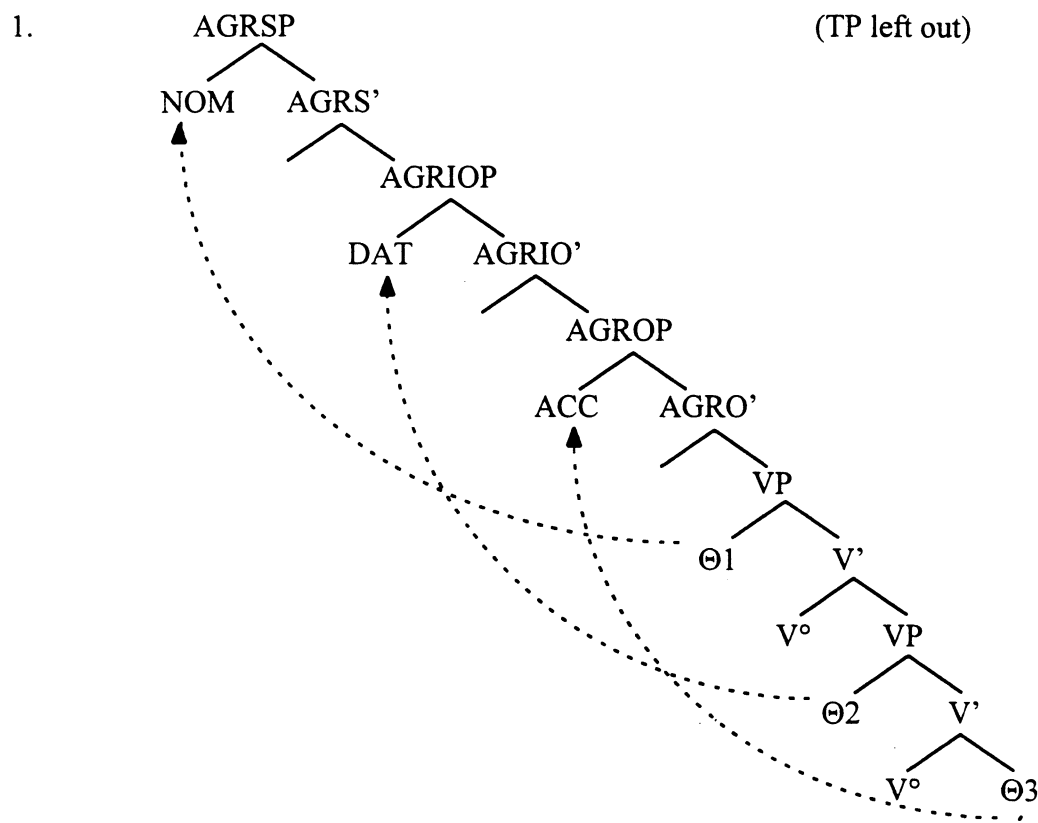


On the (Absence of a) Base Position for Dative Objects in German*

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The topic of this paper is the dative object case in German and the constraints that govern word order in the so-called middlefield of German clauses. In recent generative literature, the dative has very often been treated as structural case like accusative and nominative (cf. Sabel 1995, Fanselow 1995a/b, Gallmann 1992, Baker 1988, Larson 1988/1990, Müller 1993, Meinunger 1995 a.o.). The structure in (1.) is a possible realization of this idea within the minimalist program (cf. Chomsky 1995). The functional projection for the dative case is located between AGRSP and AGROP. Overt movement of all arguments (it is mostly assumed for German that the N-features have to be checked overtly) leads to the linear surface word order NOM > DAT > ACC (where $x > y$ means that x precedes y).



Such a solution makes clear predictions about the syntactic behavior of dative objects:

- a) uniform unmarked order of the arguments (NOM > DAT > ACC)
- b) equal syntactic behavior of dative and accusative objects
- c) equal mode of thematic interpretation for the 3 arguments

A lot of friends and colleagues have influenced the actual version of this paper, first of all the audiences at the GGS workshop in Jena in May 1995, at the Olomouc Central European Summer School in Generative Linguistics 1995 and Bierwisch, Chris Wilder, Hans-Martin Gärtner, Marie-Christine Erb, Gereon Müller, Paul Law, Ilse Zimmermann, Tolja Strigin, Kai Alter, Gerhard Jäger, Uwe Junghanns, Marcel den Dikken, Joachim Sabel, Anna Cardinaletti, Andre Meinunger, Werner Abraham, Suzan Hahnemann and everyone we tortured with masses of cryptic data. The authors thank themselves and blame each other for the mistakes.

As will be outlined in this paper, each of these three claims about dative objects has to face strong counter-evidence:

- ad a) the unmarked order of German dative and accusative objects varies.
- ad b) dative objects, in contrast to accusatives, cannot serve as A-binders and are extraction islands.
- ad c) ‘free’ dative objects in German have a thematic interpretation that is independent from the verb – this never occurs with nominative and accusative.

The conclusion we will draw is therefore this the treatment of German dative objects illustrated in (1.) is not adequate – while it appears to be correct for nominative and accusative.

Our own proposal will be that German dative objects, showing clear A’-properties, have to be treated as *syntactic adjuncts*. They surface, where they are inserted and do not need to undergo movement. They are only *semantic* arguments. Their thematic interpretation does not follow from theta-role assignment in the traditional sense, but from an interpretational rule that is connected with the dative object case itself.**

A. The ‘base position’ of German dative objects

We first want to take a closer look on the possible base positions of German dative objects. German clauses seem to show free constituent order in the middlefield (cf. 2.). On the other hand, only sentence (2.a) is neutral with respect to focus. It is the best variant in a neutral context; it can have global focus (cf. Féry 1993) or maximal focus spreading (cf. Höhle 1982; Uhmman 1987, Stechow/Uhmman 1986). Therefore, it is an optimal answer to a question like “what happened?” and also to questions on any of the constituents. (2.a) is claimed to be the *unmarked word order*. It is also the sentence that patterns most naturally with normal intonation. The only DP-movement that might have taken place in this case, is movement to case positions.

2. a. *Es hat ^{VP} ein Junge einem Mädchen ein Buch gegeben*]
 It has a boy-NOM a girl-DAT a book-ACC given
 ?/k b. *Es hat ein Junge ein Buch einem Mädchen gegeben* (Koch)
 ? ? c. *Es hat ein Buch ein Junge einem Mädchen gegeben*
 ? ? d. *Es hat ein Buch einem Mädchen ein Junge gegeben*
 ? ? e. *Es hat einem Mädchen ein Junge ein Buch gegeben*
 X) ? ? f. *Es hat einem Mädchen ein Buch ein Junge gegeben*

One might be sceptical about identifying unmarked word orders with basic or ‘normal linear’ orders. Base positions of arguments are standardly assumed to be theta and/or case positions, fixed by some theory of linking and case assignment. Nonetheless, this theory should predict empirical effects, such that it can be verified. Höhle (1982:126) observes, that any non-normal word order blocks focus projection. Unmarked argument orders with maximal focus spreading seem therefore to be a very natural and plausible candidate for

** Our approach has thus two parts: a syntactic and a semantic one. This paper focuses on the syntactic story (nevertheless the semantics is an essential part of our explanation; see section D and Vogel/Steinbach (in prep.)).

basic orders. This assumption goes along with theories that correlate DP scrambling with narrow focus effects: the marked orders are derived from the unmarked ones.

There are several intervening factors that have to be eliminated, if one tries to find the unmarked order. Lenerz (1977) has given a list of five constraints for the optimal order of the constituents:

“a. Theme/Rheme Condition: the theme tends to precede the rheme; b. Definiteness Condition: definite tends to precede indefinite; c. Law of Growing Constituents (*Gesetz der wachsenden Glieder*, following Behaghel 1932): heavier constituents tend to follow lighter ones; d. Sentence Bracket Condition: the tendency, not to end a sentence on a light constituent if the sentence bracket is open, i.e. if the clause does not end with a verb; e. Subject/Agent Condition: subject/agent tends to precede other constituents.” (Lenerz 1977:63 and 97ff; translation taken from Cooper 1994:19)

Zubin/Köpke (1985) elaborated a pragmatic account of the interaction of these constraints to explain when subject > object surface order occurs, and when it is inverted. The mechanism in question is suggested to be “an instance of general cognitive problem solving rather than a real mechanism specific to language...[It lies] outside the domain of real structures of a competence grammar”. (ibid: 94) What Zubin/Köpke propose is a “polycasual linearisation mechanism which operates with the ‘weights’ of individual factors: it calculates the cumulative weight of factors favoring S–O in an individual instance and compares this with the cumulative weight of factors favoring O–S in a competition model...The heavier side wins, and that order is produced.” (ibid: 93f) Cooper (1994) concludes, with this in mind and the fact that markedness is different from grammaticality, that the word order in the middle-field of clauses in Zurich German - an Alemannic dialect spoken in Zurich/Switzerland - is governed pragmatically in toto, and that syntax has nothing more to say about it than providing the structural possibility for it. The easiest way to do this is postulating a ‘flat structure’ and this is what Cooper does (with the exception of the subject position). Fanselow (1995b) comes to the same solution for Standard German with respect to the rules governing word order, but he implements non-configurationality into the bare phrase structure theory of Chomsky (1995). He proposes that the order of the arguments can be left open before Spell-Out, because case has to be checked at LF, and this will succeed, whatever the surface order of the arguments is. This ability is supposed to be the property that differentiates configurational and non-configurational languages.

What Fanselow lacks to show, is, though, that syntax really has *no* impact on surface orders. To do this, one would have to neutralize the pragmatic factors mentioned above as far as possible, and see whether restrictions on word order can be detected under these circumstances. This aim is the reason for the very special format we use for our example sentences throughout this paper:thetic sentences with indefinite DPs.

Still, contextual implications cannot completely be factored out. But they can be controlled and the unmarked order in the sense of Höhle (1982) or Stechow/Uhmann (1986) comes out quite clearly. We agree with Meinunger (1995) that the given-new distinction (equals Lenerz theme/rheme condition) has to be taken as seriously as the optimal answer criterion in detecting basic orders. To give an example (the one Meinunger uses), Haider (1992)

claims that the verb *geben*, ‘give’, allows for two unmarked orders of the objects and he illustrates this with the following paradigm:

3. a. *er hat seiner Frau sein Geld gegeben*
 he has his wife-DAT his money-ACC given
 b. *er hat sein Geld seiner Frau gegeben*
 he has his money-ACC his wife-DAT given

Meinunger correctly points out that (3.a) can have global focus, while in (3.b) the accusative object is necessarily discourse related and focus does not spread over it. Meinunger’s proposal is therefore that *material that is introduced into the discourse frame stays in its base position*. We take this as an additional criterion for the detection of unmarked orders.

The focus of our interest here, as should have become clear, are judgments of markedness, rather than grammaticality.¹ Markedness surely is a pragmatic phenomenon, but we cannot be certain, up to now, that syntax has no impact on it. On the contrary: researchers agree, for instance, that German is a language that allows for scrambling. Scrambling within a clause might be reducible to non-configurationality along the lines of Cooper (1994) or Fanselow (1995b), but scrambling across clause boundaries certainly not – as well as extraction out of DPs, which is also possible and structurally equivalent, unless one wants to give up explanatory syntax as such. But these constructions clearly are cases of marked sentences, where the markedness is induced by a transformational process on the syntactic structure: either by movement, or, if one wants to analyse them non-derivationally, by reconstruction at LF. The marked form is syntactically derived from (or reconstructed into) the unmarked one. The contrast between the marked and the unmarked form in this case is a reflection of their different derivational effort: the marked form is syntactically more expensive than the unmarked form.

The fact that a certain phenomenon is a phenomenon of markedness, rather than grammaticality, does not necessarily imply that it has no syntactic background. So one part of what we try to do in this paper is to find out, what the impact of syntax is on the marked/unmarked contrast in the order of arguments and to give a case-theoretic explanation for our findings. For more general remarks on the issue of markedness, see section F of this article.

A1. *Variation in unmarked word orders*

If the unmarked order of subject and objects was uniformly the one given in (2.a above) for all clauses of German, there would be no problem for the structural account in (1.). But this is not the case. The unmarked word order of ditransitive constructions varies (as described in detail in Haider 1992). While (4.) illustrates the pattern we already got to know, in (5.) the unmarked order of the objects is ACC > DAT.

4. NOM > DAT > ACC

¹ It has been stated by some native speakers we asked for judgments that (2c., d. and f.) are degraded even in grammaticality. Interestingly, these are the examples where ACC precedes NOM (see section A1 for the difference between DAT–NOM order and ACC–NOM order).

a. *Es hat ein Junge einem Mädchen ein Buch geschenkt* = unmarked order

It has a boy-NOM a girl-DAT a book-ACC presented

b. *Es hat ein Junge ein Buch einem Mädchen geschenkt*

It has a boy-NOM a book-ACC a girl-DAT presented

other verbs that often occur with this unmarked order: *abgewöhnen* (to wean), *beibringen* (to administer), *gönnen* (not to begrudge), *verübeln* (to blame s.th. on s.o.), *verweigern* (deny), *zutrauen* (to think s.o. capable of s.th.)

5. NOM > ACC > DAT

a. *Es hat ein Polizist einen Zeugen einer Gefahr ausgesetzt* = unmarked order

It has a policeman-NOM a witness-ACC a danger-DAT exposed

b. *Es hat ein Polizist einer Gefahr einen Zeugen ausgesetzt*

It has a policeman-NOM a danger-DAT a witness-ACC exposed

other verbs that often occur with this unmarked order: *unterziehen* (to subject to), *ausliefern* (to extradite), *entziehen* (take away from), *unterwerfen* (to subject to), *zuführen* (to bring to)

There are paradigms with two unmarked orders of the objects, too:

6. a. *Es hat ein Freund einem Mädchen einen Jungen vorgestellt* = unmarked order

It has a friend-NOM a girl-DAT a boy-ACC introduced

b. *Es hat ein Freund einen Jungen einem Mädchen vorgestellt* = unmarked order

It has a friend-NOM a boy-ACC a girl-DAT introduced

7. a. *Es hat ein Agent einem Polizisten einen Spion übergeben* = unmarked order

It has an agent-NOM a policeman-DAT a spy-ACC handed over

b. *Es hat ein Agent einen Spion einem Polizisten übergeben* = unmarked order

It has an agent-NOM a spy-ACC a policeman-DAT handed over

Haider (1992) claims that the unmarked orders are a subcategorization property of the verb. Counterevidence against this claim are the following data that show different patterns with the verbs in (6.) and (7.). Both of them can appear with only unmarked DAT > ACC, too:

8. a. *Es hat ein Autor einem Journalisten ein Buch vorgestellt* = unmarked order

It has an author a journalist-DAT a book-ACC introduced

b. *Es hat ein Autor ein Buch einem Journalisten vorgestellt*

It has an author a book-ACC a journalist-DAT introduced

9. a. *Es hat ein Agent einem Polizisten eine Geheimate übergeben* = unmarked order

It has an agent a policeman-DAT a classified document-ACC handed over

b. *Es hat ein Agent eine Geheimate einem Polizisten übergeben*

It has an agent a classified document-ACC a policeman-DAT handed over

To give another example, the verb *entziehen* (to withdraw), shows different unmarked orders with different objects:

10. a. *Es hat ein Mann ein Kind einem schlechten Einfluß entzogen* = unmarked order

It has a man a child-ACC a bad influence-DAT withdrawn

b. *Es hat ein Mann einem schlechtem Einfluß ein Kind entzogen*

It has a man a bad influence-DAT a child-ACC withdrawn

11. a. *Es hat eine Frau einen Mordfall einem Detektiven entzogen*
It has a woman a murder case-ACC a detective-DAT withdrawn
b. *Es hat eine Frau einem Detektiven einen Mordfall entzogen* = unmarked order
It has a woman a detective-DAT a murder case-ACC withdrawn

The examples (8.-11.) suggest that the unmarked order of the objects is determined by the animacy of the nouns in question. This observation has been made by Fanselow (1995a): animate objects precede unanimate objects in the unmarked case. Thus, ditransitive constructions with two animate objects have two unmarked orders (cf. 6. and 7.). As expected, ditransitive constructions with two unanimate objects also have two unmarked orders:

- 12.a. *Es hat ein Junge einem Ball eine Kugel entgegengerollt* = unmarked order
It has a boy a ball-DAT eine shot-ACC towards-rolled
b. *Es hat ein Junge eine Kugel einem Ball entgegengerollt* = unmarked order
It has a boy eine shot-ACC a ball-DAT towards-rolled

In the case of transitive clauses with two animate objects, we have two unmarked orders, when the object has dative case, while we have only one, when the object has accusative case (cf. also Cooper 1994:29f):

13. a. *Auf dem Markt ist ein Nomade einem Römer begegnet* = unmarked order
at the market is a nomad-NOM a Roman-DAT met
b. *Auf dem Markt ist einem Römer ein Nomade begegnet* = unmarked order
at the market is a Roman-DAT a nomad-NOM met
14. a. *Auf dem Markt hat ein Nomade einen Römer getroffen* = unmarked order
at the market has a nomad-NOM a Roman-ACC met
b. *Auf dem Markt hat einen Römer ein Nomade getroffen*
at the market has a Roman-ACC a nomad-NOM met

In some contexts, e.g. when we have experiencer objects, an animate dative object precedes an unanimate nominative in the unmarked case. This is impossible for animate accusative experiencer objects. They never precede the nominative in the unmarked case:

15. a. *Es ist einem Kind ein Stein aufgefallen* = unmarked order
It is a child-DAT a stone-NOM attracted attention
b. *Es ist ein Stein einem Kind aufgefallen*
It is a stone-NOM a child-DAT attracted attention
16. a. *Es hat ein Lied einen Jungen begeistert* = unmarked order
It has a song-NOM a boy-ACC amazed
b. *Es hat einen Jungen ein Lied begeistert*
It has a boy-ACC a song-NOM amazed

A2. Definiteness effects and quantifier scope inversion

Another piece of evidence for the principled difference between dative and accusative is their different sensitivity to the definiteness hierarchy. It appears to be the case that the definiteness hierarchy ‘overrides’ the animacy hierarchy in unmarked clauses, but not the ‘NOM > ACC-constraint’, that itself is stronger than the animacy hierarchy. So in (17.) the unmarked order of dative and nominative is reversed, compared with (15.), if the nominative is definite and the dative indefinite. Again, this reversal does not occur with indefinite nominative and definite accusative in (18.), compared with (16.):

17. a. *Gestern hat einem Kind das Konzert gefallen*
 yesterday has a child-DAT the concert-NOM pleased
 b. *Gestern hat das Konzert einem Kind gefallen* = unmarked order
 yesterday has the concert-NOM a child-DAT pleased
18. a. *Gestern hat ein Konzert den Jungen begeistert* = unmarked order
 yesterday has a concert-NOM the boy-ACC amazed
 b. *Gestern hat den Jungen ein Konzert begeistert*
 yesterday has the boy-ACC a concert-NOM amazed

The qualification as marked order here is due to the fact that in these cases the definite DP has to be interpreted as discourse topic (cf. Jäger 1995). The unmarked interpretation should only occur, if especially the indefinite arguments occupy their ‘base position’ (cf. also Meinunger 1995). As we see, the ‘base position’ of the dative in (17.b) then differs from that of the dative in (15.), though the only significant difference lies in the determiners of the nominative DP. The ‘base position’ of the accusative case on the other hand, is the same in all cases. Thus, if we presuppose that positions in unmarked orders are base positions, then the base position of an indefinite dative object changes, when another argument has a definite determiner (or, presumably, vice versa), but that of an accusative object does not change. This is expected under a theory of datives that gives up the postulation of a unique dative position in the clause, but keeps the assumption of unique case positions for nominative and accusative. This is exactly the picture that we want to draw in this article.

Another equally subtle phenomenon concerns the possibility of scope inversion with quantifiers. A well-known fact about quantifiers in German is that (19.) has two relatively easily accessible readings, while in (20.) the inversed scope reading of the quantifiers is very hard to get, if at all (we abbreviate the possible scope readings by adding $\exists\forall$ and $\forall\exists$, respectively, indicating which quantifier has scope over which one, the $?$ is not a marker of ungrammaticality, but a marker of a reading that is only very hard to get):

19. *Alle Mädchen lieben einen Jungen* $\forall\exists\exists\forall$
 All girls-NOM love a boy-ACC
 $\forall x\exists y$ | girl (x) & boy (y) & love (x,y)
 $\exists y\forall x$ | girl (x) & boy (y) & love (x,y)
20. *Ein Junge liebt alle Mädchen* $\exists\forall?$
 A boy-NOM loves all girls-ACC

- d. **Ich zeigte sein₁ Foto jedem meiner Freunde₁*
I showed his photograph₁ -ACC [each my friends₁] -DAT

27. each ... other construction

- a. *Ich gab jedem Mann des anderen Uhr*
I gave each man-DAT the other's watch-ACC
b. **Ich gab dem Trainer des anderen jeden Löwen*
I gave [the trainer of the other]-DAT each lion-ACC

28. Negative Polarity

- a. *Ich gab niemandem/*jemandem auch nur ein Buch*
I gave noone-DAT/*someone even only one book-ACC
b. *Ich gab kein/*ein Buch auch nur einer Person*
I gave no/*a book-ACC even only one person-DAT
c. **Ich gab auch nur ein Buch niemandem*
I gave even only one book-ACC noone-DAT
d. **Ich gab auch nur einer Person kein Buch*
I gave even only one person-DAT no book-ACC

We observe that dative objects can c-command accusatives, but only from a position with A'-properties.

B2. Datives are extraction islands

The second contrast between datives and accusatives in German is that datives are extraction islands, but accusatives are not. This holds both for wh-extraction, as shown in (29.), and PP-extraction, as shown in (30.).⁴

29. Wh-extraction (Müller 1993)

- a. *_{[PP Über wen]_i} hat der Verleger [einem Buch t_i] keine Chance gegeben?
about whom has the editor-NOM a book-DAT no chance given
b. _{[PP Über wen]_i} hat der Fritz der Anna [ein Buch t_i] gegeben?
about whom has ART Fritz-NOM ART Anna-DAT a book-ACC given

⁴ Müller further claims that extraction out of scrambled objects is impossible. We do not agree totally with Müller's judgments. Extraction from a 'scrambled' direct object still seems for us to be much better, if not perfectly grammatical, than extraction from a dative, as in (29.a.):

? _{[Über wen]_i} hat [ein Buch t_i] der Fritz der Anna gegeben

About whom has a book-ACC the F-NOM. the A.-DAT given

Even extraction out of subject is sometimes grammatical. Consider the following examples:

- i. *Von Thomas Mann hat mich noch kein Roman überzeugt*
[By Thomas Mann]_i has me-ACC yet [no novel t_i]-NOM convinced
ii. *Von Thomas Mann habe ich noch keinen Roman gelesen*
[By Thomas Mann]_i have I-NOM yet [no novel t_i]-ACC read
iii. **Von Thomas Mann habe ich noch keinem Roman neue Einsichten abgewonnen*
[By Thomas Mann]_i have I-NOM yet [no novel t_i]-DAT new insights won from
'I didn't get new insights from any novel by Thomas Mann yet'

Fanselow (1995) gives the following counterexample against the claim that scrambled DPs are islands for PP-extraction:

- iv. *Worüber hätte [einen solchen Schmähartikel t] selbst der Peter nicht aus Wut verfassen können*
About what would have such a diatribe-ACC t even the Peter not in anger write can

The only clear contrast we can see is with extraction from datives on the one hand and extraction from accusatives on the other hand, at least if we deal with extraction within a clause and not across clause boundaries.

30. PP-extraction⁵
- a. [*Über Scrambling*]_i; *habe ich einem Buch über Optionalität [einen Aufsatz t_i] hinzugefügt*
 ‘About scrambling have I the book-DAT about optionality [an article-ACC t] added’
- b. *[*Über Optionalität*]_i; *habe ich einen Aufsatz über Scrambling [einem Buch t_i] hinzugefügt*
 ‘About optionality have I an article-ACC about scrambling [a book-DAT t] added’

To illustrate the problems an account for German dative as structural case leads into, we want to take a short look at the most elaborated theory of this kind, that we could find in the literature, the one from Müller (1993).

B3. *A derivational account: Müller (1993)*

In Müller’s model, dative case is assigned in the specifier of a VP-shell, called μ P. The dative object moves there from its VP-internal Θ -position:

31. ... [μ P DAT_i [_{VP} ACC [_V t_i V^o]]]

The two positions are illustrated in (32.). The directional PP surfaces in the Θ -position, the dative object in the case position:⁶

32. a. *daß der Fritz* [μ P [_{VP} *einen Brief* [_V [_{PP} *an den Vermieter*] *geschickt*]]] *hat*
 that ART Fritz a letter to the landlord sent has
- b. *daß der Fritz* [μ P *dem Vermieter*_i [_{VP} *einen Brief* [_V t_i *geschickt*]]] *hat*
 that ART Fritz the landlord-DAT a letter sent has

How does Müller account for the syntactic facts? With respect to binding he claims that the dative anaphor remains in situ, because it doesn’t need case, hence, it can be bound by the accusative object, which is situated in SpecVP. Spec μ P, in turn, is an A’-position *per definition*, at least in German. A-binding from this position, as well as extraction out of it, is excluded in German, not e.g. in English. The A/A’-status of Spec- μ P, thus, is open for language specific parametrization.⁷

Müller also integrates the phenomenon of free datives into his model. Free dative objects are mostly possessors or beneficiaries. They can be inserted rather freely in German clauses. It wouldn’t make sense to consider them as subcategorized by the verbs.

⁵ For further discussion, see Gärtner (1995, this volume), footnote 5.

⁶ Note that 32.a. and 32.b. are not full thematic paraphrases. Only in 32.a. the landlord might not have been the addressee, while only in 32.b. the letter might have gone to a place different from the landlord’s current address. See section D below. Cf. also Meinunger (1995:53) for this effect.

⁷ In his reply to Larson (1988), Jackendoff (1990) points to the non-productivity of the relationship between oblique and double object structures. But compared to English ‘Dative Shift’, ‘Dative Shift’ in German is less productive.

It is typical especially of free datives to have more than one possible reading, as is glossed below the examples in (33.), which are typical examples of possessor or beneficiary datives.

33. a. *Peter hat Maria ein Buch auf den Tisch gelegt*
 P. has M.-DAT a book-ACC on the desk put
 ‘Peter put a book on Maria’s table’ or
 ‘Peter put a book for Maria on some (or Maria’s) table’ or
 ‘Peter put a book (for Maria) on some (or Maria’s) table, because Mary wants him to do so’
- b. *Peter backte Maria einen Kuchen*
 P. baked M.-DAT a cake-ACC
 ‘Peter baked a cake that is supposed for Maria’ or
 ‘Peter baked a cake, because Maria wanted him to do so’

In Müller's account, free dative objects are inserted directly in Spec μ P, as illustrated below. Note that the dative here has to be considered as free, because there is no Θ -role of the verb left for it. The directional PP *nach Hause*, ‘home’, receives the GOAL role:

34. *daß der Fritz* [μ P *dem Vermieter* [ν P *einen Brief nach Hause*]] *geschickt hat*
 that ART Fritz the landlord-DAT a letter home sent has
 Either ‘it is the landlord’s home (and not Fritz)’ or
 ‘the letter is for the landlord (and it is Fritz’ home)’ or
 ‘it is the landlord’s home and the letter is for him, too’

What Müller cannot derive is binding of free dative anaphors, which is as possible as binding of subcategorized datives, as we see in (35.). Because free datives are inserted in Spec μ P, they can never occur in a position where they can be bound from the VP-internal case position of the accusative object. If this case position was higher than μ P, on the other hand, we would get the wrong unmarked word order for these sentences.

35. a. *Maria setzte die Kinder_i einander_i auf den Schoß*
 Maria sat the children-ACC each other-DAT on the lap
 b. **Maria setzte den Kindern_i einander_i auf den Schoß*
 Maria sat the children-DAT each other-ACC on the lap

Extraction out of free datives is also impossible, as expected:

36. **[Von wem]_i hast du [dem Vermieter t_i] die Haare geschnitten?*
 of who have you the landlord-DAT the hair cut?

We conclude that free datives syntactically behave like subcategorized ones. A derivational account cannot avoid to falsely predict syntactic differences between the two, because one has a VP-internal Θ -position and the other does not. Müller further restricts his theory to those verbs that are assumed to have underlying DAT > ACC order – stipulating that the other cases are lexical - which he has no empirical argument for - and result from inherent case marking.

Also, a derivational account, and any structural account, falsely rules out *multiple appearance of datives*. These cases are rarer, but not impossible. Presumably, they are restricted only semantically:

37. a. *Ich habe dir die Wurst dem Oliver auf den Teller gelegt*
 I have you-DAT the sausage the Oliver-DAT onto his plate put
 ‘Oliver gets a sausage onto his plate, but the sausage is for you’ or
 ‘I put a sausage onto Oliver’s plate, as you ordered’
- b. *Dem Peter habe ich gestern seinem Auto einen neuen Motor eingebaut*
 The Peter-DAT have I yesterday his car-DAT a new engine-ACC built-in
 ‘For Peter’s benefit or because of his order, I inserted a new engine into his car’
- c. *Helf mir mal deinem Vater in der Küche*
 Help me-DAT a minute your father-DAT in the kitchen
 ‘I want you to help your father in the kitchen’
- d. *Der David hat mir der Claudia schon zuviele Geschenke gegeben*
 the David has me-DAT the Claudia-DAT already too many presents given
 ‘For me, David has already given too many presents to Claudia’

The following properties of dative objects have been demonstrated so far:

1. dative objects cannot A-bind, but they can A’-bind.
2. dative objects are extraction islands, which also is an A’-property.
3. free datives and subcategorized datives have identical syntactic properties.
4. multiple appearance of dative objects is possible

We conclude from this that dative objects are syntactic adjuncts in German. They surface, where they are inserted. Hence, there is no ‘dative movement’ in German.⁸ Each of the indicated positions in (38.) is a possible site for insertion of the dative object. Which of these is actually chosen, is determined by independent cognitive constraints, e.g. animacy, definiteness, and agentivity hierarchy, cf. section A.

38. ... [AGRS (DAT) [AGRS NOM Agrs^o [TP T^o [AGROP (DAT) [AGROP ACC Agrt^o [VP (DAT) [VP ...

This seems to us to be the only way to keep the correlation between unmarked order and basic syntactic order in minimalism. Only with the assumption of direct insertion of the dative object into its surface position, it is possible that two different but equally unmarked constructions, like (6.), (7.) and (12.), are also equal in the number of derivational steps. The picture that we draw is thus not only coherent, but also fits into an economy-based theory of syntactic derivations.

An account that treats dative as a structural case postulates a fixed case position and because of this cannot analyse two different but equally unmarked orders as also economically equal. One order is always derived from the other.

An account that takes the opposite direction, and base generates not only datives, but all arguments in their surface positions, is Fanselow’s (1993 and 1995a/b) and also Cooper’s

⁸ We have in mind a relative simple version of syntactic structures that correlates A-properties with case positions.

(1994). What both, and similarly Haider (1992), cannot explain, are the strong syntactic differences between datives and accusatives – without additional stipulations.⁹

Our move leads us to two questions that we would like to address in a more or less sketchy way in the final sections of this paper. The first question is, how we get the thematic interpretation of dative objects, if it can not be theta-role assignment in the usual way. This is the topic of section D. And the second question is, whether the syntax of German datives is totally exceptional or whether there is some systematicity behind it, and how this fits into the larger picture that we have in generative syntax. This issue is raised in section E. The next section, though, is reserved for an additional empirical area where the dative-accusative asymmetry also occurs.

C. Morphology, some effects

The fundamental difference between accusative and dative can also be observed in the area of morphology. Several phenomena illustrate this. The general tendency is: somehow the special morphological properties of datives seem to prevent that they undergo processes that are no problem for accusatives.

As case morphology in German is mostly realized by determiners, the definite article is a good example to illustrate the different patterns:

The German definite article:

	singular			plural
	masculinum	femininum	neuter	
nominative	<i>der</i>	<i>die</i>	<i>das</i>	<i>die</i>
accusative	<i>den</i>	<i>die</i>	<i>das</i>	<i>die</i>
dative	<i>dem</i>	<i>der</i>	<i>dem</i>	<i>den</i>
genitive	<i>des</i>	<i>der</i>	<i>des</i>	<i>der</i>

If we consider nominative as the unmarked form, which is usual, then we have a clear distinction between ‘unmarked’ nominative and accusative (with the exception of the masculinum singular) and ‘marked’ dative and genitive. Dative morphology never patterns together with another case form (with the exception of femininum singular, where dative and genitive are alike).^{10,11}

⁹ Fanselow admits this: “... Insofern wird man wohl kaum darum herumkommen, das Verbot der Bindung DAT_i einander_i als rätselhafte Sonderbeschränkung festzuhalten.” (Fanselow 1993: 46)

¹⁰ Another contrast shows up in the inflection of adjectives. German adjectives have a strong and a weak inflection, when they modify nouns, depending on the preceding element, e.g. definite vs. indefinite articles or weak vs. strong quantifiers:

i. viele/einige dumme Männer – alle/die dummen Männer
many/some stupid-STRONG men – all/the stupid-WEAK men (NOM/ACC)

This difference does not occur in dative DPs:

ii. vielen/einigen dummen Männern – allen/den dummen Männern
many/some stupid men – all/the stupid men (DAT)

¹¹ Hale/Bittner’s (1995) case theory makes use of Lamontagne/Travis’s (1986) concept of case phrase (KP) to distinguish morphologically simple and morphologically more complex case forms syntactically. Structural or unmarked cases are simple DPs, while non-structural or marked cases like datives are KPs:

a. [_{DP} D° [_{NP} N]] unmarked case
b. [_{KP} K° [_{DP} D° [_{NP} N]]] marked case

Many German dialects have an even more restricted pattern. Cooper (1994) gives the example of Zurich German. This dialect distinguishes, like many other German dialects, e.g. Upper Hessian and Middle Suebian, only between two morphological case forms. Nominative and accusative are indistinguishable, and the genitive does not exist, its function has been taken over partly by the dative, partly by PPs:

Definite articles in Zurich German (cf. Cooper 1994:15)

	masculinum	femininum	neuter	plural
nom./acc.	<i>de</i>	<i>d</i>	<i>s</i>	<i>d</i>
dative	<i>em</i>	<i>de</i>	<i>em</i>	<i>de</i>

C1. *Incorporation and nominalization:*

Incorporation of the indirect object is impossible in German in contrast to direct object incorporation. We can find nominalization structures where the direct object is incorporated into the verb.

39. a. *Das Bücher-Schenken machte Spaß*
 The books-ACC-presenting made fun
 b. *Das Geschichten-Erzählen ist lustig*
 The stories-ACC -telling is funny
 c. *Das Kuchen-Backen hat gut geklappt*
 The cake-ACC -baking has well worked

Such compounds are impossible with dative arguments:

40. a. **Das Kindern-Schenken machte Spaß*
 The children-DAT-presenting made fun
 b. **Das Kindern-Erzählen ist lustig*
 The children-DAT-telling is funny
 c. **Das Gästen-Backen hat gut geklappt*
 The guests-DAT-baking has well worked

Note that this is true only for processes of true word-formation. *Kindern-Schenken* in (40.a) has to be considered as one phonetic word, with only one word stress (*KINDern-Schenken*). This is ruled out; the sentence is well-formed as long as *Kindern* and *Schenken* remain two phonetic words.¹²

¹² This is one possibility to capture the observed morphological data. An attempt to explain such contrasts has been given by Grimshaw (1990). Her generalization is that only the argument that is the lowest in the thematic hierarchy can incorporate into the verb. The 'theme' is the lowest thematic role in her theory, hence, for every verb that has a theme argument, this is the only argument that can form a nominal compound with the verb. While this analysis can explain why datives cannot incorporate with ditransitive verbs – assuming that theme is standardly linked to the direct object and goal to the dative object –, it cannot explain why dative incorporation is also ruled out when the verb does not select a theme argument, as is the case e.g. with *helfen* ('to help') and *folgen* ('to follow') – see below.

One might suggest that incorporation is possible only with the first object. This would falsely predict that the following sentences with transitive dative-object verbs are well-formed:

41. a. **Beim Kindern-Helfen*
 At children-DAT-helping
 b. **Beim Eltern-folgen*
 At parents-DAT-following

The correct empirical generalization is that incorporation of dative objects is ruled out in principle. What is more, this is independent from thematic properties – which can be shown e.g. with spray-load-alternation-verbs, cf. the following contrast:

42. a. **Beim Kindern-schenken*
 At children-DAT-presenting
 b. *Beim Kinder-Beschenken*
 At children-ACC-be-presenting

The verbal prefix *be-* very often marks the ‘goal-as-direct object’-variant of the spray/load alternation in German. With respect to Θ -roles, however, *schenken* and *beschenken* are indistinguishable. The children are the goal argument in both cases here. The difference lies only in the (total) affectedness of the respective direct object (cf. Rappaport/Levin 1988 for an extensive discussion) – or maybe the ‘centrality’ of it (cf. section D below).

As expected under any approach, free datives cannot incorporate either (cf. (40c.)). Again, this phenomenon would find a natural explanation under the assumption that dative objects in general are syntactic adjuncts – incorporation being restricted to internal arguments of the verb.¹³ There is no need to assume this, though. A purely morphological explanation might be possible in terms of morphological complexity of datives vs. morphological simplicity of accusatives. The following phenomena point strongly towards the latter strategy.

C2. Idioms and datives

This point is very simple. While there are idioms in general in German that have dative-DPs within them, there is one special type of idiom that seems to be impossible with datives in principle. These are idioms of the type ‘take care of’, ‘take advantage of’. In German, these are possible with accusatives, but any imaginable construction with datives is completely odd:

43. a. *Maria hielt Abstand von Peter*
 M.-NOM kept distance-ACC of P.
 b. *Peter nahm Rücksicht auf Maria*
 P.-NOM took consideration-ACC on M.

¹³ We thank Hans-Martin Gärtner (p.c.) for the following observation: Nominalized verbs cannot assign dative case any longer, as well as nominative and accusative. But while the latter are realized by genitive case, which can be viewed as the DP-internal structural case, former dative objects can only be realized as PPs.

44. a. **Maria hat ihr Geld Wohlfahrt gespendet*
M.-NOM has her money-ACC charity-DAT donated
b. **Maria folgt Pfad zu Peter*
M.-NOM follows path-DAT to P.

Common analyses of these idiomatic constructions treat the noun parts of them as defective: Presumably, they lack a determiner, structurally we are dealing not with DPs, but just with NPs. It might be the case that a(n abstract) D° is necessary to carry the dative morphology, and that it remains unexpressed when there is no D° .

C3. *Uninflectable indefinites*

Peter Gallmann (1995) reports an interesting fact about certain indefinite expressions in German. Some of these expressions do not have an inflectional morphology, and interestingly they can realize accusative objects, but not datives. Two clear cases of these indefinites are *genug*, ‘enough’ and *nichts*, ‘nothing’:

45. a. *Sie hat genug verkauft*
She-NOM has enough-ACC sold
b. *Ich koche heute nichts*
I-NOM cook today nothing-ACC
46. a. **Feuchtigkeit schadet genug*
humidity-NOM harms enough-DAT
b. **Dieser Unmensch hat das Kind nichts ausgesetzt*
This monster-NOM has the child-ACC nothing-DAT exposed

C4. *Complement sentences*

Fanselow/Felix (1987: 85f) report another presumably morphologically induced difference between structural case like accusative and semantic (or, as they say: oblique) case. Some verbs that select a proposition as object in German assign accusative to this object, others dative or genitive. They differ in the possibility to realize the propositional object as a CP:

47. a. Hans leugnete den Diebstahl des Autos
H.-NOM denied the theft-ACC of the car
b. Hans leugnete, daß er das Auto gestohlen hat
H.-NOM denied that he the car stolen has
48. a. Die Darstellung entspricht nicht den Tatsachen
the presentation fits not the facts-DAT
b. *die Darstellung entspricht nicht, daß dieser Verlust uns so schwer traf
the presentation fits not that this loss us so heavily hit
‘the presentation does not fit the fact that this loss hit us so heavily’
49. a. wir gedenken der Niederlage bei Waterloo
we commemorate the defeat-GEN at Waterloo

- b. *wir gedenken, daß die Armee bei Waterloo geschlagen wurde
we commemorate that the armee at Waterloo defeated was

Fanselow/Felix' explanation makes use of the distinction between structural and oblique case in a different sense – they claim that CP cannot carry case with it and that structural case is not selected by verbs and can be realized optionally, while oblique case is selected by the verb and has to be realized obligatorily. Our explanation points towards the morphological differences: structural case has zero morphology, and that's why CPs – which necessarily cannot express case morphology – are compatible with it. Dative and Genitive on the other hand are morphologically 'more complex' and have to be realized by some element. The odd sentences become fine, when there is a pronoun that carries the case morphology:

50. a. die Darstellung entspricht dem nicht, daß dieser Verlust uns so schwer traf
the presentation fits that-DAT not that this loss us so heavily hit
b. wir gedenken dessen, daß die Armee bei Waterloo geschlagen wurde
we commemorate that-GEN that the armee at Waterloo defeated became

Furthermore, Webelhuth (1990) shows that CP datives are possible as nominative subjects in the *bekommen*-Passiv, some kind of dative passive construction (Webelhuth 1990: 45):¹⁴

51. a. *Wir messen große Bedeutung bei [_{CP} daß Reagan wiedergewählt wird]
We measure great meaning to that Reagan reelected is
'We attribute great significance to *(the fact) that Reagan is reelected'
b. [_{CP} Daß Reagan wiedergewählt wurde] bekam eine große Bedeutung beigemessen
that Reagan reelected was got a great significance attributed

Again, we see that no thematic or verb-idiosyncratic facts are responsible for the phenomenon, but only the morphological properties of the case forms themselves.

C5. Split topicalization and quantifier floating

Meinunger (1995:195) shows that quantifier floating seems to work likewise with nominative, accusative and dative:

52. a. *Frauen_i haben da immer nur wenige t_i gearbeitet*
women_i have there always only few-NOM t_i worked
b. *Frauen_i hat er schon einige t_i unglücklich gemacht*
women_i has he already quite some-ACC t_i unhappy made
c. *Frauen_i hat er schon vielen t_i das Gesicht geliftet*
women_i has he already many-DAT t_i the face lifted

There is an effect, nonetheless, that has to do with 'overt versus covert' realization of the dative morphology. *Frauen* has no overt dative marking suffix, but e.g. *Männern* has. In this case, quantifier floating with a dative is degraded:

¹⁴ Thanks to Chris Wilder for making us aware of this.

53. *?Männern_i hat er schon vielen t_i das Gesicht geliftet*
 men_i has he already many-DAT t_i the face lifted

Without the overt case marker this sentence gets even worse:

54. *??Männer_i hat er schon vielen t_i das Gesicht geliftet*
 men_i has he already many-DAT t_i the face lifted

Things change, as soon as we float the quantifier together with an adjective. Now the dative example is at least worse than the others:¹⁵

55. a. *Kinder_i sind nur wenige dumme t_i nicht zur Schule gegangen*
 children are only few stupid-NOM not to school gone
 b. *Kinder_i hat er nur wenige dumme t_i unterrichtet*
 children has he only few stupid-ACC taught
 c. *?Kinder(n)_i hat er nur wenigen dummen t_i das Lesen beigebracht*
 children(-DAT) has he only few stupid-DAT the reading taught

The oddness of the more complex data with datives seems to result again from the bigger morphological complexity of datives. It might be reasonable to formulate the respective restrictions on split constituency in terms of derivational morphology, rather than syntax – though it is a syntactic phenomenon.

D. Some semantic properties of German dative objects

We make do with some hints at the semantics of dative objects here. Let us first consider example (34.), here repeated as (56.). In (56.a) we have a subcategorized dative, in (56.b) a free dative. One would expect that the free dative in (56.b) does not receive the same interpretation as the subcategorized dative. But what we observe is that the *addressee* interpretation of the subcategorized dative is also possible for the free dative in (56.b). We can get even more interpretations for the free dative. But in any case, the (*addressee*-) interpretation of the subcategorized dative in (56.a) – the only one for this dative object – is a proper subpart of the set of the possible interpretations for the free dative (56.b). So there are cases, where a free dative gets the same interpretation as a subcategorized one.

56. a. *daß der Fritz dem Vermieter einen Brief geschickt hat*
 that the F. the landlord-DAT a letter-ACC sent has
 b. *daß der Fritz dem Vermieter einen Brief nach Hause geschickt hat*
 that the F. the landlord-DAT a letter-ACC home sent has

On the other hand – as noted in footnote 6 – we find some differences in interpretation between dative objects and directional PPs. Under a structural approach, both constituents are selected by the predicate and basegenerated in VP, so that we would not expect systematic differences in the interpretation of these two ‘goal’-objects.

¹⁵ The pattern in (55.) seems to follow that of true split topicalization:
?Kindern habe ich nur amerikanischen geholfen – children-DAT have I only american-DAT helped
 Another case is the *was für*-split. There is a rather weak contrast, too.
 i. *Was hast du für Bücher den Kindern gegeben* – What have you for books-ACC the children given
 ii. *?Was hast du für Kindern die Bücher gegeben* – What have you for children-DAT the books given

The empirical evidence points towards a uniform treatment of free and subcategorized datives: there are no ‘subcategorized’ datives with totally idiosyncratic thematic properties. Our strategy is therefore: an account for the semantics of free datives is needed anyway and whatever we will say about free datives can be carried over to ‘subcategorized’ ones. We treat all ‘subcategorized’ datives as a proper subset of the set of free datives. We hypothesize that dative case has a semantically underspecified lexical entry that will be further specified in the course of interpretation (considering the linguistic and extralinguistic context) to yield the actual thematic interpretation of the dative object.

To illustrate the facts that have to be captured, we want to exemplify some interesting contrasts here.¹⁶ First, datives are less ‘affected’ than accusatives:

57. a. *Der Blinde hat dem Hund mit seinem Stock auf den Kopf geschlagen*
The blind man has the dog-DAT with his stick on the head beaten
b. *Der Blinde hat den Hund mit seinem Stock auf den Kopf geschlagen*
The blind man has the dog-ACC with his stick on the head beaten

Accusative objects are usually assumed to be totally affected (cf. Fillmore 1968, Anderson 1971, Tenny 1988). Datives are less than totally affected: in (57.a), the preferred reading is that the blind man beat accidentally, while in (57.b) he beat on purpose (preferred reading again).

On the other hand, the possessor dative is ruled out, when the possessor is not affected:

58. a. *Arsene Lupin hat Cäsars Toga gestohlen (aus dem Museum)*
A. L. has Cesar-GEN toga-ACC stolen (from the museum)
b. **Arsene Lupin hat dem Cäsar die Toga gestohlen (aus dem Museum)*
A. L. has the cesar-DAT the toga-ACC stolen (from the museum)

Cesar cannot be affected, simply because he is dead. We observe: datives are less than totally affected, but more than not affected. A similar observation is that datives can be causers, but not direct causers:

59. *Mir ist dein Fahrrad umgefallen*
Me-DAT is your bike fallen down
≈ ‘I accidentally did something wrong, such that your bike fell down’

The semantic lexical entry for ‘dative object case’ should be designed in such a way that it introduces the ‘general direction’ for the dative object’s interpretation, but leaves open the ‘details’ which get specified via the linguistic (and extra-linguistic) context. How this specification procedure works is specified by general principles of cognitive inference.

¹⁶ One of the subtle facts about datives that have to be addressed is that body-part datives, especially inanimate ones, are in some contexts better than in others:

- a. **Peter reparierte dem Tisch die Beine*
P. repaired the table-DAT the legs
b. *Josef schnitt dem Tisch die Beine ab*
J. cut the table-DAT the legs off

The appearance of body-part datives has to be compatible with the conceptual interpretation of the verb. But it is far from obvious, what the respective properties of the verbs are in these cases.

Several semantic approaches to the dative case have been proposed – especially for the first object in the English double object construction (Goldberg 1992, Tremblay 1990) – that center on the notion of possession. A proposal in this direction has also been done by Abraham (1983) for German. These approaches can be characterized as prototype theories of case, maybe even in the spirit of Dowty's (1991) notion of 'proto-roles'. Prototypical datives are considered to be possessors or recipients. Those datives that do not fall into this class are assumed to fall into a class that is conceptually related to the concept of possession - as something like 'metaphorical extensions' of the prototypical meaning.

This way of treating datives would explain the oddity of (58.b). Cesar cannot be a possessor, because he is dead. The problem is, however, that not all German datives can be related to the concept of possession without stretching this concept up to insignificance. On the other hand, not all possessors receive dative case in German, so something additional has to be said anyway.

In the pre-generative era most researchers in the field agreed that cases have some semantic content with them. This holds especially for dative case. The reason this view was given up, was that everyone failed who tried to describe the semantics of a case form like the dative in such a way that she could predict e.g. for novel verbs under which circumstances an argument received this case. Case then was viewed as an epi-phenomenon, and considered more or less as verb-idiosyncratic. Obviously this cannot solve the problems we have with free datives. They need a semantic account and likewise several other forms of oblique cases, like Russian instrumental, or even certain prepositional objects like German *mit*-phrases ('with'-phrases) or partitive *an*-phrases ('at'-phrases; as in *an einem pullover stricken* – 'knit at a sweater').

Note that these three semantic case forms of German (as we would call them) have a semantic property that differentiates them from the structural cases nominative and accusative: they can accompany main verb *sein*, 'be' as predicates:¹⁷

60. a. *Das Buch ist dem Peter*
the book-NOM is the Peter-DAT 'the book is Peter's'
b. *Der Kaffee ist mit Sahne*
the coffee-NOM is with cream
c. *Maria ist an einem neuen Artikel*
M.-NOM is at a new article

¹⁷ The possessor reading of the dative in (60.a) surely is no accident: there must be something right about the possessor theory of the semantics of datives. This kind of data may have influenced SC approaches to datives like den Dikken (1995). Den Dikken base generates the dative of the English double object construction as predicate of a verbal small clause complement. Presumably, he would base generate German free datives as modifying adjuncts and thus get the same problems with German datives as structural case approaches, namely postulating syntactic differences between free and subcategorized datives, and a lack of explanation, why different surface orders can be equally unmarked and thus equal in cost w.r.t. derivational economy. We do not think that it is impossible to overcome these problems in an SC approach, but the costs in terms of theoretical and conceptual complications are high. Here, we see a big advantage on our side. We do not claim that datives cannot be SC predicates. In fact, (60.a) should be analysed as such a case. Datives can be SC predicates because they have semantic content. But they have this content independent of the syntactic position they occur in.

It is fairly clear that this property is only possible for semantically contentful elements like locative and directional PPs, adjectives and the like. An accusative, and likewise a nominative, is odd in this case:

61. a. **Das Buch ist den Peter*
 the book-NOM is the Peter-ACC
 b. **Die Maria liess das Buch der Peter sein*
 the M.-NOM let the book-ACC the Peter-NOM be

Structural case marked DPs as predicative complements of *sein* are possible, but they change their morphological properties and *agree* with their subject, so they can no longer be considered as having case by themselves:

62. a. *Der liebe Gott ist ein guter Mann*
 the kind god-NOM is a good man-NOM
 b. *Maria liess den lieben Gott einen guten Mann sein*
 M.-NOM let the kind god-ACC a good man-ACC be

It might be possible to describe the semantic content of dative case as those semantic properties that all the thematic roles datives can have in German, have in common. Typical such roles are beneficiary, possessor, recipient, experiencer and other more special ones. Wegener (1985) seems to have something like this in mind. But she failed, as others before, because the features that actually came out were totally unspecific, like AFFECTED. Barnes (1985) tried to capture the facts about French free datives in a similar way. French free dative clitics have nearly the same pattern of distribution as German free datives have.

Wierzbicka (1980) is a case study about the Russian instrumental. Wierzbicka also has a content-related description of case forms in mind, but she is more strongly empirically oriented and more careful about her generalizations. Her strategy is to distinguish the different semantics of instrumental objects by the environment they occur in. In a semi-formal analysis she shows what the several instances of instrumental have in common. It might be that something similar is possible for German datives, too.

Nonetheless, it would not make much sense to do this without elaborating a theory of case systems as such. Wierzbicka points towards the same direction. The question is what one should expect from surface cases. It is clear that different languages have different case systems and although each language has a case form that covers some thematic roles that are covered by the dative in German, we very rarely find a one-to-one relation between two cases of two different languages. Therefore, we have to be sceptic about a semantic description of case forms purely in terms of semantic universals like primes or something similar. What a single case form is able to express, depends in part at least on the properties of the other case forms of a language.

Wierzbicka (1980) introduces the notion of centrality to differentiate nominative and accusative from instrumental and dative (in Russian). Arguments that are central to the described event (in the eye of the speaker), occur in nominative and accusative, arguments that are more peripheral in instrumental and dative. This way of seeing it could account for (57.) and (59.).

The center/periphery distinction could also account for a semantic effect that has been observed by Hudson (1992) for the English double object construction and that occurs with German dative objects, too. Depictive adjectival predicates cannot modify the first object in the double object construction (Hudson 1992: 263)

63. *John₁ gave Mary₂ the book drunk_{1/*2}*

While in (64.a) both Peter and the chancellor (realized as an accusative object) can be interpreted as drunk, only Peter can be in (64.b), not the chancellor, here realized as a dative:

64. a. *Bisher hat der Peter₁ den Bundeskanzler₂ nur betrunken_{1/2} getroffen* (ambiguous)
Up to now has P.-NOM₁ the federal chancellor-ACC₂ only drunk_{1/2} met
b. *Bisher ist der Peter₁ dem Bundeskanzler₂ nur betrunken_{1/*2} begegnet*
Up to now is P.-NOM₁ the federal chancellor-DAT₂ only drunk_{1/2} met

Being on the periphery, the dative might not be ‘accessible’ to the depictive adjective, because the latter is on the periphery itself. Further evidence for the case theoretic asymmetry between center and periphery might show up in the following data. First, recipient interpretation for the dative is possible only if the theme argument is in accusative case (65.a) but not if it is realised as a partitive PP (65.b):

65. a. *Peter schreibt Maria einen Brief*
P.-NOM writes M.-DAT a letter-ACC
b. **Peter schreibt Maria an einem Brief*
P.-NOM writes M.-DAT at a letter

Likewise a body part dative is possible if the body part is realized by an argument PP (66.a), but impossible with an adjunct PP (66.b):

66. a. *Zwei Fliegen haben Maria auf der Schulter gesessen*
Two flies-NOM have M.-DAT on the shoulder sat
b. **Zwei Fliegen haben Maria auf der Schulter gekämpft*
Two flies-NOM have M.-DAT on the shoulder fought

The same contrast can occur with the licensing of body part instrumentals. The body part PP can be related to the accusative object but not to the *mit*-PP (‘with’-PP):

67. a. *Maria hat den Wagen_i auf seinen_i Rädern in das Lager gerollt*
M.-NOM has the cart-ACC on its wheels into the warehouse rolled
b. **Maria hat die Hemden mit dem Wagen auf seinen Rädern in das Lager gerollt*
M.-NOM has the shirts-ACC with the cart on its wheels into the warehouse rolled

Another difference between ‘central’ and ‘peripheral’ cases is that nearly every thematic role can be linked to nominative (if we also take into account passive and other constructions) and accusative (e.g. the subjects of the embedded infinitives in Acl- and ECM-constructions). German *mit*-phrases and datives each can be linked only to (distinct) subsets of the set of possible thematic roles. This difference can be seen as the minimal semantic background for the structural/semantic case distinction.

We leave the issue of the semantics of dative case open for further research at this point.

Sofar we have characterized German datives as semantic arguments and syntactic adjuncts. How exceptional is this behavior and how does it fit into the framework of generative syntax? A theory that has already introduced a distinction between syntactic and semantic arguments is the binding theory of Reinhart and Reuland (1993). We finally want to apply this theory to our German data and see whether we get a satisfactory result.

E. The syntax of dative objects and other oblique arguments in German

Let us first introduce the core ideas of Reinhart and Reuland.

E1. *The binding theory of Reinhart/Reuland (1993)*

The main thesis of Reinhart/Reuland (henceforth R&R) is that the application of the binding conditions should be reduced to cases of true reflexivization (which means coreference of two arguments of the same predicate).

Not all occurrences of anaphors are subject to the binding theory. This is exemplified with Dutch. Dutch has two anaphors, *zich* and *zichzelf*. Only *zichzelf* is a reflexivizer. *Zich* is used in logophoric contexts like long-distance anaphors a.o. The table in (68.) illustrates this pattern.

68.

	SELF	SE	Pronoun
Reflexivizing function	+	-	-
R(eferential independence)	-	-	+

Anaphors and pronouns are distinguished by two properties: the Reflexivizing function and the property of referential independence. Only pronouns are referentially independent, while only SELF anaphors have the reflexivizing function. SE anaphors have neither of these properties.

The difference between syntactic and semantic predicates and arguments is responsible for the contrast between (69.) and (70.).

69. a. **Henk₁ hoorde hem₁*
 H.₁ heard him₁
 b. **Henk₁ hoorde zich₁*
 H. heard SE
 c. *Henk₁ hoorde zichzelf₁*
 H. heard SELF

70. a. **Henk₁ hoorde [hem₁ zingen]*
 H.₁ heard [him₁ sing
 b. *Henk₁ hoorde [zich₁ zingen]*

- H. heard SE sing
 c. *Henk₁ hoorde [zichzelf₁ zingen]*
 H. heard SELF sing

In (69.) two semantic coarguments are coindexed and the SELF anaphor is required. In (70.) antecedent and pro-form are only syntactic coarguments: they are assigned case by the same syntactic predicate, the matrix verb. But they are not semantic coarguments, because they receive their thematic roles from two different verbs. In this case, only the pronoun is ruled out, while the SE anaphor is possible. This is summed up in (71.).

71.

	SELF	SE	Pronoun
pro-form is only syntactic coargument	+	+	-
pro-form is semantic coargument	+	-	-

The binding principles thus have to be formulated with respect to syntactic and semantic predicates. R&R do this in the following way (Reinhart/Reuland 1993:678):¹⁸

72. Definitions

- a. The *syntactic predicate* formed of (a head) P is P, all its syntactic arguments, and an external argument of P.
 The *syntactic arguments* of P are the projections assigned a Θ -role or Case by P.
 b. The *semantic predicate* formed of P is P and all its arguments at the relevant semantic level.
 c. A predicate is *reflexive* iff two its arguments are co-indexed.
 d. A predicate (formed of P) is *reflexive-marked* iff either P is lexically reflexive or one of P's arguments is a SELF anaphor.

73. Conditions

- A: A reflexive-marked syntactic predicate is reflexive.
 B: A reflexive semantic predicate is reflexive-marked.

The formulation of the binding conditions in (73.) reflects the contrast between (69.) and (70.). Condition B says that, when two semantic co-arguments are coindexed, a SELF anaphor is required, according to the definition of reflexive-marking in (72.d). This accounts for all of the three sentences in (69.). But condition A can only account for (70.c), but not (70.a) and (70.b). It just requires that a SELF anaphor has to be coindexed with another syntactic argument. Furthermore, nominative anaphors are not excluded. R&R rule out these cases by another condition, that unifies the treatment of binding and A-movement chains. And this is the General Condition on A-chains given in (74.)

74. General Condition on A-chains

A maximal A-chain ($\alpha_1, \dots, \alpha_n$) contains exactly one link – α_1 – that is both +R and Case-marked.

This condition claims that the head and only the head of an A-chain has to be both referentially independent and case-marked. Anaphors are not referentially independent, and thus are ruled out as heads of A-chains, which nominatives necessarily are. The pronoun in (70.a) is ruled out because it is both referentially independent and case-marked, but not the

¹⁸ The definitions are the abbreviations R&R gave for ease of representation. The precise definitions should speak of i-reflexivity and i-coindexation. That is, two or more arguments share the same index i.

head of the chain. SE in (70.b) is still allowed, correctly, because the anaphor is not referentially independent.

E2. *An application of Reinhart/Reuland (1993) to German*

When we apply this theory to German, we have to consider that German datives do not count as A-binders, as we saw, contrary to English, and despite the fact that German datives are semantic arguments. To capture this, we relativize the definition of a syntactic predicate in (72.a) by (72.a'):

72. a.' ...
The *syntactic arguments* of P are the A-chains that are assigned structural Case in the extended projection of P and, optionally (i.e. parametrized language-specifically), the semantic arguments of P.

In German, only DPs with structural case count as syntactic arguments, while in English semantic arguments also count as syntactic arguments. This parametrized difference is illustrated in table (75.):

75.

	structural case	semantic case
English	+ syntactic argument	+ syntactic argument
German	+ syntactic argument	- syntactic argument

This parametrization leads to the following A-chain condition for German:

76. *General Condition on A-chains in German* (results from 72.a')
A maximal A-chain ($\alpha_1, \dots, \alpha_n$) contains exactly one link – α_1 – that is both +R and Structural-Case-marked.

The head and only the head of an A-chain in German has to be referentially independent and marked with structural case. Condition A now correctly predicts that in German an accusative anaphor can only be bound by the nominative DP in matrix clauses.

We can now rule out (77.a) with a dative antecedent for the accusative anaphor, and likewise (77.b) with an antecedent marked with another semantic case form, a with-PP. We correctly predict further that in (78.) the pro-form has to be realized as a SELF anaphor, according to condition B. The pronoun is ruled out, because two semantic coarguments are coindexed. This again holds not just for datives, but also for with- and by-phrases.

77. a. **Peter hat Maria₁ sich₁ gezeigt*
P. has M.-DAT₁ SELF₁ shown
b. **Ich habe mit Maria₁ sich₁ beschenkt*
I have with M.₁ SELF₁ presented
78. a. *Maria₁ hat sich₁ /* ihr₁ einen Kuchen gebacken*
M.₁ has SELF-DAT₁ /*her a cake baked
b. *Maria₁ ist mit sich₁ /* ihr₁ zufrieden*

- M.₁ is with SELF₁/*her₁ satisfied
 c. *Maria₁ ist von sich₁/*ihr₁ enttäuscht*
 M.₁ is by SELF₁/*her₁ disappointed
 ‘Maria has been disappointed by herself/*her’

The binding conditions as stated in (72.a’) and (76.) correctly predict a gap: The antecedent for a pro-form with accusative case can never be marked with semantic case in German:

79. **Peter hat den Gästen₁ einander₁ /sie₁ vorgestellt*
 has the guests-DAT₁ each other₁/them₁ introduced

The anaphor is ruled out by condition A and the pronoun by condition B. We further predict that a dative anaphor can precede its antecedent more easily than an accusative anaphor. We found evidence that even this prediction might be correct, as given in the contrast between (80.a) and (80.b) below.

80. a. *Maria hat einander_i Kinder_i die Ohren waschen lassen*
 M. has each other-DAT children-ACC the ears wash let
 b. ??*Maria hat einander_i Kinder_i waschen lassen*
 M. has each other-ACC children-ACC wash let

F. Concluding remarks

F1. On Case theory

The ‘message’ of this study is to treat surface case seriously. Postulating AGR-phrases is not sufficient, if this disables us from accounting for the differences between structural case and other case types. Different case types are classified through patterns of different syntactic behaviour, semantic interpretation and morphological properties. The distinction between structural and semantic case in German is threefold:

	structural case	semantic case
syntax	A-properties	A'-properties
semantics	dependent	independent
morphology	simple	complex

We suggest that all case systems make use of both of these case types in one or the other way, but we do not expect the same syntactic properties for them in all languages – one presumably parametrized difference has been illustrated in section E. Though the general tendency of cases seems to be that a complex morphology patterns together with a complex semantics, and the least marked cases also are the ‘semantically emptiest’, we do not want to propose that it always has to be like this. Nonetheless, in German and many other languages it seems to work exactly this way.

If our semantic treatment of datives is on the right track, there is no need for an underlying θ -position for dative objects, even the ‘subcategorized’ ones.¹⁹ The issue of θ -role

¹⁹ Researches on several languages came or have been brought to our attention. Up to now, we could not find a single language that has free and subcategorized datives and treats them syntactically in a different way. It has

assignment and argument interpretation can and in fact has to be left open for the semantic/conceptual component. In some cases, the only way to overcome apparent violations of the θ -criterion – especially the requirement that all θ -roles of a verb have to be assigned syntactically – is to assume that it is not a syntactic requirement, but only a semantic one. To give one example, the verb *versprechen*, ‘promise’, has three Θ -roles, a speaker S, a hearer H and a proposition P. An example where one role is not realized syntactically but semantically, is the following one:

81. *David hat *(Claudia) einen Ferrari versprochen*
D.-NOM has C.-DAT a Ferrari-ACC promised

David is S, Claudia H, but the Ferrari is not P. So it is not just the case that a θ -role is not realized syntactically, namely P, there is also one DP that gets no θ -role, namely the Ferrari. The Ferrari is part of P, though, which can be paraphrased as ‘Claudia will get a Ferrari’. But this is not expressed by a syntactic constituent, so P’s ‘realization’ has to be left for conceptual inference. Claudia is also part of P. This is the reason, why in this case the dative is obligatory, while in general it need not be:

82. *David hat (Karl) versprochen, daß Claudia einen Ferrari bekommt*
D.-NOM has (K.-DAT) promised that C.-NOM a F.-ACC gets

The mechanisms that are involved in thematic interpretation seem to be much more complicated than θ -theory suggests.

Furthermore, there never has been clear independent evidence for the existence of θ -positions in syntactic structure, while we have strong evidence for the existence of structural case positions. So it is empirically more justified to keep the latter and abandon the former than vice versa.

But do we not need traditional θ -role assignment for the structural cases? – With respect to these, we rely on the theory of argument structure developed by Hale and Keyser (1991, 1993), where θ -role assignment to subject and direct object is done by predication. The subject receives its θ -role via predication of VP, and the object via predication of a verbal SC-copredicate that often is incorporated into the verb.²⁰ This theory has some failures and shortcomings (cf. Steinbach/Vogel 1994), but we assume that the general tendency is correct.

So for now we assume that structural cases get their thematic interpretation via predication, while semantic cases get it via independent semantic rules connected directly with the

been claimed for some Romance languages, e.g. Portuguese, that dative clitic doubling occurs only with subcategorized datives. However, as Albert Branchadell found out, this appeared to be a myth. Clitic doubling occurs either with all datives or with none of them in the Romance languages (see Branchadell 1992 and the references given there). The same holds for clitic doubling in Bulgarian (see Schick/Zimmermann 1995). Even in Basque, which is one of the rare languages that have true indirect object agreement, the agreement morphology occurs likewise with both ‘free’ and ‘subcategorized’ datives (see Wunderlich/Joopen 1994). The possibility of multiple datives has been testified for Italian, where dative clitic and dative NP may not be coreferent (Anna Cardinaletti, p.c.) and for Czech (Uwe Junghans, p.c.).

²⁰ This is not quite right: one type of direct objects, namely cognate objects, receives case presumably by adjacency. This holds for all cases of transitive verbs that have not even an incorporated SC complement in Hale & Keyser’s theory.

respective case form. As long as the mechanisms for this have not been worked out, this is more a research proposal than a theory that can be proved and defended here.

E2: Markedness of sentences

In section A we claimed that one issue of this article is to find out whether syntax has any impact on the markedness of German clauses. To do this we compared unmarked orderings of arguments and formulated the constraints that have to be assumed to get the right results. We saw that dative and accusative objects differ in the constraints that govern their unmarked position in the clause. This can best be illustrated with their relationship to the nominative in unmarked sentences. We saw that the accusative always follows the nominative in the unmarked case, irrespective of other syntactic and semantic properties of these arguments. But the unmarked position of a dative related to nominative depends on the definiteness hierarchy and, if this does not help, on the agentivity and the animacy hierarchy (see sect. A). It is plausible to assume that these constraints are constraints of different sub-components of the language faculty: the order of structural cases is governed by syntax proper, the computational system in the sense of Chomsky (1995), while agentivity, animacy, and definiteness hierarchy are rules imposed by the conceptual/intentional sub-component, which lies beyond syntax proper.

Our theory predicts that with a nominative and an accusative there is only one optimal configuration with respect to economy of derivation. But with a nominative and a dative, there are several possibilities, because the insertion of the dative is equal in cost, no matter at what stage of the derivation it occurs. Let us assume that the computational system produces more than one single output in such a case. This output is now the input for the conceptual system. We have two different situations, depending on the case of the object:

- I. { NOM > ACC }
- II. { DAT > NOM ; NOM > DAT }

Let us further assume that the job of our cognitive constraints (definiteness and animacy hierarchy etc.) is ‘disambiguation’, they filter out the unmarked output. Hence, they apply only when the input consists of a multi-membered set of derivations, as in our case II. In case I nothing is to disambiguate and hence our conceptual filters need and do not apply. Construed in this way, the machinery yields the right results so far. One addition has to be made: in the case of an ACC > NOM derivation there is again no competitor, but the derivation is marked. This is so, because the syntactic transformations involved here were not only those necessary to get a grammatically well-formed derivation; there was one additional derivational step, the topicalization of the accusative. We have to assume that the computational system can provide such structures, in fact anybody has to (e.g. for the cases of extraction, topicalisation, and extraposition). So our solution must be that these derivations leave the computational system as already marked. Let us assume this as an additional principle for markedness: *A derivation is marked if it contains more derivational steps than ultimately necessary for convergence*²¹ – alternatively, one could assume topic features, focus features, markedness features etc. pp. to make markedness data compatible with current minimalist theories.

²¹ This is not enough. At least it has to be explained, why certain ‘unnecessary’ transformations are ‘grammatical’, while others are not.

It seems natural to us to assume that markedness results from violations of constraints at all levels, syntactic as well as conceptual and, of course, prosodic. A sentence is marked, if it departs in at least one respect from the, say, functionally optimal or simplest structure.

Appendix: *Reflexive verbs with dative anaphora*

German has an interesting class of verbs that obligatorily select a reflexive pronoun. The reflexive pronoun does not always realize a Θ -role of its own, for example:

1. a. Ich schäme mich
I feel ashamed SELF-ACC
- b. Peter beeilt sich
 P. hurries SELF-ACC

These verbs can be called proper reflexive verbs, because the reflexive pronoun can not be replaced by an NP or a pronoun. We cannot even speak sensefully of a second theta-role here. Improper reflexive verbs are those, where the anaphor can be replaced by a pronoun or an NP – because it has a Θ -role of its own:

2. a. Judith wäscht sich/ihn/das Auto
 J. washes [SELF/him/the car]-ACC
- b. Maria versorgt sich/ihn/die Oma mit Bier
 M. supplies [SELF/him/the granny]-ACC with beer

There are some reflexive verbs with dative anaphors. The traditional analysis of proper reflexive verbs is that verb and anaphor together are treated as one single lexical item. Our treatment of datives as verb-independent would predict that there are no proper reflexive verbs with dative anaphors. We classified the examples we found into four groups. The first group forms ditransitive verbs, where the dative can be understood as realizing a Θ -role of its own, like goal or possessor – in this sense they can be understood as improper reflexive verbs, though subject and dative necessarily are co-indexed:

3. a. Ich habe mir etwas angeeignet
 I have SELF-DAT something appropriated
- b. Ich habe mir etwas vorgenommen
 I have SELF-DAT something decided to do

The second class are transitive constructions with dative objects. Both verbs in the examples given here are derived from dative ‘selecting’ lexical heads, the verb *helfen* (to help) and the adjective *gleich* (equal), respectively. It again makes sense to assume an extra Θ -role for the anaphor here.

4. a. Ich habe mir beholfen mit einer Lüge
 I have SELF-DAT *be*-helped with a lie
- b. Ich bin mir gleichgeblieben
 I am SELF-DAT equal-remained

The anaphors in the following two groups can be omitted, but this has a semantic effect:

5. a. Ich habe (mir) etwas genommen
I have SELF-DAT something taken
b. Ich habe (mir) etwas gekauft
I have SELF-DAT something bought

Only when the anaphor is overt, there is an implication that the agent is also the future owner of what was bought or taken by her.

6. a. Ich habe (mir) etwas angehört
I have SELF-DAT something listened to
b. Ich habe (mir) etwas angesehen
I have SELF-DAT something looked at

In these examples the difference to the anaphor-less variants is that in the latter cases only the perception is described, while the overt anaphor induces a complete, concentrated and purposeful act of perceiving.

All the dative anaphors have some thematic properties of their own. On the other hand, the anaphors cannot be replaced by R-expressions. What is possible, though, is replacement by an anaphor that includes the subject, like a first person plural anaphor in case of a first person singular antecedent. This is impossible for proper reflexive verbs like *sich schämen*:

7. a. Ich habe uns etwas angeeignet
I-NOM have us-DAT something appropriated
b. Ich habe uns mit Papas Geld beholfen
I-NOM have us-DAT with Daddy's money *be*-helped
c. Ich habe uns etwas gekauft
I-NOM have us-DAT something bought
d. ?Ich habe uns etwas angesehen
I-NOM have us-DAT something looked at
8. *Ich habe uns geschämt
I-NOM have us-ACC ashamed

This might serve as evidence that there are no proper reflexive verbs with dative anaphors in German, as expected in our approach.

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