

Contrastive Dislocation in Dutch and Icelandic

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In several Germanic languages, we find a type of sentence illustrated for Dutch in (1) and for Icelandic in (2):

- (1) *Jan, die denk ik niet dat we hier nog dikwijls*
John, that-one think I not that we here again often
zullen zien.
will see.
- (2) *Höskuld, hann held ég að við munum ekki sjá oft.*
Höskuld, him think I that we will not see often.

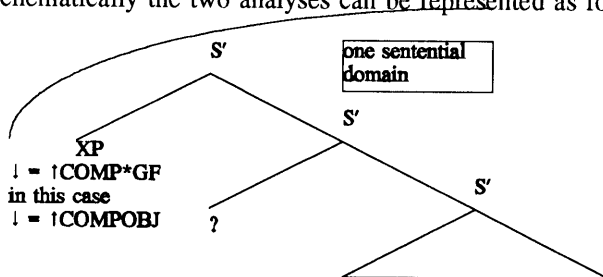
This type of construction has not been previously discussed in great detail. I will argue here, expanding observations made in Thráinsson (1979) that this construction, for which I will adopt Thráinsson's term Contrastive Dislocation (henceforth CD), has to be analyzed as syntactically linking the initial NP (*Jan* in the example above) to an argument position within the sentence and not, as one might be tempted to assume as a left dislocated constituent followed by a sentence in which a pronoun has been topicalized.

Following proposals made in Lexical Functional Grammar, I will distinguish between syntactic binding and anaphoric binding in the following way: in the case of syntactic binding the initial constituent is equipped with a functional uncertainty equation indicating the function that the constituent plays within the lower clause (this corresponds by and large to a movement analysis in the standard theory). In general it is not possible to decide on the basis of the syntactic characteristics of the initial constituent alone which role it will play within the sentence, hence the name 'functional uncertainty'. In the case of anaphoric binding I will simply coindex both constituents, the relation between two coindexed constituents is that between a pronoun and its antecedent: both agree in number and gender but not in grammatical function.

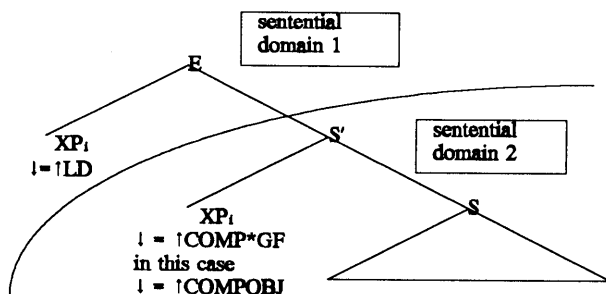
Given this distinction we can state the difference between the two analyses alluded to above as follows: under the first one, that I will call the T-analysis

(for topicalization analysis) the initial constituent is linked to a function in a lower clause and hence all connectivity phenomena that could hold between this constituent and the rest of the sentence will also hold between the sentence-initial constituent and the rest of the sentence. I use the term 'connectivity phenomena' to refer to any grammatical encoding of the within sentence syntactic function of the constituent. Under the second analysis that I will call the LD-analysis, the initial constituent is only anaphorically bound to a constituent within the sentence, in casu the pronoun that shows up in second position, and one does not expect any syntactic encoding of a within sentence grammatical function to show up on the initial constituent; the pronoun on the other hand is assumed to be topicalized and hence syntactically bound to a within sentence function. Schematically the two analyses can be represented as follows:

(3) a.



b.



As CD is under these two analyses regarded as similar to either topicalization or as a combination of left-dislocation (henceforth LD) and topicalization it will be useful to compare the characteristics of the CD construction to those of these two, more familiar constructions. Both exist in Dutch and Icelandic, as is exemplified in (4)-(7) (although LD is somewhat marginal in Dutch.)

Dutch LD:

- (4) *Jan, ik denk niet dat we die/hem hier nog dikwijls zullen zien*
 John, I think not that we that-one/ himhere again often will see

Dutch topicalization:

- (5) *Jan denk ik niet dat we hier nog dikwijls zullen zien.*
 John think I not that we here again often will see.

Icelandic LD:

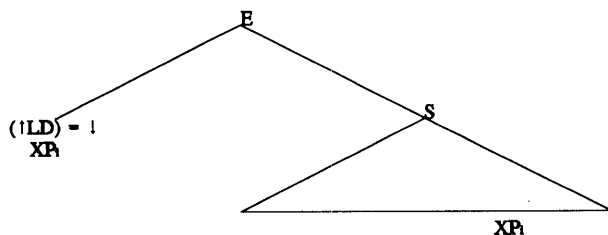
- (6) *Höskuldur, ég held að við munum ekki sjá hann oft.*
 Höskuld, I think that we will not see him often.

Icelandic Topicalization:

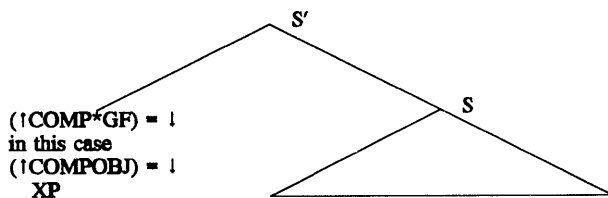
- (7) *Höskuld held ég að við munum ekki sjá oft.*
 Höskuld think I that we will not see often.

The relevant characteristics of the structures that I will assume for these constructions are diagrammed in (8):

(8) a.



b.LD



The node E dominating the LD-structure is assumed to be a non-recursive initial node (see Banfield, 1973 for discussion). Topicalization is assumed to involve Chomsky-adjunction to S, following Zaenen and Maling (1977) (but see section ...). I will assume that the initial constituent in the LD-construction is not in the same sentential domain as the rest of the sentence, and that hence the relation between it and the rest of the sentence is established in the same way as the relation between parts of separate sentence is established; i.e. by anaphor-

ric linking. In topicalization, however, the topicalized constituent is linked syntactically to the rest of the sentence. For arguments for this view within the EST-framework see Van Riemsdijk and Zwarts (1974) for Dutch. For a summary of the arguments for Icelandic, see Zaenen (1980, published as Zaenen 1985). In the first section, I will present evidence against the LD-analysis and for the T-analysis, in the second section I elaborate the T-analysis in a bit more detail. Section 3 will enumerate the problems with the T-analysis. In section 4 I will account for some (but not all) of the phenomena noticed in section 3 by proposing a pragmatic constraint on the use of CD. The conclusion will contain some suggestions about how the remaining problems could be taken care of.

1. Arguments for the T-analysis of the CD-construction

In this section I will present the main arguments against the LD-analysis and for the T-analysis of the CD-construction. I will first present the facts of Icelandic that were given in Thráinsson (1979) as arguments for a distinction between CD and LD, although not for any particular analysis of CD.

1.1 Arguments based on Icelandic

1.1.1 Casemarking (cf. Thráinsson, 1979: 61)

As the reader will already have deduced from the examples given above, Icelandic NP's are casemarked. This casemarking is mainly induced by the verb, i.e. a particular verb selects its object(s) and, in some cases, its subject, in a particular case. In example (9)a, we have the verb *lofa* 'to promise' that takes, as illustrated, two dative objects:

- (9) a. *Ólafur hefur lofað Maríu þessum hring.*
 Olaf has promised Mary_D this ring_D.

Examples (9)b, c and d gives the LD, CD and topicalization counterparts of this sentence:

- b. *Þessi hringur, Ólafur hefur lofað Maríu honum.*
 This ring_N, Olaf has promised Mary_D it_D.
 c. *Þessum hring, honum hefur Ólafur lofað Maríu.*
 This ring_D, it_D has Olaf promised Mary_D.
 d. *Þessum hring hefur Ólafur lofað Maríu.*
 This ring_D has Olaf promised Mary_D.

The fact to note here is that in the LD construction, the initial constituent is in the nominative, whereas in both the CD construction and the topicalized version we find it in the dative. If we assume that in both topicalization and CD, the initial constituent is syntactically linked to its within-sentence position, whereas in LD there is no such direct link this difference in case marking is explained. If we assume on the other hand that in both the LD and the CD construction, the initial constituent is base-generated and only anaphorically linked to the pronoun, the difference in case-marking has to be accounted for by an ad hoc rule of case-attraction.

1.1.2 Reflexives

Icelandic like the other Scandinavian languages, has a possessive reflexive that by and large obeys exactly the same constraints on antecedent-anaphor relations as the reflexive pronoun (see Zaenen, 1980, 1985 for examples, Thráinsson 1976, 1990 for the basic facts on Icelandic reflexivization and Maling 1982, 1990 for some additions). An example of a sentence containing this reflexive-possessive is given in (10)a:

- (10) a. *Ólafur finnur peysuna sína hvergi.*
 Olaf finds sweater-his_R nowhere.

As pointed out in Thráinsson (1979: 120), the CD counterpart of this sentence is perfectly grammatical, exactly like the topicalized version and in contradistinction to its LD-counterpart. This is shown in (10)b to d:

- (10) b. *Peysuna sína, hana finnur Ólafur hvergi.*
 Sweater-his_R, it find Olaf nowhere.
 c. *Peysuna sína finnur Ólafur hvergi.*
 d. **Peysun sín, Ólafur finnur hvergi.*

Similarly the following sentence, containing a reflexive pronoun as part of the initial major constituent is grammatical:

- (11) *Stoltan af sjálfum sér, það tel ég Jón ekki vera.*
 Proud of himself, that I believe that John is not.

Not only is this type of reflexivization possible, it is obligatory when coreference is intended. The following is ungrammatical:

- (12) **Stoltan af honum, það tel ég Jón ekki vera.*
 Proud of himself, that believe I John not to be.

and with a reciprocal we find sentences like the following:

- (13) *Stoltan afhvör öðrum, það tel ég þa ekki vera.*
 Proud of each other that believe I them not to be.

Under the assumption that the initial constituent is syntactically linked to a within sentence position, these facts are not astonishing: the normal reflexivization constraints apply that hold on the within sentence constituent as they are functionally equivalent. If we assume the LD-analysis we have to do something special to account for these facts. At first blush one might think that the problem could be taken care of by a feature (+R) and a rule stating that a constituent in sentence initial position has to agree in this feature with an immediately following coindexed constituent (i.e. the preposed pronoun of the CD construction). But this would give quite wrong results: it would not allow for the embedded reflexives that were illustrated in the previous examples: in a sentence like (11), it is not the CD-constituent as a whole that is a reflexive but a smaller constituent contained within it. The mechanism that decides which sentence initial constituents containing reflexives are grammatical and which ones ungrammatical will have to be able to look inside of the dislocated constituent and mark it as if it were in sentence internal position.

1.1.3 Categorical restrictions

Thráinsson (1979: 67) argues at length that LD in Icelandic is limited to NP's and marginally possible with a few locative and temporal PP's, whereas both topicalization and CD can occur with any type of XP as the initial constituent. Relevant contrasts are the following:

- (14) a. *Á vorin kemur Jón aldrei í tíma.*
 In the spring comes John never to class.
 b. *Á vorin þa kemur Jón aldrei í tíma.*
 c. *?ç vorin John kemur aldrei í tíma*
- (15) a. *Gulur er bílinn areidanlega.*
 Yellow is the car definitively.
 b. *Gulur það er bílinn areidanlega.*
 c. **Gulur bílinn er areidanlega það (það areidanlega).*

We can account for this restriction on LD by assuming that the Phrase Structure Rules (PSR), introducing the left-dislocated constituent is restricted to NP's, whereas the rule introducing topicalized structures and CD-structures refers to XP's. On the basis of these categorical constraints we would want to find a way to collapse topicalization and CD and consider LD to be generated by a

different rule. If we assume that the three structures have the same deep structure, we are lead to extensive filtering to avoid the *það* LD-examples.

1.1.4 Root versus non-root sentences

A similar argument can be based on the observation (cf. Thráinsson 1979: 63) that LD is possible only in main clauses whereas CD and topicalization are also possible in embedded clauses in Icelandic (leading to subject-verb-inversion just like in main clauses). An example illustrating this contrast is given in ((16)a gives a normal declarative sentence and b, c and d give the topicalized, CD- and LD-versions, respectively):

- (16) a. *Jón segir að Ólafur hafi lofað Maríu þessum hring.*
 John says that Olaf has promised Mary this ring.
 b. *Jón segir að þessum hring hafi Ólafur lofað Maríu.*
 c. *Jón segir að þessum hring, honum hafi Ólafur lofað Maríu.*
 d. **Jón segir að þessi hringur, Ólafur hafi lofað Maríu honum.*

We can account for the non-occurrence of LD In embedded sentences by introducing left-dislocated constituents under a non-recursive root category, (cf. Banfield (1973)) as illustrated in (17):

- (17) E --- > NP S'

but of course the contrast with CD only follows when we assume that this same rule does not play a role in the generation of CD constructions. And, again, to account for similarity in the distribution between topicalized and CD-structures we would want to introduce them by the same rule(s).

1.1.5 Pronominalization constraints

Pronominalization constraints in Icelandic have not been studied extensively and not all speakers seem to have the same judgements (see Thráinsson (1979) and Zaenen (1980,1985) for some data). It is clear, however, that in some cases cataphoric pronouns are possible in topicalized and CD-constituents but not in the initial constituents of a left-dislocated construction. The contrast is illustrated in (18):

- (18) a. *Um manninn sem hún b'yr með talar María illa.*
 About the-man she lives with says Mary badthings.
 b. *Manninn sem hún b'yr með, hann talar María illa um.*
 The-mann that she lives with, him says Mary bad-things about
 c. **Maðurinn sem hún b'yr með, María talar ill um hann.*
 The-man that she lives with, Mary says bad-things about him.

The argument made by Postal (1971) that constraints on pronominalization have to be stated on surface structure (for our purpose it is irrelevant whether this is translated into c-structure or f-structure within the LFG-framework) can also be shown to hold in Icelandic, where we find the following contrast:

- (19) a. *Um manninnsem María b'yr með talar hún illa.*
 About the-man that Mary lives with says she bad-things.
 but: b. **Hún talar illa um manninn sem María b'yr með.*
 She says bad-things about the-man that Mary lives with.

We can account for the difference in behavior between LD-sentences and CD-sentences by assuming (1) the kind of c-command constraint on pronoun-antecedent pairs argued for in e.g. Reinhart (1976) and Lasnik (1976) and (2) that the left-dislocated constituent is not part of the same sentential domain as the sentence it precedes, whereas a topicalized and a CD-constituent are.

As (20) illustrates backwards pronominalization is never possible across sentence boundaries:

- (20) a. **Ég hitti þau í gaer.*
 I met them yesterday.
 b. *Jón og María litu ut fyrir að vera mjög hamingjusom.*
 John and Mary seemed to be very happy.

In these five subsections I have illustrated several phenomena in Icelandic that show the similarity between topicalization and CD on the one hand and the contrast between them and LD on the other. In the next three subsections I will show that similar arguments can be made for Dutch.

1.2 Arguments based on Dutch

Although not all of the arguments in favor of the T-analysis made for Icelandic can be replicated for Dutch, it can be shown for that language too that it is not appropriate to analyze sentences like (1), repeated here for convenience, as involving a LD-structure with topicalization of a pronoun.

- (1) *Jan, die denk ik niet dat we hier nog dikwijls zullen zien*
 John, that-one think I not that we here again often will see.

1.2.1 Category restrictions

The category restrictions that we have seen for Icelandic also hold for Dutch albeit in a weaker form, as is illustrated in (21)-(24):

- (21) a. *Gevaarlijk denk ik niet dat die onderneming is.*
 Dangerous think I not that that enterprise is.
 b. *Gevaarlijk dat denk ik niet dat deze onderneming is.*
 c. *?*Gevaarlijk, ik denk niet dat deze onderneming dat/het is.*
- (22) a. *Over linguïstiek denk ik niet dat hij veel weet.*
 About linguistics think I not that he knows much.
 b. *Over linguïstiek daarover denk ik niet dat hij veel weet.*
 c. *??Over linguïstiek, ik denk niet dat hij daarover veel weet erover*
- (23) a. *Groen schijnt hij zijn auto geverfd te hebben!*
 Green seems he his car painted to have.
 b. *Groen, dat schijnt hij zijn auto geverfd te hebben!*
 c. **Groen hij schijnt het zijn auto geverfd te hebben.*
- (24) a. *Een auto kopen zal ze zeker.*
 A car buy will she for-sure.
 b. *Een auto kopen dat zal ze zeker.*
 c. *??Een auto kopen, ze zal het/dat zeker.*

(21) and (23)a, b and c show the topicalization, the CD and the LD of a AP respectively, (22) of a PP and (24) of a VP. If we assume that the difference in acceptability between the LD-versions on the one hand and the topicalizations and CD's on the other hand has to be accounted for syntactically, these contrasts present a problem for the LD-analysis, as did their Icelandic counterparts.

1.2.2 Reflexives and Reciprocals

Although there are no possessive reflexives in Dutch, embedded reflexives and reciprocals can be used to make the same point as the one illustrated for Icelandic in section 1.1.2. Examples are given in (25) through (30):

- (25) *Trots op zichzelf is hij wel.*
 Proud of him self is he for sure.
- (26) *Trots op elkaar zijn ze zeker*
 Proud of each other are they for sure.
- (27) *Trots op zichzelf dat is hij wel.* (cf. 25)
- (28) *Trots op elkaar dat zijn ze zeker.* (cf. 26)
- (29) **Trots op zichzelf hij is het wel.*

- (30) **Trots op elkaar ze zijn het wel.*

In these sentences, the reflexive or reciprocal is embedded in an AP and the CD-versions of the sentences are grammatical, whereas the LD-versions are not. Under the T-analysis this is to be expected, under the LD-analysis, we again need a complication.

1.2.3 *Pronouns bound by a quantifier*

In a sentence like (31), the possessive pronoun *zijn*, 'his', can be interpreted in two ways: a) a 'free' variable, i.e. referring to any masculine entity in the discourse, and as 'bound' to *iedere dichter* 'each poet' (see Engdahl 1980 for discussion)

- (31) *Iedere dichter vindt zijn laatste gedicht het mooiste.*
 Each poet finds his latest poem the most beautiful.

Under the first reading, we are talking about a previously mentioned poet and all poets agree that the latest poem of that particular poet is his best; under the latter reading, each poet finds his own latest poem the best. Hence, it is a different poem for each poet. Topicalization and CD preserve this ambiguity, whereas in LD we get only the first reading. The different versions are given in (32) to (34):

- (32) *Zijn laatste gedicht vindt iedere dichter het mooiste.*
 (33) *Zijn laatste gedicht dat vindt iedere dichter het mooiste.*
 (34) *%Zijn laatste gedicht iedere dichter vindt het het mooiste.*

Again CD patterns with topicalization and is distinct from LD.

1.2.4 *Backwards Pronominalization*

As in Icelandic, we can find backwards pronominalization into topicalized constituents and into the initial constituents of the CD-construction but not into the initial constituents of the LD-constructions. This is shown by the following contrast:

- (35) *Dat hij die prijs zou winnen had Jan nooit van zichzelf verwacht*
 That he would win that price had John never about himself thought.
 (36) *Dat hij die prijs zou winnen, dat had Jan nooit van zichzelf verwacht.*

- (37) **Dat hij die prijs zou winnen, Jan had het nooit van zichzelf verwacht.*

The conclusion to be drawn from this observation is the same as in Icelandic. In Dutch, too, pronominalization can be shown to be a surface phenomenon as is indicated by the following contrast:

- (38) *Aan alle filmsterren die Harry kent, schrijft hij lange brieven.*
 To all movie stars that Harry knows writes he long letters.

- (39) **Hij schrijft lange brieven aan alle filmsterren die Harry kent.*

More arguments can be given (see van Haaften et al., 1983). The general conclusion to be drawn from the facts, presented here is, however, already clear enough. The LD-analysis can only be maintained at the cost of several ad hoc complications, whereas, as far the facts presented up to now, an T-analysis seems to be straightforward. But as we will see that analysis is not without its own problems. Before going into those, however, I will sketch such an analysis in LFG-terms in a bit more detail.

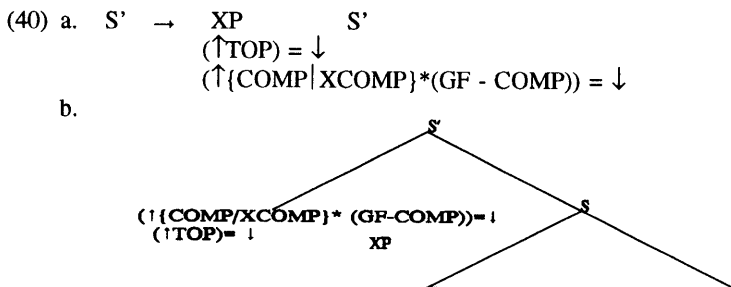
2. An Analysis of Contrastive Dislocation

In this section I will present an analysis of CD that account for the main observations made in section 1. These can be summarized in a straightforward way: the initial constituent in CD behaves like the initial constituent in topicalization and not like the initial constituent in LD. As I said in the introduction, I will assume it to be uncontroversial that the way to account for the difference between the initial constituent in topicalized sentences and that in LD-sentences is that in topicalized sentences the initial constituent is syntactically bound to a sentence internal position or function, while in LD the relation to the pronoun in the sentence is an anaphoric relation. The conclusion that has to be drawn from the previous section with respect to CD is then that the initial constituent has also to be syntactically bound to a sentence internal position or function. I will first sketch how this is done in LFG and then come back to two obvious problems that arise, namely, what is the function of the pronominal copy of that initial constituent and what is constituent structure of CD sentences as compared to topicalized sentences?

2.1 *The basics of the analysis*²

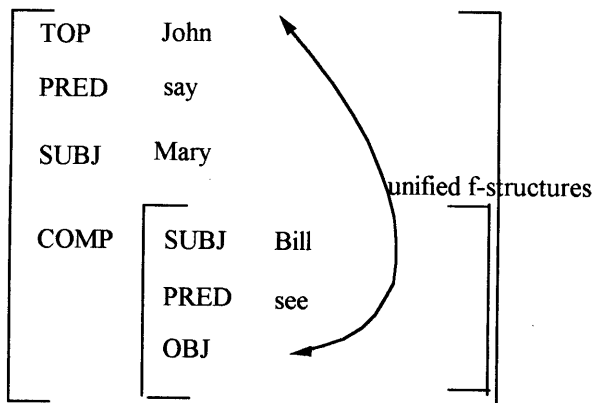
In LFG, syntactic binding is effected through functional uncertainty equations. An example is given in (40); (40) gives the annotated PSR needed to introduce

topicalizations. A schematic tree representation is given in (40)b., an (English) example and its simplified f-structure are given in (41):



(41) a. John, Mary said that Bill saw

b.



The functional annotation on the initial constituent says that this constituent is the topic of the highest sentence and moreover that it plays a functional role in a further embedded clause. Under this analysis, a topicalized constituent corresponds to only one constituent in the c-structure but has two functions: one discourse function, for instance that of topic, and one function in a lower clause. Island constraints limit the types of lower clauses that a topicalized constituent can have a function in and the types of functions that it can have. In the equation above it is stated that the within clause function of a topic has to be found either in the highest clause or in a COMP or XCOMP (by an large corresponding to that-clauses and infinitival clauses respectively) and that its within clause function can be any grammatical function except COMP. These constraints are discussed in the paper mentioned above. The result of the representation is that

both the function in the lower clause and the topic function can impose case features, and other attributes but that there cannot be a conflict between the requirements imposed as unification insures that the content of both functions has to be equal. The device can be thought of as performing the task that in some versions of EST is performed by reconstruction. But it performs it in a more elegant way as no movement nor replacement in a position of origin is assumed. For details and further explanations of the formalism, the interested reader should consult Kaplan and Zaenen (1988, forthcoming).

The representation of topicalization can be contrasted with that of LD, where as said above, no syntactic binding is assumed between the initial constituent and the rest of the sentence. I will assume the following PSR to introduce LD-constituents:

$$(42) E \rightarrow \begin{array}{cc} NP & S' \\ (\uparrow LD) = \downarrow & (\uparrow SENT) = \downarrow \end{array}$$

with LD as a functional annotation of the initial NP-node and a separate function for the rest of the sentence but with no functional link between the LD and the sentence. It is clear that in a more developed theory of discourse functions these annotations should be replaced with meaningful ones. My only aim here is to make explicit the lack of dependency of the LD on a sentence internal function.

Given this type of representation, the proposal for CD is straightforward: the initial constituent in the CD is also syntactically linked to an empty position within the sentence and hence equipped with a functional uncertainty equation that will insure that it has exactly the same characteristics as those that would be imposed on the within clause function with respect to casemarking, bound anaphora and the like. So the basic PSR, introducing CD is the same as that introducing topicalized constructions. Let us now look at the more interesting questions, namely how is the pronominal copy to be treated and which category labels and c-structure are to be given to the part of the sentence following the initial constituent.

2.2 *The status of the pronominal copy*

At first glance it seems a good idea to give the pronoun also the same within clause function: it has the same casemarking, for instance. This would claim that they are unified in functional structure, i.e. that their functional structures could complete each other but would not have any conflicting values (see Bresnan et al. (1983) for a non trivial exploitation of this idea). More specifically, only one of them should have a predicate value (a 'meaning'). In the data

I have presented up to now, nothing contradicts this assumption: we have seen that the pronominal copy agrees in all relevant features with the constituent in CD position and, although pronouns can have a predicate value of their own, there are certainly cases in which one would like to assume that they are expansions of an XP without independent predicate value, namely when they act like 'resumptive' pronouns, such as those found in Swedish (see Zaenen et al., 1981 for arguments). If we were to assume that the pronouns found in CD are 'resumptive' pronouns in that sense, the CD construction could have the following representation (modulo differences in the c-structure that will be discussed in the next subsection), where the entry for the feminine singular accusative pronoun is given as an example:

$$(43) \quad S' \rightarrow \{XP \quad | \text{PRO}\} \quad S'$$

$$(\uparrow\text{TOP}) = \downarrow \quad (\uparrow\text{TOP}) = \downarrow$$

$$(\uparrow\{\text{COMP} | \text{XCOMP}\} * (\text{GF} - \text{COMP})) = \downarrow$$

hana: $(\uparrow\text{CASE}) = \text{ACC}$
 $(\uparrow\text{GEND}) = \text{FEM}$
 $(\uparrow\text{NUM}) = \text{SG}$

The PRO-constituent has the same function as the CD-constituent which in turn is linked to the a within clause function. If both $\bar{S}\bar{O}$ expansion are present, the f-structures of both the initial XP and the PRO would be unified and correspond to the same within clause function. The connectivity facts would be accounted for. There are, however, a few problems with this solution as we will see in the following subsections.

2.2.1 *Epithets in the CD-construction*

A fact that has been ignored up to now is that in CD not only pronouns but also epithets can function as anaphoric copies. This is illustrated in the following examples:

(44) *Jan, die idioot wil ik nooit meer zien.*
 John, that idiot want I never again see.

(45) *Ólaf, þetta fiðl elskar hún ekki.*
 Olaf, that idiot loves she not.

(46) *Ég veit að Ólaf, þetta fiðl elskar hún ekki.*
 I know that Olaf, that idiot loves she not.

Notice that the Icelandic examples show beyond doubt that we have to do with CD sentences and not with ID sentences: not only do we find the casemarking expected in CD but we also find the construction in an embedded sentence in (46).

While it can be argued that resumptive pronouns do not have a separate predicate value in certain contexts, the same position is more difficult to maintain with respect to epithets. So we seem to have to give a different value to the anaphoric copy and the initial constituent in the CD construction. In section 4, I will discuss this further and argue that the anaphoric copy, whether it is a pronoun or an epithet, doesn't contribute to the truth value of the sentence but is an 'implicature'. But I do not take this to mean that the epithet would not have its own 'meaning'.

2.2.2 *The distribution of resumptive pronouns*

Another argument against the treatment of the anaphoric copy in CD as a resumptive pronoun in the sense defined above is that neither Dutch nor Icelandic have resumptive pronouns in other contexts. The only reason to have pronouns without predicates in these languages would be the CD construction. This constitutes a complication of the grammar of both languages.

2.2.3 *The anaphoric copy as adjunct*

Given these considerations simplest way left in LFG to treat the anaphoric copy is as an 'adjunct': typically 'adjuncts' agree in case marking, gender and number with the constituent they are an adjunct to (see Bresnan, 1982 for a discussion of adjuncts in general and Levin and Simpson (1981) for some data on adjuncts in Icelandic). This can be illustrated, for Icelandic, with the following example:

- (47) Ég geri petta einn.
I_{m.sg.nom} will do this alone_{m.sg.nom}

Here *einn*, 'alone', is an adjunct to the subject of the sentence and it agrees in case as well as in number and gender. I will assume that this agreement pattern can be assumed to be the unmarked case for adjuncts and hence that when I give the anaphoric copy the adjunct function (ADJ) the agreement pattern follows without further stipulation.

2.3 *The constituent structure of CD-sentences*

As will become clear, the arguments for c-structure that can be given in Icelandic and Dutch are rather different and there is no empirical reason to assume that

the c-structures are very similar in both languages. For that reason I will discuss the two languages separately.

2.3.1 *Constituent structure in Icelandic*

The constituent structure of Icelandic main and embedded clauses is a hotly debated topic. Most proposals have been developed after the first version of this paper was written and it is not the place here to go into them in any detail. An overview is given in Thráinsson (1984), who, drawing on Rögnvaldsson (1982), proposes that topicalized constituents are daughters of the same S as the verb and the subject that follow them. This will give us the following partial PSR:

$$(48) S \rightarrow \begin{array}{ccc} \text{XP} & \text{v} & \text{NP} \dots \\ (\uparrow\text{TOP})=\downarrow & \uparrow=\downarrow & (\uparrow\text{SUBJ})=\downarrow \end{array}$$

(I leave the part after the subject unspecified because I do not want to commit myself to assuming a VP or not at this point.)

In keeping with the proposal made above, the rule for CD will differ minimally from (48) by incorporating the anaphoric copy of the topic, as shown in (49):

$$(49) S \rightarrow \begin{array}{ccc} \text{XP} & \text{XP} & \text{v} & \text{NP} \\ (\uparrow\text{TOP})=\downarrow & (\uparrow\text{TOP-ADJ})=\downarrow & \uparrow=\downarrow & \uparrow\text{SUBJ})=\downarrow \end{array}$$

It is obvious that these two rules can be trivially collapsed.

LD-structures will be generated by the rule already given in (42) repeated here for convenience as (50):

$$(50) E \rightarrow \begin{array}{cc} \text{NP} & \text{S}' \\ (\uparrow\text{LD})=\downarrow & (\uparrow\text{SENT})=\downarrow \end{array}$$

This set of rules accounts for the data discussed above, as will be shown now: under the assumption that E is non recursive we have accounted for the fact that left-dislocation is only found in main clauses. The assumption that the NP, preceding the S' is not part of the same sentential domain as what follows accounts for the pronominalization effects. The assumption that the initial constituent of E is NP whereas the initial constituent in the topicalization and CD rule is XP accounts for the differences in category restrictions. As discussed above the linking equations on the initial node in the topicalization and the CD construction will account for the connectedness effects and the ADJ-status of the anaphoric copy will insure that it agrees in case, gender and number features with the topic.

Under the hypothesis that only constituents can be conjoined, this 'flat' structure predicts that it is impossible to have the following conjunctions in Icelandic:

- (51) **þessa bók, hana keypti ég handa Jóni*
 This book, it bought I for John
en hana gaf Sigga Ólafi.
 but it gave Sigga to Olaf.
- (52) **þessa bók keypti ég handa Jóni*
 This book bought I for John
en gaf Sigga Ólafi.
 but gave Sigga to Olaf.

As the grammaticality judgements indicate, this prediction is borne out.

2.3.2 *Constituent structure in Dutch*

In contradistinction to Icelandic, Dutch allows for conjunctions of the type attempted in (51), as is shown by (53):

- (53) *Ieder nieuw artikel van Chomsky, dat lees*
 Each new paper by Chomsky, that read
jij 10 keer maar dat berg ik
 you 10 times but that put I
zonder meer op
 without further ado away.

The fact that we can have the quantifier phrase 'ieder' in the CD-constituent in this type of sentence shows that we cannot assume that (54) is a case of ellipsis, if an ellipsis analysis implies as is often assumed an invisible pronominal copy. Quantifiers like 'ieder' cannot bind a pronoun across a sentence conjunction. This is illustrated by the ungrammaticality of (54)a as compared to (54)b:

- (54) a. **Iedere kandidaat kwam en hij gaf een speech.*
 Each candidate came and he gave a speech.
- b. *Iedere kandidaat kwam en gaf een speech.*
 Each candidate came and gave a speech.

The rule given in (40) adapted for coordination will insure the correct distribution of the fronted constituent over the two conjuncts:

- (55) $S' \rightarrow \{XP \mid PRO\} S'$
 $(\uparrow TOP) = \downarrow \quad (\uparrow TOP) = \downarrow \quad \uparrow = \downarrow$
 $(\uparrow COMP \mid XCOMP)^* (GF - COMP) = \downarrow$

$S' = S': \uparrow \varepsilon \downarrow$ and $S': \uparrow \varepsilon \downarrow$

(see e.g. Pederson et al. for discussion of coordination in LFG.)

It seems then that the constituent structure of the Dutch sentences is different from that of the Icelandic ones. The same difference in conjoinability is also found with topics as illustrated in (56)(cf. (53)):

- (56) *Ieder nieuw artikel van Chomsky lees jij*
 Each new article by Chomsky read you
10 keer maar berg ik zonder meer op.
 10 times but put I without further ado away.

For Dutch we seem to need the following PSR's:

- (57) a. $S' \rightarrow XP S'$
 $(\uparrow TOP) = \downarrow \quad \uparrow = \downarrow$
 b. $S' \rightarrow XP S'$
 $(\uparrow TOP-ADJ) = \downarrow \quad \uparrow = \downarrow$

Again, these rules are trivially collapsible. But there are some problems about recursion and overgeneralization that do not arise in Icelandic. Functional uniqueness requires that in each S each (non adjunct) function be represented only once, so it will rule out recursion of topics. The identification of the function of the anaphoric copy as a topic adjunct can be used to rule out the following ungrammatical sentences:

- (58) **Wie die denk je dat Jan gezien heeft?*
 Who him think you that John seen has?

In (58) we have tried to apply CD in a question. The result is ungrammatical. Under the assumption that the initial constituents in questions have a function-name that is different from TOP and the rather reasonable additional restriction that adjunct functions are only allowed if there is a functional entity that they are an adjunct to, the functional structure for sentences like (58) will be ill-formed. The rules do not exclude recursion of the TOP-ADJ itself. They generate structures like (59)a. But then sentences like (59)b which are generated in

the same way are possible. I assume that (59)a is ruled out on extra-syntactic grounds.

- (59) a. *Jan die die verdedig jij altijd.*
 John him him you always defend.
 b. *Jan die idioot die verdedig jij altijd.*
 John that idiot him you always defend.

The fact that the PSR's in (57) cannot be applied in embedded sentences should most likely be made to follow from the differences in word order in Dutch main and subordinate clauses. I have no satisfying proposal to make here (for some suggestions in a different framework, see den Besten, 1981).

For LD we can assume the same rule in Dutch as for Icelandic namely:

- (60) E → NP S'
 (↑LD) = ↓ (↑SENT) = ↓

This concludes my discussion of representation of CD in LFG. The main feature of the analysis is that in CD, the initial major constituent of the sentence functionally equated to a within clause function whereas the anaphoric copy is an adjunct that is anaphorically bound to the CD-constituent.

I turn now to some characteristics of the construction that are problems for this analysis and give some indication about how they might be approached. The characteristics of CD-sentences that need mentioning can be subdivide into two sets, the ones that have to do with the c-structure configurations with which the construction can or cannot occur and those that have to do with felicity conditions on the use of the construction. I will treat each set in turn.

3. C-structure interactions

The proposal made above predicts that LD and CD can occur in same clause. This is borne out as the following Dutch example shows:

- (61) *Dat boek, mijn moeder die zou ik 't niet eens*
 That book, my mother he would I it not even
 durven laten zien.
 dare let see.

Under the assumption that questions are introduced by the PSR given in (55), the proposal makes also some clear predictions about the interactions between

question formation and CD and topicalization on the one hand and LD on the other: it should be possible for questions to follow the initial constituent in LD.

$$(62) S' \rightarrow \begin{array}{cc} XP & S' \\ (\uparrow Q) = \downarrow & \uparrow = \downarrow \end{array}$$

The prediction with respect to LD is borne out, as the following shows:

(63) *Jan, wanneer zullen we die uitnodigen?*
 John, when will we him invite?

(64) *Höskuldur, hvenær eigum við að bjóða*
Höskuldur, when will we invite
honum í mat?
 him for dinner?

As far as simple topicalizations within questions are concerned or questions within simple topicalizations I assume that the ungrammatical cases are ruled out by the proper statement of island constraints for Dutch, however these constraints may be exactly formulated.

(65) **Jan wanneer zullen we uitnodigen?*
 John when will we invite?

Similar sentences in Icelandic are ruled out because the interaction between the question rule and the topicalization rule given in (48) don't allow them.

(66) **Höskuld hvenær eigum við að bjóða í mat?*
 Höskuld when will we invite for dinner?

The judgments with respect to CD and question formation are not clearcut, however; whereas some possible examples are bad as is shown by (67) and (68), other examples can be found that point in the opposite direction, as is illustrated in (69) for Dutch.

(67) **Met Jan, wanneer heb je nog met die gesproken?*
 With John, when have you again with him spoken?

(68) **Höskuld, hvenær eigum við að bjóða honum í mat?*
 Höskuld, when will we invite him for dinner?

(69) *In Jeruzalem sterven, wie zou dat niet graag willen?*
 In Jerusalem die, who would that not want?

It seems unlikely that 'in Jeruzalem sterven' should be treated as an NP, hence (69) should be assumed to be a case of CD in which the TOP-ADJ is left in situ. I have no explanation to offer for these contrasts. I leave these problems for further study.

Another area in which it is not clear whether the proposed analysis can make the right predictions is that of so-called V/2 constraint: it has often been observed that in declarative main clauses in most Germanic languages and in embedded tensed clauses in Icelandic the tensed verb has to be in second position (see Maling and Zaenen, 1982) for a more careful formulation of this constraint as a filter). This is illustrated in (70) to (78) for both Dutch and Icelandic.

- (70) *Jan heeft Piet een boek gegeven.*
 John has Peter a book given.
- (71) *Gisteren heeft Jan Marie een boek gegeven.*
 Yesterday has John Mary a book given.
- (72) **Gisteren Jan heeft Piet een boek gegeven.*
 Yesterday John has Peter a book given.
- (73) *Ólafur fór til Íslands í dag.*
 Olaf went to Iceland today.
- (74) *Í dag fór Ólafur til Íslands.*
 Today went Olaf to Iceland.
- (75) **Í dag Ólafur fór til Íslands.*
 Today Olaf went to Iceland.
- (76) *Jón segir að Ólafur hafi lofað Maríu þessum hring.*
 John says that Olaf has promised Mary this ring.
- (77) *Jón segir að þessum hring hafi Ólafur lofað Maríu.*
 John says that this ring has Olaf promised Mary.
- (78) **Jón segir að þessum hring Ólafur hafi lofað Maríu.*
 John says that this ring Olaf has promised Mary.

When we look at LD-sentences like (79) and (80) we see that they seem to violate the constraint:

(79) *Mijn buurman, ik heb hem al in geen dagen meer gezien.*
 My neighbor, I have him not seen in days.

(80) *María, ég tel henni hafa mislikað við Ólaf.*
 Mary, I believe her to have disliked with Olaf.

But it is easy to account for these sentences without giving up the V/2 constraint by assuming, as we did, that the LD-position is introduced under an E-node that is not part of the sentential domain itself. Evidence for this view is given in Van Riemsdijk and Zwarts (1974).

In CD-sentences, however, we also find the verb in third position, as the following examples, corresponding to (71) and (72) show:

(81) *Mijn buurman, die heb ik al weer in geen dagen gezien.*
 My neighbor him have I in days not seen.

(82) *María, henni tel ég hafa mislikað við Ólaf.*
 Mary, her believe I to have disliked with Olaf.

Here, the filter-approach to the V/2-constraint proposed in Maling and Zaenen (1982) runs into serious problems. The rules given above will give the right results, provided there are no other PSRs in the grammar that overgenerate to produce the ungrammatical sentences and to make filters necessary. It is here not the place to restudy the problem of word order in Germanic languages in general, but these facts have to be added to other objections against the surface-filter approach that have been made (see Thráinsson, 1986, for references).

To sum up, the rules proposed in the previous section account for most of the c-structure interactions of CD-initial constituents with other parts of the sentence, but they do not account for all the possibilities with respect to wh-questions and the existence of CD as distinct from LD presents a serious problem for the filter-approach to the V/2 constraint.

4. Some Semantic properties of the CD-construction

There are some further restrictions on the CD-construction that seem to be semantic or pragmatic in nature and that distinguish the CD-construction from simple topicalization: the non-occurrence of bare reflexives in the initial position in a CD-sentence, the non-occurrence of there insertion, the non-occurrence of idiom chunks and the limitations on the quantifierphrases that can be found in this position. I will illustrate the first but I have no explanation to offer for

it; the other three I will link to a felicity condition on the use of the CD-construction.

I will (1) show that only certain types of quantified NP's can occur in the initial position in CD-sentences; (2) contrast these with the quantified phrases one finds in initial position in topicalization and (3) link the difference between the two constructions to a specificity requirement that holds for the CD-construction but not for topicalization. This limitation on CD will also explain why there-insertion is not possible with CD-moved subjects even when they appear to be indefinite.

Section 4.1 Quantifier Phrases in initial position in CD and topicalization

Although one can find quantifier phrases in initial position in both the CD-construction and in topicalizations, the result is not equally felicitous in all cases. As I already pointed out, a sentence like (83) is perfectly acceptable, but (84) is not:

- (83) *Geen enkele film van Godard heeft hij gezien.*
 Not one movie of Godard has he seen.
 (84) **Geen enkele film van Godard, die heeft hij gezien.*
 No movie of Godard, that has he seen.

A less strong but similar contrast can be found between the (a) and the (b) versions of the following examples:

- (85) a. *Een film van Godard heeft hij gisteren gezien.*
 A movie by Godard has he yesterday seen.
 b. *??Een film van Godard, die heeft hij gezien.*
 (86) a. *Vele films van Godard heeft hij gezien.*
 Many movies by Godard has he seen.
 b. *??Vele films van Godard, die heeft hij gezien.*
 (87) a. *Enkele films van Godard heeft hij gezien.*
 A few films of Godard has he seen.
 b. *??Enkele films van Godard, die heeft hij gezien.*

With other quantifier phrases, however, both versions are equally good:

- (88) *Alle films van Godard (die) heeft Jan gezien.*
 All the movies of Godard has John seen.
 (89) *Elke film van Godard (die) heeft Jan gezien.*
 Each movie of Godard has John seen.

(90) *De meeste films van Godard (die) heeft Jan gezien.*
 Most movies of Godard has John seen.

(91) *De vijf laatste films van Godard (die) heeft Jan gezien.*
 The five last movies of Godard has John seen.

The difference between topicalization and the CD-construction seems to be that the latter can only be used felicitously when the speaker has a 'recoverable' referent in mind for the initial constituent, i.e. the speaker commits himself to being able to give the listener an unambiguous way to determine whether a given *x* belongs to the set of the *x*'s denoted by the NP in CD position and he commits himself to the assumption that the set is not empty. I will call this the specificity requirement. This requirement was proposed in Kasher (1979) to account for the use of 'a certain' in English. He observes that discourses like the following are not well formed:

- (92) Speaker A: A certain man came to see you.
 Speaker B: Who?
 Speaker A: %Oh, I don't know, any old man.

By using 'a certain' the speaker commits himself to being able to tell you which *x* he is talking about.

The following sentence seems to be strange in the same way:

- (93) *%Drie films van Godard, die heeft Jan gezien*
 Three movies by Godard, those has John seen
maar ik weet niet welke.
 but I do not know which ones.

The following is, however, acceptable:

- (94) *Drie films van Godard, die heeft Jan gezien:*
 Three movies by Godard, those has John seen:
Pierrot le Fou, Vivre sa Vie en La Chinoise.
 Pierrot le Fou, Vivre sa Vie and La Chinoise.

as is the following:

- (95) *Drie films van Godard heeft Jan gezien maar ik weet niet*
 Three movies of Godard has John seen but I do not know
welke.
 which ones.

In (93) the speaker creates by using the CD-construction the expectation that he can identify the movies in question and then contradicts that expectation. Hence, the strange result. In (94), the created expectation is fulfilled, and the sentence is normal. In (95) no expectation is created and nothing is strange.

Some NP's have built into their meaning the assumption that the user will be able to specify what they refer to, e.g. proper names, NP's introduced by 'the', 'both', 'every', 'each' and 'all'. Others seem to be uncooperative in contexts where the expectation of 'specificity' is created: why use 'many' or 'few' if one could use certain or give any other indication that one can indeed specify the set denoted by the NP in initial position. The Gricean maxim of quality seems to be violated here. This seems to be the reason why the b) versions of sentences like (85) to (87) are strange.

The second part of the felicity condition stated above requires that there should be a denotation for the NP in initial position. Again, quantifiers differ in the degree they have this assumption associated with them. As pointed out in Barwise and Cooper (1981), certain quantifiers lead in their normal use to a strong assumption that the universe of discourse contains entities to be quantified over. They called these 'strong sieves' (i.e. they sieve out their 'improper' uses), others are weak sieves. Every is a strong sieve whereas no is a weak one as shown by the following contrast:

(96) No boy at the party kissed Mary since there weren't any boys at the party. (B and C (23))

(97) %Every man at the party kissed Mary but only because there wasn't any man at the party. (B and C (24c))

When used in the CD-construction, a quantifier has to be used as a sieve because the CD-construction itself induces the assumption that there are entities in the universe of discourse to be quantified over. This predicts that initial constituents in the CD-construction containing every will be even worse than (97) and that initial constituents containing weak sieves will not be good as those containing strong sieves. This is borne out:

(98) %*Elk boek over GPSG heeft Marie gelezen maar dat is alleen waar omdat er nog geen boeken over GPSG zijn.*

(99) %*Elk boek over GPSG, dat heeft Marie gelezen maar dat is alleen waar omdat er nog geen boeken over GPSG zijn.*

Sentence (98) is predictably strange just like (97), but (99) is so odd that one is tempted to call it a contradiction. Sentences (...) and also contain weak sieves and hence the CD-versions are not fully acceptable.

In this subsection I have argued that the restrictions on QP's in initial position in the CD-construction follow from assuming the specificity constraint defined above. This constraint makes three further predictions with respect to other constraints on CD to which I now turn.

4.2 Further Predictions

4.2.1 Opaque contexts

The account sketched above makes a prediction with respect to opaque contexts: if the speaker is committed to knowing that there is an entity denoted by the initial NP in the CD-construction, we do not expect to find any 'opaque' readings for NP's in that position. This prediction is borne out, as the following example illustrates:

- (100) %Een eenhoorn, die zoekt Jan al jaren.
 A unicorn, it is John looking for since years.

That the opaque reading is not excluded through proposing alone is illustrated by the perfect acceptability of (101):

- (101) *Een eenhoorn zoekt Jan al jaren.*

(101) does not commit the speaker to a belief in the existence of unicorns but (100) does.

4.2.2 Existential sentences

Similarly, if the use of CD itself commits the speaker to already knowing that there is a denotation for the NP in initial position in the CD-construction, it would be odd to use CD together with a construction that is used to assert there such a denotation. In the view of Barwise and Cooper (1981), 'there is/are NP' is such a construction. Again, this prediction is borne out (note that there-insertion can take a wider class of verbs in Dutch than in English. I am assuming that this does not influence the basic meaning of the construction):

- (102) %Een kat, die zat er op de mat.
 'There sat a cat on the mat'

- (103) *Een kat zat er op de mat.*

4.2.3 *Idiom chunks*

The same explanation can be extended to the observation made in section 1, namely that idiom chunks are normally bad in initial position in CD-constructions. It is difficult to imagine a speaker implicating the existence of a denotation for the idiomchunk. In (104), for instance, the speaker does not want to imply that there is a specific nail that John hit on the head but that is exactly what (105) would commit him to, (106) is similar:

- (104) *De nagel(ZN)/De spijker(NN) heeft Jan weer eens op*
 The nail (Southern/Northern D) has John again on
de kop geslagen.
 the head hit.

- (105) *%De nagel(ZN)/De spijker(NN),die heeft Jan weer eens op de kop geslagen*

- (106) *%Een kat, die koop je beter niet in een(ZN)/de(NN) zak*
 A cat, that buy you better not in a bag.

In the previous subsection, I have discussed some constraints on the CD-construction. In doing so, I have assumed that these constraints should not be accounted for by the truth conditions on CD but only as part of the conditions on the felicitous use of the construction, i.e. that they are part of the pragmatic presuppositions or implicatures of the construction. The truth-conditional meaning of CD is the same as that of sentences with a topicalized constituent and these in turn, for Dutch at least, have the same truth-conditions as their non topicalized declarative counterparts. If one wants to argue that the truth conditions for sentences with a topicalized constituent and these with a CD-construction are different one will have to pin the difference on the meaning of the demonstrative.

In this discussion epithets have been ignored. The proposal implies that they do not contribute to the truth conditional meaning of the sentence either. This seems to be a reasonable position to take: epithets betray the attitude of the speaker vis-a-vis a certain entity. They do not help us to determine the denotation of an expression or the truth value of the sentence in which they are contained. If I say (107), I do not assert both that there is somebody over there that kicked me and that that somebody is a bastard; the use of the epithet only indicates my attitude towards the person in question.

- (107) I told that bastard what I think about him.

Tests devised for distinguishing between truth conditions and implicatures show this easily. To give one example (derived from Karttunen and Peters (1979)),

if I say (108), I am not committed to (109) but I am committed to something like (110):

(108) If that bastard over there kisses Mary, I'll kick him.

(109) That bastard over there kisses Mary.

(110) I do not like the person over there.

Hence, the use of epithets in the CD-construction does not invalidate the view that the truth conditions of that construction are the same as those of its simple declarative counterparts.

5. Conclusion

In this discussion of Contrastive Dislocation I have tried first to elucidate the syntax of the construction and shown that both the Dutch and the Icelandic version of the construction are variants of topicalization, rather than of Left Dislocation and that the difference between the two languages is mainly one of phrase structure. In the final section I have concentrated on differences between topicalization and contrastive dislocation in Dutch and argued that they are best understood in terms of the discourse functions of the two constructions, more specifically the difference in implicatures.

Notes

1. This paper was written in the early '80ies. but not edited for publication at that point. Some references have been difficult to trace down, other have been updated. One change was made in the content: the LFG account of that time was replaced by the current LFG account of long distance dependencies. s doesn't influence the basic analysis which is not intended to argue for any specific linguistic framework but was thought to make the paper easier to read at this moment. The section about PSR interactions also depends on assumptions that er no longer current bu an update here would have changed the paper substantially.
It is also difficult to remember with whom the material was discussd and who influenced the content. I remember essential discussion with Nick Clements, Elisabet Engdahl, Joan Maling and Henk van Riemsdijk but others might be unjustly forgotten. Apart from the usual disclaimers, the just mentioned can all invoke the statute of limitations for whatever is said here.
2. The original presentation proposed in the draft of the paper which was based on Kaplan and Bresnan (1982) has been replaced by one based on Kaplan and Zaenen (1989), for

discussion see also the relevant papers in Dalrymple (in press). This does not crucially alter the analysis.

References

- Banfield, A. (1973) "Narrative Style and the Grammar of Direct and Indirect Speech". *Foundations of Language* 10.
- Barwise, J. and R. Cooper (1981) "Generalized Quantifiers and Natural Language". *Linguistics and Philosophy* 4.
- Bresnan, J., Kaplan, R., Peters, S. and Zaenen A. (1983) "Cross-serial Dependencies in Dutch". *Linguistic Inquiry* 13.
- Engdahl, E. (1980) *The Syntax and Semantics of Questions in Swedish*, Ph.D. Thesis, University of Massachusetts, Amherst, revised version published by Reidel.
- Dalrymple, M., Kaplan, R., Maxwell, J. and Zaenen A. in press. *Formal Issues in Lexical Functional Grammar*.
- Haafte van T., Geijn-Brouwers, M. van, Hacken, J. ten, Landman, F., Moerdijk I. and Smits R. s.d. *Left-Dislocation, Connectedness, and Reconstruction*.
- Kaplan, R. and Bresnan J. (1982) "Lexical Functional Grammar: A Formal System of Grammatical representation". In J. Bresnan (ed), *The Mental Representation of Grammatical Relations*. Cambridge, MA: MIT Press.
- Kaplan, R. and Maxwell J. (in press). "Constituent Coordination in Lexical-Functional Grammar". In Dalrymple et al.
- Kaplan, R. and Zaenen, A. (1989) "Long distance dependencies, Constituent Structure and Functional Uncertainty". In M. Baltin and A. Kroch (eds), *Alternative Conceptions of Phrase Structure*. Chicago: University of Chicago Press, reprinted in Dalrymple et al. (in press).
- Karttunen, L. and Peters, S. (1979)
- Kasher (1979) [hence NOT The Chomskian Turn, which is 1991... Craig] ?????
- Lasnik, H. (1976) "Remarks on Coreference". *Linguistic Analysis* 2.1.
- Maling, J. (1982, 1990) "Non-Clause Bounded Reflexives in Icelandic", presented at the Trondheim Workshop on Scandinavian Syntax, republished in J. Maling and A. Zaenen (1990) .
- Maling, J. and Zaenen, A. (1982) "Germanic Word Order and the Format of Surface Filters". In F. Heny (ed), *Binding an Filtering*. London: Croom Helm.
- Maling, J. and Zaenen, A. (eds) (1990) *Modern Icelandic Syntax, Syntax and Semantic*, vol.24. London: Academic Press.
- Pederson, J., Bresnan, J. and Kaplan, R.
- Postal, P. (1971) *Crossover Constraints*.
- Reinhart, T. (1976) *The Syntactic Domain of Anaphora*, Ph.D. Thesis MIT, Cambridge, Mass.
- Riemsdijk van H. and Zwarts F. (1974) Left Dislocation and the Status of Copying Rules. Ms MIT, Cambridge MA.

- Rögnvaldsson, E. (1982) *Um orðarðmog faerslur í íslensku* (On word Order and Movement Rules in Icelandic), MA Thesis, University of Iceland, Reykjavík.
- Thráinsson, H. (1976) "Some arguments against the interpretative theory of pronouns and reflexives". In J. Hankamer and J. Aissen (eds), *290r Harvard Studies in Syntax and Semantics*. Cambridge, MA: Harvard University.
- Thráinsson, H. (1979) *On Complementation in Icelandic*, Ph.D. Thesis, Harvard University. New York: Garland Publishing.
- Thráinsson, H. (1984) "Some Points on Icelandic Word Order". *WPSS* 8.
- Thráinsson, H. (1986) "V1, V2, V3 in Icelandic". In H. Haider and M. Prinzhorn (eds), *Verb-Second Phenomena in Germanic Languages*. Dordrecht: Reidel.
- Thráinsson, H. (1990) "A Semantic Reflexive in Icelandic", paper written in 1976, published in J. Maling and A. Zaenen (eds) 1990.
- Zaenen, A. (1980, 1985) *Extraction Rules in Icelandic*, Ph.D. Thesis Harvard University, New York: Garland Publishing.
- Zaenen, A., Engdahl, E. and Maling J. (1981) "Resumptive Pronouns can be syntactically bound". *Linguistic Inquiry* 12, 4.
- Zaenen, A. and Maling J. (1977) *TOP-position*, paper presented at the Wintermeeting of the LSA, Chicago.