

A NOTE ON VERB PHRASE DELETION

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In this paper I will discuss Verb Phrase Deletion (henceforth VPD) in comparison with its analogue in German. Considering cases in both languages, I will suggest that VPD in English should be a marked case of more general deletion phenomena.

It is generally assumed that VPD deletes a repeated occurrence of elements supposedly dominated by the node VP under identity with their occurrence in the preceding clause. The following sentences are typical examples of VPD in English.

- (1) George loves Beth, and Tony does, too.
- (2) John will buy a new car, but Bill won't.

In each of these examples, deletion has taken place in the position immediately following AUX. Since do is a realization of tense in some sense, at least one auxiliary element remains in the second conjunct, even when there is no overt auxiliary element in the first conjunct.

In some cases, however, more than one auxiliary element can remain in the second conjunct after deletion has taken place. Bresnan (1976) cites examples like the following.¹

- (3) Frankie will seem to want to leave St. Louis, but Johnny won't. [Bresnan's (32)]
- (4) Frankie will seem to want to leave St. Louis, but Johnny won't seem to. [Bresnan's (33)]
- (5) Frankie will seem to want to leave St. Louis, but Johnny won't seem to want to. [Bresnan's (34)]

These examples provide strong evidence for her proposal of the Relativized A-over-A Principle (henceforth RAOAP). Multiple

deletion as illustrated above is possible because VPD obeys this principle.

Another important property of VPD is recoverability of deletion; that is, it must be indicated at some level of derivation that the VP to be deleted and its preceding occurrence are identical. Sag (1976) proposes that identity of VPs is determined not at the deep structure level but at the level of logical form. If two logical forms are identical, deletion is recoverable. For instance, sentence (2) can be represented as (6). (For typographical convenience I use the symbol $\underline{\lambda}$ for the Greek lambda throughout this paper.)

- (6) WILL(John, $\underline{\lambda}x(x \text{ buy a new car})$) but NOT WILL(Bill, $\underline{\lambda}y(y \text{ buy a new car})$)

In (6) two lambda expressions $\underline{\lambda}x(\dots)$ and $\underline{\lambda}y(\dots)$ are alphabetic variants, and this means that two occurrences of buy a new car are identical. Hence, deletion of its second occurrence is possible.

Now let us turn to the question of how VPD operates in German.² First, we will consider the following examples.

- (7) *Hans möchte ein neues Auto kaufen, aber Peter möchte nicht. (Hans wishes to buy a new car, but Peter does not wish to)
- (8) Hans möchte ein neues Auto kaufen, aber Peter nicht.

It is curious to note that (7) is ungrammatical in which deletion has taken place exactly the same way as in English. It is also worth noting that in English, deletion of the type illustrated in (8) is impossible.³

- (9) *John will buy a new car, but Bill not.

No auxiliary element should be left behind in German, whereas at least one auxiliary element must remain in English. VPD seems to operate quite differently in German.

There are, however, cases in which deletion occurs in the position that immediately follows AUX. Consider the following examples.

- (10) Ich hätte ihm einen Brief geschrieben, aber ich konnte nicht. (I could have written him a letter, but I did not manage to) [Schulz/Griesbach]
- (11) Er könnte mir Geld leihen, aber er will nicht. (he could lend me money, but he does not want to) [Schulz/Griesbach]

In each of these cases, the auxiliary in the second conjunct differs from that in the first conjunct. Note that the former forms a considerable semantic contrast to the latter: konnte and will are of indicative form, whereas hätte and könnte are of conjunctive form. In cases like (8), on the other hand, where auxiliary elements are also deleted in the second conjunct, no such contrast comes out.

Considering these facts, we can assume that differences in deletion pattern depend on differences in logical form. Suppose that sentences (8) and (11) have logical forms as represented in (12) and (13) respectively.

- (12) Hans, $\exists x(x \text{ möchten}[x, \exists y(y \text{ kaufen ein neues Auto})])$ but NOT(Peter, $\exists w(w \text{ möchten}[w, \exists z(z \text{ kaufen ein neues Auto})])$)
- (13) er, $\exists x(x \text{ könnten}[x, \exists y(y \text{ leihen mir Geld})])$ but NOT(er, $\exists w(w \text{ wollen}[w, \exists z(z \text{ leihen mir Geld})])$)

In (12) $\exists x(\dots)$ and $\exists w(\dots)$ are alphabetic variants, whereas in (13) $\exists y(\dots)$ and $\exists z(\dots)$ are alphabetic variants. Hence, the string möchte ein neues Auto can delete in (12), but only the embedded clause leihen mir Geld is deleted in (13).

The representations in (12) and (13) are parallel to those of English sentences containing verbs with infinitival complements. For example, sentence (14) has a representation as given in (15).

(14) John wants to buy a new car, but Bill doesn't.

(15) John, $\lambda x(x \text{ want}[x, \lambda y(y \text{ buy a new car})])$ but NOT(Bill, $\lambda w(w \text{ want}[w, \lambda z(z \text{ buy a new car})])$)

In this case, however, an output like (16) can obtain, in which only the VP corresponding to $\lambda z(\dots)$ in (15) has been deleted.

(16) John wants to buy a new car, but Bill doesn't want to.

As previously noted, this follows from the fact that in English, VPD is subject to the RAOAP.

In German, deletion of the sort illustrated in (16) is totally impossible. The German analogue of VPD always applies maximally to the elements that are identical to their preceding occurrence at the level of logical form. In German, VPD appears to obey the non-relativized version of A-over-A principle rather than the RAOAP.

To give a more coherent explanation to the facts observed so far, let us first assume VPD to be a more general deletion rule, something that freely deletes all the elements identical to their preceding occurrence without reference to AUX. The rule may be of the same form as the one proposed by Neijt (1979) for Gapping.

(17) Delete

(17) is as general as any other formulation, and covers both VPD and Gapping. Certain principles distinguish between these two phenomena.⁴

At the level of logical form, auxiliaries are represented as sentence operators in English so that they are not bound by other operators, whereas they are represented as predicates in German.⁵ There is good reason to believe that German auxiliaries share certain properties with verbs. It is well known that in German, most auxiliaries--in particular, modals--can also be used as verbs. This is illustrated by the following example.

- (18) A: Hast du gestern ins Kino gehen dürfen?
B: Ja, ich habe es gedurft.

In the question sentence of (18), dürfen is a modal auxiliary, as its morphological property indicates. But in the answer sentence, it is a true verb, as is clear from its inflectional form. Whether an auxiliary is a sentence operator or a predicate at the level of logical form depends on the information from the lexicon: subcategorization features or some other syntactic, semantic features determine this property.

Finally, as mentioned above, the German version of VPD is not sensitive to the RAOAP; instead, it obeys the non-relativized version of the A-over-A principle. Suppose that the RAOAP is a marked property of languages such as English. Then it is only a parametric variation whether VPD is subject to the relativized or non-relativized version of the A-over-A principle. It is important to note that this property is closely related to the nature of auxiliaries in a language; that is, in languages in which auxiliaries are more like verbs, the non-relativized version of the A-over-A principle applies, whereas in languages in which auxiliaries and verbs are clearly distinguished, the relativized version of the A-over-A principle applies.

We have so far discussed the possibility of reducing a wide class of deletion phenomena to a general deletion rule and a set of universal principles. Further research, however, is necessary to ensure that we are on the right track.

NOTES

1. In these examples, to is considered to be an auxiliary element.

2. There seem to be some who argue that VPD does not exist in languages such as German. Neijt (1979) points out that VPD is not available in Dutch.

3. Strangely enough, in sentences where the second conjunct is positive, this type of deletion seems possible.

(i) John will buy a new car, and Bill, too.

For the present, I have no idea of how to accommodate this.

4. Gapping appears to be applicable to a broader extent. Neijt (ibid.) claims that Gapping is subject to some of the constraints that movement rules obey.

5. This premise is not unreasonable; Evers (1975) proposes that German auxiliaries are verbs which take sentential complements.

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