

Depictive secondary predicates in German and English*

Abstract

This paper contains a data discussion, which is a continuation of earlier work (MÜLLER, 2002; 2004). It presents an outline of an analysis of depictive secondary predicates that retains the merits of my earlier analysis (MÜLLER, 2004), but can be extended to languages like English, in which adjuncts attach to complete verbal projections.

1. Introduction

This paper deals with depictive secondary predicates, examples of which are given in (1):

- (1) a. Er ißt das Fleisch_i roh_i.
 he eats the meat raw
 b. Er_i ißt das Fleisch nackt_i.
 he eats the meat naked

In German, uninflected adjectives and prepositional phrases may appear as depictive predicates, as the examples in (1) and (2) show.

- (2) Ich habe ihn (gestern) im dunklen Anzug getroffen.¹
 I have him yesterday in.the dark suit met
 'I met him yesterday in a dark suit.'

* I thank Christoph Schroeder for comments on an earlier version of this paper. – This paper was presented in 2005 at the International Symposium *Descriptive and theoretical problems of secondary predicates* in Oldenburg. I thank all participants of the symposium for the discussion. The analysis that is sketched at the end of this article is an improved version of an earlier analysis that was presented at the HPSG 2004 conference (MÜLLER 2004). I want to thank two anonymous reviewers of HPSG 2004 for comments on an earlier version of MÜLLER 2004. I also thank all participants of HPSG 2004 and in particular Berthold Crysmann and Tibor Kiss for discussion. In addition, I want to thank Shrvan Vasishth for discussion.

1 See HELBIG & BUSCHA (1972, 556) for a similar example.

Depictives say something about a state that holds for a participant of an event during the event.

Depictives pattern with adjuncts in terms of focus projection (WINKLER, 1997, 310) and linearization in the so-called Mittelfeld (MÜLLER, 2002, Ch. 4.1.4).

To establish the predication relation between the depictive predicate and its antecedent, I suggest a coindexing analysis, in which the subject of the depictive is coindexed with an element of the argument structure of the modified verb (MÜLLER 2002). Since the depictive is not necessarily adjacent to the verb and since the argument structure is usually not projected, MÜLLER (2002) suggests an analysis that makes use of discontinuous constituents.

Considering new data with multiple constituents in front of the finite verb, I developed an analysis of German clause structure which makes discontinuous constituents superfluous for accounting for verb placement and constituent serialization (MÜLLER, 2005a, b).

In the following paper I develop an analysis of depictive secondary predicates that does not require discontinuous constituents, but still uses binary branching structures and fits into the general fragment of German that is outlined in MÜLLER (2005a).

The paper is structured as follows: In Section 2, I discuss the phenomenon of depictive secondary predicates in more detail. I will then give a brief outline of the analysis in Section 3.

2. The phenomenon

In what follows, I show that reference to non-overt² antecedents (Section 2.1) and oblique antecedents (Section 2.2) is possible. Reference to non-arguments (Section 2.3) and to elements inside of arguments (Section 2.4) is excluded. In Section 2.5, I discuss the linearization of depictive secondary predicates with regard to their antecedents.

2 Theories differ in the way they analyze phenomena like the suppression of the agent in the passive and optional arguments. But irrespective of the particular analysis, semantic arguments that do not correspond to phonological material in an utterance are called non-overt. Sometimes a phonologically empty pronoun is assumed for such non-overt elements and sometimes a deletion process is assumed that maps representations of a certain kind onto other representations. Still others assume that such elements are not represented at all in syntactic structures. Throughout this paper I use the terms *non-overt* and *unexpressed* synonymously.

2.1 Non-overt antecedents

(3) shows that reference to unexpressed subjects is possible:³

- (3) a. daß das Buch nackt gelesen wurde⁴
that the book naked read was
'that the book was read naked'
b. daß das Buch nackt zu lesen ist
that the book naked to read is
'that the book is to be read naked'

Example (3a) is a passive construction and in (3b) we have a modal infinitive.

ZIFONUN (1997, 1803) claims that depictive predicates cannot refer to the logical subject of the passivized verb and gives the following example:

- (4) Die Äpfel wurden ungewaschen in den Keller getragen.
the apples were unwashed in the basement carried
'The apples were carried to the basement unwashed.'

The fact that the reading in which the depictive refers to the agent of the carrying is hardly available is probably due to a preference rule that makes readings where a depictive refers to an non-overt antecedent dispreferred. However, if the reading in which the depictive refers to the logical object of the main verb is semantically implausible, the reference to the logical subject of the main verb is fine, as the examples in (3) show.

JAEGGLI (1986, 614) – following CHOMSKY (1986, 121) – makes a similar claim for English. As the translations of the examples in (3) and the examples discussed below show, this claim is as wrong for English as it is for German. Chomsky claims that only a syntactically present element can be the subject of adjectival predication. This includes PRO but excludes predication over passive subjects.

BAKER (1988, 318) gives examples for English, Italian and North Russian. His examples for English are given in (5):

- (5) a. This song must be sung drunk.
b. Such petitions should be presented kneeling.

CHOMSKY (1986, 211), claiming that predication over non-overt elements is excluded (p. 121), cites the following examples from unpublished work by Roeper:

3 See also PAUL (1919, 51), PLANK (1985, 175), JACOBS (1994, 297), GREWENDORF (1989, 129; 1993, 1313) HAIDER (1997, 6) and MÜLLER (1999, 320) for examples of predication over non-overt antecedents in German.

4 See MÜLLER (2002, 177) for a similar example.

- (6) The game was played barefoot (nude).

Following a suggestion of Rizzi, Chomsky assumes that *barefoot* and *nude* are adverbials rather than adjectives, despite their morphological marking. However, although there are English adverbials like *hard* that are not morphologically marked as adverbials, there is a clear difference in meaning between the adverbial and the depictive use:

- (7) a. He works hard.
b. He works naked.

(7a) does not mean that he is hard during the event of working, while (7b) does have the depictive meaning. Since the example in (6) clearly has a depictive meaning and predication of the unexpressed subject is involved, it is unclear in what sense it would help to recategorize the adjectives into adverbs since the theoretical problem of predication over unexpressed subjects in passive constructions remains unsolved.

A reviewer reported about the judgments of English speaking informants regarding the examples in (8):

- (8) a. This book was read awake.
b. This car was driven drunk.
c. This book is to be read fully awake.

According to him, the examples in (8a-b) were judged ungrammatical with the reading with reference to the unexpressed agent, while (8c) was judged acceptable.

As the examples from Baker, Roeper, Chomsky, and the following corpus examples show, the reading with reference to an unexpressed subject has to be made available by the grammar in principle. One could then consider reasons for the unacceptability of particular examples. For instance, one reason for the judgments on (8a) could be that normally being awake is a prerequisite for reading books. The sentence in (9), which provides a plausible context, is rated perfect.

- (9) The first book was read by me half-awake but this second book was read fully awake.

The examples in (10) - (13) are corpus examples from various sources that show that depictives can predicate over unexpressed subjects. The examples in (11) are instances of *driven drunk* – the pattern mentioned in (8b) – although the arguments that are realized with *drive* differ from the ones in (8b).

- (10) a. I didn't want to be seen naked on anyone's coffee table.
[British National Corpus, The Daily Mirror. London: Mirror Group Newspapers, 1992, 2034]
- b. As he said at the time: 'I've never been seen naked in any bed, never.'
[British National Corpus, Kenneth Williams: a biography. Free-land, Michael. London: GeorgeWeidenfeld & Nicolson Ltd, 1990, 1950]
- (11) a. One in 100 drivers will drive with a BAC of .08 or greater. About 16 billion miles will be driven drunk in a year.
[<http://www.police.txstate.edu/Presentations/alcohol.pps>]
- b. "We would like to eventually run a shuttle between Radford and Blacksburg. Price's Fork, the main route, is an awful road to be driven drunk – all are, but especially that one," he says.
[<http://www.vtmagazine.vt.edu/sum02/feature3.html>]
- (12) a. Later everyone got very drunk, volleyball was played naked in the mud.
[<http://www.textfiles.com/magazines/EUTHANASIA/e-sermon.3>]
- b. The sport of Rugby is almost identical to an ancient Greek ball game, which was played naked, for an audience composed entirely of elderly aristocrats.
[<http://www.africans.co.za/modules.php?name=News&file=article&sid=544>]
- c. Golf would be more interesting to watch if it was played naked.
[<http://ttuerff.blogspot.com/2005/02/couple-of-days-ago-mypal-nancy-posted.html>]
- d. "Recorded naked to be played naked."
[Tragic Mulatto's "Hot Man Pussy" album 1989]
- e. Seriously, shouldn't Quidditch be played naked?
[By JULIE REED, ASAP, Associated Press November 22, 2005
<http://home.hamptonroads.com/stories/story.cfm?story=95759&ran=187436>]
- (13) Not to mention continuing the delusion that Finnegans Wake was written to be read drunk, and other such nonsense.
[<http://www.cosmoetica.com/B206-DES147.htm>]

As far as German is concerned, reference to non-overt logical subjects is also possible with intransitive verbs:

- (14) a. Auf dem Land fahren alle betrunken.
on the country drive all drunk
'Everyone drives drunk in the country.'
- b. Auf dem Land wird auch betrunken gefahren
on the country is also drunk driven
'There is also driving drunk in the country.'

According to BRESNAN (1982, 416-417) similar examples are ungrammatical in Icelandic and Norwegian. Bresnan derives this from a theory which predicts that the passivization of intransitive verbs whose subject functionally controls a predicate complement is impossible. Functional control implies sharing of syntactic information like case and of semantic information. To account for (14) Bresnan had to assume that the relation between German state predicates and their antecedents is anaphoric control rather than functional control as in Icelandic and Norwegian. Anaphoric control implies coreference of the controller and controllee without identification of syntactic information. Alternatively, she could assume that state predicates are not complements in German. As was mentioned in the introduction, focus projection data suggests an adjunct analysis and in Section 2.2, I show that sharing of syntactic information between the subject of the depictive predicate and its antecedent is inappropriate. That is, the data only allows for a non-complement, anaphoric control analysis.

Depictive predicates can also refer to the unexpressed subject of an adjectival participle:

- (15) die [_{N'} [_{AP} nackt schlafende] Frau]
the naked sleeping woman
'the woman who is sleeping naked'

In (15) *Frau* is coreferent with the syntactic and logical subject of *schlafende*. *Frau* is not syntactically realized in a projection of the deverbal adjective.

In the same vein, depictives may refer to unexpressed subjects in infinitival constructions. Since the subject of the controlled verb *schlafen* in (16) is coreferent with the dative object of the controlling verb (*ihr*), the element the depictive predicate refers to is visible at the surface.

- (16) Er hat ihr geraten, nackt zu schlafen.
he has her advised naked to sleep
'He advised her to sleep naked.'

However, the dative object of *raten* is optional, that is, it can be left implicit as in (16) or it can be realized as in (17):

- (17) Er hat geraten, nackt zu schlafen.
 he has advised naked to sleep
 'He advised sleeping naked.'

If we omit the object, we get another example without an overt antecedent for the depictive predicate.

GREWENDORF (1989, 129; 1993, 1313) and HAIDER (1997, 6) discuss the examples in (18a) and (18b), respectively.

- (18) a. Der Doktor untersucht nur nüchtern.
 the doctor examines only sober
 b. Dieser Arzt_i untersucht (Patienten_j) nur unbekleidet_{i,j}.
 this doctor examines patients only undressed

GREWENDORF assumes the non-overt subject of *nüchtern* to be the empty pronominal element *pro*. HAIDER (1997, 28) assumes that depictive predicates are generated adjacent to the DP they predicate over. He is therefore forced to assume some empty referential element in cases like (18b)⁵ and also in passive examples like (3). However, in GB-theory it is usually assumed that the passive participle does not assign a theta role to its logical subject (CHOMSKY 1993, 124). GREWENDORF (1993, 1311) assumes that the subject of impersonal passives as in (14) is an expletive *pro*. HAIDER (1993, 134) assumes that there is no subject in impersonal passive constructions. So, irrespective of the particular approach to passive, there is no element, overt or non-overt, that bears the theta role of the logical subject and that could function as an antecedent of a depictive.

2.2 Reference to oblique antecedents

The examples in (1) show that depictives may refer to subjects and to accusative objects. In this subsection I want to discuss the possibility of depictives referring to more oblique elements.

HAIDER (1985, 94) observes that the predication over a dative object in (19b) is marked in comparison to predication over accusative objects. In (19a) reference to both the subject and to the accusative object is possible, while the reading with reference to the object is hardly available in (19b).

- (19) a. Er_i sah sie_j nackt_{i,j}.
 he.NOM saw her.ACC naked

⁵ In HAIDER (1993, 180) he assumes that the omitted argument in (18) is treated as an implicit argument and not as an empty, pronominal element. This is the view that I adopt in the following.

- b. Er_i half ihr_j nackt_{i/??j}.
 he.NOM helped her.DAT naked

Haider concludes that depictive predicates can refer to NPs with structural case only. According to Haider, only nominative and accusative are structurally assigned cases in verbal environments, while dative is not. As Haider notes, the contrast in (19) could easily be explained by the assumption that the subject of the predicate and the NP it refers to are identical. The fact that in German, NP subjects always have structural case explains why a depictive element cannot refer to a dative NP, because dative is taken to be a lexical case.

WUNDERLICH (1997, 131) develops an analysis for depictives that posits two different subanalyses: one for depictives that refer to the subject (VP-adjuncts), and another one for depictives that refer to the direct object (V-adjuncts). Datives (including dative objects of verbs like *helfen*) are assumed to be indirect objects. Therefore he predicts that reference to dative NPs is not possible. KAUFMANN & WUNDERLICH (1998, 9) claim that the predication of depictive and resultative predicates over indirect objects is excluded in all languages.

While these statements refer to syntactic case, similar claims can be found with regard to semantic roles. Discussing (20), ROTHSTEIN (1985, 85) assumes a restriction that allows depictives in English to refer to agents and patients, but not to goals.⁶

- (20) The nurse_i gave John_j the medicine sick_{i/*j}.

A similar claim is made by KOCH & ROSENGREN (1995, 80), who maintain that only reference to agent or theme is allowed.⁷ The fact that the reference to thematic roles is not suited for the explanation of the possible antecedents was noted by KOIZUMI (1994, 46-48). His examples are given in (21a, b). SIMPSON (2005) provides the additional example in (21c):

- (21) a. They gave the patients_j the drugs drunk_{*j}.
 (PLANK 1985, 175)
 b. The patients_j were given the drugs drunk_j.
 c. After being given the drugs drunk_j, the patients_j complained.

The exclusion of reference to datives is not a hard constraint, as shown by examples like (22):

6 ROTHSTEIN (2004, 156) discusses a parallel example with *give* and an additional example provided by Fred Landman involving *sell* and claims that adjunct predicates cannot refer to indirect objects.

7 On page 4 they make this claim with reference to grammatical functions, i. e. subject and direct object.

- (22) Man_i half ihm_j erst halbtot_{i/j}.
 one.NOM helped him.DAT only half.dead
 'They helped him only half-dead.'

In (22) the context favors a reading with reference to the dative object: since it is implausible that half-dead people help others, the subject is not a plausible antecedent candidate. In general, it can be said that the reference to dative NPs improves considerably if the reference to the nominative is excluded by world knowledge (PLANK 1985, 175).

As Christoph Schroeder (p.c. 2006) pointed out to me, the use of the German indefinite pronoun *man* in (22) is also a factor that improves the reference to the dative, since the subject NP is less prominent. The reference to the dative in (19b) improves further if we passivize the sentence: In (23) the reference to the dative NP is considerably better than in (19b), where another candidate for coreference appears at the surface.

- (23) Ihr_j wurde nackt_{i/j} geholfen.
 her.DAT was naked helped
 'She was helped naked.'

Of course, (23) has an additional reading where the helper is naked. This reading is indicated by the *i*-index at *nackt*, which does not appear anywhere else in the sentence.

SIMPSON (2005) notes that changing the polarity and modality to force a generic conditional interpretation improves reference to recipient/goal arguments. Her English example can be translated into German:

- (24) Du_i kannst ihnen_j bewußtlos_{i/j} keine Spritzen
 you.NOM can them.DAT unconscious no injections.ACC
 geben.
 give
 'You can't give them injections unconscious.'

In the context of the present discussion the following example, which was provided by PLANK (1985, 169), is interesting:

- (25) Ich erinnere mich an ihn / seiner bartlos.
 I remember self at him him.GEN beardless
 'I remember him without a beard.'

This example shows that the structures in which a predicate predicates over a genitive or even an NP inside of a PP have to be licensed by a grammar. However, as far as the discussion of depictives is concerned, the example is not relevant, since it does not fall under the definition of depictives given above. The reason for this is that the adjective does not describe a property of the genitive

object that holds during the event of remembering. The person who is remembered may be without a beard during the utterance time of (25), but this is not entailed by (25).

Corpus examples with reference to genitives or PPs are rather rare. The only example I could find is given in (26):

- (26) Beim Betreten des Gehwegs sei er mit großer Wucht zu Boden geschleudert worden, wo er kurzzeitig das Bewußtsein verlor. Noch am Boden liegend, sei auf ihn eingetreten
 still on.the ground lying be on him PTCL.kicked worden.
 been
 [taz, 10.06.2000, p. 21]

‘When he stepped onto the path he was violently thrown to the ground where he lost consciousness for a short period. While he was still on the ground he was kicked.’

The scarcity of such constructions is predicted by reference to the obliqueness hierarchy of KEENAN & COMRIE (1977): More oblique elements are more marked as antecedents of depictives. (See also NICHOLS (1978, 120) on obliqueness and secondary predication.)

From the data presented above it must be concluded that both the restriction on the case of possible antecedent phrases and the restriction on the thematic role of the antecedent phrase are not adequate. In what follows, I will therefore assume that the subject of the depictive predicate is coindexed, i.e. coreferent, rather than identical, with the antecedent phrase. Since datives can be antecedents of depictives, I do not assume that the subject of the depictive and the antecedent are identical, as was suggested by Haider.

2.3 Reference to non-arguments

NPs in adjuncts are excluded from the list of possible referents of depictives, as (27) shows.

- (27) a. weil Karl_i [neben Maria_j] nackt_{i/*j} schlief.
 because Karl next Maria naked slept
 ‘because Karl slept next to Maria naked.’
 b. weil [neben Maria_j] nackt_{i/*j} geschlafen wurde.
 because next Maria naked slept was
 Intended: ‘because somebody slept next to Maria while she was naked.’

Even passivizing the sentence as in (27b) does not improve the reference to an element inside of the adjunct.

The following example is interesting, since it seems to contradict the statement above:

- (28) Alkoholisiert geht alles viel schneller, weil bestimmte
 alcoholised goes everything much faster since certain
 Anstandsregeln außer Acht gelassen werden.
 good.manners.rules without regard let are
 'If one is drunk, everything happens much faster, since certain rules
 are disregarded.'

However, the sentence in (28) differs semantically from the ones involving depictive secondary predicates, as the translation indicates: the sentence does not say anything about the state of an individual during an action, that is, it does not mean that someone is drunk while everything happens faster. (29a) entails (29b), while (30a) does not entail (30b):

- (29) a. Er hilft ihr nackt.
 he helps her naked
 b. Er hilft ihr.
 he helps her
- (30) a. Alkoholisiert geht alles schneller.
 alcoholized goes everything faster
 'Everything happens faster if on eis drunk.'
 b. Alles geht schneller.
 everything goes faster
 'Everything happens faster.'

This shows that examples like (28) belong to a different phenomenon and that they therefore do not falsify the statement that depictive secondary predicates cannot refer to (NPs in) non-arguments.

2.4 Reference to elements inside of arguments

The reference to NPs that are internal to other NPs is also excluded, as is demonstrated by (31).⁸

- (31) a. daß Jan [den Freund von Maria,] nackt*, traf
 that Jan the friend of Maria naked met
 'that Jan met the (male) friend of Maria naked'

⁸ NEELEMAN (1994, 157) gives Dutch examples that are equivalent to those in (31a,b).

- b. daß Jan [Marias_i Vater] nackt_i traf
 that Jan Maria's father naked met
 'that Jan met Maria's father naked'
- c. *daß Jan [Maria nackt und ihren Freund] traf
 that Jan Maria naked and her friend met
 Intended: 'that Jan met Maria naked together with her friend'

2.5 Linearization of depictives with regard to their antecedents

As pointed out by LÖTSCHER (1985, 208), the antecedent of the depictive predicate has to precede the depictive:

- (32) a. weil er_i die Äpfel_j ungewaschen_{i/j} ißt
 because he the apples unwashed eats
 'because he eats the apples unwashed'
 (He is unwashed or the apples are unwashed.)
- b. weil er_i ungewaschen_{i/*j} die Äpfel_j ißt
 because he unwashed the apples eats
 'because he eats the apples unwashed'
 (He is unwashed.)
- c. *weil ungewaschen_{*i/*j} er_i / der Mann_i die Äpfel_j ißt
 because unwashed he the man the apples eats

In example (32a) the adjective may refer to either *er* or to *die Äpfel*. In (32b) the reference to *die Äpfel* is excluded. Only the reading in which *ungewaschen* refers to *er* is available. The example (32c) in which the depictive precedes both of the possible antecedents is ungrammatical.

There are examples like (33) that do not follow this pattern.

- (33) a. weil betrunken_i niemand_i hereinkommt
 because drunk nobody.NOM in.comes
 (VON STECHOW & STERNEFELD 1988, 466)
 'because nobody gets in drunk'
- b. daß betrunken manchmal einer Fisch roh ißt
 that drunk sometimes someone fish raw eats
 (HAIDER 1997, 29)
 'that somebody eats fish raw drunk sometimes'

FANSELOW (2003, 227) notes that secondary predicates cannot be scrambled, but may be reordered due to a process of focus scrambling. As HAIDER (1997, 29-30) points out the possibility of reordering depictives is a nominative effect, that is, only depictives referring to nominatives can be placed in front of their antecede-

dence. Since this paper does not deal with focus movement, I will ignore sentences like (33) for the rest of the paper.

2.6 Summary of the data discussion

Reference to subjects, direct objects, and indirect objects is possible. Therefore a raising analysis that identifies the subject of the depictive predicate with its antecedent is not adequate since the subject has structural case and dative objects bear lexical case. A coindexing analysis on the other hand is compatible with the data.

Reference to non-overt elements is possible, but reference to adjuncts or elements embedded in arguments is not possible. Therefore, an analysis is needed that coindexes the subject of the depictive with one argument of the modified verb.

Finally, it was noted that the antecedent has to precede the depictive predicate.

3. A sketch of the analysis

I assume Head-Driven Phrase Structure Grammar (HPSG) as the underlying framework (POLLARD and SAG, 1994). In HPSG a list (the SUBCAT list) is used to represent the valence information of a head. Following MEURERS (1999) and PRZEPIÓRKOWSKI (1999), I assume that syntactically realized elements are marked as realized, but that they are not removed from the valence list.⁹

As was shown in Section 2.5, the antecedent has to precede the depictive secondary predicate. This is accounted for straightforwardly, if we assume that the subject of the depictive predicate is coindexed with an unrealized element in the SUBCAT list of the verbal head with which it combines. Assuming binary branching, we get the following structures for the examples in (32):

- (34) a. weil [er [die Äpfel [ungewaschen ißt]]]
because he the apples unwashed eats
'because he eats the apples unwashed'
(He is unwashed or the apples are unwashed.)

9 See also HIGGINBOTHAM (1985) and WINKLER (1997) for similar suggestions with regard to the representation of theta roles.

- (35) *Ißt*_i [er [die Äpfel [ungewaschen __j]]]?
 eats he the apples unwashed
 ‘Does he eat the apples unwashed?’
 (He is unwashed or the apples are unwashed.)

Since both the subject and the object are elements of the SUBCAT list of the verbal trace, both are antecedent candidates of the depictive adjective. The analysis of a verb-initial sentence that corresponds to (34b) is shown in Figure 2.

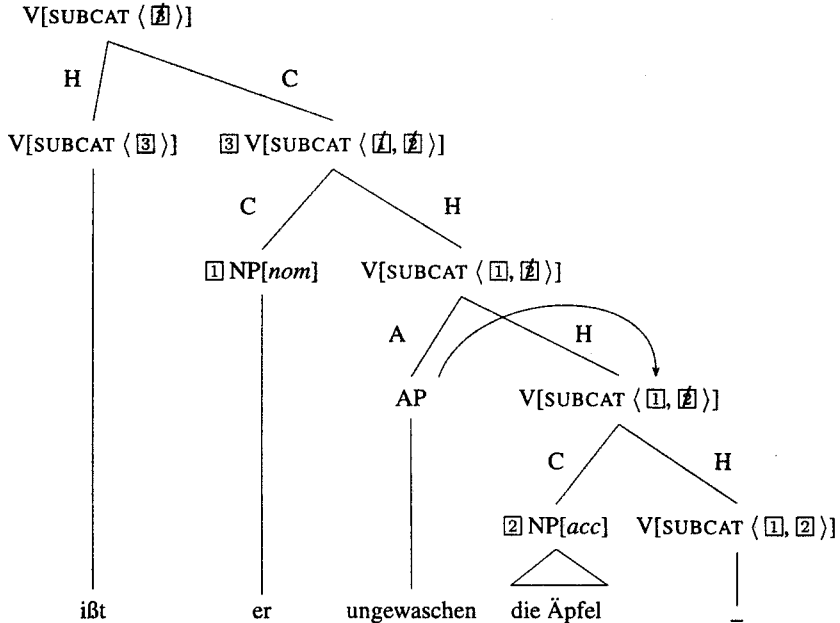


Figure 2: Coindexing Analysis with Verb Movement

As was pointed out in MÜLLER (2004) analyses that assume a different branching for verb-initial sentences cannot use this explanation for the linearization constraints. The reason is that the arguments of the verb are saturated in a different order. In the analysis of *Ißt er ungewaschen die Äpfel?* in Figure 3, the description corresponding to *er* is marked as realized when *ißt er* is combined with *ungewaschen*.

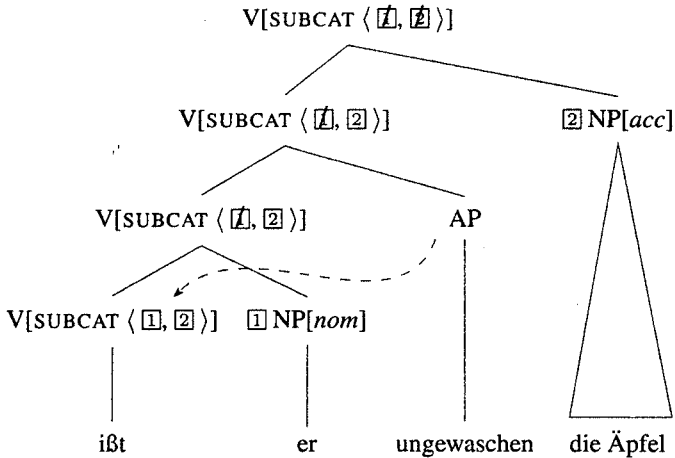


Figure 3: Variable Branching Analysis for Verb Position and Coindexing

The advantage of the analysis sketched above over the one suggested earlier (MÜLLER 2004) is that it can be extended to English. MÜLLER (2004) assumed the classical mode of valency representation that is suggested by POLLARD & SAG (1994). In their treatment of valency representation arguments that are combined with their head are not represented in the SUBCAT list of the mother node. This means that maximal projections have empty SUBCAT lists. As a consequence of this the SUBCAT list of the VPs in (36) is the empty list, which means that there is no element left for coindexing.

- (36) a. John [[_{VP} ate the apples,_i] unwashed,_i].
 b. You can't [[_{VP} give them_i injections] unconscious,_i].

However, in the approach presented above, information about both realized and unrealized arguments is contained in the SUBCAT list and, hence, English examples like (36) can be analyzed as well. English and German differ as far as the requirements with respect to the syntactic realization of the antecedents of depictive predicates are concerned: while in German antecedents have to be unrealized, English allows both realized and unrealized elements as antecedents.

4. Conclusion

I have developed an analysis of depictive secondary predicates that does not rely on discontinuous constituents as the one suggested in MÜLLER (2002). Since discontinuous constituents are a very powerful device, an approach that can avoid them is to be favoured.

The analysis can explain why antecedents have to precede the depictive predicates without referring to linear precedence rules, which were shown to be difficult to formalize (MÜLLER 2004), since coindexing of arguments is involved and reflexives may interfere. The analysis is an improvement on MÜLLER (2004), since it can be extended to languages like English.

The analysis is part of an implemented fragment of German, which can be downloaded at <http://hpsg.fu-berlin.de/Fragments/Berligram/>

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