

A Unified Account of the Properties of German Demonstrative Pronouns

In this paper I propose a unified account of two phenomena that have so far only been treated independently of each other: (I.) the strong tendency of German demonstrative pronouns (henceforth: D-pronouns or *DEM*) like *der* and *die* to be resolved to antecedents that have not been maximally salient in the preceding sentence, and (II.) the fact that D-pronouns cannot be interpreted as syntactically bound variables. I argue that both properties can be reduced to a principle that constrains the interpretation of D-pronouns in the following way: the variables they introduce cannot be resolved to the entity functioning as the current aboutness topic or to an element of the set functioning as the (current) aboutness topic.

I. [1] and [2] have verified in a series of experiments and corpus-studies the long-standing observation that German D-pronouns in contrast to personal pronouns have a strong bias against being resolved to antecedents that have been the subject of the immediately preceding sentence:

- (1) Paul wollte mit Peter laufen gehen. Aber {er/der} war erkältet. ([1]: 2)
[Paul wanted to go running with Peter. But {he/DEM} had a cold]

While the personal pronoun *er* in (1) is preferably resolved to the subject of the preceding sentence, *Paul*, the D-pronoun can only be resolved to the object of the preposition, *Peter*. On the basis of contrasts like the one between (2a) and (2b), [2] argue that it is not the grammatical role of the antecedent per se that is decisive, but rather the question of whether the antecedent functions as the current discourse-topic: D-pronouns avoid referents that are discourse topics.

- (2) a. Woher Karl_i das weiß? Peter_k hat es ihm_i gesagt. {Der_k/Er_{i,k}} war gerade hier.
[How does Karl_i know? Peter_k told him_i. He {DEM_k/Ppro_{i,k}} has just been here].
b. Woher Maria_i das weiß? Peter_k hat es ihr gesagt. {Die_i/Sie_i} war gerade hier].
[How does Maria_i know? Peter_k told her_i. She {DEM_k/PPro_k} has just been here]. ([2]: 12)

II. As discussed by [3], D-pronouns cannot be interpreted as quantifier-bound variables – independently of the question of whether they are c-commanded by the quantifier already at the surface, or only at LF, after quantifier raising has applied (cf. (3a, b)). The last point shows that the ban against a bound-variable interpretation is independent of Principle C of the Binding Theory.

- (3) a. [Jeder Mann]_i glaubt, dass er_i/*der_i stark ist.
[Every man]_i believes that he_i/DEM_i is strong
b. dass die Frau [jeden Mann]_i küsst, die ihn_i/*den_i liebt.
that the woman [every man]_i kisses who him_i/DEM_i loves. ([3]: 166)

[3] now assumes that D-pronouns in contrast to personal pronouns contain a range, and that operator-variable chains are constrained by a principle that prevents variables from containing a range. In addition to that, [3] argues that the acceptability of sentences such as (4) in both variants shows that donkey anaphora can neither be interpreted as unselectively (Heim 1982) nor as dynamically (Groenendijk and Stokhof 1990) bound variables, but only as definite descriptions in disguise (Evans 1980, Heim 1990, Elbourne 2005).

- (4) Wenn ein Bauer einen Esel hat, dann schlägt er ihn/den. ([3]: 172).
If a farmer owns a donkey, then he beats it/DEM.

Crucially, however, while (4) is fine, because the D-pronoun can be understood as picking up the discourse referent introduced by the object indefinite *a donkey*, which corresponds to world knowledge, (5a) is rather strange: world knowledge would favour an interpretation according to which the D-pronoun picks up the discourse referent introduced by the subject indefinite, but it can only be understood as picking up the one introduced by the object indefinite (cf. (5b)).

- (5) a. Wenn ein Bauer einen Esel besitzt, dann schlägt der ihn.

If a farmer owns a donkey, then DEM beats him.
b. Wenn ein Bauer einen Esel besitzt, dann tritt der ihn.
If a farmer owns a donkey, then DEM kicks him.

Note that this contrast is in no way expected for E-type approaches, according to which not only D-pronouns, but also personal pronouns (at least in donkey sentences) are treated as definite descriptions in disguise. Furthermore, not even a mixed analysis, according to which only D-pronouns are definite descriptions in disguise, while personal pronouns are, for example, dynamically bound variables, would explain the contrast under discussion, since definite descriptions may well pick up discourse referents introduced by subject indefinites:

(6) Wenn ein Bauer einen Esel besitzt, schlägt der Bauer ihn/den Esel.
If a farmer owns a donkey, then the farmer beats him/the donkey.

On the other hand, the facts in (4) and (5) are highly reminiscent of the facts reported in (I). I therefore argue for a unified account that not only explains the facts in (I) and (II), but also the ones in (4) and (5) in terms of a constraint that prevents D-pronouns from being resolved to a value that is either the entity functioning as the current aboutness topic or an element of the set that functions as the current aboutness topic. I assume that not only individuals, but also sets (of events/situations as well as of individuals) can be aboutness topics in the sense of Reinhart (1981), and that the restrictor sets of Q-adverbs as well as of the covert generic operators, which are initially underspecified, are resolved on the basis of information structure in the following way: they are not directly focus sensitive, but rather anaphoric to a set of topical situations/events, i.e. sets of situations/events that are currently under discussion and thus aboutness topics (cf. Beaver and Clark 2007).

Following [4], I assume that this also holds for sentences such as (4) – (6): it is not the case that the antecedent of the conditional is mapped onto the restrictor of the covert generic operator in its entirety. Rather, the whole conditional is interpreted in the nuclear scope, while the restrictor is determined in the way sketched above, i.e. on the basis of information structure. Since the subject of the *if*-clause is the default topic, and since it can easily be shifted from its original denotation as a generalized quantifier to a set of minimal situations (namely the set of minimal situations containing a farmer), the constraint introduced above accounts not only for the facts in (I), but also as for the ones in (4) and (5): the minimality condition ensures the values of the variable introduced by the indefinite in the restrictor to vary with the ones introduced by the indefinite in the nuclear scope. Dynamic binding of the D-pronoun by the subject indefinite in the restrictor would thus result in a situation where the corresponding variable would be assigned values from the set functioning as the aboutness topic, while dynamic binding by the object indefinite is unproblematic.

Concerning the facts in (II), I assume that not only the sets functioning as the domains of quantification for (overt or covert) Q-adverbs, but also the ones functioning as the domains of quantification for quantificational determiners are aboutness topics, the difference being that while in the former case syntax does not play any role at all, it directly indicates which set is the aboutness topic in the case of determiner quantifiers. Building on the traditional idea that topics are the logical subjects of a predication provided by the comment, I assume that in the case of quantification, the restrictor set can be seen as the logical subject of a second-order predication in the following sense: it is specified to which degree the predicate provided by the nuclear scope holds of the restrictor set, i.e. how many elements of the restrictor set satisfy the nuclear scope. Finally, I assume that in German Left Dislocation, the D-pronouns in the specifier of CP do not pick up the referent introduced by the left-dislocated phrase (which is presumably an aboutness topic), but rather function in the same way as relative pronouns (with which they are surface-identical): they simply trigger lambda abstraction, thus turning the CP into a predicate that can be applied to the dislocated phrase.

Selected References: [1] Bosch, P. et al. (2003). Demonstrative Pronouns and Personal Pronouns. German *der* vs. *er*. [2] Bosch, P. and C. Umbach (2006). Reference Determination for Demonstrative Pronouns. [4] Hinterwimmer, S. (2008). *If* vs. *when*, *wenn* vs. *als*: Microvariation in the Semantics of Conditional and Temporal Complementizers in English and German, *Proceedings of NELS 37*. [3] Wiltschko, M. (1999). On the Syntax and Semantics of (Relative) Pronouns and Determiners, *Journal of Comparative Germanic Linguistics* 2.