

The information structural effects of German P- and D-pronouns in discourse

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1 The background, the problem, the questions

The so-called Demonstrative Pronoun I (*der, die, das*) which exists additionally to the cross-linguistically more typical type of Demonstrative Pronoun II (*dieser, diese, dieses*) in German is one of its “exotic” linguistic features. There are, probably, only a handful of languages exhibiting this kind of an intermediate pronoun type functionally located between personal and demonstrative pronouns. The term Demonstrative Pronoun I has been replaced in the theoretical literature by the term D-pronoun (D-PRO henceforth). It refers to the deictic component of the pronoun which gives rise to the use of D-PRO for assigning a contrast (1) and the selection of a single exemplar out of a group of exemplars of the same type (2).

- (1) Siehst Du den Mann dort drüben?
‘Do you see the man over there?’
 - a. Der hat aber einen Bart.
‘D-PRO-M.SG.NOM has quite a beard.’
 - b. Ich kenn den irgendwoher.
‘I know D-PRO-M.SG.ACC from somewhere.’
- (2) Gib mir mal die Tüte mit den Birnen.
‘Can you give me the bag with the pears.’
 - a. Die (hier) möchte ich gleich essen.
‘This one I would like to eat yet.’
 - b. Tom will die (hier) zurückbringen.
‘Tom wants to give back this one.’

In these and related types of uses the D-PRO exhibits similarity with the Demonstrative Pronoun II which is nearly parallel in use to English *this/that* or Dutch *deze/dat* (Piwek et al. 2008).

German, of course, also exhibits personal pronouns (*er, sie, es*; P-PRO henceforth) and since German is a non-pro-drop language, P-PROs are fre-

quently used and are seen as the default pronoun type. Research on anaphora resolution and reference tracking in discourse revealed a functional difference of P- and D-PROs concerning the disambiguation of anaphoric pronoun reference. German exhibits only a few contexts allowing null subject elements. Therefore, P-PRO is the formally least complex referential expression and – in line with the Givenness- or Salience-Hierarchy (Givón 1983; Gundel et al 1993; Ariel 2004) - refers back to the most salient antecedent which are prototypically subject antecedents. Accordingly, D-PRO as the next complex referential expression prototypically refers back to non-subject antecedents (Bosch & Umbach 2007; Bouma & Hopp 2007).

- (3) Paul_i schenkt Fritz_j sein altes Fahrrad.
'Paul gave Fritz his old bike.'
- a. Er_i hat sich gerade ein neues gekauft.
'He bought a new one recently.'
- b. Der_j hat sich gerade ein neues gekauft.
'D-PRO-M.SG.NOM bought a new one recently.'

The application of the described pronoun resolution mechanism ensures the disambiguation of pronoun reference. However, contexts requiring the disambiguation of pronoun reference are comparatively rare. Most contexts present only one potential antecedent and, in those presenting more than one, pronoun reference is often disambiguated by linguistic features (e.g. number, gender) or by semantic interferences. Theoretically, one could expect that only P-PRO, i.e. the default pronoun, would occur in such unambiguous contexts. However, this is not the case. Though P-PRO occurs more frequently, both P- and D-PRO are used – in many contexts with hardly any difference in meaning as in (4).

- (4) Als der Ball_i angefliegen kam, bin ich losgerannt. Und ich hab ihn_i/den_i wirklich noch gekriegt.
'When the ball came, I started running. And I really managed to get it/that.'

Decades ago, this has raised the question on the ratio of P- and D-PRO application in the unambiguous contexts. Klein (1979) might have been one of the earliest papers pointing at the topic (see the survey given by Ahrenholz 2007). In the 1990s, several researchers finally agreed on the hypothesis that use of a D-PRO referring to an already introduced antecedent has the effect of foregrounding the pronoun referent in the mental model of the discourse while use of a P-PRO in the same context continues the given status of the referent or

give rise to backgrounding the referent in favour of other parts of information (see Bethke 1990; Weinrich 1993; Wiemer 1996). The terms foreground and background are used in these approaches for distinguishing the actual information status of the referent of a pronoun (and other referential expressions). Foregrounded referents are highly activated and salient in the actual sequence of discourse, they introduce a new topic and/or are in focus. Backgrounded referents, on the contrary, are less activated and salient in the actual sequence of the discourse and neither topicalized nor in focus. In this sense, the two terms are more related to the *thema-rhema*-distinction of the Prague School (Prochazka et al eds. 2010) than to Hopper (1979) – often cited as the seminal work introducing the terms foregrounding and backgrounding in linguistic theory. In Hopper's sense the terms assign a difference in the contribution of a piece of information (actually a tense form) to the global discourse. Foregrounded information, in this framework, is salient information that moves a text or discourse forward while backgrounded information is less-salient and does not advance the main line of discourse. The shift in the application of foreground/background from characterizing global content features to assigning an opposition in the actual information status becomes even obvious by the fact that in the generative framework the topic of P- and D-PRO use has been discussed as a focusing effect (Schlobinski 1992; Zifonun et al. 1997) or a means of topic-comment organization (Selting 1993).

What is worth noting is that all approaches agreed on a functional opposition of P- vs. D-PRO which affects the information status of the pronoun referent in the actual sequence of discourse. Unfortunately, the insights of this period of research came out of view in the mid 1990s. One reason was the increasing interest in anaphoric pronoun resolution, specifically the disambiguation of pronoun reference. This research brought to light complex interactions of various factors in anaphora resolution (Givón 1983; Ariel 2004; Gundel et al. 1993; Beaver 2004), but, at the same time, it pushed out of view the frequent uses of P- and D-PRO which are not in need of a disambiguation of pronoun reference. Accompanied by a decreasing research interest in discourse analysis and spoken language, this gave rise to an overemphasis of the higher frequency of D-PRO in spoken/colloquial language than in written/standard language. The difference in the two pronoun types occurred to be a difference in register/language level (still partially present in Ahrenholz 2007). Finally, this research situation has raised the impression that the solution has been found for the riddle about what the benefit is in German due to the existence of P- and D-PRO. This is, however, not the case as it comes to light in the recent discussions on various types

of P- and D-PRO uses in various types of contexts (e.g. Weinert 2007, 2011; Ahrenholz 2007; Hinterwimmer, to appear).

The present investigation steps back to the claims of the 1990s by assuming that there is a functional opposition in the use of P- and D-PRO which affects the status of the pronoun's referent in the mental model of the discourse. We interpret the earlier findings as an indication of an information structural difference which is specifically relevant on the discourse level. The question we address here is twofold. Firstly, we ask whether the assumed opposition in the information status of P- and D-PRO referents has consequences on referent continuation in the ongoing discourse. So far, the effects of P- vs. D-PRO use were determined concerning the status of the pronoun referent in the actual sequence of discourse, i.e. they were determined by a judgement on the salience or the topic/focus status of the pronominal DP. As far as we can see, this determination has not been operationalized further. Since there are contexts in which both P- and D-PRO would fit in with only a feeling of a difference but without clear-cut exclusiveness, the opposition is empirically not well validated. If we could show that there are effects of type of pronoun on the ongoing discourse this would, in our view, provide the lacking empirical validation. Secondly, we ask whether there are effects of the narrator's point of view on P- and D-PRO use. The idea behind this question is that the way of information unfolding in discourse depends on the speaker. S/he decides which pieces of information come next, what is foreground and what is background information. If type of pronoun choice is related to the processes of discourse organization by the speaker – via fore- and backgrounding of information – and if internal or external location of the narrator's point of view influences the organization strategies of the speaker/narrator this might have an effect on the use of P- and D-PRO.

In the following, we first present our expectations and respective arguments concerning the two questions addressed in this paper (section 2). In section 3 we describe the empirical basis and method of our study and present the results. Section 4 provides the discussion of the results and section 5 gives a summary.

2 The expectations, the arguments, and the hypotheses

2.1 Effects on referent continuation in the ongoing discourse

Putting together the reported claims on P- and D-PRO use and the findings on the impact of factors like salience, givenness, centering etc. on the choice of referring expressions (e.g. Givón 1983; Ariel 2004, Gundel et al. 1993; Beaver 2004) we assume that the difference in the use of P- vs. D-PRO is a difference

in information structural features. A P-PRO indicates that the referent is already introduced, well known, and relatively activated in the discourse model. Further information concerning this referent can be added and highlighted in the current and the ongoing discourse without increasing the activation of this referent in the discourse model. On the contrary, a D-PRO indicates that the referent is currently not activated enough in the discourse model, either because it is relatively new or because it was not topic or in focus in the preceding part of the discourse. The D-PRO is a sign for the hearer that the respective referent is becoming more central in discourse. Increasing the activation of a referent can have at least two reasons. Either the referent is put in contrast to another referent (see (1)) or it should be established as the entity to which newly given information should be related.

If this is correct, choice of P- vs. D-PRO should have consequences for the continuation of the pronoun referent. We propose that there is an asymmetry in the continuation of P- vs. D-PRO referents in the immediately following context. D-PRO referents should remain prominent, i.e. occur in salient position in the ongoing discourse, while the continuation of P-PRO referents is neutral to that constraint. Therefore we expect to find the following:

A. *Asymmetry in discourse continuation of P- and D-PRO referents*

D-PRO referents typically occur in information structural prominent position in the ongoing discourse while P-PRO referents do or do not.

The asymmetry claim should hold specifically for P- and D-PROs which are not involved in anaphoric disambiguation, i.e. in the disambiguation of pronoun reference resulting from the existence of more than one potential antecedent. Though the choice of pronoun type in these cases is constrained by the same features as in general – i.e. P-PROs refer to the more salient and activated referents while D-PROs to the less salient and activated ones – the need for disambiguation of pronoun reference can require the use of D-PRO irrespective of the relevance of the pronoun referent in the ongoing discourse. Because of such potential effects of anaphoric disambiguation (AD henceforth), the expected asymmetry might be of the following nature:

B. *Asymmetry in discourse continuation of referents of P- and D-PRO not involved in AD*

Referents of D-PRO not involved in AD typically occur in information structural prominent position in the ongoing discourse while respective referents of P-PRO typically do not.

Table 1: Pronoun resolution involved in AD (= +AD) and not involved in AD (= -AD)

antecedent	P-PRO	D-PRO
subject / topic	+AD	-AD
non-subject / non-topic	-AD	+AD

Table 1 demonstrates which anaphoric relations of P- and D-PRO are involved vs. not involved in AD (for P- and D-PRO use involved in AD see e.g. Bosch & Umbach 2007).

The asymmetry effect should turn out by opposite preferences for referent continuation of P-PRO referring to non-subject antecedents vs. referent continuation of D-PRO referring to subject antecedents.

2.2 Effects of narrator perspective

As a source of the effects of P- and D-PRO use described in section 2.1, we predict that the speaker's choice of P- and D-PRO depends on the general point of view the narrator takes in relation to the narrated event, i.e. on the narrator (=speaker) perspective. This prediction is based on the following findings and considerations: It has been emphasized in the 1990s that the choice of an (AD "free") P- or D-PRO is not constrained by linguistic structure but by the speaker's decision on what he wants to establish as the focus in the actual sequence of discourse, cf. e.g. Bellmann (1990: 237): "Fokussierung ist ein psychischer Akt, der ausschließlich von den Einstellungen, der Situationsdefinition, dem Interesse, dem Grad der Betroffenheit, dem Temperament und der jeweiligen Befindlichkeit des sprechenden Individuums ausgeht." [Focussing is a psychological act which only depends on the attitudes, the definition of the situation, the interest, the degree of affectedness, the temperament, and the actual constitution of the speaking individual.]. As has been said in section 1, specifically in the generative framework, the choice of a D-PRO has been concerned as an act of focussing.

Further, there is empirical evidence that also the use of pronouns varies in dependence on the type of texts - not only between texts given in spoken or written language but also in texts within these two domains (e.g. Ahrenholz 2007; Weinert 2007, 2011). This variation in pronoun use might have similar sources like the variance found in the application of tense and aspect forms in discourse. Concerning these categories, Stutterheim et al. (2010), Stutterheim & Lambert (2005) and others argue that the established patterns correlate with

the type of content and the type of text, e.g. the tense-aspect pattern of reports, object descriptions, manipulation of things, and other (more static?) types of texts differs from that in texts presenting action and event descriptions. The decision on the type of text is (at least to some extent) the speaker's decision. It has already been stated that the point of view taken by the speaker is one factor in this decision and, by this, affects the application of tense-aspect forms (e.g. Klein & Stutterheim 2007). Given this, we assume that the narrator's point of view is a factor in the choice of focus and, therefore, also in the choice of P- or D-PRO. The two most opposed localizations for the narrator's point of view are "included into the event" (internal perspective) vs. "at a distance from the event" (external perspective); see Levinson's (1996) classification of 3 main types of narrator perspective in which the external-internal distinction is captured by the terms extrinsic and intrinsic. An internal point of view suggests that the fictitious location of the narrator is inside the narrated event, he is involved in it (without necessarily taking part). A point of view located external to the narrated event suggests a distance between narrator and event, the narrator is looking on it from outside. A narrator who takes an external point of view for telling a story has, very likely, more freedom to (re)organize the parts of the event as well as character presentation according to his communicative intentions and can stronger shape the narrative landscape in the sense of *Profilbildung* (Bethke 1990; Weinrich 1993) than a narrator taking an internal point of view. Concerning the use of P- and D-PRO in this respect, we expect the following:

C. *Effects of narrator perspective on discourse continuation of referents of P- and D-PRO*

P- and D-PROs are more frequent in narrations narrated from an external than from an internal point of view.

Additionally, referents of D-PRO not constraint by AD should be continued more frequently in prominent position in narrations given from an external point of view than in narrations given from an internal point of view.

3 The study: Use and referent continuation of P- and D-PRO in narratives

3.1 Participants and material

The corpus of narratives analyzed here consists of 66 oral narratives given by 33 adults in the age range of 21-67 (mean age 35). Each participant narrated two

picture-book stories consisting of 6 pictures each. In addition to *type of story* (cat vs. fox) we varied *type of pictures* (close vs. far) and *type of instruction* (external vs. internal position of the narrator). The cat story has been invented into research on children's narrative development by Hickmann (2003), the fox story has been developed for the same purposes at the Centre for General Linguistics Berlin (Gülzow & Gagarina 2007).

The variation in the factors *type of pictures* and *type of instruction* aimed at inducing an external or internal point of view for the narration of the picture book stories. *Type of pictures* concerns the two versions of drawing of the 6 scenes (i.e. pictures) of each story. One version presents the scenes and characters in a close-up manner (i.e. with the characters in the foreground of the pictures), the other version presents them in a far away manner (i.e. with the characters in the background of the pictures; see the material in the appendix). *Type of instruction* concerns two aspects in the written instruction: (i) the location from which the event was suggested to be observed by the narrator (from a tower = external to the event vs. in the narrator's garden = internal to the event) and (ii) the suggested style of narration (report vs. description of an exciting experience; see the two versions of the instruction in the appendix). The two factors were not crossed. The location "from a tower" was always combined with the ask for a report while the location "in the narrator's garden" was always combined with the ask for a description of an exciting experience. The factor *type of story* did not aim at the elicitation of differences in pronoun use. We only aimed at increasing the size of the corpus. However, as has been said in section 2.2 and has been found in studies on children (e.g. Aksu-Koç & Nicolopoulou 2015), different stories can raise differences in the use of linguistic means. Therefore we will treat *type of story* as a factor in the analyses of the data.

To sum up, the material systematically varied three factors which can be analyzed with respect to their effect on linguistic features of the narration:

- (5) a. *type of story*: cat vs. fox
- b. *type of pictures*: close vs. far
- c. *type of instruction*: external(-report) vs. internal(-gig/event).

The combination of these factors resulted in 8 versions of the story. All 8 versions were presented to 50% as the first and to the other 50% as the second story each participant had to narrate. All of the produced narrations have been audio taped by using an MP3/MP4 player from Teac media service and transcribed according to the CLAN guidelines (MacWhinney 2000).

3.2 Elicitation method – procedure

Participant and experimenter were sitting in front of each other at a table. Each participant was told that s/he will have to tell two picture-book stories with pictures that were made for a study with children for which we also want to know how an adult would tell the stories. Then the participant was given the booklet with the two stories each introduced by a written instruction. The participant was asked to start by reading the instruction to the first story carefully and to follow this instruction. When the participant finished the first story s/he was asked to do the same with the second story. The written introduction asked the participant to first look at all pictures in a row without narrating in order to become familiar with the whole story. Having done this the story should be narrated according to the order of the pictures. Also, in both types of instruction, the participant was asked to tell the story to a friend (see B in the appendix).

Statistical analyses were made with the interactive chi-square calculator of Preacher (2001) which is online.

3.3 Data base for analyses – P- and D-PRO productions

The produced narrations consisted of 19 propositions in average. Utterances containing more than one clause were subdivided in the main and sub-parts which had an own subject (even a null subject) and a finite verb; i.e. into propositions. In addition, infinitive clauses of the type “um zu ... + infinite verb” ‘in order to + infinite verb’ were counted as separate proposition with a null subject. The total number of propositions produced in the 66 narrations is 1259. Since the present analyses focus on the use of 3rd person P- and D-PRO referring to characters given in the pictures we excluded propositions referring to the narrator and his/her location or to a fictitiously introduced addressee character. Further, we only analysed P- and D-PROs in nominative and accusative case. Pronouns in dative and genitive occurred only rarely in the data. However, the main reason for the restriction on nominative and accusative case is that these are the cases on the top of the case hierarchy encoding the central referents of an event or a scene.

Due to the described constraints our analyses are based on an amount of 230 propositions containing 161 P-PRO and 75 D-PRO.

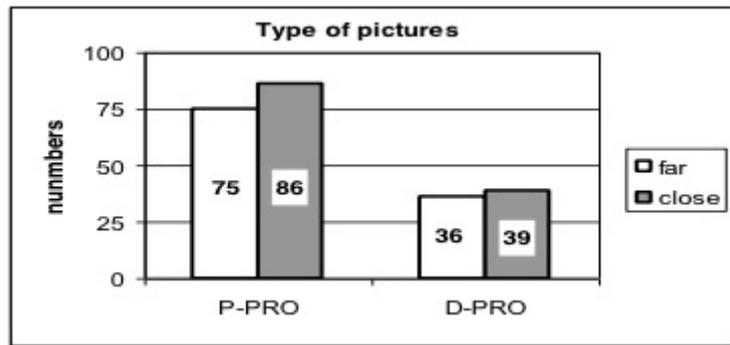


Figure 1: Distribution of P- and D-PRO in terms of the factor type of picture

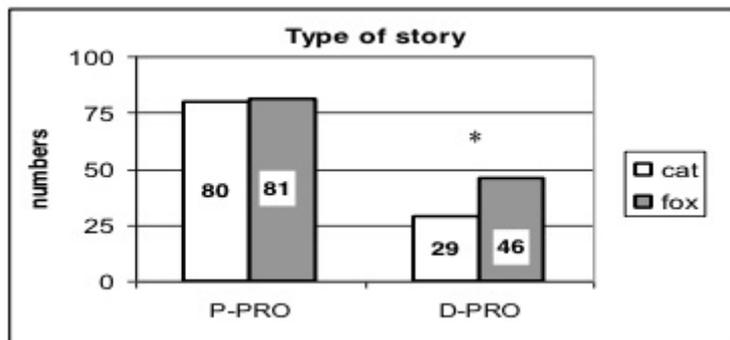


Figure 2: Distribution of P- and D-PRO in terms of the factor type of story

3.4 Results

3.4.1 Effects of the story setting: type of story, type of pictures, type of instruction

An overview on the overall distribution of P- and D-PRO production in the two narratives can best be given by the results for the three factors of story setting. Figures 1-3 show the distribution of the 161 P- and 75 D-PRO in dependence on each of these factors.

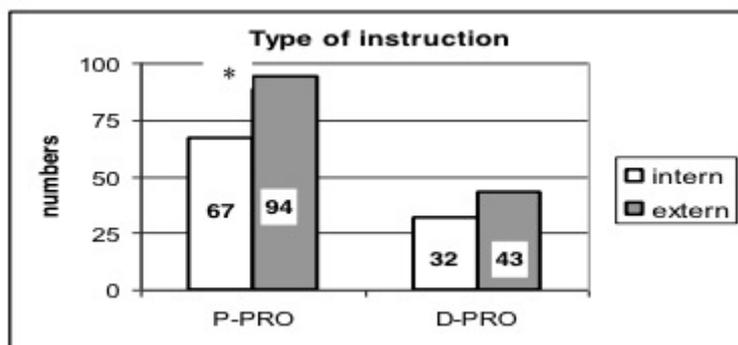


Figure 3: Distribution of P- and D-PRO in terms of the factor type of instruction

Statistical analyses reveal that the factor *type of pictures* (close/far; Figure 1) had no impact on the total amount of pronoun production and the proportion of the pronoun types in each condition. The factor *type of story* (cat/fox; Figure 2) also had no effect on the proportion of pronoun types, though the amount of D-PRO is significantly higher in the fox than in the cat story ($p=0.0497$). The factor *type of instruction* (external/internal; Figure 3) raised a higher amount of P- and D-PRO production in the external condition ($p=0.013$). While the difference in D-PRO production is not significant, the difference in P-PRO production is significant ($p=0.033$).

Given the relative marginal effects of these factors on pronoun production they have not been included in the following analyses. However, we will come back to the factor *type of instruction* in section 3.4.5.

3.4.2 Discourse continuation of pronoun referents depending on type of pronoun

In section 2.1 we proposed that the hypotheses on backgrounding and foregrounding effects of P- and D-PRO respectively of the 1990s can be tested by investigating the continuation of the pronoun referents in the ongoing discourse. In the asymmetry statement in A we proposed that referents of the pronoun type with a foregrounding effect, i.e. of D-PRO, are more likely to be continued in prominent position while referents of P-PRO, the pronoun type assigned to have a backgrounding effect, might occur in prominent position but don't have to.

In order to investigate the proposed correlations, we calculated the occurrence of P- and D-PRO referents as subject vs. non-subject in the immediately following proposition. Subjects are easily to detect and have a highly salient and prominent information structural status. They typically contain the aboutness topic in German. So, the continuation of the referent of *he* as the subject of the next proposition in (6a) is more prominent in information structural terms than continuation of *he* as the direct object in (6b).

- (6) a. und er_i (fuchs) sieht fast aus / als wenn er_i (fuchs) darum bettelt
and he (fox) looks nearly like as if he (fox) for.this begs
'and he nearly looks as if he begs for this'
- b. und dann fliegt er_i (vogel) davon / und der fuchs verfolgt den vogel_j
and then flies he (bird) away and the fox chases the bird
'and then he is flying away and the fox is chasing the bird'

Figure 4 presents the proportion of subject and non-subject continuation of the referents of the two pronoun types. The difference in the overall continuation

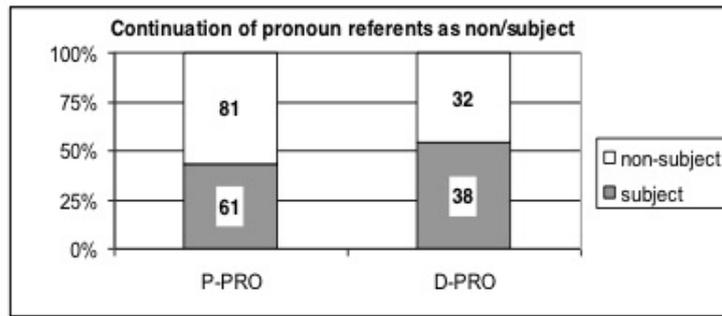


Figure 4: Continuation of P- and D-PRO referents as subject/non-subject of the following proposition

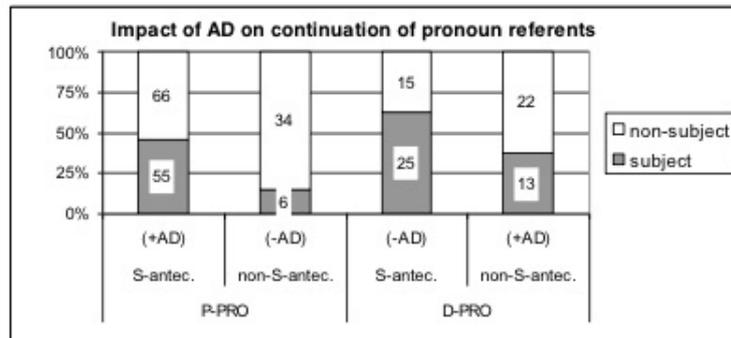


Figure 5: Continuation of P- and D-PRO referents as subject/non-subject of the following proposition depending on the potential involvement of the pronoun in anaphoric disambiguation (AD)

pattern of P- and D-PRO is not significant ($p=0.12$). There is only a weak tendency for referents of P-PRO to occur as non-subject in the following proposition ($p=0.093$).

3.4.3 Continuation of pronoun antecedents depending on type of pronoun and involvement of pronoun use in AD

In section 2.1 we discussed the impact of AD on the choice of pronoun type. We argued that the constraints of AD on the choice of pronoun type can potentially override the role of information structural devices. In B, we proposed a specification for the impact of P- and D-PRO on referent continuation: The information structural effect of pronoun type on referent continuation proposed in A might be more prominent with pronouns not involved in AD. As shown by Table 1, choice of pronoun type is not related to AD in case of P-PROs referring to non-subject antecedents and of D-PROs referring to subject antecedents. Figure 5 presents the same analyses as given in section 3.4.2 but now specified for pronouns potentially involved vs. not involved in AD. For the pronoun uses not involved in AD (P-PRO referring to non-subject antecedent; D-PRO referring

to subject antecedents), there occurs a reversed continuation pattern. While the P-PRO referents are nearly exclusively continued as non-subjects the D-PRO referents are continued as non-subjects in only one-third of all instances. The difference is highly significant ($p=0.000018$). The preference for non-subject continuation of P-PRO is highly significant ($p=0.000015$) while the preference for subject continuation of D-PRO is not significant (which might partially be due to the low number of D-PROs).

Referent continuation of pronouns potentially involved in AD, i.e. of P-PROs referring to subject antecedents and of D-PROs referring to non-subject antecedents, shows a mild tendency towards the opposite pattern. However, the differences are not significant.

3.4.4 Discourse continuation of pronoun referents as topic of the next proposition

So far, we analyzed the backgrounding vs. foregrounding effect of pronoun choice on the ongoing discourse in terms of subject vs. non-subject continuation of the pronoun's referent. In this section we refine the notion of "continuation in prominent position" by including topic-focus status of the continued subject phrase. In German main clauses, the syntactic constituent in the *Vorfeld*, i.e. the pre-verbal position, has either topic or focus status. Therefore, a subject placed in the *Vorfeld* requires more prominence in the mental model of the discourse than a subject placed somewhere else in the sentence. Accordingly, the continuation of the referent the D-PRO *der* in (7a) is information structurally more prominent than the continuation of *der* in (7b).

- (7) a. *der*_i (vogel) hat die (kinder) noch nicht gefüttert /
he.D-PRO (bird) has she.D-PRO (babies) yet not feeded /
aber *der*_i ist gerade weggefliegen
but he.D-PRO is right.now flown.away
'he has not yet feeded them but he is flown away right now.'
- b. *der*_i (fuchs) hat auf den vogel gestarrt / vielleicht wollte er;
he.D-PRO (fox) has at the bird stared / maybe wanted he
den vogel haben
the bird get
'he has stared at the bird, maybe he wanted to get the bird.'

The evidence for an information structural difference of P- vs. D-PRO would be strengthened if the continued subjects of the two pronoun types differ in their syntactic position. Having in mind the impact of AD on the information

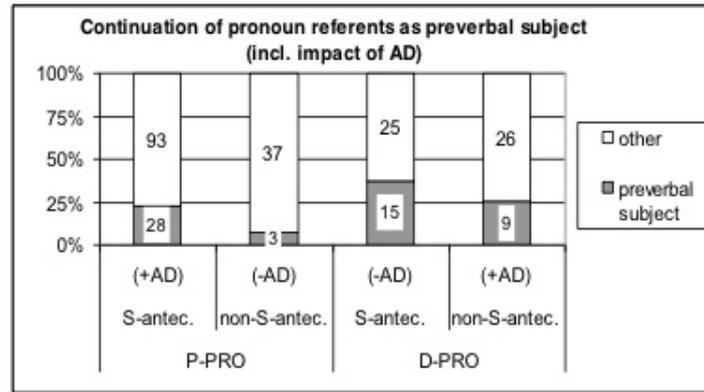


Figure 6: Continuation of P- and D-PRO referents as preverbal subject of the following proposition depending on the potential involvement of the pronoun in anaphoric disambiguation (AD)

structural use of pronouns found in the previous section, we specifically should find subject continuation of D-PROs not involved in AD more often in preverbal position than subject continuation of D-PROs involved in AD and as well more often than subject continuation of P-PROs in general.

Figure 6 presents the proportion of preverbal positioning of subject continuations for all the four categories of pronouns analyzed in the previous section. Preverbal subject continuation is most frequent with D-PRO referents not involved in AD. The continuation pattern of this type of D-PRO differs significantly from that of P-PRO not involved in AD ($p=0.0013$). At the same time, there is no significant difference in the continuation pattern of P- and D-PRO potentially involved in AD. 36 out of the 55 instances of immediately continued preverbal subjects in Figure 6 are null subjects in our data (cf. *und der_i (vogel) moechte das (gräte) gerne haben und Ø_i holt sich das mit ei(ne)m sturzflug.* ‘and he (bird) would love to get it and Ø catches it by a nosedive’). However, null subjects are more frequent with pronouns involved in AD (27 of 37) than with pronouns not involved in AD (9 of 18).

3.4.5 Effect of type of instruction on discourse continuation of pronoun referents

Finally, we come back asking whether the factors included in the presentation of the stories to the participants, i.e. the factors of story setting, had an impact on the use of P- and D-PROs in the narrations. Specifically, the variation of the factors *type of pictures* (far/close) and *type of instruction* (external/internal) aimed at inducing a specific narrator perspective manifested by either an internal or an external point of view in relation to the narrated event. Concerning the use of P- and D-PRO, we expected that frequency and information structural

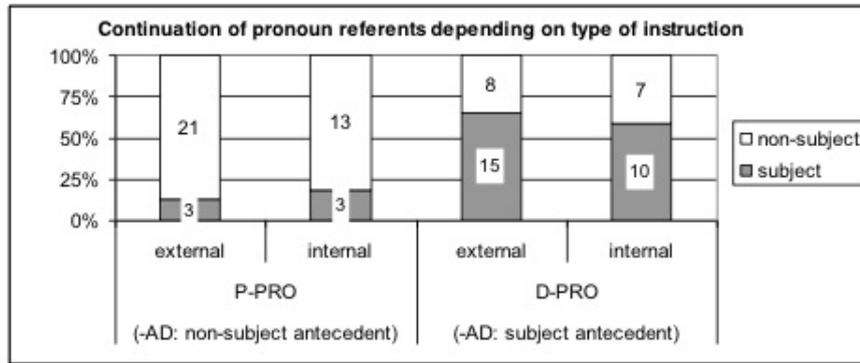


Figure 7: Continuation of pronoun referents not involved in AD in dependence on type of instruction (internal/external)

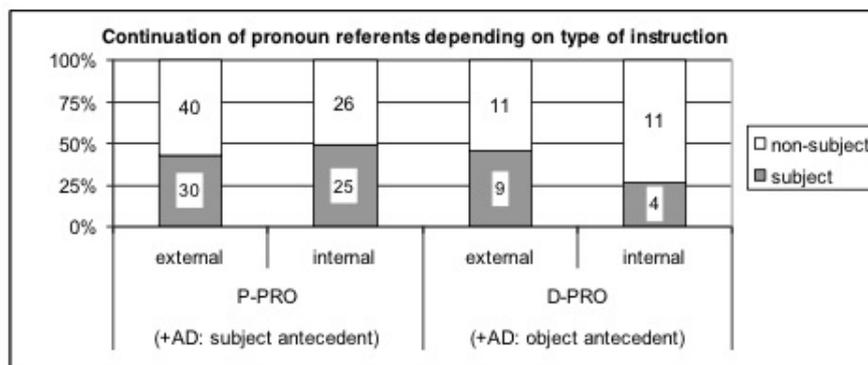


Figure 8: Continuation of pronoun referents involved in AD in dependence on type of instruction (internal/external)

opposition of P- and D-PRO would be more pronounced when the narrator takes an external point of view (see C in section 2.2).

The results reported in section 4.3.1 revealed that the factor *type of pictures* had no effect on pronoun use while the factor *type of instruction* raised a higher amount of P- and D-PRO when an external point of view was suggested, i.e. when the participant was asked to report the picture-book story as an observation he made from a tower. In order to examine whether *type of instruction* also raised a difference in the information structural opposition of P- and D-PRO we analysed the distribution of the four types of pronoun use established in the previous sections in terms of *type of instruction*.

Figure 7 and 8 present the results separately for the P- and D-PROs not involved in AD (Figure 7) and P- and D-PROs potentially involved in AD (Figure 8). Figure 7 concerns P- and D-PRO not involved in AD for which we found a significant effect on subject continuation of the pronoun referent (section 4.3.3). It turns out that this effect is primarily driven by a significant difference in subject continuation of P- and D-PROs in the external condition ($p=0.0002$). While P-PRO referents are nearly never continued as the subject of the follow-

ing proposition this is the case with about two-third of the D-PRO referents. On the contrary, there is no significant difference in the continuation pattern of P- and D-PRO in the internal condition. The neutralization of this difference in case of pronouns potentially involved in AD (Figure 8) underlines the impact of AD on pronoun use found in the previous sections.

4 Discussion

Two types of questions were underlying this study. The first question was whether the information structural effects of P- and D-PRO described in the literature of the 1990s affects the continuation of the pronoun referents in the ongoing discourse. The second question was whether the hypothesized information structural effects of the two pronoun types lead to different preferences for pronoun use depending on narrator perspective. In short, the answer on both questions is yes. The data provide evidence for an information structural opposition of P- and D-PRO in terms of the likeliness of a continuation of the pronoun referent as subject of the immediately following proposition. Further, the data provide evidence that the information structural opposition of P- and D-PRO makes the use of the two pronoun types a means for assigning an external point of view of the narrator (= author/speaker).

The state of the art of the 1990s on the difference of P- and D-PRO was that P-PROs allow backgrounding of the pronoun referent in favor of highlighting other parts of information in the ongoing discourse or in order to induce a topic change. D-PROs, on the contrary, give rise to foregrounding the pronoun referent in the discourse model, i.e. making it the topic or focus of the next sequence of discourse. Our data show that this is indeed the case. But the data also show that it does not hold for all types of pronoun use. The information structural opposition of P- and D-PRO comes to light specifically with pronoun uses that are not (potentially) involved in AD (Figure 5). The antecedent oriented requirements of AD induce the application of either P- or D-PRO irrespective of the intended information structural status of the referents, cf. (3). Obviously, the choice of P- or D-PRO is a matter of two relatively independent devices concerning either backward or forward orientation in discourse. Both devices ensure discourse coherence. Backward orientation has the function of ensuring coherence with the previous discourse. This is specifically demanding in cases of potentially ambiguous pronoun reference. For the moment it looks as if only when the backward reference of the pronoun is uncontroversial forward orientation, i.e. the intended information status of the pronoun referent in the next part of discourse, can determine the choice of P- or D-PRO. Differentiat-

ing these two devices and their outcomes seemingly has been the missing step in accounting for the information structural opposition of P- and D-PRO. It is worth noting that both devices, backward and forward orientation, work on the basis of the same well known opposition of P- and D-PRO: P-PROs are used for referents which are highly salient and activated in the mental model – D-PROs are used for referents which are introduced but not fully salient and activated in the given sequence of discourse. Specifically in the forward orientation of pronoun use, D-PROs are used in order to *make* the referents highly salient and activated.

Whether there are also information structural effects on pronoun use involved in AD cannot be answered on the basis of the limited amount of pronoun data in our corpus. At the moment we only see that the amount of null subjects is higher with pronouns involved in AD (P-PRO 29 of 55; D-PRO 9 of 13) than with pronouns not involved in AD (P-PRO 10 of 25; D-PRO 2 of 6).

The evidence for the impact of the intended information structural status of the referent on pronoun choice becomes further pronounced when including syntactic position of the continued subject into the analyses (-AD columns in Figure 6). Concerning only pronouns not involved in AD, we found that P-PRO referents are hardly continued as preverbal subjects while D-PRO referents are in about 40% of all instances. It has already been noted in the former research period that there is a positional difference of P- and D-PROs itself (e.g. Weinrich 1993). P-PROs are preferably placed postverbal while D-PROs occur preverbal. What our data show is that this also holds for the continuation of P- and D-PRO referents irrespective of the type of referential phrase used for continuation. The positional effect, again, disappears when concerning the continuation of referents of pronouns potentially involved in AD (+AD columns in Figure 6). This underlines the relevance of ensuring discourse coherence with the previous context.

Before coming to our results on the second question on whether the hypothesized information structural effects of the two pronoun types lead to different preferences for pronoun use depending on narrator perspective some words on our view of narrator perspective might be helpful. The discussions on point of view and/or narrator perspective suffer from the impacts of many different fields with partially orthogonal uses of the terminology, including also Foreground and Background and, additionally, Grounding. One source of confusion is the use of *narrator* for assigning either the person who is really telling the story, i.e. the author or speaker, as for assigning story characters who are fictitiously installed as the source of perspective-taking. Typically, both of these perspectives are present in a narrative. This is intriguingly demonstrated by Brunyé

et al. (2009) who found that first-person pronouns presented in single sentences raised an I-figure-internal perspective taken by the reader but when the same pronoun and situation was presented within a short text sequence “readers are more likely to adopt an external perspective”, i.e. the I-figure became the person seen by X (= author/speaker/hearer). In the internal perspective the point of view taken by the author/speaker and the point of view of the character has been identified. In the external perspective there are two points of view, the external one of the author/speaker and the internal one of the character (the I-figure). The presence of the author/speaker perspective is often ignored when character perspective is taken in focus. In our study, we are interested in exactly this, the author/speaker perspective. As it is true for all linguistic expressions also a narrative can be constructed from different perspectives or point of views. Kuno (1987) speaks of *camera angles* which nicely illustrates that this type of perspective-taking depends on the localization of the author/speaker (or the camera) in a relation to the narrated situation (or scene). Typically, this relation is stable across a narrative while there can be variation in the character perspective.

To some extent the decision on the localization of the author’s/speaker’s point of view affects the decision on the type of the produced text, e.g. whether it is a report or a lively description of an experience (cf. Stutterheim 2003), and by this it affects the choice of appropriate linguistic and stylistic means. We hypothesized that an external point of view is associated with an overview over the whole situation while an internal point of view is not. While in the latter the chronology of the parts and sequences and the main actions determine the structure of the narration, in the former, i.e. from an external point of view, the relevance and contribution of the single parts and sequences to the whole situation can be weighted and presented according to the narrator’s (= author’s) communicative intends. Given that also the choice of a P- or a D-PRO depends on the speaker and his decision on the flow of information there should be a link between choosing an external point of view and using pronouns in order to give the narrative the speaker-intended *profile* in the sense of Weinrich’s *Profilbildung*.

In order to elicit whether the information structural effects of the two pronoun types lead to different preferences for pronoun use depending on narrator perspective, we faced the participants with two alternative types of introduction into the task: a version aiming at inducing an internal point of view of the author/speaker (“please, tell the event you experienced in your garden to a friend who is coming right after it happened”) vs. a version aiming at inducing an external point of view (“please, report the observation you made from a tower to

a friend”). There is no independent proof on how well the instructions did what we are aimed at. At least, we are not aware of such a proof. However, we found the expected higher amount of pronoun production of both P- and D-PRO when an external point of view was suggested by the introduction (Figure 3). Further, in the same condition, we found the expected information structural opposition of P- and D-PRO use for the pronouns not involved in AD (Figure 7).

As reported in section 3.4.1, we found more frequent use of D-PRO in the fox than in the cat story (Figure 2). The analysis of D-PRO use in terms of AD and type of instruction revealed that the higher frequency of D-PRO use in the fox story exclusively results from D-PROs potentially involved in AD (fox: 25 D-PROs vs. cat: 10 D-PROs). D-PRO use not involved in AD is of the same frequency in both types of stories (fox: 21 D-PROs vs. cat: 19 D-PROs). In the forward oriented use of D-PRO (-AD) the effect of type of instruction is in the expected direction in the cat-story (more subject (9) than non-subject (1) continuation in the extern condition but no preference in the intern condition) while it is not in the fox story (6 subject vs. 7 non-subject continuations). We hope that we can further clarify the impact of narrator’s point of view on P- and D-PRO use by an extension of our corpus.

5 Summary

Our analyses have shown that the information structural opposition of P- and D-PRO already proposed in the 1990s can be made empirically visible by opposite preferences of the two pronoun types for continuation of the pronoun referent in the ongoing discourse. The respective analyses brought to light that P- and D-PROs function as means of discourse cohesion in two directions, backward in discourse and forward in discourse. The constraints on choice of pronoun type differ between these two applications. Ensuring backward coherence requires the disambiguation of pronoun reference (assigned as *pronoun use involved in AD (+AD)* in the paper). Choice of pronoun type in this case is not constrained by the intended informational status of the referent in the ongoing discourse. Assigning the latter is the function of forward oriented pronoun choice. This clearly works on pronouns not involved in AD. Both devices make use of the same well-known salience-based opposition between P- and D-PROs: P-PROs refer to referents already highly salient and activated in the discourse model while D-PROs refer to referents that should be made more salient and increased in activation in the discourse model.

The analyses further provide evidence that the information structural opposition of P- and D-PRO not involved in AD, i.e. their capacity of *Profilbil-*

dung (Weinrich 1993), is specifically applicated when the speaker/author takes an external point of view. In other words, the information structural function of P- and D-PRO makes them a means for assigning the point of view of the author/speaker.

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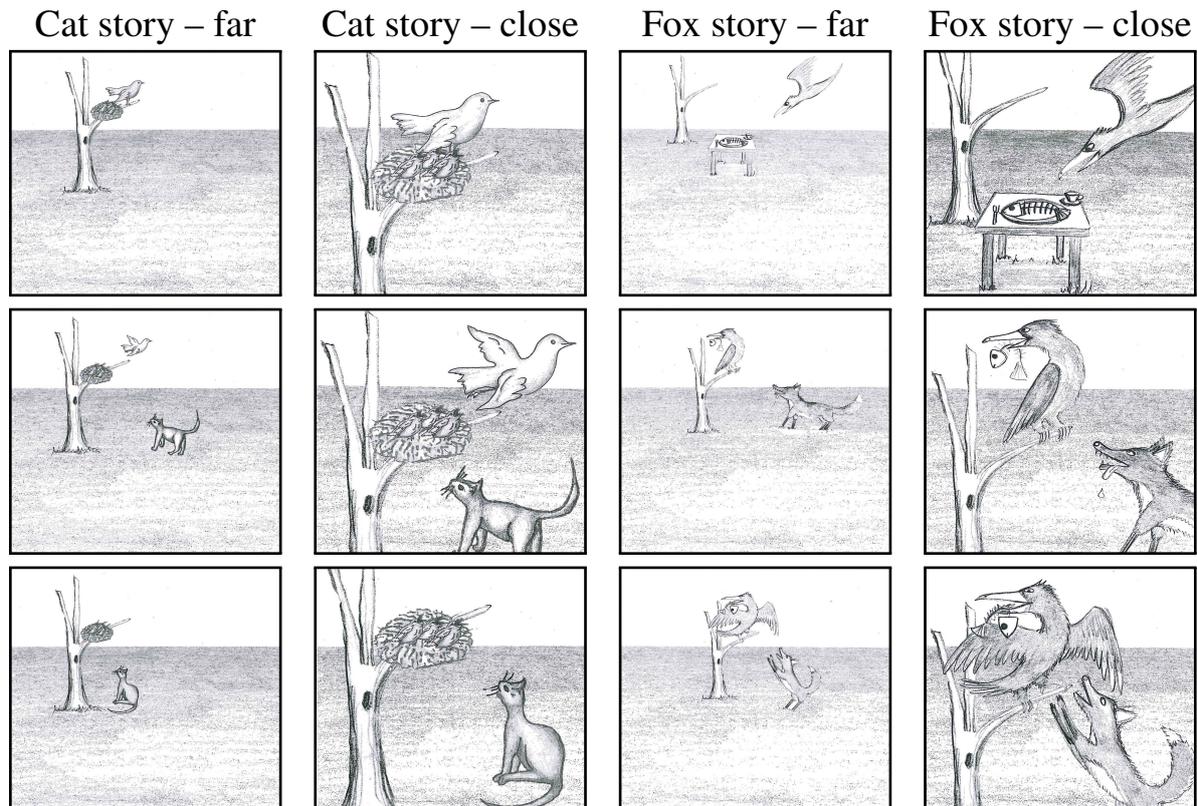
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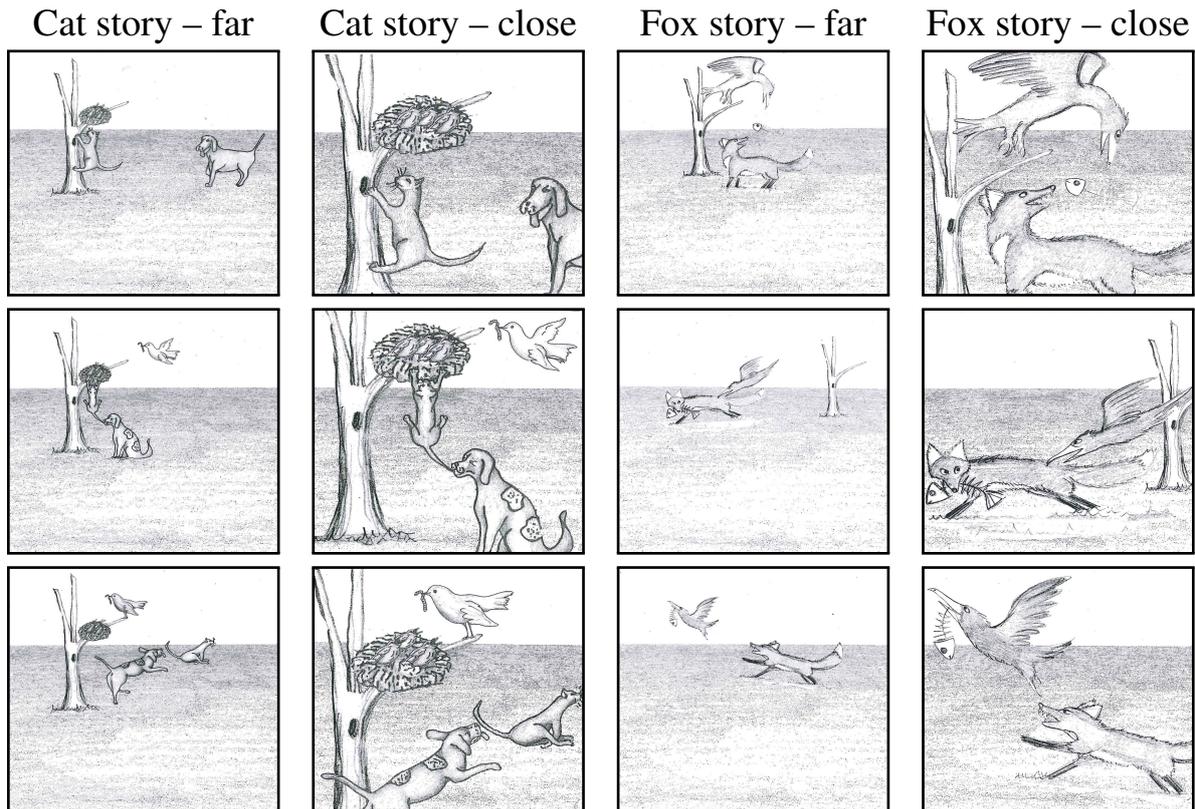
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Appendix

A. The four picture stories





B. Introduction: internal (experience) – external (observation)

Experience

Imagine that you are in your garden while the event shown by the following pictures happens. Now, your friend is coming and you tell him what you just experienced.

Proceed as follows: First examine the whole story carefully picture by picture. If you have seen and understood the whole story, go back to the first picture. Then start narrating the event according to the pictures. Make the narration of what you experienced as detailed as possible. – Turn the page by yourself.

Observation

Imagine that you were observing the event shown on the following pictures when you were standing on a tower during a holiday trip. Now you are reporting the event to your friend who was not with you on the tower.

Proceed as follows: First examine the whole story carefully picture by picture. If you have seen and understood the whole story, go back to the first picture. Then start reporting the event according to the pictures. Make the report of what you have observed as detailed as possible. – Turn the page by yourself.