

The Dative – an Oblique Case*

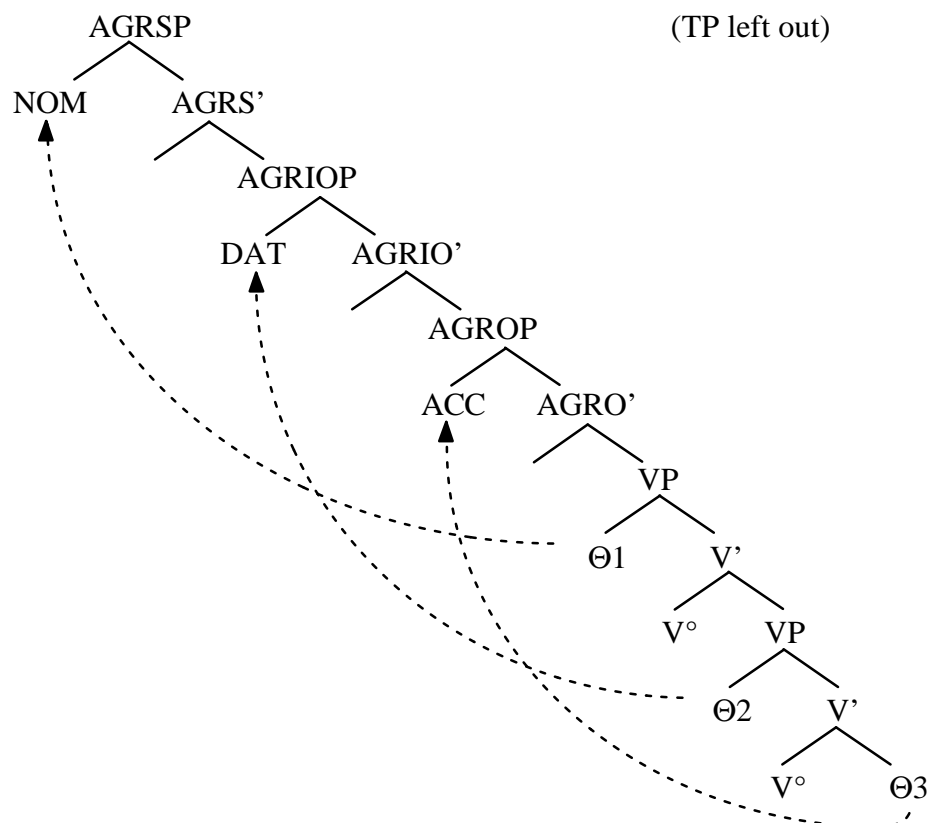
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Abstract

This paper offers a unified syntactic analysis for free and subcategorized dative objects in German. While assuming genuine case positions for the structural cases nominative and accusative, we treat all dative objects as syntactic adjuncts. This explains the contrasts between accusative and dative objects w.r.t. word order variation, anaphora binding, extraction, a.o. The binding properties of dative objects can be explained with a slightly modified version of the binding theory of Reinhart and Reuland (1993). We thus revive the ‘old’ case theoretic distinction between structural case (accusative) and oblique case (dative). Several consequences follow from this for case theory and the concept of markedness. Some current syntax theories suffer from not having implemented this distinction.

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 on a par with accusative and nominative (cf. Fanselow 1995a/b, Gallmann 1992, Meinunger 1995, Müller 1993, Sabel 1995, Wegener 1991 a.o.). The structure in (1.) is a possible realization of this idea. The functional projection for the dative case is located between AGRSP and AGROP. Overt movement of all arguments leads to the linear surface word order NOM > DAT > ACC (where $x > y$, here and throughout, means that x precedes y).

1.



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

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, depending on a variety of conceptual constraints.
- ad b) dative objects, in contrast to accusatives, cannot serve as A-binders and are extraction islands.
- ad c) German has ‘free’ dative objects that have a thematic interpretation which is independent of the verb and other syntactic predicates – this never occurs with nominative and accusative.

The conclusion we will draw is therefore that the treatment of German dative objects illustrated in (1.) is not adequate – while it appears to be defensible 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*. We thus revive the traditional case theoretic distinction between structural and oblique case.

This paper is organized as follows: the first section discusses word order facts in the German middlefield. The second section shows that German dative objects have A'-properties. Section 3 tries to explain the behavior of dative objects w.r.t. anaphora binding with a slightly modified version of Reinhart and Reuland's (1993) binding theory. The final section discusses the consequences of our findings, especially for case theory and the concept of markedness.

1. The ‘Base Position’ of German Dative Objects

We first want to take a closer look at what has been called ‘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. With neutral stress (Jacobs 1992, 1993) (2.a) is the best variant in a neutral context; it can have global focus (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*. The only DP-movement that might have taken place in this case, is movement to case positions.¹

- 2. a. *Es hat ein Junge einem Mädchen ein Buch gegeben*
It has a boy-NOM a girl-DAT a book-ACC given
- b. *Es hat ein Junge ein Buch einem Mädchen gegeben*
- 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*

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, motivated by some theory of linking and case assignment. Nonetheless, this ‘standard’ 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 basic orders. This assumption goes along with theories that correlate DP scrambling with focus and topic effects: the marked orders are derived from the unmarked ones (cf. Jäger 1996).

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 constituents in German:

“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 “polycausal 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 middlefield of clauses in Zurich German – an Alemannic dialect spoken in Zurich/Switzerland – is governed pragmatically in toto. Syntax has nothing more to say about it than providing its structural possibility. 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 Cooper and Fanselow fail to show, is, though, that syntax really has *no* impact on surface orders. To do this, one would have to neutralize the 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.²

1.1. Variation in unmarked word orders

If the unmarked order of subject and objects was uniformly the one shown in (2.a) above for all clauses of German, there would be no problem for the structural account illustrated in (1.). But this is not the case. The unmarked word order of ditransitive constructions varies (as described in detail in Haider 1992). While (3.) illustrates the pattern we already got to know, in (4.) the unmarked order of the objects is ACC > DAT.

3. NOM > DAT > ACC

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.)

4. 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:

5. 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

6. 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.³ Counterevidence against this claim are the following data that show different patterns with the verbs in (5.) and (6.). Both of them can appear with only unmarked DAT > ACC, too:

7. 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

8. 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:

9. 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
10. a. *Es hat eine Frau einen Mordfall einem Detektiv entzogen*
It has a woman a murder case-ACC a detective-DAT withdrawn
b. *Es hat eine Frau einem Detektiv einen Mordfall entzogen* = unmarked order
It has a woman a detective-DAT a murder case-ACC withdrawn

The examples (7.-10.) suggest that the unmarked order of the objects is determined by the animacy of the nouns in question. This observation has also been made by Fanselow (1995a): animate arguments precede inanimate arguments in the unmarked case. Ditransitive constructions with two animate objects have two unmarked orders (cf. 5. and 6.). As expected, ditransitive constructions with two inanimate objects also have two unmarked orders:

11. 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 arguments, we have two unmarked orders, when the object has dative case (12.), while we have only one, when the object has accusative case as in (13.) (cf. also Cooper 1994:29f).⁴

12. 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
13. 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 inanimate nominative in the unmarked case. This is impossible for animate accusative experiencer objects. They never precede the nominative in the unmarked case.⁵

14. 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
15. a. *Es hat eine Explosion einen Jungen erschreckt* = unmarked order
 It has an explosion-NOM a boy-ACC scared
 b. *Es hat einen Jungen eine Explosion erschreckt*
 It has a boy-ACC an explosion-NOM scared

Our explanation for these facts is that *dative objects are syntactic adjuncts in German*. Like other adjuncts, they surface, where they are inserted. Hence, there is no A-movement of the dative object to a fixed functional projection in German. As we saw, the unmarked word order is determined among other things by the animacy hierarchy which seems to be a non-syntactic cognitive constraint. There are further constraints like definiteness and agentivity hierarchy, cf. section 1.

1.2. Pronouns

Another difference between accusative and dative objects w.r.t. word order is discussed in Gärtner&Steinbach (1996). In the middlefield, German accusative pronouns can refer to animate and inanimate entities (cf. 16.a). As soon as an accusative pronoun is fronted, it receives a ‘strong’ interpretation (cf. Cardinaletti&Starke 1994), i.e. it can only refer to animate entities (16.b).

16. a. *Hans hat ihn an der Bushaltestelle gesehen* (ihn = the bus/his friend)
 H. has him-ACC at the busstop seen
 b. *Ihn hat Hans an der Bushaltestelle gesehen* (ihn = *the bus/his friend)
 Him-ACC has H. at the busstop seen

This restriction does not hold for nominative pronouns. A nominative pronoun can refer to animate and inanimate entities even in sentence initial position (17.):

17. *Er steht seit Stunden an der Bushaltestelle* (er = the bus/his friend)
 he-NOM stands for hours at the busstop

Interestingly, fronted dative pronouns show the same freedom:

18. a. *Ihr fehlt eine Zinke* (ihr = fork)
 her-DAT misses a prong
 b. *Ihm hat gestern jemand zwei Beine abgesägt* (ihm = table)
 him-DAT has yesterday somebody two legs sawed off
 c. *Ihr hat wieder mal niemand etwas gesagt* (ihr = Maria)
 her-DAT has once again nobody anything told

This is another interesting case where the correlation between unmarked word order and animacy is relevant. Discourse linking of pronouns seems in principle easier if the pronoun refers to an animate entity. This holds especially for marked word orders. While datives are relatively unmarked in sentence initial position, fronted accusatives are more marked. Therefore it is no surprise that fronted accusative pronouns tend to get a [+animate] interpretation. Nevertheless, a [-animate] interpretation for accusatives is quite possible with explicit discourse linking:

19. *Diesen Schrank kriegen nicht nur die Profis zusammen. Ihn können auch die Laien problemlos aufbauen.*
 This cupboard can be fixed not only by professionals. It-ACC can also be fixed by amateurs without problems.

1.3. VP-remnant-topicalization

VP-remnant-topicalization has also been considered as evidence for basic argument order (e.g. by Müller 1993). On the contrasts given in (20.), one might conjecture that the basic order is accusative object > PP > verb for the given example. If the verb is fronted together with a constituent, it has to be the constituent immediately preceding the verb.

20. a. *Auf den Tisch gelegt hat Maria das Buch*
 On the table put has Maria the book
 b. **Das Buch gelegt hat Maria auf den Tisch*

However, the picture is not that clear. First of all, note that VP-remnant-topicalization creates marked sentences and obeys its own semantic restrictions. Second, Haider (1990) shows with many examples that non-adjacent constituents can indeed be fronted together with the verb:⁶

21. a. *Ein Außenseiter gewonnen hat es noch nie* (Haider 1990:102)
 An outsider won has it yet never
 b. *Dem Jungen gegeben hat er das Buch* (Büring 1995:55)
 The boy-DAT given has he the book
 c. *Mehrmals gelesen habe ich nur 'Krieg und Frieden'*
 Several times read have I only 'War and Peace'

The examples in (21.) show that there is no strict correlation between the topicalized VP or VP-part and basic word order. We would expect, however, that VP fronting is possible at least on the basis of unmarked orders. This appears to be correct. Whenever we postulate two unmarked orders, both can 'feed' VP-remnant topicalization:

22. a. *Einem Römer begegnet ist er noch nie* (cf. example 12.)
 b. *Ein Römer begegnet ist ihm noch nie*
 c. *Einem Mann vorgestellt hat er sie noch nie* (cf. example 5.)
 d. *Eine Frau vorgestellt hat er ihr noch nie*

1.4. Conclusion

Let us summarize the observations we made so far:

1. The unmarked positioning of dative objects is sensitive to non-syntactic cognitive constraints like the animacy hierarchy.
2. The unmarked relative order of accusative and nominative is not sensitive to such cognitive constraints.⁷ It is uniformly NOM > ACC, as would be expected from (1.).
3. Unmarked orderings do not (totally) result from lexical properties of the verb.
4. The dative object occupies one of three possible positions:⁸
(DAT) NOM (DAT) ACC (DAT)

When we take a look at their syntactic behavior in other cases, as we will do in the next section, we see that the difference between accusative and dative objects is systematic, and that datives behave, as if they occupied what in the Government and Binding framework used to be called 'A'-positions'.

2. Syntactic Differences between Dative and Accusative Objects in German

The most crucial cases, which we want to illustrate here, are binding and extraction, but we also discuss two more subtle contrasts at the end of this section. Let us take binding first.

2.1. Datives do not serve as A-binders

The contrast between (23.) and (24.) shows that a dative object cannot bind an accusative anaphor, while an accusative object can bind a dative anaphor (cf. Müller 1993, Grewendorf 1988).

23. * DAT₁ > REFL-ACC₁
 a. *daß der Arzt₁ dem Patienten₂ sich_{1/*2} im Spiegel zeigte*
 that the doctor-NOM the patient-DAT REFL-ACC in the mirror showed
 b. **daß man den Gästen₁ einander₁ vorgestellt hat*
 that one-NOM the guests-DAT each other-ACC introduced has
24. ✓ ACC₁ > REFL-DAT₁
 a. *daß der Arzt₁ den Patienten₂ sich_{1/2} im Spiegel zeigte*
 that the doctor-NOM the patient-ACC REFL-DAT in the mirror showed
 b. *daß man die Gäste₁ einander₁ vorgestellt hat*
 that one-NOM the guests-ACC each other-DAT introduced has

But it is not the case that datives cannot be binders at all, they just cannot be A-binders. That datives can serve as binders, when the binder need not be in an A-position, is illustrated in the following examples with quantifier-pronoun relations, the each...other construction and the licensing of negative polarity items. Here only c-command is required (these tests follow Barss/Lasnik 1986):

25. QNP-Pronoun Relations
- Ich verweigerte jedem Arbeiter₁ seinen₁ Gehaltsscheck*
I denied each worker-DAT his paycheck-ACC
 - Ich zeigte jedem meiner Freunde₁ sein₁ Foto*
I showed [each of my friends]-DAT his photograph-ACC
 - *Ich verweigerte seinen₁ Gehaltsscheck jedem Arbeiter₁*
I denied his paycheck -ACC each worker-DAT
 - *Ich zeigte sein₁ Foto jedem meiner Freunde₁*
I showed his fotograph -ACC [each my friends] -DAT
26. each ... other construction
- Ich gab jedem Mann des anderen Uhr*
I gave each man-DAT the other's watch-ACC
 - *Ich gab dem Trainer des anderen jeden Löwen*
I gave [the trainer of the other]-DAT each lion-ACC
27. Negative Polarity
- Ich gab niemandem/*jemandem auch nur ein Buch*
I gave noone-DAT/*someone even only one book-ACC
 - Ich gab kein/*ein Buch auch nur einer Person*
I gave no/*a book-ACC even only one person-DAT
 - *Ich gab auch nur ein Buch niemandem*
I gave even only one book-ACC noone-DAT
 - *Ich gab auch nur einer Person kein Buch*
I gave even only one person-DAT no book-ACC

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

2.2. Datives are extraction islands

The second contrast between datives and accusatives in German is that datives are considered to be extraction islands, but accusatives are not. This holds both for wh-extraction, as shown in (28.), and PP-extraction, as shown in (29.).⁹

28. Wh-extraction (Müller 1993)
- *[_{PP} Über wen]₁ hat der Verleger [einem Buch t₁] keine Chance gegeben?*
about whom has the editor-NOM a book-DAT no chance given
 - [_{PP} Über wen]₁ hat der Fritz der Anna [ein Buch t₁] gegeben?*
about whom has ART Fritz-NOM ART Anna-DAT a book-ACC given
29. PP-extraction
- [Über Scrambling]₁ habe ich einem Buch über Optionalität [einen Aufsatz t₁] hinzugefügt*
'About scrambling have I the book-DAT about optionality [an article-ACC t] added'
 - *[Über Optionalität]₁ habe ich einen Aufsatz über Scrambling [einem Buch t₁] hinzugefügt*
'About optionality have I an article-ACC about scrambling [a book-DAT t] added'

We are aware of the fact that extraction out of DPs is more complicated and subtle than these data suggest (cf. e.g. Pafel 1995). For many constructions that are under debate it is even controversial whether they involve movement out of DP. Nonetheless, there is a clear contrast between the transparency of accusative and dative objects. In general, we observe that it is significantly better to extract out of an accusative than out of a dative, when minimal pairs are considered.

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).

2.3. A derivational account: Müller (1993)

In Müller's model, which is inspired by Larson's theory of the English 'dative shift' (Larson 1988/1990)¹⁰ dative case is assigned in the specifier of a VP-shell, called μ P.¹¹ The dative object moves there from its VP-internal Θ -position:

30. ... [μ P DAT₁ [_{VP} ACC [_V t₁ V^o]]]

The two positions are illustrated in (31.). The directional PP surfaces in the Θ -position, the dative object in the case position:¹²

31. 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*₁ [_{VP} *einen Brief* [_V t₁ *geschickt*]]] *hat*
 that ART Fritz the landlord-DAT a letter sent has

How does Müller account for the syntactic facts? He claims that the dative anaphor does not need case and hence remains in situ. Therefore 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.

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 would not make sense to consider them as subcategorized by the verb.

It is typical of free datives to have more than one possible reading, as is glossed below the examples in (32.), which are standard examples of possessor or beneficiary datives.

32. 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 (cf. 33.). Note that the dative here has to be considered as free, because there is no thematic role of the verb left for it. The directional PP *nach Hause*, ‘home’, receives the GOAL role:

33. *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 ‘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’ or
 ‘Fritz sent the letter for the landlord to his home’

What this approach cannot explain is binding of free dative anaphors, which is as possible as binding of subcategorized datives, as we see in (34.). 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.

34. a. *Maria setzte die Kinder₁ einander₁ auf den Schoß*
 Maria sat the children-ACC each other-DAT on the lap
 b. **Maria setzte den Kindern₁ einander₁ auf den Schoß*
 Maria sat the children-DAT each other-ACC on the lap

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

35. *[*Von wem*]₁ *hast du* [*dem Vermieter* t₁] *die Haare geschnitten?*
 of who have you [the landlord-DAT t₁] the hair cut?

We conclude that free datives syntactically behave like subcategorized ones. This fact can be observed in many languages¹³. A derivational account cannot avoid to falsely predict syntactic differences between the two, because subcategorized datives have a VP-internal theta-position and free datives do 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.¹⁴

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 (i.e. each dative needs a different interpretation):

36. a. *Ich habe der Maria dann ihre Falafel dem Oliver mit auf den Teller legen lassen.*
 I have the M.-DAT then her falafel the O.-DAT with onto his plate put let
 ‘I had the falafel for Maria put onto Oliver’s plate (together with others)’ or
 ‘I had Maria’s falafel put onto Oliver’s plate (together with others), as she wanted’
 b. *Dem Peter habe ich gestern seinem Auto einen neuen Motor eingebaut*
 The P.-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 D. has me-DAT the C.-DAT already too many presents given

'I think, David has already given too many presents to Claudia'

Apart from this, there is one argument left for analysing dative as structural case: the so-called 'kriegen'-passive. Many authors claim that dative case has to be structural because dative objects can be passivized:

37. *Der Vermieter kriegt einen Brief geschickt*

The landlord gets a letter sent

Either 'the landlord is given a letter' or

'a letter is sent for the landlord' or

'the landlord manages to send a letter'

First of all, the 'kriegen'-passive is debated controversially. It is less but clear if a sentence like (37.) is best analysed as a predicative construction or as a passive. Second, free datives can be passivized as well:

38. *Der Vermieter kriegt das Zimmer geputzt*

The landlord gets the room cleaned

'The room is cleaned for the landlord'

Third, 'kriegen'-passive may be seen as evidence that dative case can be absorbed and the caseless NP moves into a nominative case position where it receives (or has to check) nominative case. But being absorbable might not be an exclusive property of structural cases. In the linguistic literature, passive constructions have been taken as evidence for structural case w.r.t. the *landing site* of case movement, but rarely w.r.t. the absorbed case.¹⁵ But in German, there are no examples where a NP has been moved into a (structural) dative case position. Parallel examples can be found both for nominative (passive) and accusative (ECM-constructions). Therefore, 'kriegen'-passive is no convincing argument for dative as structural case. Note further that dative objects cannot undergo middle formation in German, either.

A further problem for a treatment of dative as structural case is the following asymmetry:

39. a. *Wir bedauern Reagans Wiederwahl*

We regret Reagan's reelection-ACC

b. *Wir messen Reagans Wiederwahl große Bedeutung bei*

We attribute Reagan's reelection-DAT great significance to

'We attribute great significance to Reagan's reelection'

40. a. *Wir bedauern, daß Reagan wiedergewählt wurde*

We regret that Reagan reelected was

b. **Wir messen große Bedeutung bei, daß Reagan wiedergewählt wurde*

We attribute great significance to that Reagan reelected was

Some verbs (like *bedauern*, cf. 39.a) that select a proposition as object assign accusative to this object, others (like *beimessen*, cf. 39.b) assign dative. The propositional object can be realized as a CP only with accusative assigning verbs (40.). Fanselow and Felix (1987) explain this contrast with the same case theoretic distinction between structural and oblique case that we use. Interestingly, when 'passivized', the CP is no longer ruled out even with the dative assigning verb (Webelhuth 1990:45):

41. *Daß Reagan wiedergewählt wurde, bekam eine große Bedeutung beigemessen*
That Reagan reelected was got a great significance attributed

2.4. Dative objects in coherent infinitives

A further phenomenon that marks a difference between dative and accusative case in German is the following: There are some verbs that are able not only to select a *zu*-infinitive ('to'-infinitive), but, according to the widely accepted view of this phenomenon, to form a morphosyntactic unit with the selected infinitival verb. The infinitives that show this behavior are called 'coherent infinitives', after Bech (1955/1957). As a consequence of this the complex verb < V1+zu-V2 > behaves like one single verb and hence governs only one nominative and one accusative case. It was widely assumed because of this that verbs that select a coherent infinitive have to be intransitive. Haider (1988), however, showed that dative assigning transitive verbs also are able to select a coherent infinitive and only accusative assigning transitives are not (cf. Haider 1988: 128/129). A good diagnostic test for coherence is scrambling the embedded object in front of the subject, which is possible only with coherent infinitives:

42. a. weil es ihr jemand zu lesen versprochen hat
because it-ACC her-DAT someone-NOM to read promised has
b. *weil es sie jemand zu lesen überredet hat
because it-ACC her-ACC someone-NOM to read persuaded has

It is even possible to have two dative objects:

43. weil einem kranken Schüler der Rektor dem Lehrer zu helfen erlaubte
because a sick student-DAT the headmaster-NOM the teacher-DAT to help allowed
'because the headmaster allowed that the teacher helped a sick student'

Again, this difference between accusative and dative is only predicted, if dative object case is not treated as structural case.

2.5. Conclusion

The following properties of dative objects have been demonstrated:

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.
5. dative, but not accusative, assigning transitive verbs allow for coherent infinitive complements.

This list of phenomena is not complete. For a more detailed survey of further syntactic, as well as morphological and semantic phenomena, see Vogel & Steinbach (1995).

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.¹⁶ Each of the indicated positions in (44.) is a possible site for insertion of the dative object. Which of these is

45.

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

The different distribution of the two types of anaphors helps to draw the distinction between *syntactic and semantic predicates and arguments* — which is central for R&R's binding theory. Consider the following examples:

46. a. *Henk₁ hoorde hem₁
 H.₁ heard him₁
 b. *Henk₁ hoorde zich₁
 H. heard SE
 c. Henk₁ hoorde zichzelf₁
 H. heard SELF
47. 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 (46.) the SELF anaphor is required, while in (47.) both SE and SELF are possible. The difference between the two sentences lies in the relation between the verb *hoorde* and the direct object. In (46.), the direct object is both assigned case and its thematic role by the same verb. In (47.) the direct object is also assigned case by *hoorde*, but the thematic role of the anaphor stems from the embedded verb *zingen*. Hence, in (47.) the direct object (i.e. the anaphor/pronoun) is only a *syntactic argument* of *hoorde*, and thus only a syntactic co-argument of its antecedent, *Henk*. In (46.), the anaphor/pronoun is both syntactic and semantic argument of *hoorde*, and hence both syntactic and semantic co-argument of its antecedent. The empirical generalization is that exclusive syntactic co-argumenthood just rules out the pronoun, while simultaneous syntactic and semantic co-argumenthood requires a SELF anaphor. This is summed up in (48.):

48.

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

As a consequence of this, the binding principles have to be formulated relative to syntactic and semantic predicates. R&R do this in the following way (Reinhart&Reuland 1993:678):¹⁸

49. *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 of 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.

50. *Conditions*

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

The formulation of the binding conditions in (50.) reflects the contrast between (46.) and (47.). Condition B says that, when two semantic co-arguments are coindexed, a SELF anaphor is required, according to the definition of reflexive-marking in (49.d). This accounts for all of the three sentences in (46.). But condition A can only account for (47.c), but not (47.a) and (47.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 (51.):

51. *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 (47.a) is ruled out because it is both referentially independent and case-marked, but not the head of the chain. SE in (47.b) is still allowed, correctly, because the anaphor is not referentially independent.

3.2. 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 (49.a) by (49.a'),

49. 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 (52.),

52.

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

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

53. *General Condition on A-chains in German* (results from 49.a' and 52.)
 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 subject in matrix clauses.

We can now rule out (54.a) with a dative antecedent for the accusative anaphor, and likewise (54.b) with an antecedent marked with another semantic case form, a *mit*-PP. We correctly predict further that in (55.) the pro-form has to be realized as a SELF anaphor,¹⁹ 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 *mit*- and *von*-phrases.

54. 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
55. 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 (49.a') and (53.) correctly predict a gap: The clause-internal antecedent for a pro-form with accusative case can never be marked with semantic case in German:

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

The anaphor is ruled out by condition A and the pronoun by condition B.²⁰

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 (57.a) and (57.b) below.

57. a. *Maria hat einander₁ Kinder₁ die Ohren waschen lassen*
 M. has each other-DAT children-ACC the ears wash let
 b. *??Maria hat einander₁ Kinder₁ waschen lassen*
 M. has each other-ACC children-ACC wash let

4. Concluding Remarks

The ‘message’ of this study is to treat surface case seriously. Postulating AGR-phrases is not sufficient, if this disables us to account for the differences between structural and oblique case. Different case types are classified through patterns of different syntactic behaviour, as well as semantic interpretation and morphological properties. The syntactic behavior has been discussed in this paper. With respect to semantics and morphology we argued for this claim in Vogel&Steinbach (1995). The distinction between structural and oblique case in German is threefold.²¹

	structural case	oblique 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 3. 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.

A lot has to be said about the semantics of dative objects. Everybody in the field agrees that dative case is semantically more specific than accusative and nominative. On the other hand, the numerous attempts to make this intuition explicit show that it is really hard to tell, what the semantics of dative case actually is. The same problems occur with other oblique cases. We leave this issue open for further research.

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 cognitive constraints like the agentivity and the animacy hierarchy. 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 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 fronting of the accusative. We have to assume that the computational system can provide such structures (also for the cases of extraction, fronting, 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*²².

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.

Notes

* This is a revised and abridged version of Vogel&Steinbach (1995). We want to thank a lot of friends and colleagues for comments and discussion. Special thanks go to Manfred Bierwisch, Chris Wilder, Hans-Martin Gärtner, Daniel Buring, Gereon Müller, Paul Law, Ilse Zimmermann, Tolja Strigin, Reinhart Blutner, Uwe Junghanns, Andre Meinunger and two anonymous reviewers. The authors thank themselves and blame each other for the mistakes.

- 1 It has been stated by some native speakers we asked for judgments that (2.c., d. and f.) are degraded even in grammaticality. Interestingly, these are the examples where ACC precedes NOM (see section 1.1. for the difference between DAT > NOM order and ACC > NOM order).
- 2 Uncontroversial examples of a syntactic transformation affecting markedness are topicalization and ‘long topicalization’ out of embedded verb-finite-clauses in German. Further candidates are extraction and scrambling phenomena. These latter phenomena might be reducible to non-configurationality along the lines of Cooper (1994) or Fanselow (1995b), but such approaches need to be enriched by a theory that explains the correlation of specific syntactic configurations and markedness. Traditional generative analyses of scrambling and extraction are derivationally. In these cases, markedness is induced by an optional syntactic transformation: the marked form is syntactically derived from the unmarked one. For more general remarks on the issue of markedness, see the last section below.
- 3 Relying on Haider’s claim, Frey (1993) considers quantifier scope phenomena as evidence for basic word order. Frey proposes that scope inversion is impossible with basic (i.e. unmarked) word orders:
 - (i) *DASS er mindestens ein Geschenk fast jedem Gast überreichte*
that he at least one present-acc almost every guest-dat handed over
 - (ii) *DASS er mindestens einem Gast fast jedes Geschenk überreichte*
that he at least one guest-dat almost every present-acc handed over
 According to Frey, (i) is ambiguous between wide scope readings for either ‘almost every’ or ‘at least one’, while (ii) has no scope inversion reading. We do not completely share Frey’s intuitions. We get both readings for both sentences, though the preferred reading is the one that respects the surface order of the quantifiers. An example that seems to us a bit clearer is the following:
 - (iii) *DASS er mindestens einem Gast fast jedes Lied vorsang*
that he at least one guest-DAT almost every song-ACC sang to

It is also possible to find examples where scope inversion is preferred, even with unmarked constituent order:

- (iv) *DASS mindestens eine Person fast jedes Haus in dieser Straße bewohnt*

- that at least one person almost every house in this street inhabits
- (v) *DASS mindestens ein Angestellter fast jeder Firma treu bleibt*
that at least one employee almost every company-DAT loyal remains
- (vi) *DASS er mindestens ein Päckchen Zigaretten in fast jeder Schublade fand*
that he at least on pack of cigarettes in almost every drawer found

For further arguments against Frey's analysis see Fanselow (1995b).

- 4 There is a subtle contrast between these two sentences: in (12.a) nomads appear to be more frequent on the market, in (12.b) it is the Romans. This contrast does not occur with the semantically nearly identical accusative assigning verb *treffen* (13.).
- 5 There are some rare cases with unmarked ACC > NOM order as in (i), but all these examples are idiomatic as far as we can see.
- (i) *Ihn hat der Schlag getroffen*
Him-ACC has the stroke-NOM hit ('He was floored')
- 6 Haider gives further examples that raise strong doubts about derivational analyses of VP-remnant topicalization, one of them is the following:
- (i) *Briefe geschrieben hat sie mir nur drei traurige bis jetzt*
Letters written has she me-DAT only three sad up to now
- (ii) **Sie hat mir nur drei traurige bis jetzt Briefe geschrieben*
As (ii) shows, it is impossible to construct a VP remnant via scrambling of the adjectival part of the split DP, in order to yield a basis for the derivation of (i).
- 7 One alternative view is that the whole phenomenon of markedness is due to pragmatics – as proposed by Cooper (1994). In this case a 'NOM > ACC' rule has to be stated as a non-syntactic, cognitive constraint. This would be artificial, because this 'constraint' is simply an outcome of the syntax of structural cases. We get it for free from syntax proper. From the point of view of Chomsky (1995) structural case features are solely morphosyntactic and simply 'invisible' outside the 'syntax module'.
- 8 From this statement one would expect that in every case of ditransitive constructions with animate subjects and datives we find two unmarked word orders, with the dative either in front of or behind the subject. This is very rarely the case. There is a second kind of conceptual constraint at work, which is well-known: the agentivity hierarchy. Agents are 'naturally emphasized' by the conceptual system – so they are the most prominent arguments in the unmarked case. Every theory of thematic roles, linking and thematic interpretation reflects this empirical fact in one or the other way. Cf. also the discussion in Cooper 1995, chapter 2, and the list given by Lenerz (1977), cited in the first section.
- 9 Müller further claims that extraction out of scrambled objects is impossible. We do not totally agree 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 (28.a.),
- (i) ? [*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:
- (ii) *Von Thomas Mann hat mich noch kein Roman überzeugt*
[By Thomas Mann]_i has me-ACC yet [no novel *t_i*]-NOM convinced
- (iii) *Von Thomas Mann habe ich noch keinen Roman gelesen*
[By Thomas Mann]_i have I-NOM yet [no novel *t_i*]-ACC read
- (iv) **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:
- (v) *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
≈ 'About what would even Peter not have been able to write such a diatribe in anger'
- 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.
- 10 In his reply to Larson (1988), Jackendoff (1990) points to the non-productivity of the relationship between oblique datives and double object structures. But compared to English 'dative shift', 'dative shift' in German is even less productive.
- 11 μ P originally was an invention by Johnson (1991). Müller adapts Johnson's concept to German.

- 12 Note that (31.a) and (31.b) are not full thematic paraphrases. Only in (31.a) the landlord might not have been the addressee, while only in (31.b) the letter might have gone to a place different from the landlord's current address. Cf. also Meinunger (1995:53) for this effect.
- 13 Research on several languages came or has 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 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/Joppen 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 Junghanns, p.c.).
- 14 This evokes questions about theta-role assignment. How do subcategorized datives get their role, if they can be inserted anywhere in the clause? A proper answer to this question would require a separate treatment, but its general direction would be that verbs simply do not assign thematic roles in syntax at all. We strongly recommend a 'pure' syntax. Thematic interpretation clearly is part of semantic interpretation and so it has to be done in a different 'module', so to speak, of the 'language faculty'.
Reis (1995) notes that a non-standard process of thematic interpretation is needed anyway, e.g. for parenthetical constructions, cf.:
- (i) *In Bonn wohnt sie, sagt Paul, mit dem Kind seit 1985*
In Bonn lives she, says Paul, with the kid since 1985
- Here the object variable of the verb in the parenthesis (*sagen*) must be specified by the proposition of the host clause; perhaps by some inference mechanism. Such a mechanism might be useful for dative objects, too.
- 15 In fact, dative passive does not rule out the appearance of dative objects:
- (i) *Sonja hat ihrem Auto einen neuen Motor eingebaut bekommen*
S. has her car-DAT a new engine built in got
- 16 We have in mind a relatively simple version of syntactic structures that correlates A-properties with structural case (positions).
- 17 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)
- 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.
- 19 We assume for the examples we discuss that the sole German reflexive pronoun *sich* has to be classified as a SELF anaphor.
- 20 One anonymous reviewer points out that dative objects can serve as binders of obliquely marked anaphors, as in:
- (i) *weil den beiden Henkern_i vor einander_i graute*
because the two executioners-DAT of each other dreaded
- Our version of R&R's approach predicts that this is possible. Only condition B is relevant here, because we are not dealing with a syntactic predicate, as there is no structural case involved. Condition B only requires reflexive-marking, i.e. that one of the two coindexed arguments has to be realized as a SELF anaphor. It does not, however, require which argument it is, so the following should also be well-formed:
- (ii) **weil vor den Henkern_i einander_i graute*
because of the executioners each other-DAT dreaded
- As we see, this prediction is incorrect. But this only proves the incompleteness of the proposed treatment, rather than its falsehood. We treated obliquely marked arguments as one unstructured set in our discussion. This is obviously too coarse-grained. Our model can and should be enriched with an obliqueness hierarchy, perhaps along the lines of the binding theory of Pollard and Sag (1994). In such a hierarchy, the dative is presumably ranked higher than prepositional obliques, and the requirement should be that the antecedent has to be higher in the hierarchy than the anaphor. Deeper exploration and elaboration of this is necessary, however.
- 21 Bader et.al. (1996) present empirical evidence which demonstrates that processing difficulties arise if a case ambiguous NP in sentence initial position must be interpreted as dative.
- (i) *Dirigenten, die ein schweres Werk einstudiert haben, kann ein Kritiker ruhig umjubeln*
conductors-ACC who a difficult opus rehearsed have can a critic safely cheer
- (ii) *Dirigenten, die ein schweres Werk einstudiert haben, kann ein Kritiker ruhig applaudieren*

conductors-DAT who a difficult opus rehearsed have can a critic safely applaud
 Sentence (i) is much easier to parse than (ii). This is due to the fact that a parser prefers the assignment of structural case over oblique case (in their terms: 'abstract' over 'lexical' case).
 22 This is not enough. At least it has to be explained, why certain 'unnecessary' transformations are 'grammatical', while others are not.

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