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Opacity and the Accessibility of Subject in German A.C.I-Constructions

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360

OPACITY AND THE ACCESSIBILITY OF SUBJECT IN GERMAN A.C.I-CONSTRUCTIONS[1]

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i. Introduction

This paper will discuss the behavior of anaphoric binding in causative and perception verb complements in German. It will be argued that a simple reflexive/non-reflexive distinction is not rich enough to account for anaphora in German. Some modification of our current views on binding is necessary, and I will argue that neither Government-Binding Theory nor Predication Theory provides an adequate solution. I will argue that if subject defined as external argument (Williams (1980, 1983)) is incorporated into G-B theory, an elegant resolution of the problem is possible. Furthermore, we are able to account for cross-linguistic differences between German and English, with respect to anaphoric binding.

I will be assuming throughout the paper that the underlying word order for German is SOV. Matrix word order follows from a Verb-Fronting rule, the exact nature of which is irrelevant to the discussion (but see Thiersch (1978), Safir (1982)). Furthermore, I will assume a rule of topicalization, which moves some constituent into COMP[2], and a rule of Verb-Raising (Evers (1975, 1982)), which reanalyzes two or more verbs as a single verbal complex.

1.0

There are two kinds of reflexives in German; thematic and non-thematic. A thematic anaphor may appear where a name would also be permitted (cf. 1).

JAMES D. PUSTEJOVSKY

(1). a. Ich wasche mich.
        I am washing myself.
   b. Er hat sich verletzt.
        He hurt himself.
   c . Ihr habt euch doch nicht geholfen.
        You have not helped yourself.

Non-thematic anaphors are those particles that appear with inherently reflexive verbs, such as those shown in (2).

(2). a. Sie schämt sich.
      She is ashamed.
    b. Du irrst dich.
      You are mistaken.
    c. Er beklagt sich schon über sein neues BMW.
      He's already complaining about his new BMW.

When anaphors appear in tensed clauses, opacity behaves just as it does in English.

(3). a. Hans_i glaubt ,daß Jutta ihn_i/*sich_i betrogen hat.
      John_i thinks that Jutta has deceived him_i.
   b. Hans sah, daß der Verrückter_i sich_i/*ihn töten wollte.
      John saw that the madman wanted to kill himself.

A pronoun is free in a tensed S, while an anaphor is bound in this domain. Similarly, anaphora in control complements behaves as expected.

(4) a. Jutta versprach dem Mann_i ihn_i zu antworten.
     Jutta promised the man_i to answer him_i.
   b. Jutta_i hat Hans_j verboten, sich_i/*sich_j zu waschen.
     Jutta forbade John_i to wash himself_i.

Another class of verbs allowing infinitival complements are the perception verbs, *hören, sehen, fühlen*, plus *lassen* (hear, see, feel, and make, respectively). These are known as A.c.I. constructions, and may be analyzed as S complements. Consider the examples of this construction in (5), where anaphoric binding behaves as it does in control complements.

(5). a. Hans_i ließ Maria_j *sich_i/sich_j töten.
     Hans_i ließ Maria_j ihn_i töten.
     John_i had Maria_j kill *himself/herself/him_i
   b. Jutta_i sah den Mann_j *sich_i/sich_j erschießen.
     Jutta_i sah den Mann_j sie_i erschießen.
     Jutta_i saw the man_j shoot *herself/himself/her_i.
   c. Karl_i hörte das Mädchen_j *sich_i/sich_j küssen.
     Karl_i hörte das Mädchen_j ihn_i küssen.
     Carl heard the girl kiss *himself_i/him_i/herself_j.

OPACITY AND THE ACCESSIBILITY OF SUBJECT IN GERMAN

Assuming a "small clause" analysis (Chomsky (1981), Stowell (1981)), the subject can be correctly identified, and with respect to opacity, these sentences obey the SSC.

One of the interesting facts about perception verbs is that they allow a bare VP to stand without a subject. For example, (6).

(6)   Karl ließ den Verbrecher hinrichten.
      Carl had the criminal executed.

This sentence has a passive reading, where the subject is interpreted as arbitrary.

Following the assumption that the complement is clausal in nature, one might propose a null-subject, or PRO to occupy the lower subject position to assume the thematic role of agent.

An alternative analysis might suggest that a rule of passive applies to the complement without marking the verb with passive morphology. On this view, "den Verbrecher" is actually in subject position. Then, *arb* agent interpretation could be seen as analogous to agentless passives; e.g. The car was washed.

With these two proposals in mind, consider the sentences in (7).

(7)   a. Michael$_i$ ließ sich$_i$ töten.
            Michael$_i$ had himself$_i$ killed.
         b. Jutta$_i$ sah sich$_i$ erschießen.
            Jutta saw herself shot.
         c. Karl$_i$ hörte sich$_i$ kussen.
            Carl heard himself being kissed.
         d. Volker$_i$ fühlte sich$_i$ betrugen.
            Volker felt himself being deceived.

With the embedded subject absent, reflexivization is obligatory. How might this follow from our proposals?

Under a small clause analysis with PRO-subject, the governing category for the reflexive would be the small clause itself.

(8)   Small Clause Analysis (cf. Chomsky (1981), Stowell (1981))
         a. Michael ließ [$_S$ PRO [sich töten]]
         b. Michael ließ [$_S$ den Mann [sich töten]]

Within this domain *sich* would remain free, and these sentences would be ruled out, incorrectly[3].

OPACITY AND THE ACCESSIBILITY OF SUBJECT IN GERMAN

First, observe in (13) that control complements may extrapose to the right of the matrix verb.

(13) a. Rolf hat das Auto zu waschen versucht.
   Rolf tried to wash the car.
   b. Rolf hat versucht, das Auto zu waschen.
   c. Jutta$_i$ hat Hans$_j$ sich$_j$ zu waschen verboten.
   d. Jutta$_i$ hat Hans$_j$ verboten, sich$_j$/*sich$_i$ zu waschen.
   Jutta forbade John$_i$ to wash himself$_i$.

Topicalization moves a constituent (but see note (2)) into COMP. The S complements of control verbs may undergo this rule, as the sentences in (14) show.

(14)   a. Das Auto zu waschen hat Hans versucht.
   To wash the car John tried.
   b. Sich$_j$ zu waschen hat Hans$_i$ dem Mann$_j$ verboten .
   To wash himself John has forbid the man.
The resulting structure can be represented in (14).

(15)   [$_{S'}$ [$_{COMP}$ [PRO das Auto zu waschen]] [$_S$ . . .]]

Interestingly, neither topicalization nor extraposition applies to A.c.I. complements, as indicated in the ungrammatical examples in (16) and (17).

(16)   a. Rolf ließ /sah Hans das Auto waschen.
   Rolf made/saw John wash the car.
   b. *Rolf hat gesehen, Hans das Auto waschen.
   c. *Rolf hat den Mann gesehen, das Auto waschen.
(17)   a. Volker ließ den Ami die Wurst essen.
   Volker made the Yank eat the sausage.
   b. *Den Ami die Wurst essen ließ Volker.
   c. * Den Mann dem Jungen helfen ließ der Intendant.
   The supervisor made the man help the boy.
Given our analysis, however, we would expect these complements to behave as clausal constituents, which they do not. Surprisingly, the putative clausal structures in (18) are grammatical.

JAMES D. PUSTEJOVSKY

(18)   a. Die Wurst essen ließ Volker den Ami.
          Eat the sausage made Volker the Yank.
      b. $Sich_i$ töten ließ $Hans_i$.
          John had himself killed.
      c. Dem Jungen helfen ließ der Intendant.
          The supervisor had the boy helped.

It appears that a small clause may be topicalized only if passive has applied. This suggests that the constituency of this phrase is actually just a VP. Other evidence suggests this is in fact the case. Notice that A.c.I. verbs govern accusative case.

(19)   Hans ließ ihn kommen.
       John made him come.

Thus, the case for the embedded subjects in (18) could have been assigned by the matrix verb if the complement is clausal, or by the embedded verb, if they remained in the VP. Observe, however, that when the embedded verb governs the dative case, the subject retains this marking. The matrix verb, *lassen*, is not a dative case assigner, however, so it appears as though the object has remained within the lower VP.

These subjectless complements also appear with the agent in a by-phrase, as indicated in (20).

(20)   a. Karl ließ dem Mann von seinem Freund helfen.
          Carl had his friend help the man.
      b. Hans ließ mich von seiner Schwester den Leuten vorstellen.
          John had his sister introduce me to the people.
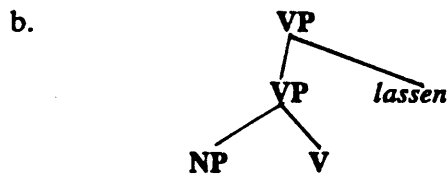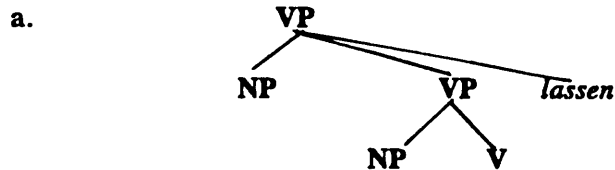   (cf. Hohle (1978))

Topicalization is possible, indicating that the "von-phrase" is within the VP along with the object[5].

(21)   a. Dem Mann von seinem Freund helfen ließ Karl.
      b. Mich von seiner Schwester den Leuten vorstellen ließ Hans.

The above facts make it difficult to support a small clause analysis for this construction. The subject and predicate behave as though they are not a constituent, indicating that the real structure can be represented as in (22).

OPACITY AND THE ACCESSIBILITY OF SUBJECT IN GERMAN

(22) Predication Theory Analysis (cf. Williams (1982))

a.

```
              VP
            /  \‾‾‾‾‾‾‾‾‾‾
         NP     VP     lassen
               /  \
             NP     V
```

b.

```
              VP
            /‾‾‾‾‾‾‾‾
          VP      lassen
         /  \
       NP     V
```

This structure has been proposed by Williams (1982) for the perception verb complements (*PVCs*) in English, and we will adopt a similar analysis for German[6].

3.0

Now let us return to the questions concerning anaphoric binding. Observe that the distribution of *sich* in the sentences below does not follow from principle A of the Binding Theory.

(23). a. Hans$_i$ ließ die Kinder$_j$ für sich$_i$/sich$_j$ arbeiten.
John$_i$ had the children work for himself$_i$/themselves$_j$.
b. Hans$_i$ fühlt die Wut in sich$_i$ hochkommen.

(Cf. Grewendorf (1982))
John$_i$ feels the anger rise in himself$_i$.
c. Peter$_i$ ließ das Auto bei sich$_i$/*ihm$_i$ reparieren.
Peter$_i$ had the car fixed at his$_i$ (place).
d. Maria$_i$ ließ Hans neben sich$_i$ begraben.
Mary$_i$ had John buried next to her$_i$.

In all of these cases, *sich* is permitted where a pronoun would be exptected. Notice that in all of the examples, the anaphor is within a PP in the lower VP.

At first glance it appears as though it is the prepositional phrase which allows this "non-local" binding (cf. Koster (1983)) to occur. Notice, however, that this can not be the case, as the sentences in (24) indicate.

(24) a. Hans$_i$ hörte Volker$_j$ mit ihm$_i$/ *sich$_i$ sprechen.
John$_i$ heard Volker speak with him$_i$.
b. Rolf$_i$ hörte Fritz mit ihm$_i$/*sich$_i$ streiten.
Rolf heard Fritz argue with him$_i$.
c. Hans$_i$ sieht Maria$_j$ um ihn$_i$/*sich$_i$ trauern.
John$_i$ sees Mary grieving over him$_i$.

JAMES D. PUSTEJOVSKY

These sentences require pronominalization rather than a reflexive. Any chance of stating the condition on opacity strictly in terms of PP versus NP structure is unlikely[7].

A solution to this problem may be provided by θ-Theory. Consider the contrast in the sentences above. Structurally the sentences are identical, but thematically they may be distinguished. Notice that the PPs in (24) take objects which participate in the thematic structure of the verb. In other words, these propositions, selected by the verbs, take NPs which are behaving as objects of the verb. The PPs in (23), however, differ in that the PP is acting as a modifier to the verb or the VP. The prepositional objects in these sentences are not thematically associated with the verb.

To formally capture this distinction, we will suggest a lexical rule of *Thematic Reanalysis* which links a verb and the preposition it selects. The rule has the effect of making a prepositional object an object of the verb[8].
We can state the rule as follows.

> (25) *Thematic Reanalysis*
>   A preposition, P_j, linked to the argument structure of a verb,
> V_i, forms a transitive verb [P_i V_i].

This allows us to distinguish the two cases in (23) and (24) in terms of the thematic properties of the verb. If an NP is assigned a θ-role by the verb, either directly or via an associated preposition, this NP is in an A-position. All other positions are A′-positions.

4.0

Let us now state the conditions on binding. I will assume the framework of Williams (1980, 1982, 1983), known as Predication Theory. In this theory, the definition of subject is given, not structurally, as in Chomsky (1981) or Stowell (1981) - where "subject of" = [NP,S] - but rather in terms of external argument.

> (26). Subject as External Argument (Williams (1980))
>
>   The subject of a predicative phrase XP is the single argument of
>   X that is located outside of the maximal projection of X.

The Binding theory is stated in terms of an opacity condition, given in (26)[9].

> (27) The Strict Opacity Condition
>   Within a structure Y, X must be bound.

> (28) X is bound in Y only if X is coindexed with an element in Y or
>   with Y itself.

OPACITY AND THE ACCESSIBILITY OF SUBJECT IN GERMAN

We will reformulate this slightly as a condition applying at S-structure as well as Predication Structure.

(29)   Predication Binding
       A. An anaphor is bound in the predicate containing it.
       B. A pronominal is free in the predicate containing it.
       c. An R-expression is free.

With this statement of opacity, let us return to the cases of anaphoric binding. First consider the sentences in (5) again.

(5).   a. $Hans_i$ ließ $Maria_j$ *$sich_i$/$sich_j$ töten.

         $Hans_i$ ließ $Maria_j$ ihn_i töten.

Predication indexing establishes *Maria* as the subject for the lower VP, and within this predicate the anaphor *sich* is bound. It is bound by the VP coindexed with the subject (cf. (30)).

(30) $Hans_i$ [$_i$ [Maria $]_j$ [$_{VPj}$ $sich_j$ töten] ließ $]_i$.

Similarly, a pronoun, *ihn* is free in the lower VP, which counts as its predicate for opacity. Predication indexing is crucial for deriving the effects of the SSC, since a "subject" may not necessarily appear in subject position (viz. [NP,S]).

Now consider the subjectless complements, such as (7), repeated below.

(7)   a. $Michael_i$ ließ $sich_i$ töten.

        $Michael_i$ had $himself_i$ killed.

    b. $Jutta_i$ sah $sich_i$ erschießen.

        Jutta saw herself shot.

Because the embedded VPs are not predicates, as we determined above, they are not eligible to be opacity domains. In fact, the anaphoric binding for these sentences follows directly from the binding theory. The predication structures are represented in (31).

(31)   a. [$Michael_i$ [$_{VP}$ [$_{VP}$ $sich_i$ töten] $]_i$

The first predicate containing *sich* is the matrix one, which binds the anaphor by coindexation with the matrix subject. The sentence is therefore ruled grammatical.

Consider now binding within PPs, the problematic cases in (23) and (24).

(23).   a. $Hans_i$ ließ die $Kinder_j$ für $sich_i$/$sich_j$ arbeiten.

        $John_i$ had the children work for $himself_i$/$themselves_j$.

(24)   a. $Hans_i$ hörte $Volker_j$ mit ihm_i/ *$sich_i$ sprechen.

        $John_i$ heard Volker speak with him_i.

JAMES D. PUSTEJOVSKY

Since the verbs in (24) select their preposition, the rule of Thematic Reanalysis applies, making their objects A-positions with respect to the verb.

(32)   a. [mit_i $sprechen_i$] "to speak with"
        b. [um_i $trauen_i$]   "to grieve over"

Anaphoric binding then proceeds as in the cases discussed in (5). That is, the only possible antecedent is the subject of the predicate containing the anaphor (or possibly something else in the same predicate). The resulting predication is shown in (33).

(33)   * [Hans]$_i$ [$_{VP}$[Volker]$_j$ [$_{VP}$ mit sich$_i$ sprechen]$_j$ hörte]$_i$

Why should the anaphors is (23) behave any differently from those in (24)? We will argue that this behavior follows from the conflation of Verb-raising and predicate/verb modification. We assume some form of Verb-raising, which reassociates a string of verbs into a complex verbal constituent[10]. Thus, the effect of the rule is something like (34).

(34)
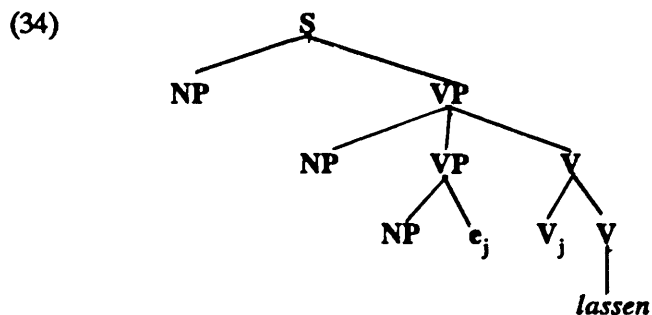
As was pointed out earlier, the PPs that alllowed SSC-violations were not A-positions but modifiers of the verb. The opacity domain for an element in such a PP should be the domain which minimally contains the verb being modified. With the application of Verb-raising, however, the verb ends up with a matrix clause domain. It is not surprising, then, that something modifying the raised verb would also have an extended domain; i.e. the matrix clause. This is a reasonable functional explanation for the above phenomena, but how can we represent this formally? I will discuss three treatments and compare their explanatory powers.

First, we might simply state that there are two reflexive particles in German, and that they have different binding domains[11]. These domains might be stated as (35).

(35)   A. *sich* in argument position obeys principle A.
        B. *sich* in non-argument position violates A.
           It must be bound in the maximal predicate containing it.

This seems to be descriptive of the facts we have discussed. Notice, however, that the B statement above is not really correct. An NP position within a non-thematic PP is still considered an A-position, but only with respect to the preposition assiging it a θ-role. There are real A´-positions which are occupied by anaphors, but these always obey principle A. I am referring to reflexive particles for inherently reflexive verbs, such as those in (2) above.

OPACITY AND THE ACCESSIBILITY OF SUBJECT IN GERMAN

One might argue that (34A) is a statement on co-arguments (cf. Koster (1978, 1983) for discussion). Then B could be rephrased as B′.

B′. *sich* which is not a coargument with its antecedent can be free in its predicate. This is untenable, however, since non-coarguments can be related by principle A, as in (36).

(36)   Hans$_i$ lieβ [sich$_i$ töten].

We can conclude that (34) is not representative of the facts. Furthermore, (34) is not a very satisfying formal treatment of the functional explanation given above.

A second analysis might be to represent the modification of the verb by the A′-position PP in some formal way. We will suggest that this relationship is one of predication as well. Let us say that a modifier is a predicate, where (in this case) the verb is its one external argument, hence its "subject". This allows for a relativized notion of subject which has consequences for the theory of Bounding as well[12].

Within the theory of Predication outlined here, will the SSC violations follow? If a PP has as its external argument a verb, then it is a predicate. In the structure in (37), the anaphor remains free and the sentence is incorrectly ruled out.

(37)   a. Volker$_i$ lieβ den Mann für sich$_i$ arbeiten.

　　　　b. *Volker$_i$ [$_{VP}$ den Mann$_k$ [$_{VP}$ [für sich$_i$]$_j$ [arbeiten]$_j$]$_k$ lieβ]$_i$

5.0

There is another analysis I will pursue, which accounts for the data and makes an interesting prediction concerning the differences between German and English. The second analysis failed because the opacity domain for the anaphor was too restricted. By making reference only to the predicate the analysis did not exploit the fact that verb-raising had applied on the structure. The opacity domain for the anaphor should become the same domain as the raised verb. This suggests that both predicate and subject are relevant for determining opacity. This domain must contain a subject, a predicate, and the element itself. It is not a governing category in the strict sense, since "subject" is not being defined structurally, but by predication.

Let us call this modified governing category a *predicative domain*, and define it below.

(38)　　　Predicative Domain
α is a predicative domain (p.d.) for β iff α is the minimal maximal projection containing β and the subject of the predicate containing β.

<div align="center">JAMES D. PUSTEJOVSKY</div>

Now let us restate our binding principles in like fashion.

(39)   Revised Binding Theory
A. An anaphor is bound in its predicative domain.
B. A pronominal is free in its predicative domain.
C. An R-expression is free.
"Bound" will be defined as "coindexed with any c-commanding element in that domain."

I will assume some form of Aux-Government, as suggested by Evers (1981, 1983), and somewhat differently by Safir (1982) as Inflection-Government. Aux-Government is defined in (40)[13].

(40)   Aux-Government (Evers, 1981)
1. A verb is aux-governed if it either incorporates a feature $[\alpha\text{-Tense}]$ or doesn't and is adjacent to and minimally c-commanded by such as verb.
2. Each verb must be aux-governed.
In Safir's analysis, a verb is reanalyzed as part of INFL, as shown in (41)[14].

(41)   Verb-Collapsing (Safir, 1982)
a. $[_S$ NP $[_{VP}$ . . . V] INFL] ==>
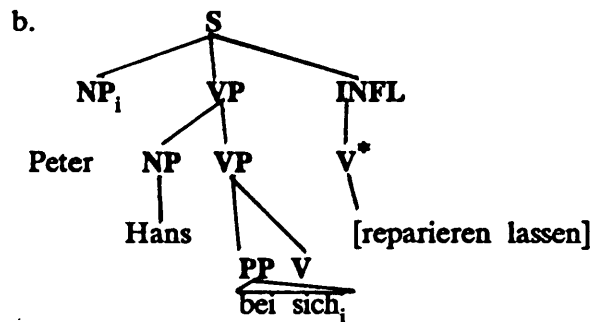b. $[_S$ NP $[_{VP}$ . . .] V/INFL]
When verbal complexes are involved, we will assume that the entire complex collapses with INFL[15].

(42)   a. $[_S$ NP $[_{VP}$ . . . V*] INFL] ==>
b. $[_S$ NP $[_{VP}$ . . .] V*/INFL]

For all the simple cases of anaphoric binding this theory makes the same predictions as Predication theory. The difference is seen in the SSC-violation cases. Here the third theory is able to predict the grammaticality of sentences like (43).

(43)   a. Peter$_i$ ließ Hans$_j$ das Auto bei sich$_i$ reparieren.

OPACITY AND THE ACCESSIBILITY OF SUBJECT IN GERMAN

b.

```
                    S
          ┌─────────┼─────────┐
        NP_i        VP        INFL
          │        ╱ ╲         │
        Peter    NP   VP       V*
                 │   ╱ ╲        ╲
               Hans │   ╲      [reparieren lassen]
                    ╲    ╲
                   ┌──────┐
                   PP  V
                   bei sich_i
```

Because of Aux-government the verbal complex V^* must be governed by INFL. This is accomplished by movement into INFL. Notice that the predicative domain for the reflexive is now the matrix clause, since the first maximal projection containin *sich* and the subject of the predicate - "bei sich" - is S. Thus, the sentence is correctly generated[16].
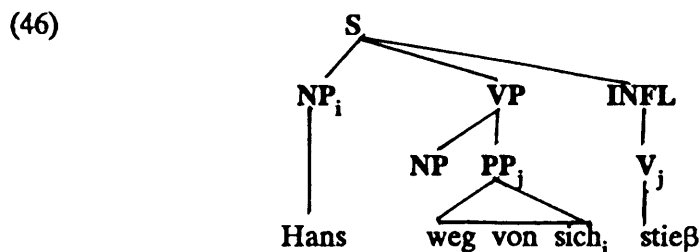
6.0

This analysis lets us make an interesting comparison to English. As noted recently in Chomsky (1981) and Koster (1983), there are some strange cases of binding violations exhibited in the sentences below, where reflexives would be expected.

(44)   a. John$_i$ pushed the book away from him$_i$.
        b. Mary$_i$ drew the book toward her$_i$.
        c. John$_i$ takes his work home with him$_i$.
        d. Bill$_i$ saw a snake near him$_i$.

In German, the corresponding sentences require reflexives rather than pronouns. For example,

(45)   a. Hans$_i$ stieß das Buch weg von sich$_i$.
        d. Hans$_i$ sah eine Schlange neben sich$_i$.

Within the theory outlined here, this cross-linguistic difference follows from general principles. In German, a reflexive is required in (45), since the predicative domain for the anaphor is the matrix clause. This is the case because of Aux-government, which states that the verb, *stieß*, must be governed by INFL. By attaching itself to INFL, the minimal maximal projection containing the anaphor and the relativized subject of the predicative PP is the matrix clause. The subject may bind it, and the sentence is grammatical.

(46)

```
                    S
          ┌─────────┼─────────┐
        NP_i        VP        INFL
          │        ╱ ╲         │
          │      NP   PP_j     V_j
          │      │   ╱ ╲       │
        Hans     │  ╱   ╲    stieß
               weg von sich_i
```

JAMES D. PUSTEJOVSKY

Consider now the English examples in (44). Since there is no Aux-government in English, the verb stays within the VP. The predicative domain for an element contained in a adjunct/modifier phrase is the VP, since it is the first maximal projection containing both predicate and subject. Thus, within this domain a pronoun is free and may refer back to the subject[17].

(47)   [John]$_i$ [$_{VP}$ pushed$_j$ the books [away from him$_i$] $_j$]

Thus these differences between German and English anaphora follow from the analysis proposed above.

7.0   Conclusion

To summarize, we have proposed a theory of binding which integrates the definition of subject from Predication Theory - subject as external argument - with the notion of governing category. The result is the definition of *Predicative Domain*, repeated below.

(48)   Predicative Domain
α is a predicative domain (p.d.) for β iff α is the minimal maximal
projection containing β and the subject of the predicate containing β.
Furthermore, predication is defined as a relationship obtaining between a modifier and its argument. If the argument occupies an A-position, the relationship is A-predication, and if the argument is in an A´-position, it is A´-predication.

We decided in favor of the following statement on Binding, over both GB and the version of predication theory we presented.

(39)   Revised Binding Theory
A. An anaphor is bound in its predicative domain.
B. A pronominal is free in its predicative domain.
C. An R-expression is free.

We saw that the interaction of Thematic Reanalysis, Verb-Raising, and Aux-government gave us the right predictions for the distribution of anaphors in German. Furthermore, the English facts in section (6.0) follow if we assume that Aux-government is not a rule of English.

What we have proposed is a marriage of principles from two theories. For the facts discussed, identifying the subject as "external argument" was much more persuasive than a structural identification as [NP,S]. On the other hand, an opacity domain which includes both predicate and subject seems preferable to reference to just the predicate. The resulting hybrid theory appears to offer the best answers to these puzzling data[18].

FOOTNOTES

1.   I would like to thank Roger Higgins, Edwin Williams, Lyn Frazier, Emmon Bach, and Dan Finer for their support on this work. In addition, special thanks go to Gert Webelhuth and Armin Mester, who endured many sessions of countless questions and grammaticality judgements. Also, thanks to Armin for pointing out the paper by Günther Grewendorf on the same topic. By accident, our analyses are similar in some respects, although we assume different frameworks.   I would also like to thank my non-linguist informants, M. Lehmann and R. Feigenbaum. All responsibility for errors and bad-judgement is, of course, my own.

2. The wording is left vague for two reasons. First, notice that   non-constituents may topicalize, as in (i), where two separate PPs are fronted (i.e.   two A´-positions).
(i)   [Am Strand] [beim schlechten Wetter] haben wir das Schiff gesehen.
        On the beach during bad weather we saw the ship.
Secondly, subconstituents may topicalize as well (also an A´-position) (cf.(ii)).
(ii)   [Das Buch gegeben] hab´ ich dem Mann.
        Given the book I have to the man.
What is relevant to the arguments presented here is that *constituents* may always topicalize.

3. Within Government-Binding theory, the statement on binding would be:
(i)   Binding Theory   (Chomsky (1981, 1982))
     A.   An anaphor must be bound in its governing category.
     B.   A pronominal must be free in its governing category.
     C.   An R-expression must be free.

4.   Cf. Chomsky (1981), Aoun (1981).

5.   These constructions bare a resemblance to the French *faire...par* constructions, and they both denote propositions rather than predicates. Cf. Rouveret and Vergnaud (1980).

6.   Cf. Williams (1983) for the arguments over the small clause analysis in English.

7. The first to mention these cases was Reis (1976). She claims that only "ergative" subjects block SSC violations, and has conditions   referring to optional and obligatory NP positions. Space Prevents us from presenting her analysis; but cf. Everaert (1980) for a critical study.

8.   This rule is similar to Stowell´s Syntactic Reanalysis Rule (Stowell (1981)) as well as van Riemsdijk´s PP-rule (van Riemsdijk (1978)). The difference is that the effects of the rule are seen in different guises in the syntax.   Reanalysis permits passivization and preposition stranding, whereas Thematic Reanlysis reassociates an A´-position to an A-position for purposes of A-binding.

9. Cf. Williams (1980).

10. For different formulations on this rule cf. Evers (1975), Thiersch (1978), Hohle (1978) and Evers (1982).

11. Koster (1983) suggests that Dutch actually has three different reflexives, each with a different governing category. This argument looks more compelling for Dutch than it does for German; but cf. Koster (1983).

12. I explore such an approach in Pustejovsky (1984). There it is argued that Predication involves both A-Predication and A´-Predication. By treating wh-phrases in COMP as A´-subjects, many effects of subjacency are reduced to the binding theory.

13. Cf. Evers (1983) for a reformulation of this principle.

14. Cf. Safir (1982) for full effects of this rule.

15. Verb-Fronting will then apply to the head of the verbal complex.

16. If the binding domain for an anaphor is that of its subject, then in a case of multiple verb-raisings, such as (i), binding of *sich* by the matrix subject should be permitted.
(i) Hans$_i$ ließ Jutta ihren Mann den Jungen fur sich$_i$ arbeiten lassen sehen.
    John$_i$ made Jutta watch her husband make the boy work for himself$_i$
And, in fact, the sentence is grammatical, in support of the analysis.

17. One might argue that [away from him] is actually predicated of [the books] rather than modifying the verb, or that they in fact constitute a small clause. Yet this would leave unexplained the island properties of such phrases. Compare these two the predicate complements of perception verbs.
(i)   a. John saw [Bill] [eat the fish].
        b. What$_i$ did John see [Bill] [eat e$_i$] ?
(ii)   a. John saw [a snake] [near the barn].
        b. *What$_i$ did John see [a snake] [near e$_i$] ?

18. I have been greatly influenced and inspired by the standard reference works in Germanic linguistics, and feel obliged to mention just a few which deserve reference; Bech (1955), Behagel (1934), and Paul (1916).

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376

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