1. Introduction

It is widely accepted that an explanation of the use of referring expressions requires appeal to both discourse structure and discourse coherence. Furthermore, not only the previous discourse but also the situation of discourse and the speaker's intentions affect the choice and interpretation of referring expressions. In this paper we examine a special type of construction, Right Dislocation (RD), that poses challenges to theories of the use of referring expressions. The referential properties of this construction have not been accounted for in either the linguistic or the computational linguistic literature. We will show that a proper treatment of RD requires reference to both discourse structure and discourse situation and that it must take into account the discourse organizational function of RD. To explain the use of this construction we will employ the Attentional State component of the Grosz & Sidner (1986) model of discourse structure. Our analysis of RD requires reference to both the local and global levels of attentional state. Furthermore, it entails a modification of some aspects of the model as previously defined.

RD constructions display a pronoun and a coreferential definite description which jointly establish the necessary coherence within the relevant discourse segment. They pose an interesting
problem with respect to generalizations concerning discourse anaphora and cohesion within the existing model. In particular, RD requires revision of the alignment of definite description with the global level and pronouns with the local level of the attentional state model.

2. Right Dislocation: Background

RD is characterized by a non-vocative final NP (heretofore NP\(_1\)), which is coreferential with a pronominal NP preceding it in the same clause as examples (1) and (2) illustrate:

(1) He\(_i\) is here, Jim\(_i\).
(2) I don't like them\(_i\) at all, the cops\(_i\).

This structure can be represented schematically as in:

(3) \(X \quad \text{PRO}\_i \quad Y \quad \text{NP}\_i\)

In discussing the properties of RDs, it is important to distinguish them from similar constructions that might be confused with them i.e. Afterthoughts. There are obvious syntactic and semantic-pragmatic distinctions between them; there appear to be intonational distinctions between them as well.

Syntactically, in RD NP\(_1\) must necessarily occur in clause final position, whereas in afterthoughts it may be added as a parenthetical in other positions in the sentence as well, as long as it follows the pronoun,\(^{ii}\) as is illustrated by:

(4) I met him, your brother, I mean, two weeks ago.
Subjacency constitutes another instance where the two constructions display distinct properties. RD seems to abide by subjacency, as is evident from the distinction in well-formedness between (5) and (6):

(5) The story that he told us Bill was very interesting.

(6)* The story that he told us was interesting, Bill.

(* when NP₁ is non-vocative)

Afterthoughts, however, do not display this restriction. Sentence (6) uttered as an afterthought is well-formed, as is illustrated in the sequence in (7):

(7) Remember they /the two of them were telling us all sorts of stories?
    Well, the story that he told us was very interesting, Bill, I mean.

Yet another piece of evidence for the difference between RD and afterthoughts is provided by a consideration of the semantic-pragmatic property of referentiality. In RD NP₁ must necessarily show coreferentiality with some NP which precedes it in the clause [as in (1) and (2)]; however, afterthoughts may contain corrections of reference such that we might get instances like the following:

(8) I met John yesterday, Bill, I mean.
where no coreference holds between the relevant NPs.\textsuperscript{iv}

RDs and afterthoughts with NP\textsubscript{1} in clause final position appear to differ intonationally as well. RDs constitute a single contour with no pause preceding NP\textsubscript{1}. An initial analysis suggests that there are three intonational options: (a) RDs display a fall plus rise intonation, (b) the intonation level does not change and NP\textsubscript{1} serves as the tail, intonationally continuing on the same level as the previous entity or (c) NP\textsubscript{1} is destressed (Quirk et.al., 1985:1310, 1417-1418 and Taglicht, p.c.). In contrast, afterthoughts are characterized by a distinct pause preceding the final coreferential NP. They comprise two different intonational units, so that NP\textsubscript{1} is characteristically stressed.\textsuperscript{v}

3. Attentional State - Characterization of the Model

Grosz and Sidner (1986) distinguish three components of discourse structure: linguistic structure, attentional state, and intentional structure. The utterances composing a discourse divide into segments that may be embedded relative to one another. These segments and the embedding relationships between them form the \textit{linguistic structure}. The embedding relationship among segments reflect changes in the attentional state of discourse participants; the \textit{attentional state} (AS) component of discourse structure represents the entities and attributes that are salient during a particular part of the discourse. Changes in AS, and hence the discourse segment structure, depend on the \textit{intentional structure}, a structure of the purposes or intentions underlying the discourse. Because the determination of discourse segmentation depends on identification of discourse purposes and relations between them, the intentional structure plays a central role in discourse processing (cf. Grosz and Sidner, 1986; Grosz and Sidner, 1990; Lochbaum et. al., 1990 and Lochbaum, 1991).\textsuperscript{vi}

Grosz and Sidner's model further distinguishes between two levels of discourse structure, \textit{global} and \textit{local} (Grosz, 1977 and Grosz and Sidner, 1986). Discourse segments, embedding
relations between them and discourse segment purposes and relations between them are part of the global level. The local level concerns features of the utterances within a discourse segment and relations among them. We are concerned in this paper with both the global and local levels of the AS component. In the Grosz and Sidner model, the global level of AS is modeled by a stack of focus spaces and affects the generation and interpretation of definite descriptions. At the local level, AS is modeled by centering theory (Grosz et.al., 1983) and affects the interpretation of pronominal reference. We describe each of these levels briefly.

The global level of AS associates a focus space with each discourse segment. This space contains the entities that have been explicitly mentioned in the segment; it may contain additional entities depending on the inferences required to interpret the utterances in the segment (Grosz, 1977). The space also contains the discourse segment purpose for the segment, to represent the fact that the discourse participants focus on the purpose as well as the content of their discourses. The global-level focusing structure is a stack of focus spaces. This stack changes dynamically through the discourse. At any moment the top space on the stack corresponds to the discourse segment currently being expanded. Spaces further down the stack correspond to segments that have been started but not completed and that embed the current space. Entities represented in spaces on the stack are considered explicitly in focus. Entities that are closely connected to those in explicit focus are considered to be implicitly in focus. According to this model, the set of focus spaces represent relative salience. Those entities in spaces higher on the stack are more salient than entities in spaces further down the stack. The claim in this model is that definite descriptions are interpreted relative to the stack.

At the local level, the centering framework distinguishes between discourse centers, which are semantic objects, and the manner in which they are realized in linguistic forms (i.e. the phrases that describe the centers). Each utterance Un in a discourse segment DS has an ordered set of forward looking centers, \( \text{Cf}(\text{Un},\text{DS}) \), that provide potential links to the subsequent utterance; each
non-initial utterance also has a single *backward-looking center*, Cb(Un,DS), that provides a link back to the preceding utterance. To simplify notation we will drop the associated DS in this paper; we will also use "the Cb" or "the Cf" when the utterance is clear. The ordering of the Cf may be partial; the factors that determine the ranking have not been completely specified. The highest-ranking member of the Cf list has been designated the *preferred center* (Cp) (Brennan et. al., 1987).

Empirical studies (e.g. Hudson-D'Zmura, 1988; Gordon et.al., 1993) provide support for the claim that there is only a single Cb, that grammatical role is functional in determining the Cb, and that both grammatical role and surface position affect the Cf ordering. The effects of pronominalization, the property of being the Cb, and intonation on establishing that some entity is the Cb and on the Cf ordering remain to be determined.

The Cb of a non-segment initial utterance, Un+1, is defined as the highest ranked member of the Cf of the previous utterance, Un, that is realized in Un+1. Grosz, Joshi and Weinstein (1986) propose two centering rules that connect the way in which an entity is realized linguistically, the realization of the same centers across utterances, and discourse coherence. The first rule of centering concerns manner of realization, stating that the Cb of an utterance must be realized as a pronoun, if any other entity in that utterance is realized by a pronoun. Both empirical research (Gordon et.al., 1993; Hudson-D'Zmura, 1988) and cross-linguistic research (e.g. Kameyama, 1986; Di Eugenio, 1990) support the claim that the Cb is preferentially realized by a pronoun in English and by equivalent forms (i.e.zeros) in other languages. The second centering rule concerns transitions between centers. As this rule is not relevant to our treatment of RD, we do not discuss it further. Of importance for this paper is the implication from the first rule that the Cf of the previous utterance constrains the interpretation of a pronominal in a non-segment initial utterance.

In summary then, according to this model the global attentional state is modeled by a stack of focus spaces. Definite descriptions are interpreted relative to this stack. The local level of AS is modeled by centering. Certain pronominal expressions, but not all, are interpreted on the basis of
centering constraints.

4. The Discourse Functions of RD

The discourse functions of RD are distinct from those of afterthoughts. The function of afterthoughts is, by definition, corrective. They constitute a type of repair in which the speaker assesses in mid-utterance that he has made an error of judgement with respect to some aspect of that which he wants to communicate. The error may concern either the identity or the relative ease of retrievability of a discourse referent. As a result, the speaker corrects the referential expression or supplies additional information which would help identify the referent. This corrective discourse function may be characterized in terms of the AS model in the following manner: the speaker realizes that the Cf(Un-1) is such that the hearer will be unable to interpret the pronominal reference in Un. He corrects his reference using a definite description or a proper name.

RDs, on the other hand, have an organizational function in the discourse. Lambrecht (1981) supplies a characterization of the discourse functions of RD in French. NP₁, which Lambrecht, following Chafe (1976), refers to as 'anti-topic', is claimed to be "highly presuppositional" and as such to function characteristically in recovering entities which are either "situationally evoked" or "textually evoked" (Prince, 1981a). A prototypical example that Lambrecht supplies from non-standard French concerns retrieval of situationally-evoked entities as in:

(9) Il est beau, ce tableau ! (Lambrecht's (123))

Sentence (9) is appropriate when the picture is in the physical surroundings of the interlocutors, and the speaker wants to make sure that the addressee will pay the necessary attention to it. Accordingly, RDs seem to constitute instructions to the addressees to search their surroundings for the appropriate situationally-evoked entity. Further reference to these entities is thus made possible
from that point on in the discourse. In the AS model, RD results in the entity being put in the most
highly ranked position on the Cf list.

In the circumstances that gave rise to RD, a construction with either the pronominal expression (10) or the definite or deictic description [(11) and (12)] alone is infelicitous.

(10) It is beautiful.
(11) The picture is beautiful.
(12) This picture is beautiful.

If the pronoun in (10) is used non-deictically then the referent in question must be linguistically provided. The only felicitous use of such sentences when the referent is not linguistically provided involves instances where the participants are already attending to the referent. However, this is not the state-of-affairs obtaining in (9). A deictic use of the pronoun in (10) likewise presumes a state-of-affairs that is distinct from the context appropriate for (9). In addition, the intonational features associated with the deictic pronoun may be construed contrastively (Erteschik-Shir, 1983), affecting the potential discourse topic in ways that the RD would not.ix

The use of the definite description in (11) presumes that the participants are already attending to the referent in question, like the non-deictic use in (10), and counter to the state-of-affairs appropriate for (9). The AS model requires that the referent be globally in focus for (11) to be felicitous. The felicity conditions on the use of (12) require deixis. Deixis, however, is not a necessary condition on the use of RD.

The examples that follow illustrate the range of situations in which RD is appropriate. The first set of examples [(13) - (15)] is characterized by situationally-evoked antecedents, whereas the remaining examples explore the constraints on instances of RD with linguistic antecedents.
(13) A female student in Prof. Smith's biology class passes by and says hello to her teacher, who is conversing with his colleague, Prof. Roth. Prof. Smith nods and the student walks away. The two professors keep on talking until the student is not within hearing range and then Prof. Roth remarks:

(i) She's quite bright, your student.

The alternatives:

(ii) She is quite bright.

(iii) Your student is quite bright.

might be referentially confusing, depending on the content of the immediately preceding textual material. Example (13i) constitutes a deviation from the text to the situational context. And because the student is no longer in sight, deixis is inapplicable.

Example (14) presents a case where the referent in question is not directly situationally evoked, but rather is inferrable from a situationally-evoked entity. In the framework of the AS Model (ASM), the referent is implicitly, but not explicitly, in global focus.\(^x\)

(14) Mary is holding Chomsky's latest book and is talking to Max. Upon noticing the book, without it having been part of the conversation in any way, Max says:

(i) It's very difficult, this book. I started reading it three times and got stuck.

(ii) He's terribly confusing, this Chomsky. I can't figure him out.\(^{xi}\)

In (14i) Max could not have used the definite description or the pronominal, without believing that Mary is already attending to the book. The only felicitous alternative is use of a proper
demonstrative. In the case of (14ii), the pronominal subject he without the clause-final coreferential NP would have been unintelligible. The use of the proper name Chomsky in subject position as in:

(14iii) Chomsky is terribly confusing.

might still be confusing. In this case the speaker would have made the unwarranted assumption that it was mutually believed by him and the addressee that he (the speaker) had seen the book. In addition to the "bridge inference" (Clark, 1977; Clark and Haviland, 1977) required to get from the book to its author, the proper interpretation of (14iii) depends on a Gricean implicature to get to the object in the situation that is relevant to the conversation. In contrast, the use of the RD construction constitutes an explicit instruction to the addressee to search the context for the relevant referent, with specific indications as to the search. It thus makes the Gricean inference unnecessary.

Example (15) provides yet another instance of a situationally-derived referent.

(15) After talking to her mother on the phone with Ruth at her side (without Ruth being aware of the identity of the person on the other end of the line), June says:

(i) She drives me nuts, my mother.

In this example neither the pronoun nor the definite description on its own would have supplied the necessary information in this context. The pronoun would not have provided sufficient information concerning the identity of the woman. In contrast, although the definite description on its own could be inferred by the addressee to be referential to the caller (again requiring reference to Grice's relevance maxim), it could also be interpreted otherwise. For instance, June might be initiating a story about her mother that she is about to elaborate, i.e. the utterance has nothing to do with the phone call. Hence, (15i) is the only expression providing the required information in this case.\textsuperscript{xii}
In addition to evoking situationally-salient referents or entities inferred from them for further linguistic reference, RD constructions may be used in referring to textually evoked entities. There are however, several restrictions on this use of RDs. RD cannot (in general) be used to evoke an entity occurring in the immediately preceding utterance, when NP$_1$ is used strictly referentially. This is evident from the inappropriateness, under normal assumptions, of examples like (16) - (18):

(16) I took my dog to the vet yesterday.
    #He is getting unaffordable, my dog.

(17) A:  I asked you to read this/the article for today.
    B: # It is much too difficult, this/the article.

(18) A: Did you see my brother?
    B: # I saw him the other day, your brother.

It is self-evident that immediately accessible entities are natural candidates for future topicality and reference. In ASM terminology, the Cb of Un must be realized in Cf(Un-1). RD is a means either to introduce a new entity or reintroduce a previously evoked entity into the discourse and simultaneously to make it a potential "topic" (in terms of aboutness). Thus, RD would be counterproductive in cases like (16)-(18); the use of RD would erroneously implicate that the referential entity in question is not already in the center of attention. If the immediately preceding utterance includes a reference to the entity in question RD is not felicitous, except in the special circumstances described below. The simple pronominal referential expression is used instead. The well-formedness of examples like (16’) and (17’) demonstrates this.
(16') I took my dog to the vet yesterday.

He is getting unaffordable.

(17') A: I asked you to read this article for today.
B: It is much too difficult.

However, if the referent was textually-evoked in a relatively "distant" utterance and not subsequently mentioned, then the use of RD is felicitous. This is the case in (17"):

(17'')A: I asked you to read this article for today.
B: I know. I tried to very hard, but I was quite busy.
I had guests from abroad who I had to entertain and I had nobody to help me.
Besides, it is much too difficult for me, this article.

The discourse function of RD in cases of previously textually-evoked entities is simultaneously (a) to re-introduce an entity into the discourse, and (b) to put it in a prominent position on Cf making it a potential new topic.xiv

The two exceptions to the restriction that RD cannot be used when the referent of NP1 and the pronominal expression is realized in the immediately preceding utterance are:
(a) the referent in Un is inferrable from, but does not occur explicitly in, Un-1, and (b) the RD is used non-referentially, in a way to be specified below.
In the first case, the NPs (pronoun and coreferential NP) in RD refer to an entity which is implicitly connected to the set of Cf in Un-1 (cf. footnote 10) as in (19):

(19) I saw Modern Times again yesterday.
He is amazing, (this) Charlie Chaplin.

Charlie Chaplin is not mentioned explicitly (or, to use ASM terminology, "not directly realized") in the first sentence in this discourse segment and thus the reference to him in the RD sentence in this segment does not constitute a violation of the above restriction on the position of the antecedent in the discourse. The minimal contrast between (20B) and (20C) is particularly instructive with respect to this constraint.

(20) A: I've seen this movie several times.
   B: How could you? # It is so bad this movie.
   C: How could you? They are so bad these movies.

In B's response the RD NPs refer to an antecedent directly realized in the immediately preceding utterance and hence RD is blocked; in contrast, in C's response the reference is to an inferred class of which the referent in (20A) is a member.

This restriction on the type of relation that can hold between the relevant NPs in the RD construction and the antecedent may be utilized in explicating the following distinction between RD and Left Dislocation (LD)(G. Ward,p.c.):

(21) A. John and Mary were trying to help us with the elections. It turns out to be a real problem, you know, and we need all the help we can get. Well, what I can tell you, things weren't so smooth.
   RD B. Actually, when I think about it he was quite helpful, John.
   C.# but she was impossible, Mary.
   LD C' but Mary, she was impossible.
Note that in the second conjunct of the last sentence (i.e. 21c and 21c') only LD and not RD is possible. The second conjunct occurs in a contrastive context in which the entities in question are clearly predictable. It is evident that just as the RD is ill-formed in the case of an explicit immediate antecedent [cf.(16)-(18)], so too RD is non-felicitous [in (21c)] when fully predictable on the basis of contrast.\textsuperscript{xvii}

The second case in which RDs may be used to refer to an entity that was realized in the immediately preceding utterance is one in which the clause-final NP is used predicatively and not purely referentially. In many instances it expresses emotive content.\textsuperscript{xviii} Examples (22) and (23) illustrate the felicity of such instances.

\begin{enumerate}
\item (22) A: I asked you to read this article for today.
B: Yea, but it is much too difficult, this stupid article/ idiotic piece of writing.
\item (23) I took my dog to the vet yesterday.
He is getting unaffordable, the mangy old beast.
\end{enumerate}

In each of these examples it is evident that the clause-final NP in the RD does not merely refer to an entity; instead, it is used to predicate some property or attribute (idiocy or manginess, respectively) of the referent.\textsuperscript{xix}

5. Conclusion and Necessary Extensions in the ASM

The treatment of RD presented in this paper requires two modifications of the ASM. These
modifications are described briefly in this section and in more detail in Grosz and Ziv (forthcoming). First, the non-linguistic use of RD enables a speaker to refer to entities that are salient in the discourse situation, rather than in the discourse text, using a definite description that contains minimal linguistic specification of the referent's properties. Thus, the joint use of the definite description and the pronominal expression that are characteristic of RD enables a reference that would otherwise require either that an entity be in global focus or that the speaker use a more complete linguistic characterization of the referent. To accommodate the situationally-driven, non-linguistic use of RD, the ASM must provide for a search of the discourse situation (and not just explicit focus) using the reduced linguistic description of the referent. As a result of the RD, the entity referred to enters (explicit) global focus and becomes the preferred center, Cp of Un. There is no Cb, as the RD initiates a new discourse segment.

Second, the alignment of pronominal reference with the local level of attentional state and definite descriptions with the global level must be relaxed. In RD, the combination of a pronoun and a definite description is used to refer to an entity that is globally, but not locally, in focus. Because the entity is not locally in focus the standard ASM would not explain the pronominal reference to it in such cases; in contrast, the model would predict that such a pronominal reference could not occur. Although the use of a definite description to refer to an entity that is in global focus fits the standard ASM, the definite description in RD is more minimal than is required. The extension of the ASM to account for RD depends on whether the RD falls into the distant or the non-distant case. In the distant case, the entity referred to is not a Cb; there is no Cb as the speaker is drawing the hearer's attention to something not locally in focus. However, as a result of the use of RD the entity becomes the most highly ranked member of the Cf (i.e. it is Cp of Un). In the non-distant case, where the antecedent occurs in the immediately preceding utterance, Un-1, the referent is both Cb and Cp of Un. This referent is severely restricted; it is either not "directly realized" in Cf(Un-1) and has to be inferred via a special mechanism (e.g. POSET of a restricted type (cf.ft.16)),
or else it functions predicatively, and not purely referentially.

FOOTNOTES

i. The scarcity of linguistic studies of RD is presumably due to its erroneous conception as a performance error rather than a well formed part of planned speech. The existing studies of RD involve questions pertaining to its derivation or its discourse functions (cf. for example, Lambrecht, 1981; Geluykens, 1987; Linson, ms.; and Ziv, forthcoming a). In Ziv (forthcoming b), however, the question of referentiality is touched upon when certain constraints on anaphora evident in RD are examined and an account is proposed of them in terms of the discourse functions of this construction. We will restrict our attention here to RD in English, but cf. Grosz and Ziv (forthcoming) for a discussion of RD in Hebrew as well.


iii. The existence of this formal property is quite embarrassing, in light of current syntactic theories. Subjacency is supposed to hold of movement processes and RD constructions have long been analyzed as not involving movement in their derivation.

iv. Strictly speaking, this sentence lacks the formal properties of RDs, since it does not contain a pronoun. However, this sentence is a perfect example of an afterthought.

v. Further study of these intonational properties is required to substantiate these initial characterizations. Cf. Hirschberg and Grosz (1992) for a study of some intonational features of discourse structure.

vi. Although a discussion of the intentional structure is beyond the scope of this paper, we can
describe its main elements briefly. According to Grosz and Sidner (1990), each discourse segment has a primary underlying purpose, the discourse segment purpose (DSP), that is intended by the speaker / writer to be recognized by the addressee. Each DSP contributes to the overall discourse purpose (DP) of the discourse. DSPs may in turn comprise other intentions and relations between them. Two DSPs, DSP_a and DSP_b, may be related to one another in two ways: DSP_a dominates DSP_b if the achievement of DSP_a is partially accomplished by the achievement of DSP_b; equivalently, an action that satisfies DSP_b contributes to an action that satisfies DSP_a (Lochbaum et. al., 1990). DSP_a satisfaction-precedes DSP_b, if DSP_a must be achieved temporally before DSP_b can be. Lochbaum (1993) describes a computational model for the intentional structure of dialogues based on the Shared Plans model of collaboration (Grosz and Kraus, 1993).

vii. To clarify the computational construct of a stack, it is useful to think of the spaces as arranged in a manner analogous to a stack of trays in a cafeteria. One can get to the top tray directly, but must lift higher trays to get to lower ones. Similarly, the focus space stack allows discourse processes to get immediately to entities represented in the top space, but less quickly to those in spaces further down the stack.

viii. The reasons for this distinction as well as additional details on the mechanics for manipulating spaces may be found in Grosz (1977).

ix. The entity or entities with which this picture is contrasted might be in a highly ranked position in the Cf of the utterance in question.

x. Cf. Clark (1977) and Clark and Marshall's (1981) concept of a bridge, where an informational gap is filled by inferred material on the basis of given information, and Prince's (1981a) category of inferrables, which show affinity with given information even though, strictly
speaking, they do not appear in the discourse context either situationally or textually.

xi. Note the occurrence of the demonstrative determiner *this* with a proper noun here. This is obviously not a mere demonstrative in such cases and the overwhelming amount of instances where *this* NP occurs in RD (over 40% in our corpus of 112 tokens of spontaneous RDs) indicates that this form is significant. Despite our inability to characterize it further, it is sufficient, for our present purposes, to point out that this is clearly an instance of a definite *this* NP, unlike the indefinite uses of *this* NP in other instances (cf. Prince 1981b).

xii. In discussing RDs, Linson (ms. and personal communication) acknowledges the non-afterthought nature of true RDs. For him too, RDs do not constitute repairs. However, he maintains an additional discourse function for true RD - specification. Just like restrictive relatives function in restricting the reference of their antecedents, so, presumably, does the RD in some cases function in further specifying the referent. An interesting example in this context (for which we are indebted to G. Ward) is the following:

(i) We have a talk to go to all of us / me and you.

This discourse function of RDs is closer to that fulfilled by afterthoughts than to the organizational discourse function discussed in the text. However, it differs from afterthoughts intonationally and it does not appear to constitute a belated correction. The original ASM machinery could be used to account for this use of RD in the manner it would explain afterthoughts. For the purposes of this paper, therefore, this use of RD is irrelevant. It may be interesting to point out that in our corpus of 112 tokens of spontaneous RDs 10 were of this specificalional type.


xiv. Sentence final position is associated with material which in many instances serves as a
likely candidate for topicality of the ensuing discourse. Accordingly, in RD the sentence final NP may appear in a salient position on the set of Cf.

xv. Note that the "bridge" which was constructed in the case of (14ii) is situationally driven while the one evident in (19) is textually inferred.

xvi. In this connection it is interesting to consider the nature of the relations that can hold between the antecedent and the subsequent referential expression. In Ziv (ms.) the need is established to distinguish the relation apparent in the felicitous (14),(19) and (20C:) from the one evident in the non-felicitous instance of RD as in:

(i) I went on a bus this morning.
   # He was drunk, the/this driver.

It is particularly instructive in light of the felicity of such well-known instances of "bridges" as in the canonical (ii) and the Left Dislocation in (iii)

(ii) I went on a bus this morning.
    The driver was drunk.

(iii) I went on a/my favorite bus this morning.
    (a) The driver, he was impossibly drunk.
    (b) The driver, I never saw him that drunk before.

The characterization of the relevant relationship (in Ziv (ms.)) utilizes some version of Hirschberg's (1985) notion of POSET (=partially ordered set) where set, identity, part-of and sub-
type-of relations are pertinent. In addition, it is shown that the differential properties of Left Dislocations and RDs are involved in the account of the constructibility of bridges.

xvii. The well-formedness of LD in such contexts follows quite naturally from the fact that no such constraint on lack of predictability holds of LDs (cf. Prince (1984),(1985),(ms.)).

xviii. Cf. Doron (1992, ms.) where appositives are shown to exhibit predicational properties. In light of these affinities between appositives and predications, it is not surprising that the apparently "pure" coreferential expressions in RD constructions fulfil a predicational function, under certain circumstances..

xix. More often than not this attribute happens to be negative. Incidentally, Linson (ms.) finds RDs to be restricted with respect to the types of predicates that they can occur with in general. According to his findings, RDs can only occur with predicates indicating attributes. Our data indicate that a somewhat wider range of predications may occur with RDs.

It may be interesting in the current context to introduce some vital statistics with respect to our corpus. Out of 112 instances of spontaneous RDs, the overwhelming majority - over 80% - were subjects, objects were found in almost 15% (some of them topicalized) and the rest of the examples consisted of adjuncts of which, again, there were instances of topicalized tokens.

With respect to the form of NP the following was found:

this NPs over 40%

proper nouns 20%

definite descriptions + genitives 25%

specification of pronouns: we .... you and me a little under 10% (situationally evoked)
generics about 5%
These figures ought to be corroborated by additional empirical data, but even at this stage they seem to be suggestive of certain tendencies.

xx. Grosz, Joshi and Weinstein (1986) describe two exceptions to this alignment. RD constitutes yet another such exception.

xxi. This is explained in more detail in Grosz and Ziv (forthcoming).

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