by saying that the dative DP is in SpecDegP. It sets the standard variable, thus straightforwardly deriving the interpretation. In sentences without the dative, as will be shown later, *pro,* bound by a generic quantifier, is responsible for determining the standard value.

For non-measure adjectives the situation is more complex. These are adjectives with degree orderings that are agreed upon to a lesser extent among speakers (like ‘pretty’), i.e., there is no universal scale for these adjectives. For example, Marko might think that Marija is pretty and Jane is not, but Anna might think that Jane is pretty and Marija is not. In this case then, as mentioned above, the dative performs two operations – it sets the standard value and it orders the objects along the adjective scale. So a sentence like *Marija je Marku lepa* ‘Marija is prettydatMarko’ means: according to Marko’s scale of prettiness, and according to his standard value, Mary is pretty.

So the first step that the dative performs is to select only one ordering of the objects on the scale of the adjective out of all possible orderings. The second step is to identify one of these objects as the standard (just as with measure adjectives). Then the interpretation proceeds as in the case of measure adjectives. The only difference between measure and non-measure adjectives is that for the former there is only one ordering of objects whereas for the latter there are several. The dative selects one particular ordering in both cases, but in the case of measure adjectives the selection is a vacuous operation.

These two semantic components of the dative (setting the standard and selecting the relevant ordering) can be incorporated into the framework of Kennedy’s theory of adjectives by using the two functions ABS and STND.

The purpose of the function STND is to identify the degree of the standard value for a given property. The standard value depends on the property itself and on the comparison class for that property. In Kennedy’s original formulation this dependency is implemented by treating the property itself and the comparison class for that property as the arguments of the STND function. In addition to this, the dative further determines the identity of the degree of the standard value. The first component of the semantic contribution of the dative can be implemented by treating the dative as the third argument of the STND function. The dative in this way encodes that the standard depends on the perspective of some entity, which is independent of the parameter given by the comparison class.

The second component of the function of the dative is the selection of the relevant ordering. This component can be integrated in the ABS function, given in (29). The purpose of the function is to decide whether a sentence is true by comparing the reference value d1 and the standard value d2. Kennedy’s original formulation assumes that
there is just one ordering of the degrees. The fact that there is more than one ordering possible and that the dative introduces the possibility of choice of one particular ordering out of those available can be integrated by treating the dative as the third argument of the ABS function. The value of the ABS function is still a truth value as before, but now this truth value depends not only on the comparison of two degrees as before, but on the comparison of two degrees taken from a particular ordering, i.e., the particular ordering selected by the dative argument. Adding the dative as the third argument of the ABS function captures the dependency of the ordering on the perspective given by the dative.

Another way to think of the ABS function is that it consists of two separate functions: the first function takes a set of orderings as its argument, yielding a single ordering as value (the ordering of the dative DP) and the second function takes an ordering as the argument and compares two degrees along that ordering, yielding a truth value as the value. The new ABS function does the work of these two functions at the same time, taking directly as arguments the dative and the two degrees in the chosen ordering and yielding a truth value as the value. The revised semantics for the degree morpheme is given in (33).

(33) \[ \text{Deg} \theta = \lambda G \lambda p \lambda x[\text{ABS}(y)(G(x))(\text{STND}(y)(G)(P))] \]

Here the ABS function takes three arguments: \( y \), which is denoted by the dative DP, the reference value \( G(x) \) and the standard value \( \text{STND}(y)(G)(P) \) (which is the value of the function STND). The function STND takes three arguments as well: the dative \( y \), the property \( G \), and the comparison class \( P \). The derivation below shows the semantic computation of the DegP for the sentence *Marko je Olji visok* ‘Marko is tall *dat*Olja’.

(34) \[ \text{DegP} \lambda x[\text{ABS}(\text{Olja})(\text{TALL}(x))(\text{STND}(\text{Olja})(\text{TALL})(p(x)))]) \]

When the dative DP is not overtly realized, *pro* is generated in SpecDegP. There it performs the same function as the overt dative DP would. In particular *pro* becomes an argument of both the ABS and the STND functions. In the case of ABS, when *pro* is taken as the argument the value associated with it is an ordering of degrees that is the “commonsense” or default ordering. In the case of STND, when *pro* is taken as the argument the value associated with it is the “commonsense” or default standard value.
for the relevant property. In the computation pro is bound by a generic quantifier, adapting the proposal in Epstein (1984), and in this way the desired interpretation is achieved. Thus, the adjective construction always expresses a point of view. The overt dative DP gives a specific point of view, and pro gives the semantics of a common point of view, a general observation.

While the dative DP is possible with all adjectives, there are pragmatic conditions that need to be satisfied for felicitous usage. The use of the dative with adjectives is pragmatically felicitous if a) the standard of the referent of the dative DP is divergent from the “commonsense” global standard that would be selected by default in the absence of an overt dative DP, or b) the referent of the dative DP does not know what the “commonsense” global standard is. If these two conditions are not satisfied, the dative will be infelicitous. This issue can be illustrated with the following example (from Hagit Borer, p.c.):

(35) Majkl Džordan mi je visok.  
[Michael Jordan]_NOM be.3SG.CLITIC tall.M.SG_NOM  
‘Michael Jordan is tall.dat.’

Everybody knows that Michael Jordan, a famous basketball player, is a very tall person, i.e., he is tall by everybody’s standards. Given this particular knowledge about the world, none of the two conditions is satisfied and (35) is somewhat infelicitous, even though it is grammatical. What determines how likely the two above-mentioned conditions are to be satisfied is the extent to which the property described by the adjective is a matter of point of view, or, in other words, how “fixed” the “commonsense” standard is. Adjectives with subjective standards, like toplo ‘warm’, lepo ‘pretty’, prijatno ‘pleasant’, ukusno ‘tasty’, sumnjivo ‘doubtful’ are felicitous with the dative. However, if the property is less subjective, the dative becomes less felicitous. This is the case for adjectives like visok ‘tall’ or drven ‘wooden’, which in Serbian, although possible, require a specific context, a context which will lead to the satisfaction of one of the two conditions mentioned above.

3.3 The dative with comparatives

The analysis proposed above can be extended to comparative constructions. Within Kennedy’s framework, the interpretation of the comparative sentence Pluto is more distant than Mars is: the degree to which Pluto is distant is higher on the scale of the adjective than the degree to which Mars is distant. The crucial part is the relation holding between the two degrees of Pluto and Mars on the scale of the adjective. For the interpretation of this construction, Kennedy (1997) proposes the semantic representation for the comparative morpheme (-er or more in English) given in (36) and a function MORE, given in (37):18

(36) -er/more = λGλyλx[MORE(G(x))(G(y))]

(37) [(MORE (d1)(d2))] = 1 iff d1 > d2
This function is analogous to the function ABS: it decides whether the sentence is true by comparing two degrees, with the difference that in this case both degrees correspond to overtly realized arguments and none is allowed to be determined by context.

In Serbian the interpretation of the comparative construction when a dative is present, as in (38), is similar to that of the absolute constructions discussed so far:

(38) Marija je Petru lepša od Ivane.

‘Marija is prettier than Ivana.’

The above sentence means that according to Peter’s standards Marija is more beautiful than Ivana. The structure is given in (39):

(39)

Parallel to the reformulation of the semantics of the absolute degree morpheme in (33), I will treat the dative-marked DP as the third argument of the MORE function. In this way the revised MORE function selects the relevant ordering of degrees on the basis of the dative argument, exactly like the ABS function does, and then compares the two degree arguments as in the original formulation. In the comparative construction, selecting the ordering of degrees is the only operation performed by the dative. There is no need or possibility to set the standard value because both degrees come from overt syntax. The new semantics of the comparative degree morpheme is then:

(40) \[ -er/more = \lambda y \lambda x \lambda \alpha \lambda \beta \lambda \gamma \lambda \delta \lambda (G(x))(G(y))] \]
Here the MORE function takes three arguments: the referent $z$ denoted by the dative phrase, the subject degree $G(x)$ and the second-term-of-comparison degree $G(y)$. Accordingly, the semantic computation for sentence (38) is as given in (41):

(41)

$$\text{ Sentence (38), containing a non-measure adjective, is perfectly natural, but sentences containing a measure adjective, as (42), are felicitous only in certain contexts, for example a context in which the speaker does not have knowledge, or at least not sufficiently reliable knowledge, about the distance of Pluto and Mars from our planet. In this example, the felicity hinges on imperfect or insufficient knowledge because distance is objectively measurable, and so there is a unique ordering of objects along this dimension that is accessible to knowledge.}

(42) Pluto je Petru udaljeniji od Marsa.

'Pluto is more distant than Mars.'

The limited felicitousness effect follows from the analysis of comparatives. If in comparative constructions the only function of the dative is to select the ordering of degrees and if with measure adjectives there is only one ordering, then it is to be expected that comparative sentences with the dative and measure adjectives are less
felicissimo and dependent on the context (similar to what we have seen for absolute constructions).

4. Conclusions

The construction [X copula DP_{dative} AP] has been compared to the [X is AP] construction. The syntactic analysis suggests that an overt dative DP or pro is generated in SpecDegP. This has been confirmed by the semantic analysis. The dative DP relativizes the meaning of the adjective: while [X is AP] is interpreted as a generally true statement, in [X copula DP_{dative} AP] the referent of DP_{dative} provides the point of view from which the assertion is made. This interpretation extends to comparative constructions. This meaning of the dative DP and the semantics of adjectives as given in Kennedy (1997) can be brought together by integrating the dative in the extended projection of the adjective. The dative, generated in SpecDegP, is an argument of the function that semantically interprets the head of the degree phrase. As such it sets the standard and selects the ordering of the degrees along the scale of the adjective in absolute constructions, and it selects the ordering of the degrees in comparative constructions. The point of view interpretation follows. The interpretation of a generic statement is given by generating pro in SpecDegP when there is no overt dative DP.

Notes

* I would like to thank Hagit Borer for many discussions and insightful comments. I am also very grateful to Roumi Pancheva, Isabelle Roy, James Higginbotham, Bridget Copley and Stefano Vignaduzzo. I would further like to thank Daniel Hole and an anonymous reviewer for many very useful suggestions and clarifications that helped improve the paper, and the audiences of the DGfS 2004 and FASL 13, where parts of this work have been presented. Finally, I would like to thank my consultants Elvira and Alenka Mandić, Damir Islamović, Aleksandar Macura, Dejan Kostić, Vladimir Jakobac and Viktor Rožić. This research was supported by the NSF award BCS-0418581 to Roumi Pancheva.

1. In the translation I use the superscript dat to the left of DPs to indicate that the dative relativizes the meaning of the adjective to the point of view of the referent of the dative DP.


3. Here and throughout the paper I assume that the copula je is base-generated in V and moves to Infl, but for ease of exposition I will not show that movement in the tree. The null degree morpheme Ø will be explained in Section 3.

4. Epstein (1984) actually has pro as the complement to the adjective. Syntactic tests will show the dative DP to be higher in the tree than the adjective, so the dative DP cannot be a complement of A.
Jelena Krivokapić

5. In the standard dialect of Serbian the anaphor svojaj must be bound by a nominative DP, and cannot be bound by a DP in any other case. For DPs in non-nominative cases, the pronoun njegovoj functions as the anaphor. In other dialects, svojaj can be bound by non-nominative DPs. For example, sentence (10) will be acceptable to some speakers with both svojaj (bound reading) and njegovoj (free pronoun reading); to speakers of the standard dialect svojaj will not be acceptable, only njegovaj, but with both a bound pronoun reading and a free pronoun reading. In the paper, what is marked as ungrammatical is ungrammatical in both of these dialects.

6. A note with respect to the structures (8) to (10) and throughout the paper: in the framework of Barriers (Chomsky 1986), in order to avoid VP being a barrier, VP adjunction is assumed. I will leave out the adjunction in the structures for ease of exposition. DegP is properly governed by V, so it is not a barrier for movement.

7. The particle li is standardly assumed to be in C, and the translation in these sentences is ‘I wonder’.

8. I assume that the reason for this degraded acceptability is the heaviness of the constituent.

9. Sentence (22) is grammatical on the interpretation ‘The very pretty girl again didn’t bring the umbrella to me’, but this is not the relevant interpretation.

10. Strictly speaking, the conclusion to be drawn is just that the dative DP is generated in some projection above the AP and below the DP. However, it is reasonable to assume that this is a functional projection given the fact that APs do have a functional projection above them, and also given the assumption that the dative DP gets its case in this position.

11. Here, a generic quantifier is assumed, as opposed to Epstein (1984), who assumes universal quantification. Thanks to Daniel Hole for clarifying the LF representation and suggesting the use of the variable s.

12. The question of how c-command of PRO is achieved in subject clauses is generally problematic, independently of the current proposal (see Haegeman 1991).

13. Note however that contrary to what this analysis predicts, control is not always obligatory. In (i), as pointed out by a reviewer, arbitrary control is the preferred reading, i.e., control is optional.

(i) Pacifistima je surovo PRO ubijati ljude
    pacifist.m.pl.dat be.3sg.clitic cruel.n.sgnom PRO kill.inf people.f.pl.acc
    ‘To the pacifists, it is cruel to kill people.’

14. I will not go into the various theories of adjectives. For a detailed discussion of the vague predicate analyses see e.g. Kamp (1975) and Klein (1980) and for the scalar analyses see e.g. von Stechow (1984), Bierwisch (1989), Kennedy (1997) and Heim (2000).

15. It should be noted that Kennedy argues that adjectives denote functions from objects to intervals, rather than to degree points. For the purposes of this analysis, the question of degree point vs. interval is not crucial, so I use the more common notion of degree points here.

16. Measure phrases actually have the second degree argument d2 syntactically realized. In the sentence John is 192cm tall the measure phrase 192cm is d2. According to Kennedy, this type of construction has a different kind of null morpheme (Kennedy 1997:130). I will not discuss measure phrases as only one of my consultants accepts the dative DP with measure phrases, with a meaning in which the dative DP relativizes the measure phrase. The proposed analysis can accommodate this interpretation, but since only one of my consultants has this construction, it is not presented here. Another type of construction which has the second argument d2
Putting things into perspective

syntactically realized is the comparative construction. For example in John is taller than Marko, the syntactic realization of the argument is Marko. I will discuss this type of comparative in Section 3.3.

17. The expression tall has the lambda representation λy.tall(y) and is of type <e,t>. For ease of reading, I will replace it in the tree with the expression ‘tall’, and will do the same for subsequent trees.

18. Kennedy actually has 3 different comparative morphemes, depending on the type of comparative construction. I expect that the above analysis extends to them, but a discussion of all the types is beyond the scope of this paper.

References


Widening the perspective
Argumenthood and syntax in Chinese, Japanese and Tagalog

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The application of some standard tests for syntactic categories like the subject relation to Japanese, Chinese and Tagalog reveals the following two problems: (i) some constructions in Japanese and Chinese lack subject/object asymmetry; (ii) in Tagalog, the primary factor that determines the assignment of participants to syntax seems to be referential status – argument structure is only of secondary importance. Both of these problems will be discussed in some detail in a separate section for each language (Sections 2 to 4). In Section 1, I will try to point out some implications for formal approaches (Lexical-Functional Grammar, Minimalist Program, research on event structure) and for a functional approach (Role & Reference Grammar). The overall aim of the paper is to show in what way empirical input from a general functional-typological perspective may affect different theoretical approaches.

1. General content of the paper

Looking at argument structure and syntax from a cross-linguistic functional-typological perspective has some general implications for formal and functional approaches to the correlation between semantics and syntax in general, and between argumenthood and the grammatical categories of subject and object in particular. A look at Japanese, Chinese and Tagalog reveals the following two problems which call into question some basic tenets of formal as well as functional theories dealing with argumenthood:

i. Japanese and Chinese: low-profile syntax with lack of subject/object asymmetry in some constructions;
ii. Tagalog: Semantic roles and argumenthood are not the primary factor that determines the assignment of nominal participants to subject and object. The primary factor is referential status (definiteness, specificity).
The aim of the present paper is to show in what way these problems exist and to discuss them with regard to some theoretical approaches currently on the market, i.e., Lexical-Functional Grammar and Lexical Mapping Theory, the Minimalist Program, Event Semantics and the role of event structure in syntax, and, finally, Role & Reference Grammar. Although it will not be possible to delve deep into technical details of each theory, I understand this paper as a contribution to the question of the validity of general theoretical assumptions as we find them in the above approaches. I thus write this paper with the intention of presenting some functional-typological challenges for different theoretical approaches.

Problems (i) and (ii) must be seen in the broader context of how semantic roles can be identified. If semantic roles are supposed to be more than a “thinly disguised wild card to meet the exigencies of syntax” (Jackendoff 1987:371), their identification cannot be based on meaning alone. For that reason, Dowty (1991) suggests looking at semantic roles through argument selection, i.e., through the assignment of the two semantic proto-roles of proto-agent and proto-patient to the syntactic categories of subject and object. If this strategy is adopted, independent evidence of the relevance of semantic roles and argumenthood can be hampered in two ways that directly lead to problems (i) and (ii). Either there is scarce semantic-independent syntactic evidence for semantic roles and argumenthood in languages with low-profile syntactic categories (problem (i)) or semantic roles and argumenthood are not the main factor that determines the assignment of nominal participants to subject and object (problem (ii)). Since most theories are based in one way or another on a balanced interplay between semantic roles and syntactic categories, problems (i) and (ii) are a real challenge if they can be shown to exist in some language. As will be seen, problem (i) only shows up in some particular constructions of Japanese and Chinese. Thus, the two languages are no challenge as far as their overall structure is concerned. In spite of this, the mere existence of constructions with no subject/object asymmetry may be a problem for theories which take asymmetry as universal. Compared to Japanese and Chinese, Tagalog is a greater challenge, since problem (ii) seems to apply to this language, i.e., assignment of nominal participants is primarily based on referential status.

The rest of this section is divided into two parts. In the first part (Section 1.1), I will summarize in what way problems (i) and (ii) show up in Japanese, Chinese and Tagalog. In the second part (Section 1.2), I will try to illustrate in what way the findings in (i) and (ii) may be problematic for the theories mentioned above. In Sections 2 and 3, I will discuss to what extent there is low-profile syntax in Japanese (Section 2) and in Chinese (Section 3). Section 4 will provide evidence for the primary role of referential status in the assignment of participants to subject and object in Tagalog. A short conclusion will be presented in Section 5.

1.1 Problems (i) and (ii) and the language data to be analyzed

In my analysis of Japanese, Chinese and Tagalog (see Sections 2, 3 and 4, respectively), I will start with some basic information about the structure of each of these languages.
The main body of these sections will be dedicated to the testing of argumenthood and a series of constructions which are well known cross-linguistically to be sensitive to specific syntactic categories. Japanese and Chinese have been discussed as potential candidates for a low-profile syntax. Problem (i) may in fact arise if we adopt Y. Huang’s (1994) approach, which assumes that the extent to which syntax and pragmatics interact varies typologically and if it turns out that in fact the syntactic categories of subject and object are irrelevant in a language like Chinese, as was postulated by LaPolla (1990, 1993). As I would like to show, the dramatic scenario presented by LaPolla is inadequate for Chinese as well as for Japanese although the two languages provide a number of challenges for future research (see Sections 2 and 3). The constructions which I will use for checking to what extent subject/object asymmetry is justified are the following:

i. Passive
ii. Topic extraction
iii. Equi
iv. Reflexives
v. Relatives
vi. Topic

If these constructions are analyzed in Japanese, we get the simplified picture in Table 1 of the relevance of subject/object asymmetry and argumenthood (for a more comprehensive summary cf. end of Section 2 and Table 4; “+” means “relevant”, “−” means “irrelevant”).

<table>
<thead>
<tr>
<th>Construction</th>
<th>Relevance of subject/object asymmetry</th>
<th>Relevance of argumenthood</th>
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<tbody>
<tr>
<td>Passive</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Topic extraction</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Equi</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Reflexives</td>
<td>−</td>
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<tr>
<td>Relatives</td>
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<tr>
<td>Topic</td>
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In Chinese linguistics, the existence of syntactic categories is discussed controversially. LaPolla’s (1990, 1993) claim that the grammatical categories of subject and object are irrelevant in Chinese is too extreme in my view. There are constructions in which the subject/object asymmetry is irrelevant, but there are other constructions in which it matters. Table 2 provides a simplified picture of the relevance of subject/object asymmetry and argumenthood in Chinese (for a more comprehensive survey cf. end of Section 3 and Table 5; “+/-” means “relevance depends on an additional factor”, “+(?)” means “relevant if one disregards the criterion of [±finite]”).

Of particular interest is the case of Chinese relative clause constructions because they only depend on argumenthood without the mediation of subject and object. The roles of actor and patient within the relative clause are assigned different positions,
but both of them can be used for coreference of the zero slot with the head noun. In addition, headless relative clauses as a subclass of relative clauses can be used as a test for argumenthood or at least for internal argumenthood (cf. Section 3). The restriction of coreference to argumenthood within headless relative clauses cannot be due to pragmatic rules because there is no reason why pragmatics should not go beyond argumenthood.

As can be seen from the above general survey and as will be further corroborated in Sections 2 and 3, there is still a sufficient number of constructions displaying clear asymmetry of subject and object to grant the falsification of argumenthood by syntactic criteria irrespective of whether this is in terms of a thematic hierarchy, which governs the distribution of a number of semantic roles among subject and object, or whether this is in terms of immediate syntactic relevance of argumenthood as in the case of the headless relative clause in Chinese. Thus, there may be a number of problems for many theories due to the lack of subject/object asymmetry in various constructions, but this does not affect the central role of argumenthood in the mapping between semantics and syntax. As I will try to show, this does not hold for Tagalog.

The phenomenon to be discussed in Tagalog is traditionally called “focus”. Schachter (1993) uses the term of “trigger”. As Kroeger (1993) was able to show in opposition to Schachter (1976), the trigger is a syntactically relevant position. In all the constructions listed below, it behaves like a nominative subject. In the last two constructions, actors in nontrigger function are of syntactic relevance as well:

i. Quantifier floating
ii. Relativization
iii. Raising
iv. Number agreement
v. Secondary or depictive predicates
vi. Obviation
vii. Possessor ascension
viii. Conjunction reduction
ix. Equi
x. Subjects of imperatives

<table>
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<td>Passive (bèi)</td>
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<tr>
<td>Topic extraction</td>
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<td>Relatives</td>
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<td>Topic</td>
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As I would like to show in Section 4, the trigger differs from nominative subjects as suggested by Kroeger (1993) inasmuch as it is open to any semantic role that is lexically determined by the verb to be part of the trigger system irrespective of any thematic hierarchy. Moreover, semantic roles are of secondary importance for linking participants to syntax in Tagalog. In order to know what underlies argument linking, it is necessary to know what underlies the trigger system. As we can see from Schachter (1976) and Himmelmann (1997), the trigger system is determined by reference. Thus, it is the referential status of a participant (= argument or nonargument) which decides whether it is accessible to the trigger position. Once this position is determined, the other participants can be taken care of in terms of basic word order. Although it is possible to present tests for argumenthood in Tagalog – Kroeger (1993:40–48) lists three of them (cf. Section 4) – the results produced by these tests do not determine the semantic roles that can be integrated into the trigger system. Consequently, argumenthood is syntactically limited to the three constructions constituting the argument tests without having any influence on the syntactically pervasive trigger system. The option that referential status is another main factor that determines the mapping of participants to syntax is not discussed very often in the literature; the most prominent exception in functional linguistics is probably Foley and Van Valin (1984). The implications from these findings in Role & Reference Grammar (Van Valin & LaPolla 1997) will be treated at the end of the theoretical part of this section and in Section 4.

1.2 Linguistic theories in the light of problems (i) and (ii)

In this section, I will first look at the lack of subject/object asymmetry (problem (i)) and its consequences for Lexical-Functional Grammar and for the Minimalist Program. As will be shown, there is no problem for the former theory with its distinction between f-structure and c-structure, while there is a problem for the latter theory. The primacy of referential status in semantics-syntax mapping (problem (ii)) is a challenge for both approaches. I will first discuss Lexical-Functional Grammar and then move on to the Minimalist Program. Approaches that combine new developments in research on event structures with new developments in the architecture of the VP in the Minimalist Program offer perspectives for the integration of referential status into the mapping calculus. In this context, I will particularly look at Ritter and Rosen’s (2000) typology of D-languages and I-languages. The last theory to be considered will be Role & Reference Grammar (Van Valin & LaPolla 1997). Since this theory does not take the existence of a syntactic category like subject for granted, problem (i) is irrelevant. The difficulties that arise from problem (ii) for this theory will be discussed at the end of this section.

The existence of instances of low-profile syntax, i.e., the lack of subject/object asymmetry in some constructions of Chinese and Japanese, is a problem for theories that assume that grammatical functions must be universally reflected in phrase structure configurations. Such an assumption forces constructions with no subject/object asymmetry to be represented with a degree of configurationality which is too hier-
archival for them. This issue directly leads to one of the central differences between formality linguistics in terms of Chomsky and Lexical-Functional Grammar (Bresnan 2001). While grammatical functions are always reduced to constituent structure in generative approaches, Lexical-Functional Grammar argues for the existence of two parallel structures, f-structure (functional structure) and c-structure (categorial structure representing constituent structure), which are subject to conflicting principles. Examples of mismatches between the two structures are nonconfigurality and movement paradoxes (Bresnan 2001:5–24). Since the functions of subject (SUBJ) and object (OBJ) belong to f-structure and can be mapped onto constituent structures with different degrees of hierarchical layering in the c-structure, the architecture of Lexical-Functional Grammar can cope with problem (i) more easily than generative approaches.

In addition to f-structure and c-structure, there is a-structure (argument structure) as a third parallel structure of Lexical-Functional Grammar. The following quotation summarizes how these structures are related:

Each structure models a different dimension of grammatical substance: role, function, and category. Roles correspond to the grammatically expressible participants of eventualities (modelled by a-structure), syntactic functions belong to the abstract system of relators of roles to expressions (modelled by f-structure), and phrase structure categories belong to the overt structure of forms of expression (modelled by c-structure). The structures are associated by principles of functional correspondence (also called “linking” or “mapping” principles).

(Bresnan 2001: 20)

The mapping of a-structure onto f-structure is dealt with in Lexical Mapping Theory. If it turns out that the primary factor that determines the assignment of nominal participants to subject and object is referential status, the trivial conclusion is that Lexical-Functional Grammar cannot deal with problem (ii). A less trivial problem has to do with the way in which thematic roles are linked to syntactic functions like subject and object. The explanation of this needs some terminology which is not meant to be exhaustive (for more details see the excellent summary in Bresnan 2001:302–321). Apart from a predicator (e.g. put in (1)), an a-structure consists of argument roles (represented by \(x, y, z\)), an ordering of these roles according to their relative prominence and one feature that identifies the syntactic classification of each argument (\([\pm r], [\pm o]\)).

(1) Argument structure of the verb put (Bresnan 2001:207):

\[
\text{put} \quad <x \quad [\neg o] \quad y \quad [\neg r] \quad z \quad [\neg o] >
\]

The semantic roles in (1) are agent (\(x\)), theme (\(y\)) and locative (\(z\)). The feature structure in the a-structure is underspecified, while the functions of SUBJ and OBJ (and OBL\(_d\) and OBJ\(_d\) for the sake of completeness) are fully specified by the two features of \([\pm r]\) and \([\pm o]\). Thus, an argument with the feature \([\neg r]\) in its a-structure can be mapped
either onto SUBJ with \([-r, -o]\) or onto OBJ with \([-r, +o]\) in f-structure. The relative prominence of the arguments in a-structure is determined by the thematic hierarchy:

(2) Thematic Hierarchy (Bresnan 2001:307):

agent > beneficiary > experiencer/goal > instrument > patient/theme > locative

The mapping from a-structure to f-structure crucially depends on the most prominent role and thus on the semantic hierarchy in (2). If there is an initial argument with the feature \([-o]\), it has to be mapped onto the subject function. If no such role is available, a nonagentive unrestricted \([-r]\) role is linked to the subject function (cf. Bresnan 2001:311). The results of Section 4 will show that the subject or trigger position in Tagalog can take any semantic role irrespective of the thematic hierarchy as long as it is compatible with the trigger morphology on the verb. If the analysis of Tagalog presented in this paper is correct, Lexical-Functional Grammar may have to cope with two problems. It does not integrate referential status into its lexico-syntactic projection and its lexico-syntactic projection is based on a thematic hierarchy which does not seem to be operative in Tagalog.

In the generative as well as in the minimalist approach, the basic problem to be resolved is why specific thematic roles get linked to specific syntactic categories. The syntactic side is dealt with in terms of internal and external arguments (Williams 1981). Subjects are either external arguments of unergative or transitive verbs or internal arguments of unaccusative verbs. Internal arguments of transitive verbs surface as objects. In the framework of the VP-Internal Subject Hypothesis (Fukui & Speas 1986; Koopman & Sportiche 1991) as it is generally adopted in the Minimalist Program, the verb merges with its internal argument in its complement position and the resulting V'-constituent merges with the external argument in SpecVP. The advantage of this solution is a uniform mapping between the semantic function of arguments and the position in which they are initially merged. From the semantic side, the question arises as to why agents are always external arguments, while themes are internal arguments. The solution adopted by many theorists working in this framework are thematic hierarchies or theta-hierarchies (cf. e.g. Jackendoff 1990 with the following hierarchy: Actor > Patient, Beneficiary > Theme > Location, Source, Goal).

A particularly neat reflection of a theta-hierarchy can be seen in the structure of the VP shell as initiated by Larson (1988). As a consequence of his Single Complement Hypothesis, which states that a head may have only one complement, additional heads are needed if a verb has multiple internal arguments. Thus, a verb like put with an agent, a theme and a goal (as in John puts his book into the cupboard) has an outer shell (the vP) with the agent in its Spec position and an inner core (the VP) with the theme in its Spec position and the goal in the complement position of V. As can be seen from the theta-role template in (3), the theta hierarchy of Agent > Theme > Goal is directly reflected in the syntactic structure:
Thematic roles are problematic in many ways (cf. my remarks on Lexical-Functional Grammar above). One problem is that it is difficult with many two-place predicates to see a hierarchical difference between the semantics of the argument treated as external and the argument treated as internal (e.g. the subject and the object of a verb like *resemble*). For that reason, Dowty (1991) offers a different approach based on the proto-roles of proto-agent and proto-patient and an argument selection principle which assigns individual arguments to the syntactic categories of subject and object:


In predicates with grammatical subject and object, the argument for which the predicate entails the greatest number of Proto-Agent properties will be lexicalized as the subject of the predicate; the argument having the greatest number of Proto-Patient entailments will be lexicalized as the direct object.

In syntactically ergative languages, the argument selection principle works the other way round, i.e., the argument with the greatest number of proto-patient entailments will be selected as the subject and vice versa. If the argument that does not qualify for the subject position is supposed to take that position, a passive or an antipassive is needed.

As will be seen towards the end of Section 4, none of these approaches can account for a system like Tagalog because the primary factor that decides which participant will be assigned the subject position is referential status (definiteness, specificity), not argument structure. Even if argument structure comes in at a later stage when the subject position is filled, approaches based on thematic hierarchies or on the argument selection principle do not work because the mechanism that selects participants for the subject (or trigger) position can select just about any participant irrespective of its position within a thematic hierarchy (also cf. above on Lexical Mapping Theory) or its semantic status between proto-agent and proto-patient as long as it is compatible with the relevant verbal morphology.

Given the prominence of referential status in argument selection in Tagalog, one may ask to what extent more recent approaches can integrate it. Parallel developments of the semantic representation of events and of the architecture of the VP in the Minimalist Program (see the structure of vP in (3) above) open new horizons that may allow...
for such an integration (Travis 2000:148). There have been a number of publications (for example Grimshaw 1990; Tenny 1994) which argue that event structure constitutes one modular component of argument structure and that it is in fact the event structure component which determines the linking of arguments to syntactic positions. In this context, I would like to briefly discuss Ritter and Rosen's (2000) approach which explicitly refers to specificity/definiteness.

Based on work by Borer (1996) and Benua and Borer (1996), Ritter and Rosen (2000:199) argue that “event structure is encoded in the functional projections responsible for Case and agreement, i.e., Agr-s and Agr-o”. The semantic categories determining event structures are initiation and termination. The initial bound is assigned to the functional projection of Agr-s which can be identified with a logical actor (most often the agent), while the terminal bound is assigned to the functional projection of Agr-o identified by a patient or an affected object. The four verb classes developed by Vendler (1967) and Dowty (1979) have the following boundary structure: states (–initial bound, –terminal bound), activities (+initial bound, –terminal bound), accomplishments (+initial bound, +terminal bound), and achievements (–initial bound, +terminal bound) (cf. Ritter & Rosen 2000:195). Which of these classes has event status in a given language is subject to typological variation. There are languages that base event status on the initial bound (I-languages in terms of Ritter & Rosen 2000) and others that base it on the terminal bound (Delimitation or D-languages in terms of Ritter & Rosen 2000). In I-languages, accomplishments and activities pattern together as events, whereas in D-languages, the same applies to accomplishments and achievements. Along the same line of argumentation, states and achievements are non-events in I-languages and the same applies to states and activities in D-languages. In a D-language, i.e., in a language that identifies its events through delimitation, a DP must raise into Spec Agr-oP. Since this position also contains accusative and Agr-o features, these features will be checked there, too. Given the special position of objects in D-languages, objects can be sensitive to specificity or definiteness, case marking or person. In an I-language, i.e., in a language that identifies its events through the initial bound, a DP must raise into Spec Agr-sP. Given the special position of subjects in I-languages, subjects can be sensitive to agentivity and animacy. To summarize the properties of D-languages and I-languages, I present a shortened version of Ritter and Rosen's (2000:195) Table 2 as Table 3.

In Ritter and Rosen's (2000) account, referential status comes in with objects in D-languages. If we compare this with the situation in Tagalog, the problem is that referential status is not limited to objects or internal arguments – any participant can take the subject position if it fulfills requirements of specificity or definiteness. In addition, the verbal morphology associated with the Tagalog trigger system operates across both the perfective (completive) and the imperfective marking on the verb (also cf. Table 7 at the end of Section 4).

The grammatical categories of subject and object are taken for granted in the Minimalist Program as well as at the level of f-structure in Lexical-Functional Grammar. The only theory treated in this paper that does not take syntactic categories for
Table 3. Properties of D-languages vs. I-languages (shortened version of Ritter & Rosen 2000:195)

<table>
<thead>
<tr>
<th>D-languages</th>
<th>I-languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accomplishments form a natural class with</td>
<td>Accomplishments form a natural class with</td>
</tr>
<tr>
<td>achievements</td>
<td>activities</td>
</tr>
<tr>
<td>Sensitive to semantic and syntactic properties</td>
<td>Sensitive to semantic and syntactic properties</td>
</tr>
<tr>
<td>of the object including</td>
<td>of the subject including</td>
</tr>
<tr>
<td>– specificity or definiteness</td>
<td>– agentivity</td>
</tr>
<tr>
<td>– Case marking</td>
<td>– animacy</td>
</tr>
<tr>
<td>– person</td>
<td></td>
</tr>
</tbody>
</table>

granted is Role & Reference Grammar (Van Valin & LaPolla 1997). In this theory, there is only one privileged syntactic argument called “syntactic pivot”, which is operative in constructions such as relativization, equi constructions, reflexivization, verbal agreement, etc.

The argument structure of an individual verb is part of its logical structure (LS), which is defined by the verb class it belongs to (state, activity, achievement, accomplishment, active accomplishment, causative). Since arguments can have a number of different thematic relations, i.e., semantic interpretations in a logical structure, their assignment to the syntactic pivot must be mediated by semantic macroroles, i.e., generalized semantic roles across the argument-types (thematic roles) found with particular verbs within their verb class. There are two macroroles: a generalized agent-type role called actor (A), and a generalized patient-type role called undergoer (U). The assignment of individual arguments to one or the other of these macroroles is determined by a thematic hierarchy termed Actor-Undergoer Hierarchy. Grammatical relations such as the pivot “exist only where there is a restricted neutralization of semantic or pragmatic relations for syntactic purposes” (Van Valin & LaPolla 1997:274). Syntactic pivots are defined by the neutralization of the macroroles A and U with transitive verbs and the single intransitive argument S. Thus, in the subject or pivot position of English, the actor A of a transitive verb and the single intransitive argument S are neutralized. In a syntactically ergative language, the syntactic pivot is characterized by the neutralization of U and S. Syntactic pivots only exist with reference to specific constructions. As a consequence, it is well possible that one and the same language has different pivots across different constructions. Syntactic pivots are not universal. If the syntax of a language directly operates on macroroles without any neutralization taking place it only has a semantic pivot. Acehnese (Malayo-Polynesian; Durie 1987) is postulated to be such a language. It is in this sense that Role & Reference Grammar does not take syntactic positions for granted and thus is not affected by problem (i) from the introductory section above.

As for problem (ii), Role & Reference Grammar clearly points out in its early version of Foley and Van Valin (1984:134–144) that participant assignment to syntax is not subject to a thematic hierarchy in Tagalog and that the trigger in this language
is based on referential status. Thus, the trigger is not a syntactic pivot, but can only be a semantic pivot or a pragmatic pivot depending on individual constructions as discussed by Schachter (1976) (cf. Foley & Van Valin 1984:123). A pragmatic pivot is described as a pivot "in which the selection of the argument to function as pivot of a transitive verb is not predictable from its semantic role and may be influenced by discourse-pragmatic considerations, in particular the topicality and activation status of its referent" (Van Valin & LaPolla 1997:291).

I don’t think that the trigger in Tagalog is adequately described in terms of a semantic or pragmatic pivot. The interpretation in terms of the semantic pivot is not needed if one adopts Kroeger’s (1993) findings that the trigger is syntactically more coherent than assumed by Schachter (1976). Thus, what is left for the analysis of the trigger in the framework of Role & Reference Grammar is the pragmatic pivot. However, the pragmatic pivot, with its broad definition in terms of discourse pragmatics, cannot adequately cover the function of the trigger, whose function is restricted to referential status. On the basis of this, I opt for a solution in which participant assignment to syntax is based on referential status.

2. Japanese

Japanese is an OV language. Its arguments and adjuncts are each followed by one of a number of particles indicating case. Topics occur in the sentence-initial position and are marked by wa. There are no obligatory arguments in Japanese (pro-drop). For that reason, sentences such as the one in (5) with a considerable number of overt noun phrases and postpositional phrases are rarely attested in spoken or in written language even though they are grammatically well-formed (cf. Bisang 1998:645–646).*

(5) [Kinoo wa] [Yamamoto-san ga] [[musume no] tame ni] yesterday TOP Yamamoto-Mr NOM daughter GEN purpose DAT 
[tomodati kara] [atarasi kuruma o] kat-ta. 
friend ABL new car ACC buy-PST
‘Yesterday, Mr Yamamoto bought a new car from [his] friend for [his] daughter.’

In his seminal study on structure and case marking in Japanese, Miyagawa (1989) presented a test for identifying arguments based on the position of the classifier phrase (ClP; Miyagawa uses the term "nominal quantifier, NQ"). As is well-known, Japanese is a classifier language (cf. e.g. Matsumoto 1993; Downing 1996). As in many other East and mainland Southeast Asian languages (cf. Bisang 1999), nouns only denote concepts without any implications about number. Thus, a word like ki ‘tree/trees’ can be interpreted as singular or plural. As was pointed out by Greenberg (1974:25), there is a typological correlation between the lack of the obligatory expression of number and the existence of numeral classifiers. From this fact, Greenberg (1974) concludes that a concept has to be individualized in order to be accessible for counting. This is
the function of the classifier, whose use is compulsory with numerals in Japanese. Since it is the function of the classifier to activate the conceptual boundaries associated with a noun in order to make its referent countable and since these boundaries depend on a number of different properties of the concept to be quantified (animacy, shape, etc.), there is a whole list of different classifiers.

What is crucial for identifying arguments in Japanese is the fact that the classifier phrase can occur in two different positions in Japanese:

(6) a. Classifier phrase in the modifier position marked by no:

\[
[\text{Ni-dai no kuruma o} \text{ kat-ta.}]
\]

\text{two-CL MOD car ACC buy-PST}

‘[S/He] bought two cars.’

b. The classifier phrase is separated from its noun:

\[
[\text{Kuruma o} \text{ ni-dai kat-ta.}]
\]

car ACC two-CL buy-PST

‘[S/He] bought two cars.’

Miyagawa (1989) showed that the modifier position (6a) is possible with all nouns whereas separate classifier phrases (6b) are allowed only with arguments. The use of separate classifier phrases depends on the following requirement:

(7) Mutual C-Command Requirement (Miyagawa 1989:30):

For a predicate to predicate of a NP, the NP or its trace and the predicate or its trace must c-command each other.

The mutual c-command requirement is based on a flat structure in which the classifier phrase and its antecedent share the same mother node. Thus, in the case of a nominative noun phrase marked by ga, ga-phrase and classifier phrase are both governed by the S-node, whereas in the case of an accusative phrase marked by o, o-phrase and classifier phrase are daughters of the VP-node. Example (8) is to illustrate the former case:

(8) \[
[\text{Gakusei ga} \text{ kyoo [san-nin] [hon o} \text{ kat-ta.}]
\]

student NOM today three-CL book ACC buy-PST

‘Three students bought the book today.’ (Miyagawa 1989:28)

(8')

NP ADV CIP VP

S

\text{gakusei ga} \text{ student NOM}
\text{kyoo today}
\text{san-nin three-CL}
\text{hon book ACC}
\text{o buy-PST kat-ta}

Argumenthood depends on mutual c-command between predicate and argument. If the noun phrase in question does not have a case marker but a postposition, the c-command requirement is not met.² Such a postpositional structure is depicted in (9).
Argumenthood in Chinese, Japanese and Tagalog


```
 VP
 /\
PP NP NQ/P CIP V
```

Thus, case markers make their noun phrases amenable to the mutual c-command requirement. Miyagawa (1989:35) predicts “that any NP, including the subject and the direct object, whose thematic role is provided by a source external to the NP-particle phrase can function as the antecedent of the NQ [= CIP; W.B.]”. Thus, noun phrases with a case marker are subcategorized, i.e., they are arguments, while postpositional phrases are adjuncts. As a consequence of this, the status of argumenthood can be tested with the help of the classifier phrase. If it can be separated from its antecedent noun phrase, that noun phrase is an argument. Consequently, \textit{gakusei ga} ‘students nom’ in (8) are arguments,\(^3\) while \textit{kooen ni} ‘to [two] parks’ in (10) below is not (Miyagawa 1989:36):

(10) a. *\textit{Kodomo-tati wa} [\textit{kooen ni}] [\textit{huta-tu} it-ta.]

\hspace{1cm} \text{child-pl top park dir two-cl go-pst}

‘The children went to two parks.’

b. \textit{Kodomo-tati wa} [\textit{huta-tu no kooen ni} it-ta.]

\hspace{1cm} \text{child-pl top two-cl mod park dir go-pst}

‘The children went to two parks.’

In example (10), the particle \textit{ni} does not mark an argument of the verb \textit{iku} ‘go’. With other verbs, however, the noun phrase marked by \textit{ni} turns out to be an argument. As is shown in the following example, the verb \textit{au} ‘meet’ has a \textit{ni}-argument (Miyagawa 1989:35):

(11) \textit{[Boku wa] [yuumei-na gakusya ni] [san-nin] at-ta.}

\hspace{1cm} \text{I top famous-adj scholar dat three-cl meet-pst}

‘I met three famous scholars.’

Verbs such as \textit{yaru} ‘give’ also pass the argument test for the \textit{ni}-phrase:

(12) \textit{[Hanako ga] [inu ni] [san-biki] [esa o] yat-ta.}

\hspace{1cm} \text{Hanako nom dog dat three-cl food acc give-pst}

‘Hanako gave food to the three dogs.’

Of particular interest is the verb \textit{katu} ‘win’, whose \textit{ni}-phrase can either denote the person/team defeated by the subject or the game that the subject won. Only in the latter case does the \textit{ni}-phrase turn out to be an argument (Miyagawa 1989:36):
(13) a. *[Taro ga] [Amerikazin ni] [san-nin] kat-ta.
   Taro NOM American DIR three-CL win-PST
   ‘Taro beat three Americans (in a game of some sort).’
b. [Taro ga] [geemu ni] [huta-tu] kat-ta.
   Taro NOM game DAT two-CL win-PST
   ‘Taro won two games.’

Japanese is famous for its two different types of passives: the direct or pure passive and the indirect or adversity passive. Both passives are marked by the passive morpheme -(r)are- on the verb. The direct passive is similar to the passive in English or German, i.e., the patient argument occurs in the nominative position marked by the particle ga and the actor takes the particle ni (cf. example (14b)).

(14) a. Active sentence, basis of the direct passive in (14b):
   [Oya ga] [kodomo o] sikat-ta.
   parents NOM child ACC scold-PST
   ‘The parents scolded [their] child.’
   [Kodomo ga] [oya ni] sikar-are-ta.
   child NOM parents DIR scold-pass-PST
   ‘The child was scolded by [his] parents.’

In the indirect passive, a new noun phrase is added, i.e., the attachment of the passive morpheme to the verb results in the addition of an experiencer noun phrase (cf. ha-haoya ‘mother’ in example (15b)) which is very often understood as being negatively affected by the action. The single argument of the corresponding active clause (kodomo ‘child’) takes the marker ni.

(15) a. Active sentence, basis of the indirect passive in (15b):
   [Kodomo ga] sin-da.
   child NOM die-PST
   ‘The child died.’
b. The indirect passive in Japanese:
   [Hahaoya ga] [kodomo ni] sin-are-ta.
   mother NOM child DAT die-pass-PST
   ‘The child died on her/his mother.’

As we can see from the argument test, only indirect passives allow the ni phrase to be the antecedent of a classifier phrase:

(16) The argument test with a direct passive (cf. example (14b)) (Miyagawa 1989:169):
   *[Taro ga] [sensei ni] [huta-ri] sikar-are-ta.
   Taro NOM teacher DIR two-CL scold-pass-PST
   ‘Taro was scolded by two teachers.’
The argument test with an indirect passive (cf. example (15b)) (Miyagawa 1989:169):

\[
[Hahaoya ga] [kodomo ni] [huta-ri] sin-are-\text{ta}.
\]

mother NOM child DAT two-cl die-PASS-PST

'Two children died on their mother.'

In terms of Miyagawa (1989:37–41, 167–169), direct passives are thus intransitive and the actor role is absorbed and moved into an adjunct position with the postposition \textit{ni}. In the case of indirect passives, \textit{ni} is a case marker and thus allows mutual c-command of noun phrase and classifier phrase. The status of the \textit{ni}-phrase in the indirect passive is that of an outer object, as in Chinese indirect passives (cf. examples (56) and (57)). The semantic role of that noun phrase is assigned by the verb, or, more precisely, by the passive morpheme \textit{-\text{are}}.

The above presentation based on Miyagawa (1989) shows that there is a good test for argumenthood which yields results that are quite compatible with what we know from languages such as English or German. In the rest of this section, I will discuss the constructions presented in Table 1 (Section 1.1) from the perspective of the interaction of syntax (subject and object) and semantics (semantic role and argumenthood). The first construction mentioned in Table 1, i.e., the passive construction, has just been discussed.

\textit{Topic extraction out of relative clauses} seems to be subject to subjacency. This is at least what Hasegawa (1981) sees as a possible explanation for the problematic status of examples as in (18). Although there certainly is a constraint, Saito (1987) assumes that it is weaker than subjacency.

\begin{itemize}
  \item \textit{Equi constructions}: As is well-known since Kuno (1973:207–209), coreference restrictions of zero arguments in multipredicate constructions depend on the syntactic level at which the predicates are combined. Thus, the two predicates in (19a) linked by the converb in \textit{-te} or \textit{-i} form a single verb phrase constituent. In the case of the linker \textit{to} as illustrated in (19b), each verb heads its own verb phrase so that the commanding force of the \textit{ga}-marked noun phrase of the first verb may optionally terminate at that constituent without being extended to the second verb phrase (Kuno 1973:209):
\end{itemize}

\begin{enumerate}
  \item (17) The argument test with an indirect passive (cf. example (15b)) (Miyagawa 1989:169):

\begin{center}
[Hahaoya ga] [kodomo ni] [huta-ri] sin-are-\text{ta}.
\end{center}

mother NOM child DAT two-cl die-PASS-PST

'Two children died on their mother.'

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\begin{enumerate}
  \item (18) Hasegawa (1981):

\begin{center}
\begin{tabular}{l}
Hasegawa (1981):  \\
\begin{tabular}{l}
\begin{tabular}{lp{0.5\textwidth}}
\textbf{18}\textsuperscript{2} [Ano hon] [John] [\text{write} \text{\textit{p}}] [\text{man} \text{\textit{dir}}] \\
that \text{book} \text{\textit{top}} J\text{ohn} \text{NOM \text{write-PST man DIR}} \\
\begin{tabular}{l}
\text{aitagatte iru rasii.}  \\
\text{want.to.meet.PRT seem} \\
\end{tabular}
\end{tabular}
\end{tabular}
\end{tabular}
\end{tabular}
\end{center}

'Speaking of that book, it seems that John wants to meet the person who wrote it.'

\end{enumerate}

\begin{enumerate}
  \item (19) Equi constructions: As is well-known since Kuno (1973:207–209), coreference restrictions of zero arguments in multipredicate constructions depend on the syntactic level at which the predicates are combined. Thus, the two predicates in (19a) linked by the converb in \textit{-te} or \textit{-i} form a single verb phrase constituent. In the case of the linker \textit{to} as illustrated in (19b), each verb heads its own verb phrase so that the commanding force of the \textit{ga}-marked noun phrase of the first verb may optionally terminate at that constituent without being extended to the second verb phrase (Kuno 1973:209):

\begin{enumerate}
  \item (19) a. [John, ga] [\text{take} \text{\textit{off}}] [\text{hanger} \text{\textit{dir}}] kake-\text{ta}.
\begin{tabular}{l}
John \text{NOM \text{take.off-conv hanger DIR hang-PST}} \\
\end{tabular}
\end{enumerate}
In the case of the converbal form, the different-subject interpretation is possible with converb forms only if there is an overt noun phrase in both ga-positions (Kuno 1973:207):

\[(20) \quad [John, ga] \quad [uwagi, o] \quad nui-de/nug-i, \quad [Mary, ga] \quad [hangaa, ni] \quad kake-ta.
\]

‘John took off his jacket, and Mary hung it on a hanger.’

The same configuration with the converb in -te is described in terms of clause or core juncture as defined by Role & Reference Grammar in Hasegawa (1996:179):

With te-linkage, it is generally the case that if both subjects are present the juncture is at the clause level and disjoint reference is permitted; if either or both of the subjects is missing, the juncture is at the core level and disjoint reference is prohibited. Presence of both subjects vs. absence of either of them is thus the most salient indicator of clausal vs. core juncture.

The following example from Shibatani (1990) shows that passivization determines the coreference of zero arguments in the same way as in English or German. In (21a), the converb is not marked for voice and thus the zero argument of the second verb is coreferent with the actor argument in the ga-position of the first verb. In (21b), the converb is marked for passive. Consequently, the zero argument of the second verb is coreferent with the patient in the ga-position of the first verb (Shibatani 1990:282–283).

\[(21) \quad a. \quad [Hahaoya, ga] \quad [kodomo, o] \quad sikat-te \quad \varnothing_i \quad nai-ta.
\quad ‘The motheri scolded the child, and \varnothing_i \quad cried.’
\]

\[(21) \quad b. \quad [Kodomo, ga] \quad [hahaoya, ni] \quad sikar-are-te \quad \varnothing_i \quad nai-ta.
\quad ‘The child, was scolded by the mother, and \varnothing_i \quad cried.’
\]

From looking at (19a) and (21a, b) one may conclude that the converbal constructions with -te follow the same rigid constraints as those of English or German in which the zero argument has to be coreferent with the subject. However, this is not the full story. In Japanese, the converb in -te can operate on different levels of juncture (cf. the above quotation from Hasegawa 1996). If there is sufficient overt morphosyntactic information that makes clear that the juncture is at the clause level, interpretation in terms of disjoint coreference is possible. The case of an overt noun phrase in both positions has been illustrated in (20) above. In addition, there are certain morpholexical means of indicating disjoint coreference if there is a noun denoting a human being in the
ga-position. Because the psych-predicate *hotto suru* ‘be relieved’ in the second clause of (22a) implies a first person argument and the *ga*-marked noun phrase of the first clause differs from that argument, only an interpretation in terms of disjoint coreference is possible. If a honorific form is used with the second verb as in (22b), the subject cannot be the speaker (1st person) or a 3rd person that belongs to the sphere of the speaker. Thus, a disjoint interpretation is again available (Hasegawa 1996:179–180).

(22) a. [Zyoon ga] nattoku *hotto si-masi-ta.*
   \[Joan \text{nom} \text{compliance} do-\text{conv} \text{be-relieved-pol-pst}\]
   ‘Joan complied [with it] and [I] was relieved.’

b. [Zyoon ga] *go-setumee si-te nattoku nasai-masi-ta.*
   \[Joan \text{nom} \text{hon-explain-conv} \text{compliance do.hon-pol-pst}\]
   ‘Joan explained, and [he] complied [with it].’

From examples such as (22), one can conclude that the coreferential interpretation is conventionalized to a high degree, but that it is not fully grammaticalized to an extent which completely excludes the disjoint interpretation. In particular, with patterns of marking which overtly indicate to the human parser that the states of affairs to be combined are linked at a high enough syntactic level, disjoint interpretation is possible. Nevertheless, the option of the disjoint interpretation does not seem to allow patient antecedents to be coindexed with zero arguments in configurations such as (21b) if there is no passivization.

*Reflexive binding* does not seem to depend exclusively on syntax in Japanese. If this is true, there are two options. One may say that syntactic constraints are not necessary to predict possible binders. Thus, nonsyntactic (discourse and pragmatic) constraints are introduced to increase binding possibilities. The second option takes syntactic constraints to be necessary but not sufficient. Nonsyntactic constraints have to be imposed on top of the syntactic constraints in order to decrease binding possibilities. Iida (1996:16) calls the former approach “disjunctive” and the latter “conjunctive”. In my short sketch, I will adopt her conjunctive approach. The syntactic constraint on *zibun* ‘self’ in Japanese is defined in terms of o-command as in (23) and (24) ((23)–(31) have been taken from Iida 1996:115–121):

(23) *Zibun* may not o-command its antecedent.

(24) O-command:
   Let Y and Z be synsem objects with Y referential, Y o-commands Z just in case Y is less oblique than some X that dominates Z. In case X = Z, Y is said to locally o-command Z.\(^5\)

The least oblique argument of a verb is its subject, which is followed by a number of more oblique elements. Example (25) is grammatical because *zibun* is in a more oblique argument position than its antecedent. This does not apply to (26), in which *zibun* is in the subject position which is less oblique than the position of the antecedent in the *ni*-phrase:
The syntactic constraint based on o-command only concerns arguments, i.e., the subcategorized-for arguments of the same head. Thus, the following example in which the antecedent is in an oblique position marked by ni totte ‘for, concerning’ is grammatical:

\[(27) \text{[Zibuni ga]} \text{Ta ro, ni totte yuiitu no tayori da.} \]

\[
\begin{array}{ll}
\text{Self, is only reliable to Taro,} & \text{[i.e., Taro is only reliable to himself.]} \\
\end{array}
\]

The o-command constraint is not violated if zibun ‘self’ is the possessor element of an argument. Thus, example (28) with zibun determining an argument which is higher than the antecedent is grammatical because there is no o-command in this configuration (Iida 1996:117):

\[(28) \text{[Zibuni no zitu no musuko ga]} \text{[Ta ro, o] kurusimete iru.} \]

\[
\begin{array}{ll}
His, own son annoys Taro, & \text{[i.e., Taro criticized himself for that.]}
\end{array}
\]

The syntactic nature of the constraint in (23) can be seen from examples such as (29) from Iida (1996) in which a context-induced coreferent interpretation is disallowed:

\[(29) \text{[Ta ro, regretted that she didn’t go there.]} \]

\[
\begin{array}{ll}
\text{Self, criticized Taro,’ [i.e., Taro criticized himself for that.]} & \text{[i.e., Taro criticized himself for that.]}
\end{array}
\]

As was pointed out above, the syntactic constraint is necessary, but not sufficient. A sentence like (30) conforms to the o-command constraint and is acceptable while a similar sentence like (31) which also conforms to the o-command constraint is not.

\[(30) \text{[Ta roo ga]} \text{[Hanako, ni] zibuni no ayamati o satosi-ta.} \]

\[
\begin{array}{ll}
\text{Taro made Hanako, realize her, mistake.} & \text{[i.e., Taro criticizes Hanako for that.]}
\end{array}
\]

\[(31) \text{[Ta roo ga]} \text{[Hanako, ni] zibuni no ayamati o hanasi-ta.} \]

\[
\begin{array}{ll}
\text{Taro told Hanako, her, mistake.} & \text{[i.e., Taro criticizes Hanako for that.]}
\end{array}
\]
Iida (1996: 121–122) tries to account for the impact of discourse on zibun-binding by one single condition which she calls “deictic perspective”:

[T]he speaker can choose to represent an event from a specific vantage point. This is the notion that is used to interpret deictic expressions. The antecedent of zibun is understood as the perspective chosen by the speaker in describing the situation in question. For example, the degree of Hanako’s involvement perceived in the described situation in (30) and (31) may affect the speaker’s decision to take Hanako’s perspective, and consequently the intended zibun-binding. Note that the indirect object Hanako in (31) is simply regarded as a goal, while the indirect object Hanako of the verb satosu in (30) is interpreted as a person who has been affected to a certain extent in the described situation. When the speaker’s interest or attention is directed to Hanako in describing Hanako’s involvement, it is natural that the speaker looks at the situation from Hanako’s perspective. [The numbers of the examples have been adapted to the present paper, W.B.]

The discourse-perspective constraint integrates a number of phenomena, which have been discussed under various conditions such as subjecthood, experiencerhood in constructions with psych-verbs and empathy (Kuno 1976; Kuno & Kaburaki 1977; Kuno 1987).

Given the inviolable nature of the o-command constraint and the fact that the hierarchy determining o-command is limited to arguments, argumenthood seems to be relevant to reflexivization in Japanese. The notion of subject comes up naturally from Iida’s (1996) syntactic constraint given its weakest degree of obliqueness. Nevertheless, reflexive binding does not seem to be a reliable test for subjecthood (Iida 1996: 213; on reflexivity as a subject test cf. Shibatani 1977).

Japanese relative clauses occur before their head nouns. Their verbs take the plain form (low politeness) – a form which is also common in matrix clauses. As is well-known, relativization in Japanese is very free as far as the relation between the head noun and its role in the subordinated clause is concerned (Kuno 1972; Martin 1976). In the following examples, there is no gap corresponding to the head noun (Kitagawa 1982: 201–202):

\[(32) \ [\text{meizin ga}] \ [\text{ryoori si-ta}] \ \text{azi} \]
\[\text{expert nom cook-pst} \text{ flavour} \]
‘the flavour [that results when] an expert cooked’

\[(33) \ [\text{hito ga}] \ [\text{toor-u}] \ \text{monooto} \]
\[\text{man nom pass-prt} \text{ sound} \]
‘the sound of people going by’

In the following two examples there is a gap which corresponds to an argument in (34) and to a nonargument in (35):

\[(34) \ [\text{Yamamoto-san ga}] \ [\text{kat-ta}] \ \text{kuruma} \]
\[\text{Yamamoto-Mr nom buy-pst} \text{ car} \]
‘the car that Mr Yamamoto bought’
In the following relative clauses, which are minimal in the sense that they do not contain any overt noun phrase at all, the relation between the head noun and its function within the relative clause seems to be fully recoverable from the semantics of the head noun and from world knowledge (Bisang 1998:647):

(36) a. \([\text{tabe-ru}] \text{hito} \)
    \(\text{eat-PRT} \text{man} \)
    ‘the man who eats’

b. \([\text{tabe-ru}] \text{ringo} \)
    \(\text{eat-PRT} \text{apple} \)
    ‘the apple which is eaten’

c. \([\text{tabe-ru}] \text{resutoran} \)
    \(\text{eat-PRT} \text{restaurant} \)
    ‘the restaurant where [we] eat’

d. \([\text{tabe-ru}] \text{otyawan} \)
    \(\text{eat-PRT} \text{bowl} \)
    ‘the bowl from which [you] eat’

Looking at the above data, one may wonder whether there is any syntactic constraint determining the relation between the head noun and its function in the relative clause. Iida (1996:320–322) tries to show that there is a syntactic constraint interacting with a discourse constraint. The following example can be interpreted in three different ways if there is no further context given (Iida 1996:320):

(37) \([\text{[Taro ] ga} \text{ bengo si-ta}] \text{hito} \)
    \(\text{Taro} \text{ N} \text{om} \text{defend-PST} \text{man} \)
    a. ‘the person whom Taro defended’
    b. ‘the person to whom Taro defended himself’
    c. ‘the person to whom Taro defended someone’

Iida (1996:321) argues that (37b) is ungrammatical because the head noun is interpreted as an adjunct and coindexation of a zero-pronoun adjunct with a subject (\(\text{Taro} \) in (37)) violates the constraint on zero-pronoun binding. If the subject \(\text{Taro} \) and the zero adjunct are not coindexed, we get an acceptable interpretation as illustrated by (37c). However, given a suitable context, interpretation (37b) becomes acceptable (Iida 1996:321):

(38) \([\text{[Taro, wa] keppaku da.} \)
    \(\text{Taro} \text{TOP} \text{innocent cop-PRT} \)
    ‘Taro is innocent.’
In Iida’s (1996) above explanation, the discourse principle overrides the syntactic constraint and thus violates her own conjunctive approach. Moreover, language is always used in some context. To postulate different rules operating in contextless sentences and in context-bound utterances is problematic. It is for these two reasons that I think syntax-based accounts of coreference in relative clauses must be abandoned for pragmatic-based accounts such as the one developped by Matsumoto (1997). On the basis of the following example which presents a rather unexpected constellation, Matsumoto (1997) describes the different construal processes in English and Japanese as follows (Matsumoto 1997:83):

(39) ??[[tookyoo a] tabe-ta] tomato
Tokyo ACC eat-pst tomato
"the tomato (which) ate Tokyo"

In English, one is first aware of the reading that the syntax of the construction imposes although some may feel that one’s world-view does not support that interpretation. In Japanese, on the other hand, hearers construe this relationship between the two constituents only after they first discard their ordinary or “default” world-view and adopt one of fiction, in particular of horrific or comic fantasy. Unless the situation activated by the construction is plausible, the interpretation will be at best hesitant, and often impossible. (Matsumoto 1997: 83–84)

Thus, it seems safe to say that argumenthood is unlikely to play a central role in this construction type.

It is well-known since Li and Thompson (1976) on topic-prominent languages that topicalization does not depend on argument structure in Japanese. In the following two examples, the topic is not an argument of the verb (nor is it in an overtly marked nonargument position):

(40) [Huyu wa] [sukii ga] tanosi-i. (Shibatani 1990:275)
winter TOP ski NOM be.enjoyable-ADJ.PRT
‘Winter is such that skiing is enjoyable.’

(41) [Rondon wa] [kiri ga] huka-i. (Iida 1996:323)
London TOP fog NOM dense-ADJ.PRT
‘As for London, the fog is dense.’

To conclude, I would like to summarize the results concerning the question of subject/object asymmetry in Japanese for each of the constructions discussed in this section. There is no evidence against subject/object asymmetry from the two passive constructions. The structural properties of the direct passive can be compared to English passives. For the indirect passive, there is a consistent formal explanation in which the $ni$-phrase is analyzed as an outer object assigned by the passive morpheme.
Table 4. The relevance of subject/object asymmetry and of argumenthood in Japanese

<table>
<thead>
<tr>
<th>Construction</th>
<th>Relevance of subject/object asymmetry</th>
<th>Relevance of argumenthood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Topic extraction</td>
<td>+ (maybe weaker constraint)</td>
<td>+</td>
</tr>
<tr>
<td>Equi</td>
<td>+ (with some exceptions)</td>
<td>+</td>
</tr>
<tr>
<td>Reflexives</td>
<td>– (subject motivated by obliqueness hierarchy)</td>
<td>+</td>
</tr>
<tr>
<td>Relatives</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Topic</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

- (r)are- on the verb. Thus, both passives can be described in terms of syntactic categories and argumenthood. Topic extraction of noun phrases within relative clauses seems to be subject to subjacency. Syntactic categories as well as argumenthood are therefore relevant. Saito (1987) assumes that there is a constraint which is weaker than subjacency. Equi-constructions are possible at different syntactic levels. If we take the converb in -te, the zero-pronoun in the second clause is usually coreferent with the subject of the first clause, although there are particular patterns of marking in which a disjoint interpretation is mandatory. Reflexive binding does not exclusively depend on syntax. Syntax jointly interacts with discourse perspective (Iida 1996). The subject-orientedness of the reflexive is linked to a hierarchy of semantic roles called obliqueness hierarchy by Iida (1996). This hierarchy only operates if the antecedent is in an argument position. In relative clauses, neither the syntactic category of subject nor the semantic category of argumenthood are of any relevance. The same applies to topicalization. Table 4 summarizes the above findings.

3. Chinese

In Modern Standard Chinese, the concepts of macroroles and the thematic hierarchy seem to be quite straightforward as far as linking of semantics and syntax is concerned. With two-place predicates, the actor is linked to a position in front of the verb and the patient is linked to a position immediately following the verb.

(42) Two-place predicates:

\[
\begin{align*}
\text{ACTOR} & \quad \text{V} \quad \text{PATIENT} \\
\end{align*}
\]

(43) \(\text{Wǒ péngyou hē-le jiǔ.}\)

\(\text{I friend drink-PFV wine}\)

‘My friend drank wine.’

In one-place predicates, the argument precedes the verb (44). The argument of some ergative verbs may occur preverbally if it is activated or postverbally if it is not activated in the discourse (45) (Li 1990:136):
(44) a. Kèrén kù-le.
guest cry-PFV
‘[The] guests cried.’
b. *Kù-le kèrén.
cry-PFV guest
‘there cried some guests.’

(45) a. Kèrén lái-le.
guest come-PFV
‘[The] guests came.’
b. Lái-le kèrén.
come-PFV guest
‘There came [some] guests.’

None of the argument positions need to be filled by an overt noun phrase. To the left of the actor position, there are a number of positions whose functions have to do with information structure. Since the exact function of these positions is of no significance for this paper, I will not discuss this rather controversial issue (for some literature cf. Tsao 1990; Ernst & Wang 1995; Shyu 1995; Gasde 1998; Zhang 2000). In the following example, one can see that any of the arguments can occur in any sequence in these positions (for examples of Chinese-style topics, in which the element in the topic is not an argument of the verb in the comment, cf. the end of this section):

(46) a. T¯ai, øi h¯e-le ji˘u.
S/he drink-PFV wine
‘As for her/him, [s/he] drank wine.’
b. Ji˘ui, tà h¯e-le øi.
wine s/he drink-PFV
‘The wine, s/he drank [it].’
c. T¯ai, ji˘ui, øi h¯e-le øi.
s/he wine drink-PFV
‘S/He, wine, [s/he] drank [it].’
d. Ji˘ui, tà, øi h¯e-le øi.
wine s/he drink-PFV
‘Wine, s/he, [s/he] drank [it].’

Argumenthood, or at least internal argumenthood, is of central importance for headless relative clauses in Chinese. Relative clauses are prenominal and they are marked by the attributive particle de at their right edge. Headless relative clauses do not have an overt noun in the head position. The zero element in the head position can only be coreferent with an argument of the relativized verb, often with a strong preference of the patient argument. If we thus take a headless relative clause which just consists of a two-place verb such as ch¯i ‘eat’ in (47), the only possible interpretations are those in which the zero element in the head position is a patient (47a) or, less likely (and often dispreferred), an actor (47b) in the relative clause:
(47) a. Chī de shì shénme?
    eat ATTR COP what
    ‘What is being eaten?’
b. Chī de shì shéi?
    eat ATTR COP who
    ‘Who is the one who eats?’
c. *Chī de shì zènme yàng de cānjù?
    eat ATTR COP what.kind.of ATTR vessel/table-ware
    ‘What s/he is eating from is what kind of table-ware?’

The wh-elements in the above example imply either an actor or a patient. If there is a wh-element which asks for a nonargument such as zài nàr ‘where?’ it is not possible to infer locative coreference between the zero head and the relative clause:

(47) d. Chī de zài nàr?
    eat ATTR where
    ‘Where is the place for eating?’
    only: ‘Where is the one who eats’ / ‘Where is the thing to be eaten.’

The same test also applies to three-place verbs such as fá ‘fine’ in (48) and (49). It is possible to ask for the amount of the fine (49d), but it is again impossible to ask in such a way that the zero head is interpreted as a locative (49e):

(48) Tā fá-le Zhāngsān sìshí kuài qián. (Li & Thompson 1981)
    s/he fine-pfv Zhangsan 40  q  money
    ‘S/He fined Zhangsan $40.’

(49) a. Fá de shì shéi?
    fine ATTR COP who
    ‘Who is the one who fines someone?’ / ‘Who is the one who is fined?’
    [Agent-coreference is much less likely.]
b. Fá Zhāngsān de shì shéi?
    fine Zhangsan ATTR COP who
    ‘Who is the one who fined Zhangsan?’
c. Tā fá de shì shéi?
    s/he fine ATTR COP who
    ‘Who is the one whom s/he fined?’
d. Fá de duōshao qián?
    fine ATTR how.much mon
    ‘How much is the fine?’
e. Fá de zài nàr?
    fine ATTR where
    ‘Where is the one who fined / was fined?’
    but not: ‘Where is the place where [he] was fined?’
In headless relative clauses containing verbs of movement such as lái ‘come’ or qù ‘go’, coreference is limited to the actor even though locatives follow these verbs without any marking (50a):

(50) a. Zhāngsàn qù Bēijīng.
   Zhangsan go Beijing
   ‘Zhangsan goes to Beijing.’

b. Qù de shì shéi?
   go ATTR COP who
   ‘Who is the one who left?’

c. *Qù de shì zài nǎr?
   go ATTR COP where
   ‘Where is the place where [s/he] went?’
   but: ‘Where is the one who left?’

From the above data, headless relative clauses seem to be a good testing ground for argumenthood in general, or at least for internal argumenthood (also cf. example (59) below). In the rest of this section, I will look at each of the constructions listed in Table 2 (Section 1.1).

Evidence for the existence of subject-based raising is given by Li (1990:118–130). According to her findings, the verbs kēnèng ‘be likely, be possible’, nán/róngyì ‘be difficult’/‘be easy’ and kāishì ‘begin’ are raising verbs. The word hàoxiàng ‘seem, be like, seemingly’, on which LaPolla’s (1993) arguments against the existence of raising verbs are based, is an adverbial and fails all the tests for verbhood presented by Li (1990:122). For that reason, it does not qualify as a raising verb. In example (51b), the bèi-passive has to be used if the patient argument is to occur in the position in front of the raising verb. This is very remarkable, since the bèi-passive is far from being obligatory in constructions with no subject/object asymmetry such as in equi constructions (Li 1990:129).

(51) a. Zhè ge yīshēng hěn nán/róngyì jiàncā-wán Lǐsī ma?
   this cl doctor very difficult/easy examine-finish Lisi quest
   ‘Is this doctor difficult/easy to examine Lisi?’
   (‘Is it difficult for the doctor to examine Lisi?’)

b. Lǐsī hěn nán/róngyì běi zhè ge yīshēng jiàncā-wán ma?
   Lisi very difficult/easy bei this cl doctor examine-finish quest
   ‘Is Lisi difficult/easy to be examined by the doctor?’
   (‘Is it difficult/easy to be examined by the doctor for Lisi?’)

Antecedents of the reflexive zìjì are in general subjects with the property of animateness. The Chinese reflexive differs from reflexives in English or German inasmuch as it is pragmatics that determines the actual, preferred antecedent where there is more than one structurally possible antecedent. In the following example, the verbs kuángwàng ‘be arrogant’ vs. zìbèi ‘self abased’ determine whether the antecedent is the subject of the matrix clause or the subject of the embedded clause (Huang 1994:184):
(52) a.  
\[ \text{Chén xiānshēng rènweī Liú xiānshēng tài kuāngwàng, ø zōngshi} \]  
Chen Mr think Liu Mr too arrogant always  
\[ \text{kànbūqì zijī.} \]  
look.down.upon self  
‘Mr Chen thinks that Mr Liu is too arrogant, and (he) always looks down upon him.’

b.  
\[ \text{Chén xiānshēng rènweī Liú xiānshēng tài zìběi, ø zōngshi} \]  
Chen Mr think Liu Mr too self-abased always  
\[ \text{kànbūqì zijī.} \]  
look.down.upon self  
‘Mr Chen thinks that Mr Liu is too self-critical, and (he) always looks down upon himself.’

The Chinese bèi-passive is typically introduced by sentences such as in (53b) (a third type of passive with no DP after bèi will not be discussed in this paper):

(53) a.  
\[ \text{Jiējiē mā-le tā.} \]  
elder.sister scold-PFV s/he  
‘[Her/His] elder sister scolded her/him.’

b.  
\[ \text{Tā bèi jiējiē mā-le.} \]  
\[ \text{bèi} \]  
s/she be\(\text{\)} elder.sister scold-PFV  
‘S/He was scolded by her/his elder sister.’

Although (53b) looks like an English passive at first glance, the Chinese bèi construction has a number of syntactic properties\(^6\) which go beyond English-style passives. In example (54), the subject-oriented adverb \[\text{xǐn'gān-qíngyùan} \] 'willingly' is not compatible with the thematic role of patient which it is supposed to inherit from the NP-trace (\[\text{Gào Qiáng} \] originates in the object position of \[\text{zhémo} \] 'torture' and is thus a patient). In (55), an example of the long-distance passive, the dependency between the subject (\[\text{Zhāng Sān}\]) and its trace is unbounded:

(54)  
\[\text{Gào Qiáng xǐn'gān-qíngyùan de bèi Zhōu Huā zhémo.}\]  
\[\text{(Shi 1997:60)}\]  
Gao Qiang willingly ADV bèi Zhou Hua torture  
‘Gao Qiang, out of his own willingness, was tormented by Zhou Hua.’

(55) Long-distance passive (Huang 1999):
\[\text{Zhāng Sān bèi Li Sī pài jīngchá zhuāzòu le.}\]  
\[\text{Zhāng Sān bèi Li Sī send police arrest PF}\]  
‘Zhang San was ‘sent-police-to-arrest’ by Li Si.’

In the following two examples, the noun phrases in the subject position (\[\text{Zhāng Sān} \] and \[\text{nà kuài ròu} \] ‘that piece of meat’) are not the patient arguments of their respective verbs. In (56), the subject noun phrase can still be related to a position within the constituent headed by bèi (on this analysis cf. below), i.e., the possessor position of \[\text{bāba} \] ‘father’. In (57), there is no relation between the subject and any position within the constituent headed by bèi.
(56) Indirect passive (Huang 1999):

\[\text{Zhangsan bèi tàijī dāsī-le bàba.}\]

Zhangsan beǐ bandit kill-PFV father

‘Zhangsan had his father killed by the bandits.’

(57) Indirect passive (Shi 1997:55):

\[\text{Nà kuài ròu bèi wǒ chāo-le ròusī.}\]

that Q:piece meat beǐ I stir.fry-PFV shredded meat

‘That piece of meat was stir-fried as shredded meat by me.’

The syntactic interpretation of the bèi-construction is controversial. There are two main approaches. Wang (1970) is an early proponent of the movement approach, according to which an underlying object moves into the subject position while the actor is integrated into the bèi-phrase. Hashimoto (1969, also cf. 1987) is the most prominent proponent of the other approach, which takes bèi as a matrix verb with an embedded clause whose object is deleted under identity. As Huang (1999) points out, both approaches have their shortcomings. He thus proposes an analysis which involves both complementation and movement. Complementation comes into play because bèi is assumed to be a verb with a noun phrase as its subject and a clausal category (an IP) as its complement. Movement is relevant because of a null operator (NOP) which is assumed to be adjoined to the complement IP:

(53) b. Slightly adapted from Huang (1999):

```
  IP
 / \  ...
NP  V'
 /   \       
V    IP
     /   \  
   NOP  IP
      /   \  
     NP   V'
       /  \ 
   tσ bèi BEI jījīe mǎ-le sǐster scold-PFV 
  \ /  \  
 tσ s/he OP
```

‘S/He was scolded by her/his elder sister.’

In Huang’s (1999) approach, the subject of the bèi construction is assigned a theta-role of its own (an experiencer role). For that reason, subject-oriented adverbs as in the above example (54) are possible. The null-operator movement assumed by Huang (1999) is an instance of A’-movement. Since unbounded dependencies are a characteristic property of A’-movement, long-distance passives as illustrated in example (55) are
grammatical in Chinese. For the indirect passive illustrated in example (56) in which
the subject can be analyzed as a possessor of the patient noun phrase, Huang (1999)
offers the following solution. The verb takes a noun phrase of the structure 'pro fa-
ter'. The verb plus this object noun phrase forms a complex predicate V' that takes
another object, i.e., an outer object (also cf. Japanese indirect passives in Section 2).
The outer object controls the possessor pro. It is first NOP-moved to IP, where it is fi-
nally coindexed with the subject. Indirect passives with no relation between the subject
and any position within the predicate are explained as follows. The complex predicate,
i.e., 'stir-fry as shredded meat' in example (57), can be constructed as being transitive
with an affectee as its outer object. As long as this is possible, we get a grammatical
construction. Thus, example (58) is ungrammatical because no extra role of affectee
can be constructed:

(58) *Zhāngsān bèi Līsī pāo-huí jiā qù le.
Zhangsan bei Lisi run-back house go PF
Lit.: ‘Zhangsan had Lisi run away home [on him].’

For all instances of the bèi construction, one can maintain that the constituent of bèi
plus the following predicate form an intransitive complex predicate which composi-
tionally selects the subject as its single argument (also cf. Shi 1997:56 and Thompson
1973 for a similar approach). This is confirmed by (59):

(59) a. [Dāsī-le de] shì shāi?
kīl-PFV ATTR COP who
‘Who is the one who got killed?’ / ‘Who is the one who killed [him]?’
[The second interpretation with actor-coreference is dispreferred.]
b. [Bèi tūfēi dāsī-le de] shì shāi?
bēi bandit kill-PFV ATTR COP who
‘Who is the one who got killed by the bandits?’
c. *[Zhāngsān bèi tūfēi dāsī-le de] shì shāi?
Zhangsan bei bandit kill-PFV ATTR COP who
‘Who is the one who had his father killed by the bandits?’
d. [Bèi tūfēi dāsī-le bāba de] shì shāi?
bēi bandit kill-PFV father ATTR COP who
‘Who is the one who had his father killed by the bandits?’

In (59a), the zero head can be coreferential with the patient argument (or, in a dispre-
ferred reading, with the actor argument) of the relativized predicate. In examples (59b)
and (59d), the zero head must be the single argument of bèi, which must be seman-
tically compatible with an affectee. The affectee can either be the patient argument of
the two-place verb dāsī ‘kill’ as in (59b) or the outer object as in (59d). Example (59c)
seems to be problematic because both argument positions within the passive construc-
tion are occupied – the outer object position by Zhāngsān and the single-argument
positionof the intransitivised verb by tūfēi ‘the bandits’. The constituent Zhangsan bèi
tūfēi dāsī-le de may occur with a head noun such as yuányīn ‘reason’ (‘the reason why
Zhangsan was killed by bandits’) which allows for a coreferential interpretation be-
yond argumenthood. But without such a head noun, however, it does not make sense. What is of particular interest in (39c) is that the noun phrase immediately following the verb in (56), i.e., bàba 'father', is not accessible as a possible antecedent to the zero head. Thus, the headless-relative construction further corroborates the intransitive interpretation of the bèi plus complement constituent in which DPs of the bàba-type are nonarguments and thus supports Huang's (1999) analysis as well as Shi's (1997:56) analysis which is based on an analogy with VO idioms.7

To sum up, Huang's (1999) approach is the most encompassing approach insofar as it consistently accounts for a wide range of data. However, there is one basic problem. In analogy with tough constructions, whose analysis has inspired Huang's (1999) account of Chinese bèi, his analysis only works under the assumption that the complement of bèi is nonfinite. The existence of nonfinite clauses in Chinese is controversial. As I tried to show in Bisang (2001) on the basis of Y Huang's (1994) pragmatic approach, there is no watertight proof of nonfiniteness in Chinese.

The following two examples of topic extraction out of relative clauses from Huang and Li (1996) (also cf. J. C.-T. Huang 1984, 1987, 1991) seem to prove the relevance of subjacency and thus the relevance of subject/object asymmetry.8 Examples (60b) and (61b) are ungrammatical because the head noun is in the patient/object position of the matrix verb and thus ungrammatical.

(60) Huang and Li (1996:82):
     Zhangsan, sing song ATTR voice very charming.
     ‘Zhangsan, the voice with which [he] sings is charming.’
   b. *Zhàngsàn, wó xīhuan [[σi chàng gē de] shèngyuīn].
     Zhangsan I like sing song ATTR voice
     ‘Zhangsan, I like the voice with which [he] sings.’

     Zhangsan criticize ATTR person very many
     ‘Zhangsan, people who criticized [him] are many.’
   b. *Zhàngsàn, wó rènshí hên duō [[pipìng σi de] rén].
     Zhangsan I know very many criticize ATTR person
     ‘Zhangsan, I know many people who criticized him.’

The above description was subject to heated controversies in the eighties and still seems to be unresolved. Xu and Langendoen (1985) and Xu (1986) presented examples of the type of (62) as counterexamples to (60) and (61). In this example, the topic position is bound by a position in a relative clause modifying a patient (Xu & Langendoen 1985:15):

(62) a. Wó cónglái méi yìdào-guo [nèng hùidà zhè ge wèntī de rén].
     I never meet EXP can answer this CL question ATTR man
     ‘I have never met a person who can answer this question.’
Examples like (62) led Xu and Langendoen (1985:15) to the conclusion that “topics can bind positions in the comment across any number of intervening NP, S, and S’ nodes”. In spite of this general statement, the two authors come up with a constraint in the next paragraph. They define their constraint in terms of specific vs. nonspecific, although a definition in terms of token vs. type seems to be more suitable to their examples. Thus, example (63a) is ungrammatical, or at least problematic, because zhè běn shù ‘this book’ refers to a token, while it refers to a type in (63b):

(63) a. ??[Zhè běn shù], wǒ xiǎng [[dú-guo ǒi, de] rén] lái le.
   this cl book I think read-exp attr man come pf
   ‘As for this book, I think the man who read it came.’
   Lit.: ‘This book, I think the man who read came.’

   b. [Zhè běn shù], wǒ rènwéi [[dú-guo ǒi, de] rén] bù duò.
   this cl book I think read-exp attr man neg many
   ‘As for this book, I don’t think that there are many people who read it.’
   Lit.: ‘This book, I think there aren’t many people who read.’

As is pointed out quite clearly by Huang and Li (1996:83), examples such as (62) and (63) differ from their own examples presented in (60) and (61) inasmuch as the gap is bound by an animate noun phrase in the former examples whereas in the latter examples the gap is bound by an inanimate noun phrase. My own tests fully confirmed Huang and Li’s (1996) findings on subject/object asymmetry in cases where the gap is bound by animate nouns, or to be even more rigid, by nouns denoting humans. The special status of humans in the Chinese system of binding is well established (though not always duly considered in the literature), since the pronoun tā ‘s/he’ primarily refers to humans. If we look at binding of the gap with inanimate nouns, our data yield a completely different picture that confirms the findings of Xu and Langendoen (1985:15), according to which there does not seem to be any subject/object asymmetry at all. The semantic criteria which determine whether binding is possible seem in some way dependent on the degree of definiteness of the antecedent or on its animacy. Of course, the criteria of definiteness and animacy are both part of the animacy hierarchy as presented in (64):

(64) Animacy hierarchy (Croft 1990:127):
   Person: first/second < third
   NP type: pronoun < proper name < common noun
   Animacy: human < animate < inanimate
   Definiteness: definite < referential < nonreferential (nonspecific)

In spite of this, an exact description of how the animacy hierarchy works in Chinese is rather difficult. However, the solution to this problem would not change anything
with regard to the fact that there is a clear-cut subject/object asymmetry in the case of nouns denoting humans. The question of how to account for this fact remains open.

In relative clauses with a nominal head, the head noun is not necessarily coreferent with any of the argument positions. In example (65), in which the head noun refers to a location, locative coreference is possible. Similarly, manner coreference, instrumental coreference, time coreference and reason coreference are possible (cf. examples (66) to (69)):

(65) Locative coreference:

\[Ch\text{t \ de \ difangs \ z\text{ai} \ n\text{ar}?}\]

\[\text{eat \ ATTR \ place \ where}\]

\[\text{‘Where is the place where [we will] eat?’}\]

(66) Manner coreference (Ning 1993:95):

\[t\text{a \ xin \ che \ de \ fangf\text{a}}\]

\[\text{s/he repair car \ ATTR \ method}\]

\[\text{‘the method how s/he repaired a car’}\]

(67) Instrumental coreference:

\[w\text{0 \ xie \ xin \ de \ mieb\text{o}}\]

\[\text{I \ write letter \ ATTR \ pencil}\]

\[\text{‘the pencil I write a letter with’}\]

(68) Time coreference:

\[t\text{a \ mai \ xin \ che \ de \ na \ ge \ yu\text{e}}\]

\[\text{s/he buy new car \ ATTR \ that \ CL \ month}\]

\[\text{‘the month in which s/he bought a new car’}\]

(69) Reason coreference:

\[t\text{a \ mai \ xin \ che \ de \ yuvnyin}\]

\[\text{s/he buy new car \ ATTR \ reason}\]

\[\text{‘the reason why s/he bought a new car’}\]

Examples like (65) to (69) are rather rare. They are linked to the meaning of the head noun which enhances the corresponding interpretation. Ning (1993) claims that this type of relative clauses is only possible with four universally available values, i.e., place, time, manner/instrument and reason. In my view, the situation is not determined as rigidly. Given the right head noun, other inferences may also be possible:

(70) Comitative coreference:

\[t\text{a \ tiowu \ de \ tioban}\]

\[\text{s/he dance \ ATTR \ dancing partner}\]

\[\text{‘the partner s/he dances with’}\]

Nevertheless, there seem to be much stronger coreference restrictions in Chinese than in Japanese. A relative clause like (37) above from Japanese can only be interpreted in terms of coreference with the patient. Interpretations such as (37b) ‘the person to whom Taro defended himself’ or (37c) ‘the person to whom Taro defended someone’
are not available. Thus, the restriction to argument coreference as we find it with headless relative clauses also works to a considerable extent, but it can be overriden if the head noun allows it. Whether this is a case of pure pragmatic inference or whether this is strictly lexical in the sense that there is a finite set of nouns which allow nonargument coreference is not quite clear and needs further research.

If the head noun has a nonargument function in the relative clause, it needs to appear as an overt pronoun (71) or a locative expression (72) governed by a preposition or a coverb (verb in the function of an adposition):

(71) \[ w˘o \, gèn \, tâmen, \, dàqìu \, de \] \ yùndòngyuán, \ (Li \ & \ Thompson \ 1981:584)  
I with they play.ball \ attr \ athlete  
‘the athletes with whom I play ball’

(72) \[ tà \, cónɡ \, nàr, \, tòu-le \, qiàn \, de \] \ nèi \ suò \ xuéxiào, \ 
s/he from there steal-pfv \ money \ attr \ dem CL \ school  
‘the school from which he stole money’

Recipient or source arguments of three-place verbs have a special status. Sometimes the head noun must be represented by a pronoun in the relative clause; sometimes it can be represented by a zero element. To my knowledge, the factors that favour one or the other construal are not fully understood. It seems that the pronoun is associated with specific or definite head nouns and that its use is less likely if the patient argument of the relative clause is a base noun (Wang Jingling, p.c. and Wang 2003):

(73) a. \[ péngyou \, sòng \, tà, \, yi \, shù \, huà \, de \] \ nà \ ge \ gùniang, \ 
friend give s/he one bunch \ flower \ \ attr \ dem CL \ girl  
‘that girl to whom [his] friend gave a bunch of flowers’

b. \[ péngyou \, sòng \, wò \, huà \, de \] \ gùniang, \ 
friend give \ flower \ \ attr \ girl  
‘a girl to whom [his] friend gave flowers’

To sum up, argumenthood is of considerable relevance in Chinese relative clause formation, but it may be overriden by the special semantics of a variety of head nouns. The use of resumptive pronouns does not strictly follow the criterion of argumenthood. Recipient or source arguments of three-place predicates can be represented by a resumptive pronoun.

_Equi constructions_ seem to be generally determined by pragmatics. In sequences of a two-place predicate followed by a one-place predicate with a zero argument, coreference only depends on semantic compatibility and the context of the utterance. This can be seen from the following example presented by LaPolla (1993):
(74) a. The zero-element of the second predicate is coreferent with the patient of the first predicate:

Nèi ge rén bā xīguā diào zài dì-shang le.

‘That man dropped the watermelon on the ground, (and it) burst.’

b. The zero-element of the second predicate is coreferent with the actor of the first predicate:

[ Nèi ge rén ], bā xīguā diào zài dì-shang huàng le.

‘That man dropped the watermelon on the ground, (and he) got flustered.’

Similarly, control verbs are not rigidly determined to either subject or object control. As was pointed out by Huang (1994:62), “there are control verbs in Chinese that sometimes prefer subject control and sometimes prefer object control”. In the following two examples from Huang (1994:62–63), the verb dàying ’promise’ is a verb of subject control in the unmarked case of (75a) and a verb of object control in (75b). The reverse holds true for the verb shuōfú ’persuade’ in (76):

(75) With a prototypical subject-control verb:

a. Xiàomíng, dàying māma, xiàwù zuò gōngkè.

‘Xiaoming promises Mum, that (he, ...) will do (his, ...) homework in the afternoon.’

b. Māma, dàying Xiàomíng, xiàwù kàn diànyìng.

‘Mum promises Xiaoming, that (he, ...) will see a film in the afternoon.’

(76) With a prototypical object-control verb:

a. Bìngrén shuōfú yǐshēng, mìngtiān gěi tā kāidào.

‘The patient, persuades the surgeon, that (he, ...) will operate on him tomorrow.’

b. Yǐshēng, shuōfú bìngrén, mìngtiān gěi tā kāidào.

‘The surgeon, persuades the patient, that (he, ...) will operate on him tomorrow.’

There are roughly two types of topic constructions in Chinese. In the first type, the topic is syntactically related to the comment; in the other type, the comment clause is only semantically or pragmatically related to the topic (Li & Thompson 1976).
(1976) introduced the terms of “English-style topic” for the former and “Chinese-style topic” for the latter. The existence of Chinese-style topics shows that semantic roles and argumenthood are not necessarily sensitive to the syntax of topicalization.

Example (77) presents an English-style topic. It shows that the coreference of the topic with the zero-element is pragmatically determined. Example (78) is to illustrate a Chinese-style topic. It is of particular interest, because it shows that the number of topic positions is theoretically infinite.


- a. Ji1 chì-wán-le øi, ròu hái yǒu.
  * ‘The chicken, (e.g. we) have eaten (it) up; the meat, there is still some left.’
- b. Ji1 chì-wán-le øi, yào bú yào zài wèi diàn shì?
  * ‘The chicken, (it) has eaten (e.g. the feed) up. Should (e.g. I) give (it) a bit more feed?’

gào.

* ‘England, universities, Oxford Cambridge, student quality is high.’

To conclude, I would like to summarize the findings discussed on argumenthood and subject/object asymmetry in Chinese as discussed in this section. After a short presentation of argument linking to syntax, a test of argumenthood based on headless relative clauses was developed. With this test, it is possible to corroborate the intransitive status of the bèi-construction as a whole.

The question of subject/object asymmetry in Chinese can be answered as follows for each of the constructions discussed in this section: Raising is subject-based in Chinese. Reflexives are coreferent with a subject antecedent. The difference between Chinese reflexives and reflexives in English seems to be that there is no hierarchy that rigidly determines the antecedent if there is more than one potential subject. Topic extraction is discussed controversially. In my view, one should still take Xu and Langendoen’s (1985) data seriously which show that subjacency depends on the referential status of the head noun (and on its animacy). Thus, subject/object asymmetry is only partially relevant. For the bèi passive there is a very consistent formal account by Huang (1999). The problem with this account is that it is based on nonfiniteness for which there is no proof in Chinese (Bisang 2001). In relative clauses with an overt head, subject/object asymmetry is of no relevance as far as the zero slot within the relative clause is concerned. Nevertheless, argumenthood seems to be of some relevance even if it is overridden by other factors. Equi constructions and topicalization are neither governed by subject/object asymmetry nor by argumenthood.
Table 5. The relevance of subject/object asymmetry and of argumenthood in Chinese

<table>
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<tr>
<th>Construction</th>
<th>Relevance of subject/object asymmetry</th>
<th>Relevance of argumenthood</th>
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<tr>
<td>Raising</td>
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<tr>
<td>Reflexives</td>
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<td>Passive (bei)</td>
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<td>Topic extraction</td>
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<td>Equi</td>
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<td>-</td>
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<tr>
<td>Topic</td>
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4. Tagalog

As in a large number of Austronesian languages, the verb in Tagalog takes the first position in simple declarative sentences. The verb is marked for aspect (perfective, imperfective and contemplated; cf. Schachter & Otanes 1972:66), kind of action (cf. Ramos 1974a: indicative, distributive, aptative, social, causative) and for the semantic role of the noun phrase marked by ang (with common nouns) or si (with proper names). Apart from ang, noun phrases, which follow the verb in more or less free word order, can be marked by the case markers ng (ni with proper names) and a number of more complex markers such as para sa ‘for (benefactive)’ and sa pamamagitan ‘with (instrumental)’. The case marker ng occurs with actors, patients and a subset of instrumentals which are not in the ang phrase and are thus not marked for semantic role on the verb. The same marker is also used in the function of a linker in possessive constructions. The case marker sa is associated with the semantic roles of goal, recipient and location. It is used if a noun phrase in one of these roles is not marked by ang. The inflectional system of pronouns follows the same pattern, i.e., there are three pronominal paradigms which covary with the three markers ang, ng and sa, respectively. There is a considerable number of semantic roles which can be marked on the verb and yield cross-referencing with the ang-marked noun phrase. The following examples illustrate the roles of actor (infix -um- (79a)), patient (zero suffix (79b)), locative (or dative) (suffix -(h)an (79c)), instrumental (prefix ipang- (79d)) and benefactive (prefix i- (79e)) (Foley & Van Valin 1984:135):

(79) a. Bumili [ang lalaki] [ng isda] [sa tindahan].
   buy.PFV.AT T man P/A fish L store
   ‘The man bought fish at the store.’

b. Binili [ng lalaki] [ang isda] [sa tindahan].
   buy.PF.PT P/A man T fish L store
   ‘The man bought the fish at the store.’

c. Binilhan [ng lalaki] [ng isda] [ang tindahan].
   buy.PFV.AT P/A man P/A fish T store
   ‘The man bought fish at the store.’
The ang-marked noun phrase is called “trigger” by Schachter (1993). The morphological affixes on the verb associated with the trigger are termed “X-trigger affix”, with X denoting the semantic role. In earlier analyses, the ang phrase was called “topic” or “focus” (the latter is the traditional term in Philppinist literature). Since the function of the ang phrase is not adequately described by either of these terms from information structure (on its function cf. below), a terminology that avoids confusion as the one by Schachter (1993) is to be preferred. The rest of this section will be dedicated to the syntactic function of the trigger and to the relevance of argumenthood as far as the trigger system is concerned.

The five semantic roles in (79) are the most common ones. The set of semantic roles that can be marked on the verb is lexically determined, i.e., there is a fixed number of morphologically marked semantic roles for each verb. Since there are certain subgroups of verbs which can be marked for other semantic roles than the ones illustrated in (79), the number of trigger-specific semantic roles indicated in individual descriptions of Tagalog slightly differs from one grammarian to the other.

Most grammarians concentrate on the trigger system of dynamic verbs, i.e., verbs which can take the actor-trigger morphemes -um- and mag- (for some more information, cf. Schachter 1993:1422). What is rarely discussed in the literature is the fact that certain stative verbs, which are characterized by the prefix ma-/na-, also have different morphological forms for different triggers. The four classes of verbs to be described below belong to this category. They are discussed by Drossard (1983).

Ramos (1974b) presents what she calls an affective-case relation, which refers to the person affected by a state of affairs. In (80a) ng lalaki ‘the man’ is affected by his father’s dying. If the noun phrase in the function of the affected occurs in the trigger position, the verb will get affective-trigger marking (80b):


a. Namatay [ang tatay] [ng lalaki].
die.PFV.ST T father P/A man
‘The father died on the man.’
b. Namatayan [ang lalaki] [ng tatay].
die.PFV.AFFT T man P/A father
‘The father died on the man.’

Certain intransitive verbs such as ma-bagsak ‘drop’ can take a noun in the function of an involuntary actor as in (81a). If that argument takes the trigger position, the verb takes the prefix maka-/naka- as in (81b) (also cf. Schachter & Otanes 1972:330–333):

d. Ipinangbili [ng lalaki] [ng isda] [ang pera].
buy.PFV.IT P/A man P/A fish T money
‘The man bought fish with the money.’
e. Ibinili [ng lalaki] [ng isda] [ang bata].
buy.PFV.BT P/A man P/A fish T child
‘The man bought fish for the child.’
(81) Drossard (1983:84):

a. *Nabagsak [ng bata] [ang bola]*.
   drop.PFV.ST P/A child T ball
   ‘The ball dropped (from the) child(‘s) (hand).’

b. *Nakabagsak [ang bata] [ng bola]*.
   drop.PFV.INVT T child P/A ball
   ‘The ball dropped (from the) child(‘s) (hand).’

A third semantic role relevant to the Tagalog trigger system of stative verbs is the role of cause or force (in terms of Drossard 1983:85–86; Guzman 1976:65 and 92 uses the term “reason”; Schachter & Otanes 1972:313–314 talk about “causative” in this context). Drossard (1983:85) defines this role as a mostly inanimate cause which has an effect on a person or a thing. In example (82a) below, *dahil sa matinding init* ‘because of the intense heat’ is in that role. Example (82b) shows how this prepositional constituent is integrated into the trigger system:

(82) Guzman (1976:66):

a. *Natumba siya (dahil) [sa matinding init].*
   fall/faint.PFV.ST 3.SG.T because L intense heat
   ‘She fell/fainted because of the intense heat.’

b. *Ikinatumba niya [ang matinding init].*
   fall.PFV.CT 3.SG.P/A T intense heat
   ‘The intense heat caused her to faint.’

The last role associated with the trigger system of stative verbs discussed by Drossard (1983:86–87) is mental cause. It is defined as the causer of a psychological state. This role is associated with verbs such as *ma-galit* ‘be angry, be irritated’ and *ma-tuwa* ‘be glad, be pleased, be happy’. In example (83b) we find the verb *ma-galit* marked for mental cause:

(83) Drossard (1983:86):

a. *Nagalit [ang nanay] [sa bata].*
   be.angry.PFV.ST T mother L child
   ‘Mother felt angry because of the child.’

b. *Kinagalitan [ng nanay] [ang bata].*
   be.irritated.PFV.MT P/A mother T child
   ‘The child made mother feel angry.’

The trigger system as described above is pervasive in Tagalog. The only instances in which it does not occur are nonverbal predications (copular clauses and existential clauses) and some dependent clauses. As is fairly obvious, semantic roles are of central importance to this system. The next questions I want to address are the syntactic function of the trigger and the relevance of argumenthood.

Schachter (1976) tried to show that “there is . . . no single syntactic category in Philippine languages that corresponds to the category identified as the subject in other
languages” (Schachter 1976:513; also cf. Schachter 1993:1428–1429). The properties subsumed under the syntactic category of subject can be expressed by the trigger, by the actor or by the actor-trigger. In a more recent and more extensive study, Kroeger (1993) shows that triggers “have more properties of grammatical subjecthood . . . than most syntacticians have assumed” (Kroeger 1993:21). As it turns out, the trigger has nominative functions in a number of constructions listed towards the end of Section 1.1. The only constructions that cannot be accounted for in terms of nominative subject are reflexives, equi and imperatives.

As for reflexives, Kroeger (1993:37) presents some examples which show that non-actors can also be antecedents of reflexives. He follows Andrews’ (1985) approach, which explains the behaviour of reflexives in Tagalog by a thematic hierarchy (also cf. Section 2 on Japanese reflexives). Reflexive binding is not unique to actors “and thus not a diagnostic property of subjects in Tagalog” (Kroeger 1993:38).

The equi target construction (as well as the imperative) is subject to universal semantic constraints applying to this construction type. The most basic class of equi complements is determined by the following constraint:

**(84)** Control Constraint (Kroeger 1993:76):

a. Equi predicates require that their complement express a volitional action.

b. The controlllee must be construed as the Actor of that action.

Kroeger’s (1993) findings show that the trigger can be and large be identified with the syntactic category of subject. From this basis, we can now see what the role of argumenthood is. Starting with Bloomfield (1917), the Tagalog trigger system has often been compared with voice systems of languages such as English or German. If we identify the actor-trigger construction with active voice and all the other trigger constructions with different types of passives, we would expect the actor in the passive-like constructions to be a nonargument, but this is not how the Tagalog system works. The trigger constructions of Tagalog differ from passives and other diatheses inasmuch as the actor retains its argument status in constructions with nonactor triggers. Kroeger (1993:40–48) offers three tests to prove the argument status of ng marked actors:

i. participial complements

ii. participial adjuncts/depictives

iii. adjunct fronting

(i) **Participial complements** are imperfective verb forms which can occur as complements of certain verbs such as *abut ‘find’* (Kroeger 1993:41):

**(85)** *Inabutan ko siyang [nagbabasa [ng komiks] [sa eskwela]].*  
find.pfv.lp 1.sg.p/a 3.sg.t.comp read.pfv.at p/a comics l school  
’I caught him reading a comic book in school.’

In the above example, the verb in the complement position is in the actor-trigger form. In cases in which the verb in the complement position is in a nonactor-trigger form,
the controllee may either be the actor (86a) or the noun phrase in the ang position (86b) (Kroeger 1993:41–42).

(86) a. **Inabutan ko** [si **Manuel**] na [hinahalikan ø1 [ang find.pfv.lt 1sg.p/a T Manuel comp kiss.ipv.lt t katulong]].
    maid
    ‘I caught Manuel kissing the maid.’

b. **Inabutan ko** [si **Manuel**] na [hinahalikan [ng find.pfv.lt 1sg.p/a T Manuel comp kiss.ipv.lt p/a katulong] ø1].
    maid
    ‘I caught Manuel being kissed by the maid.’

The noun phrases which are excluded from the function of controllee in the participial-complement construction are those which are neither actor nor trigger. Thus, the goal of the verb *bigay* ‘give’ in (87a), i.e., *si Luz*, can be a controllee because the verb in the complement position is in the locative/goal-trigger form. If the verb is in another trigger form, *Luz* takes the dative case marker and is not eligible for the controllee function (87b) (Kroeger 1993:42).

(87) a. **Inabutan ko** [si **Luz**] na [binibigyan [ni **Juan**] [ng find.pfv.lt 1sg.p/a T Luz comp buy.ipv.lt p/a Juan p/a pera] ø1].
    money
    ‘I caught Luz being given money by Juan.’

b. *Inabutan ko* [si **Luz**] na [binibigay [ni **Juan**] [ang find.pfv.lt 1sg.p/a T Luz comp give.ipv.lt p/a Juan t pera] ø1].
    money

(ii) **Participial adjuncts/depictives** are verb forms which occur in an adverbial position introduced by the adverbial marker *ng*. The controller must either be the actor or the trigger of the matrix clause (Kroeger 1993:42–43):

(88) a. **Binisita** [ni **Juan**] [ang hari] [nang nagiisa].
    visit.pfv.pt p/a Juan t king adv be.one.ipv.at
    ‘Juan visited the king alone.’ (either Juan or the king is alone)

b. **Bumisita** [si **Juan**] [sa hari] [nang nagiisa].
    visit.pfv.at t Juan l king adv be.one.ipv.at
    ‘Juan visited the king alone.’ (Juan is alone)

Example (88a) is ambiguous because either the actor (*ni Juan*) or the trigger-marked patient (*ang hari ‘the king’) could be coreferent with the argument of *nagiisa* ‘be alone’. In the case of (88b), the only candidate for coreference with the zero argument of
naguisa ‘be alone’ is si Juan, because the functions of actor and trigger coincide. Sa hari ‘the king’ is hors concours because it lacks actor status as well as trigger status. In (iii) **adjunct fronting**, some nonverbal elements, usually adverbs, occur in a clause-initial position preceding the verb. Adjunct fronting is not allowed with noun phrases marked by the trigger and with actors or patients in nontrigger function. Example (89) illustrates the ungrammaticality of a preverbal trigger phrase, example (90) shows the same for an actor in the nontrigger position (Kroeger 1993:44–45):

(89) *[Ang libro-ng ito] ko binili [para kay Pedro].
  book-LK this 1.SG.P/A buy.PFV.PT for Pedro
  ‘This book I bought for Pedro.’

(90) *[Ng nanay] siya pinalo.
  mother 3.SG.T spank.PFV.PT
  ‘By mother he was spanked.’

In the following two examples, adjunct fronting is possible (Schachter & Otanes 1972:498; Kroeger 1993:44):

(91) [Sa akin] nila ibinigay [ang premyo].
  1.SG 3.PL.P/A give.PFV.LT T prize
  ‘To me they gave the prize.’

(92) [Para kay Pedro] ko binili [ang laruan].
  for Pedro 1.SG.P/A buy.PFV.PT T toy
  ‘For Pedro I bought the toy.’

Kroeger (1993:45–46) uses adjunct fronting to determine argumenthood in the case of two different types of instrumentals. The more common way to mark instrumentals which are not in the trigger position is by means of *sa pamamagitan X* ‘by the use of X’. With a small number of verbs, instrumentals in nontrigger position are marked by *ng*. As can be shown, only the phrase with *sa pamamagitan* can take the preverbal position, whereas the *ng*-marked noun cannot. The following example shows the ungrammaticality of a preverbal instrumental marked by *ng* (for more information cf. Kroeger 1993:45–46):

(93) a. Binalutan niya [ng papel] [ang libro].
  wrap.PFV.LT 3.SG.P/A P/A paper T book
  ‘He covered the book with paper.’

b. *[Ng papel] na iyon niya binalutan [ang libro].
  paper LK that 3.SG.P/A wrap.PFV.LT T book
  ‘With that paper she wrapped the book.’

Each of these tests shows that actors are arguments irrespective of whether they are marked by the trigger *ang*. As was pointed out above, this makes nonactor-trigger constructions differ from passives, which are defined in terms of argument reduction or, to use the term used by Dixon and Aikhenvald (2000:7–12), valency reduction.
actor triggers thus cannot be understood in terms of movement in traditional terms of Government & Binding, since no external theta-role is absorbed, nor is any case-assigning position absorbed, which would entail movement of the patient (NP with the internal theta-role) to the subject position. The adjunct-fronting test additionally shows that elements in the ng phrase also have argument status. Thus, the ng phrases marking affected-case relations (80a) and involuntary actors (81a) must be seen as arguments and the respective trigger constructions cannot be understood in terms of valency increasing applicatives or causatives (Dixon & Aikhenvald 2000:12–16). The cause or force trigger in (82b) and the mental-cause trigger in (83b) may be understood in terms of an increase in valency, because these noun phrases are nonarguments marked by sa if they are not in the function of the trigger. One may compare these two cases to causatives, even though they don’t follow the regular pattern of causative formation in Tagalog. From these findings it seems evident that valency change is at best a marginal function of the Tagalog trigger system.

From the above testing environments we can conclude that an argument is either in the ang phrase or in the ng phrase:

(94) \( V \; ang \; ____ \; ng \; ____ \)

Given this knowledge, the question is how individual noun phrases with a particular role are assigned to these positions. All three testing environments allow the actor to be assigned to the ng phrase. Only the adjunct-fronting test also allows patients and instrumentals (of some verbs, cf. (93)) to be assigned to this position. However, what about ang? Any semantic role that can be part of the trigger system can be assigned to this position. Moreover, the mapping of a semantic role to the ang position logically precedes the assignment of other potential roles to the ng position. Thus, if the actor is in the trigger position, the patient (or instrumental) will be in the ng position (79a). If the patient is the trigger the actor will be in the ng position (79b). Finally, if neither the actor nor the patient is in the trigger position, both of them will be marked by ng (79c–e). Semantic roles that are not eligible to the ng position and are not in the function of the trigger will be marked by sa, para sa and some other combined adpositions, depending on their semantic role.

Linguistic theories based on thematic hierarchies and macroroles (e.g. Role & Reference Grammar; Van Valin & LaPolla 1997) assume that there are two macroroles, one of which can take the function of the privileged syntactic argument. In nominative-accusative languages, the privileged argument is the actor; in ergative-absolutive languages, it is the undergoer. Similarly, in Dowty’s (1991) approach, the proto-agent or the proto-patient will take the subject or pivot position depending on the nominative or ergative character of a given construction. If the other macrorole is supposed to take the privileged syntactic position, intransitivization by a passive or an antipassive construction is needed. As we have seen above, the Tagalog trigger system has nothing to do with argument reduction and movement. Moreover, the above linking device turns out to be a problem for Tagalog, because the trigger (sometimes including the actor) is always the privileged syntactic position irrespective of what
position a noun phrase takes in the thematic hierarchy. This fact is also pointed out by Anderson (1997), who uses the term “prime” for “trigger”. If we thus take the perspective of argument linking, the trigger is neither comparable to a nominative as suggested by Kroeger (1993) or Guilfoyle et al. (1992) nor to an absolutive as suggested by MacLachlan and Nakamura (1997). The impression that the trigger is a nominative arises because it is indeed the privileged syntactic position in a large number of constructions. However, it differs from nominative case and subject as we find it in English or German insofar as the assignment of semantic roles to this privileged syntactic position does not depend on a thematic hierarchy and on passivization if roles from the lower end of the hierarchy are supposed to take that position.

As I have tried to show so far, the primary factor determining the linking from semantics to syntax is not semantic role, but something else that is directly related to the function of the trigger system. The rest of this section will be dedicated to a brief discussion of this very factor.

As was pointed out above, topic and focus are two traditional terms for referring to the trigger. This terminology turned out to be unfortunate, though, because triggers cannot be described adequately in terms of information structure. Kroeger (1993:58–61) shows on the basis of statistical data from Cooreman, Fox and Givón (1984) that triggers do not covary with topic continuity, i.e., they “do not exhibit the high degree of salience or continuity which is often taken as a defining property of discourse topics” (Kroeger 1993:61). In a similar way, the description of triggers as foci is inappropriate. Kroeger (1993:61–67) shows on the basis of wh-question-answer pairs and on the basis of contrastive focus in the sense of “I want X, not Y” that the use of the trigger does not depend on focus properties. These short remarks may sufficiently illustrate that the Tagalog trigger system is not determined by constraints from information structure.

The function of the Tagalog trigger system is to mark referential status. In Schachter (1976:514) the trigger is described as being “always definite, having a ‘given’ or pre-established, referent”. As it turned out, this definition was too restrictive, since there are also indefinite referents in the trigger position in Tagalog, a fact which was pointed out by Adams and Manaster-Ramer (1988) based on earlier findings on Cebuano by Bell (1978):


come.ipv.af t one-lk jeep

‘A jeep is coming.’

(96) Indefinite trigger (Adams & Manaster-Ramer 1988:83–84; from Bloomfield 1917:24):

[Sa isa-ng kapuulan] nagahari [ang isa-ng tao-ng may]

l one-lk archipelago rule.ipv.af t one-lk man-lk exist
dalawa-ng maikli-ng sugay] …

two-lk short-lk horn

‘On a group of islands ruled a man who had two short horns …’
The use of indefinites in the trigger position is not unrestricted. Only noun phrases containing the numeral ‘one’ or such indefinite quantifiers as ‘some’, ‘many’ or ‘few’ are allowed in the ang-position (Adams & Manaster-Ramer 1988:88). In Himmelmann’s (1997:102–104) analysis, ang is a specific article. A referent is specific if it is, in principle, possible to identify it. In his operational definition, Himmelmann (1997:103) defines specific articles by a set of contexts of use. Apart from semantically definite contexts, specific articles can occur in at least one typically indefinite context of any kind. For Tagalog, the indefinite context is that of introducing new participants (cf. examples (95) and (96)).

No matter what the exact function of the trigger is, the referential part of its function seems to be uncontroversial (cf. e.g. Schachter 1993:1420; Kroeger 1993:14–15, 52–53). This function takes precedence over semantic roles in argument linking. The semantic roles that are relevant for Tagalog grammar are clearly visible because they are overtly marked on the verb, thereby cross-referencing the ang-position. Argumenthood is relevant for three constructions (participial complements, participial adjuncts and adjunct fronting). Given the referential function of the trigger system, one cannot expect the trigger system to be identical to voice systems. The actor keeps its argument status irrespective of the noun phrase in the trigger position. A certain closeness to information structure and its categories of topic and focus can be expected from the interaction of these categories with reference and may have led earlier analyses to fully identify the trigger with focus or topic.

In Section 1.2, we have discussed the integration of referential status in Ritter and Rosen’s (2000) theory. In this theory, specificity/definiteness comes in with D-languages, which treat accomplishments and achievements as events and raise DPs into Spec Agr-oP. As a consequence of this, objects can be sensitive to specificity/definiteness. In I-languages, which treat accomplishments and activities as events and raise DPs into Spec Agr-sP, DPs are sensitive to agentivity and animacy. Thus, Ritter and Rosen’s (2000) typology implies an asymmetry between D-languages in which referential status matters and I-languages, in which it doesn’t. One of the reasons why I expressed my doubts about whether this typology will work for Tagalog was that the verbal morphology of the trigger system operates across the whole aspectual system with no asymmetric behaviour between delimitative-marked verbs and referential status vs. initial-marked verbs and animacy. To conclude this section, I would like to illustrate briefly what this means. There are two aspect markers in Tagalog: the infix/prefix -in/-n-, which marks whether or not an action has started, and partial reduplication, which encodes that the event is incomplete (I am referring to MacLachlan’s 1989 analysis here as it is presented in Travis 2000:169). These markers produce a three-way system that operates with static and nonstatic verbs alike (Table 6).

In addition, each aspect marker occurs with every possible trigger that an individual verb can have. This can be seen from Table 7 (I don’t go into the morphological details. What matters to my argumentation is the fact that there are different forms for each slot in the paradigm).
Table 6. Aspect morphology in Tagalog

<table>
<thead>
<tr>
<th></th>
<th>Nonstative</th>
<th>Stative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>linis</em> ‘clean’</td>
<td><em>tulog</em> ‘sleep’</td>
</tr>
<tr>
<td>Perfective (+started/–incompleted):</td>
<td><em>n-ag-linis</em></td>
<td><em>n-a-tulog</em></td>
</tr>
<tr>
<td>Imperfective (+started/+incompleted):</td>
<td><em>n-ag-li-linis</em></td>
<td><em>n-a-tu-tulog</em></td>
</tr>
<tr>
<td>Contemplated (–started/+incompleted):</td>
<td><em>m-ag-li-linis</em></td>
<td><em>m-ag-tu-tulog</em></td>
</tr>
</tbody>
</table>

Table 7. Aspect plus trigger morphology in Tagalog

<table>
<thead>
<tr>
<th></th>
<th>Actor Trigger</th>
<th>Goal Trigger</th>
<th>Locative Trigger</th>
<th>Benefactive Trigger</th>
<th>Instrumental Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>linis</em> ‘clean’</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>n-ag-linis</em></td>
<td><em>nilinis</em></td>
<td><em>nilinisan</em></td>
<td><em>ipinaglinis</em></td>
<td><em>ipinanlinis</em></td>
</tr>
<tr>
<td></td>
<td><em>n-ag-li-linis</em></td>
<td><em>nililinis</em></td>
<td><em>nililinisan</em></td>
<td><em>ipinaglilinis</em></td>
<td><em>ipinanlilinis</em></td>
</tr>
<tr>
<td></td>
<td><em>m-ag-li-linis</em></td>
<td><em>ilinisin</em></td>
<td><em>ilinisan</em></td>
<td><em>ipaglilinis</em></td>
<td><em>ipanlilinis</em></td>
</tr>
<tr>
<td><em>tulog</em> ‘sleep’</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>n-a-tulog</em></td>
<td><em>t-in-ulug-an</em></td>
<td><em>i-t-in-ulog</em></td>
<td><em>ip-in-an-tulog</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>n-a-tu-tulog</em></td>
<td><em>t-in-u-tulug-an</em></td>
<td><em>i-t-in-u-tulog</em></td>
<td><em>i-p-in-an-tu-tulog</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>m-a-tu-tulog</em></td>
<td><em>tu-tulug-an</em></td>
<td><em>i-tu-tulog</em></td>
<td><em>ipan-tu-tulog</em></td>
<td></td>
</tr>
</tbody>
</table>

As can be seen from the morphological data in Tables 6 and 7, delimitative and initial marking systematically operate across verb classes and across the trigger system without any asymmetry in the sense that referential status can only cooccur with delimitative marking. Thus, Ritter and Rosen’s (2000) theory does not integrate specificity/definiteness radically enough, i.e., it creates a dependency between delimitative semantics and the relevance of specificity/definiteness which does not seem to exist in Tagalog.

5. Conclusion

In this paper, I have discussed the existence of low-profile syntax (problem (i)) and the primary responsibility of referential status for the assignment of participants to syntax (problem (ii)). As it turned out, syntax is not as low-profile as sometimes claimed in the literature on Japanese and Chinese (LaPolla 1990, 1993) but there are some constructions in which subject/object asymmetry does not apply. These constructions are topics and relatives in Japanese and topics and equi constructions in Chinese. The positive tests for subject/object asymmetry are passivization in Japanese and raising and reflexives in Chinese. In addition, topic extraction, equi constructions and reflexives in Japanese turn out to depend on argumenthood, even though they do not provide sufficient evidence for the existence of subject/object asymmetry. In Chinese, topic extraction and relative clause formation provide a similar picture, with the difference
that the relevance of argumenthood can be seen only with headless relative clauses. With headed relative clauses, argumenthood is overridden by pragmatic inferences going beyond argument coreference. In the case of Chinese passives, a consistent analysis in terms of subject/object asymmetry and argumenthood is only possible under the assumption of nonfiniteness (Huang 1999), an assumption which is problematic for this language. Finally, argumenthood can be tested in both languages. In Japanese, only arguments can take floating classifier phrases. In Chinese, the zero-head of a headless relative clause must be an argument, preferably an internal argument of the verb within that relative clause.

In spite of the situation in Japanese and Chinese, one should not take argument structure as the only possible interface between the semantics of participants and syntactic categories like the subject (problem (ii)). This is at least the conclusion if my analysis of Tagalog is correct. As I tried to show for Tagalog, the noun phrases that can occur in the trigger position are open to any semantic role, irrespective of any thematic hierarchy, and their assignment to this position is primarily based on reference (definiteness, specificity). This does not mean that semantic roles are completely irrelevant for Tagalog, but the primary factor, i.e., the factor that decides whether a given participant is accessible to the trigger position, is referential status, not argumenthood. Once this decision is taken, argumenthood becomes relevant for assigning the other noun phrases of a clause to the positions marked by ng, sa, etc. Thus, argumenthood is only of secondary importance in Tagalog.

From a theoretical perspective, low-profile syntax is no problem for Lexical-Functional Grammar (given the existence of f-structure and c-structure) and for Role & Reference Grammar, but it may turn out to be a problem for formal approaches in the spirit of Chomsky, who argues that grammatical functions must be universally reflected in phrase structure configurations. If one does not want to give up the universality of the subject/object asymmetry, this means that there must be a possibility to consistently integrate the problematic cases discussed for Japanese and Chinese into some concept of feature geometry. The primary responsibility of referential status for the assignment of participants to syntax (problem (ii)) is a challenge to all the theories discussed in this paper. There may be some hope from the combination of findings from event structure and the Minimalist Program. The interpretation of Tagalog triggers in terms of a pragmatic pivot (Role & Reference Grammar) does not seem to be adequate because of the wide functional range of this pivot-type.

Notes

* Editorial note: Since case marking, where it exists, is strictly non-portmanteau in the languages treated in this text, and since it is not uncontroversially suffixed in Japanese, the glossing conventions have been applied in a modified manner in this paper. It is hoped that these altered conventions add to the perspicuity of the examples.
1. $[\pm r]$ refers to r[estricted] and determines whether a syntactic function is restricted as to its semantic role. The feature $[\pm o]$ determines whether the syntactic function is that of an object.

2. Miyagawa (1989:35) refers to particles such as nominative $ga$ and accusative $o$ as case markers and to those such as $kara$ ‘from’ as postpositions. The function of the former is only to provide case to their respective NPs, whereas the latter require a NP argument and thus project a phrasal node of their own.

3. Since one and the same predicate can have more than one $ga$-phrase as is illustrated in the well-known example (i) from Kuno (1973), $ga$ does not automatically mark the subject. It is always the first $ga$-phrase within a clause that has subject function:

(i) $Bunmeikoku\ ga\ [dansei\ ga\ [heikin\ zyumyoo\ ga\ naga-i.\ civilized.countries\ NOM\ men\ NOM\ average.life.expectancy\ NOM\ long-ADJ.PRT$ 'It is in civilized countries that the average life expectancy of man is long.'

4. The subjacency constraint says that “movement cannot cross more than one bounding node, where bounding nodes are IP and NP” (Haegeman 1991:365). The relevance of subjacency is controversially discussed in Chinese linguistics (cf. below, examples (60) to (62) from Xu & Langendoen 1985 and Huang & Li 1996).

5. The term of ‘synsem’ is from HPSG (Pollard & Sag 1987, 1994). In this theory, a sign has the attributes of PHONOLOGY (PHON), SYNTAX-SEMANTICS (SYNSEM), and in the case of phrases DAUGHTERS (DTRS). SYNSEM consists of the following three types of attributes: CATEGORY (syntactic information), CONTENT (information about semantic interpretation) and CONTEXT (context-dependent information such as indexicality, presupposition and conventional implicature).

6. The functional-semantic differences between the passive in English and the bèi construction in Chinese will not be discussed in this paper. Thus, I will neither discuss the well-known adversative semantics of the bèi construction which implies that “something unfortunate has happened” (Li & Thompson 1981:493) nor will I further comment on the influence of translations from Western languages on the use of the bèi construction and its partial convergence with the passives of these languages (cf. Chao 1968:703).

7. A comparison of Chinese indirect passives with Japanese indirect passives reveals that the status of the noun phrase representing the patient (i.e., $baba$ ‘father’ in (56) and (59)) is not identical. The test of argumenthood in Chinese shows that it is not an argument. In Japanese, the same noun phrase is marked by the accusative marker $o$, which is always compatible with a floating classifier phrase.

8. I will not go into the discussion of whether zero-objects should be analyzed as variables or pros (cf. Huang 1994:48–57; Li & Huang 1996:78–84).

9. More generally, Ning (1993) claims that there are no gapless relative clauses in Chinese. All relative clauses contain some operator-variable chain. Relativization is seen as operator movement triggered by the checking feature of the $C^0$ head. Examples like (65) to (69) are the result of a null wh-operator, which may take the four values discussed in the text.

10. Other arguments against the passive interpretation of the trigger are:

i. Nonactor triggers are not used for agent defocussing although this is a prototypical property of passives (Shibatani 1988; Schachter 1993:1419).
ii. Prototypical passives are less frequent and thus more marked than their corresponding active forms. This is not true of the Tagalog trigger system. Patient triggers even tend to be slightly more frequent than actor triggers (Shibatani 1988; Schachter 1993:1419).

iii. Voice systems typically make just a two-way distinction (active vs. passive). The Tagalog trigger system is more complex (Schachter 1993:1419).

11. The reason why actors in the nontrigger position can be controllees has to do with the fact that they still have argument status. If argumenthood is a prerequisite for controllees, this implies for most languages that controllees must be actors and subjects at the same time. This is not the case in Tagalog (cf. Kroeger 1993).

List of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABL</td>
<td>ablative</td>
</tr>
<tr>
<td>ACC</td>
<td>accusative</td>
</tr>
<tr>
<td>ADJ</td>
<td>adjective</td>
</tr>
<tr>
<td>ADV</td>
<td>adverbial marker</td>
</tr>
<tr>
<td>AFFT</td>
<td>affected trigger</td>
</tr>
<tr>
<td>AT</td>
<td>actor trigger</td>
</tr>
<tr>
<td>ATTR</td>
<td>attributive marker</td>
</tr>
<tr>
<td>BEI</td>
<td>bèi passive (Chinese)</td>
</tr>
<tr>
<td>BT</td>
<td>benefactive trigger</td>
</tr>
<tr>
<td>CL</td>
<td>(numeral) classifier</td>
</tr>
<tr>
<td>COMP</td>
<td>complementizer</td>
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<tr>
<td>CONV</td>
<td>converb</td>
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<tr>
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<td>copula</td>
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<td>COV</td>
<td>cover</td>
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<tr>
<td>CT</td>
<td>cause trigger</td>
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<td>dative</td>
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<td>experiential</td>
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<td>genitive</td>
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<tr>
<td>HON</td>
<td>honorific</td>
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<td>INVT</td>
<td>involuntary-actor trigger</td>
</tr>
<tr>
<td>IPV</td>
<td>imperfective</td>
</tr>
<tr>
<td>IT</td>
<td>instrumental trigger</td>
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<tr>
<td>L</td>
<td>locative marker for nontriggers</td>
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<tr>
<td>LT</td>
<td>locative trigger</td>
</tr>
<tr>
<td>LK</td>
<td>linker (Tagalog ng in modifier constructions)</td>
</tr>
<tr>
<td>LOC</td>
<td>locative</td>
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<tr>
<td>MOD</td>
<td>modification marker</td>
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<td>MT</td>
<td>mental-cause trigger</td>
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<tr>
<td>P/A</td>
<td>patient/actor marker for nontriggers</td>
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<td>PASS</td>
<td>passive</td>
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<td>perfect</td>
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<td>politeness</td>
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<td>PT</td>
<td>patient trigger</td>
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<td>Q</td>
<td>quantifier</td>
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<td>QUEST</td>
<td>question marker</td>
</tr>
<tr>
<td>SG</td>
<td>singular</td>
</tr>
<tr>
<td>ST</td>
<td>trigger of one-place verb</td>
</tr>
<tr>
<td>T</td>
<td>trigger (= ang-phrase in Tagalog)</td>
</tr>
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Referenices


Argumenthood in Chinese, Japanese and Tagalog


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