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DOMINANCE AND THE FUNCTIONAL EXPLANATION OF ISLAND PHENOMENA

In this paper, we argue that syntactic islands, first characterized by Ross (1967), can best be described and explained in functional rather than purely structural terms. We define here first a pragmatic (discourse-based) property – dominance – and we offer operational criteria to discern its presence in a sentence. We then state our hypothesis concerning extraction which we formulate in terms of dominance. In part 2 we attempt to show that our hypothesis allows us to account for all of Ross' constraints and that we are also able to capture certain distinctions in acceptability, which elude his and other syntactic approaches. In the third section we argue that Postal's claim concerning a correlation between islands and certain ambiguities is incorrect. A partial correlation of a different sort can be predicted and explained in terms of dominance.

0. A considerable amount of attention has been devoted by linguists to the problem of characterizing and explaining syntactic islands. Ross (1967) provides an extensive discussion of islands and represents them in terms of constraints on extraction rules whose operation is blocked by these environments. A number of proposals have been put forward since then, notably by Chomsky (1973). More recently, Postal (1974) tries to show that there is a correlation between syntactic islands and a certain class of ambiguities. He explains this correlation by arguing that the ambiguous sentences in question are derived from alternative logical forms by syntactic operations which are sensitive to island constraints. What is common to the theories suggested by Ross, Chomsky, Postal, and others is that they seek to treat islands as essentially structural phenomena which are, in effect, defined by the syntactic constraints upon movement transformations, which limit the domain of these transformations to a specific class of environments.

We wish to claim that it is both possible, and more fruitful to characterize islands in functional terms. In the first part of this paper we define a pragmatic (discourse-based) property which we refer to as dominance, and we offer operational criteria for discerning its presence in a sentence. We then state a hypothesis concerning extraction which we formulate in terms of dominance. In part 2 we attempt to show that our hypothesis allows us to
account for all of Ross’ constraints and that we are also able to capture certain distinctions in acceptability, as well as other kinds of data, which elude his and other syntactic theories. Finally, in the third section of the paper we argue that Postal’s claim concerning a correlation between islands and certain ambiguities is, as it stands, incorrect. We point out that a partial correlation of a different sort than the one maintained by Postal can be predicted and explained in terms of dominance. We should also point out that the notion of dominance developed here has application to phenomena other than islands. For example Erteschik-Shir (1979) presents an analysis of dative movement which depends upon this concept. It is our belief that the concept of dominance represents an important discourse feature of sentences which has significant bearing on a wide variety of linguistic facts.

1. Philosophers of language have often attempted to analyze various features of natural language by means of pragmatic notions.\(^1\) Grice, for instance, defines the meaning of linguistic expressions in terms of the use to which they are put by a speaker in realizing certain intentions with respect to his audience.\(^2\) To cite a second example, Strawson characterizes the distinction between the grammatical relations of subject and predicate by examining their connections with the different roles played by the speech acts of reference and predication in the making of an assertion.\(^3\) While theories of this kind frequently provide valuable insights into the nature of language as an instrument of communication, they do not, in general, permit one to account either for the properties of particular human languages, or for the defining characteristics of the set of (possible) natural languages. Traditionally pragmatic theorists have tended to regard language only as an instrument of communication and, as a result, their theoretical claims do not imply predictions concerning the specific structural features of actual languages – they are, for the most part equally applicable to natural languages and artificial formal systems which could be used to perform the same communicative functions as natural languages.\(^4\)

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\(^1\) By ‘pragmatics’ we mean the study of the relation of extra-linguistic factors, such as speakers’ intentions, relations between speaker and hearer, speakers’ beliefs about the world, etc., to the generation and interpretation of sentences.

\(^2\) See Grice (1957) and (1968).

\(^3\) See Strawson (1959).

\(^4\) Although recently a number of pragmatic theorists have argued that pragmatic theories must attempt to account for specific features of natural languages. See for example Kasher (1978).
In this paper we hope to show that it is possible to define a pragmatic concept which can be employed in the formulation of rules which explain highly specific syntactic and semantic facts in particular languages. The advantage of this approach is that it involves accounting for structural features of language in terms of their role in discourse. The concept we wish to define may be intuitively described as corresponding to that part of the sentence which represents the center of discourse or the main point of conversation. We will use the term 'dominance' to refer to the property indicated by this concept and we will say that the part of a sentence which is in the center of discourse is dominant with respect to the other constituents of the sentence.

The notion of dominance was introduced in Erteschik (1973) but it was not defined there. We now propose the following definition of dominance.

DOM: A constituent c of a sentence S is dominant in S if and only if the speaker intends to direct the attention of his hearers to the intension\(^5\) of c, by uttering S.\(^6\)

There have been a number of discourse-based concepts which have recently been proposed and which might, at least superficially, appear to be similar to the notion of dominance. We will briefly consider a few of the more prominent of these concepts and try to indicate what distinguishes dominance from each of them. Chomsky's notion of focus (Chomsky (1970)) would seem to correspond to our idea of dominance. The focus, according to Chomsky, is any phrase containing the intonation center or nuclear stress of a sentence. Although there are undoubtedly important connections between these two concepts, there are a number of reasons for not treating them as identical. First, Chomsky identifies the focus of a sentence in terms of nuclear stress assignment and hence renders focus dependent upon intonation contour. We define dominance as a purely pragmatic property and we identify it by means of certain discourse tests. In another paper we argue that primary stress can be predicted in terms of dominance. We maintain that in the case of emphatic

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\(^5\) The concept of intension which we are using here is basically the same as that presented in Lewis (1972).

\(^6\) It should be pointed out that c can be the entire S; i.e., it is possible for an entire sentence to be dominant. In Shir and Lappin (in preparation) we argue that it is possible to predict stress in terms of dominance. We claim that the dominant constituent of a sentence receives primary emphatic stress. When an entire simplex sentence is dominant, near equal primary stress is assigned to the NP's of the sentence, with slightly heavier stress falling on the rightmost NP.
stress the dominant constituent of the sentence receives primary heavy stress, and this constituent is considerably more restricted than many of the constituents which, for Chomsky, are possible foci in such cases.\textsuperscript{7}

The distinction between new and old information, as it is presented in Chafe (1974 and 1975) looks very much like the difference between the dominant and non-dominant parts of a sentence.\textsuperscript{8} New information is characterized as material which is assumed by the speaker not to be present in the mind of his hearer. However, it is at least conceivable that an item should constitute old information and yet be dominant. Conversely, it is possible that something should be new in the relevant sense and still not be dominant. An example of the first kind is

\begin{quote}

B: I read it. It was written by a Republican.

A: That's why I didn't like it. I voted for Carter.
\end{quote}

In A's reply 'Carter' can be assumed to be in the range of B's immediate awareness, but A is nevertheless concerned to draw B's attention to the concept associated with 'Carter'.

An example of the second sort is

\begin{quote}
A: John thought that Mary kissed Bill. Do you believe that?

B: It's true. She did.
\end{quote}

In this discourse context the matrix sentence 'John thought' would appear to be new information in the required sense. We have no reason to assume that it represents material which was present in B's mind prior to A's utterance. However, A's question and B's reply indicate that it is the complement 'Mary kissed Bill' which must be taken as dominant here. A is concerned to solicit B's attitude to the proposition expressed by the embedded sentence rather than the matrix.

Finally, it is not clear exactly what the relation is between the distinction between dominance and non-dominance on the one hand and the difference between topic and comment on the other.\textsuperscript{9}

\begin{itemize}
\item \textsuperscript{7} See Shir and Lappin, "A Functional Theory of Sentential Stress in English", in preparation.
\item \textsuperscript{8} Chafe's notion of old (given) information seems to be equivalent to that of pragmatic presupposition as characterized in Stalnaker (1974).
\item \textsuperscript{9} The distinction between theme and rheme is basically the same as that between topic and comment. See Firbas (1974) for a discussion of theme and rheme. Unfortunately these
The problem here is that (to our knowledge) no clear definition of the latter two notions has ever been proposed. Moreover, we are unaware of the existence of any independent criterion for discerning the topic or the comment of a sentence. Kuno (1975), for example, characterizes the comment (and by implication the topic) as the constituent of a sentence which is about a given NP (the latter, presumably, is its topic). Unfortunately, he offers no independent characterization of aboutness. In a crucial set of cases where the notion of topic is used to predict the possibility of relativization, we can, in fact, identify the comment only after relativization has already applied (see footnote 18).

In this paper we will apply the notion of dominance to sentences and NP's. We will take the intension of a sentence (specifically, of an assertive sentence) to be the proposition which it expresses. The situation with respect to the intension of an NP is somewhat more complicated. In the case of an NP which is a proper name, its intension is the concept of the individual with which we associate it. The intension of a common noun such as ‘red’, ‘man’, etc. is the property denoted by these expressions. NP's having the structure Det + N, where N is a common noun, have composite intensions which are functions with which we can calculate the intensions of the sentences in which such NP's occur, given the intensions of certain other syntactic constituents of these sentences (such as the main VP) as arguments. The details of this account of intensions need not concern us here. We introduce it only to indicate that it is possible to provide a precise definition of the class of intensions assigned to each syntactic constituent in the grammar. Intuitively, the intension of a constituent may be thought of as its semantic content. Thus, what DOM states is that a constituent is dominant in a sentence S when a speaker intends to draw attention to its semantic content by uttering S.

concepts suffer from the same lack of theoretical clarity which attaches to topic and comment. Hence, criticisms similar to those which we direct at the topic-comment distinction apply to the theme-rheme distinction.

See Lewis, p. 171–78, op.cit. for the details of this account. Lewis analyzes the intensions of what he refers to as "basic" syntactic categories (sentences, proper names, and common names) as functions from packages of co-ordinates containing items such as possible worlds, points in time, etc., to extensions (truth-values, objects, and sets of objects). He analyzes the intensions of "derived" syntactic categories, which are functionally defined in terms of the basic categories, as functions from intensions assigned to constituents of a certain kind to intensions associated with constituents of another kind.
As we have pointed out, our definition of dominance in terms of speakers’ intentions entails that it is a discourse property which is assigned to a constituent in a context of conversation. However, we will see in the next section that certain syntactic structures cannot be dominant in any discourse context. We will examine the relationship between the possibility of giving a dominant interpretation to embedded sentences and embedded NP’s on the one hand, and certain of their syntactic and semantic properties on the other.

In order to apply our definition to actual cases it is necessary to specify procedures for determining the relations of dominance which hold among the constituents of a sentence. The operational test which we will adopt for identifying the dominance relations between embedded sentences and their matrices involves placing the entire complex sentence in a context of direct discourse and denying first the matrix sentence and then the embedded sentence. If it is not possible to deny the complement this indicates that the environment defined by the matrix excludes the possibility of interpreting the complement as dominant. For example, let us test the complement of

(1) John believes that *Orcutt is a spy.*

for dominance by this procedure.

(2) Bill said: John believes that Orcutt is a spy.
   a. which is a lie – he doesn’t
   b. which is a lie – he isn’t.

(2a) shows that the matrix S can be naturally interpreted as dominant (which is always the case), while (2b) indicates that the complement can also be dominant. When we apply the lie test to matrix sentences, we do, of course, intend the denial to apply to the matrix sentence as containing its complement. Hence, when we say that a matrix sentence is dominant we mean that the entire sentence including its complement, rather than the complement alone, is the focus of attention.

However in

(3) Bill said: John carefully considered the possibility that Orcutt is a spy.
   a. which is a lie – he didn’t (consider it carefully).
   b. *which is a lie – he isn’t (a spy).

the fact that (3b) is not acceptable shows that the complement can not be dominant in the context defined by the matrix sentence. We will refer to this
procedure for testing the dominance of sentential complements as 'the lie test'.

At this point some explanation is in order concerning the relation between the lie test and our definition of dominance (DOM). The lie test involves the assignment of a truth-value to a previous sentence within a discourse sequence. As such it is a device for identifying those sentences which can become subjects of further conversation. It is important to recognize that the lie test does not pick out the asserted sentences of a discourse. This can be seen from the fact that both (2) and (2b) can be uttered by the same speaker. That the speaker can consistently deny the complement of (2) shows that in this context it is both dominant and not asserted by the speaker. A speaker can not both assert and immediately deny the same sentence in a single instance of discourse. In order for a sentence to be a potential topic of further conversation it is necessary that it be possible for both the speaker and the hearer to take its semantic content (the proposition it expresses) as an independent unit within discourse. This example illustrates our reason for formulating the definition of dominance in terms of intensions rather than extensions. The fact that a speaker can treat the complement of (2) as dominant and at the same time deny it, indicates that in treating the complement as dominant he is not concerned to draw his hearer's attention to its truth-value (its extension), but to place the proposition which it expresses in the center of discourse. Similar examples can be constructed for embedded NP's, as in 'John showed me a picture of the Wizard of Oz – who never really existed.' Here the speaker is concerned to direct his hearer's interest not to the object denoted by 'the Wizard of Oz' (he explicitly denies the existence of such an object), but to the individual concept associated with this description. It seems to us, then, that even in those cases where a speaker is interested in focusing on a constituent c in order to comment on its denotation he succeeds in getting at c's denotation only by directing his hearer's attention to c's intension. This is, in effect, a version of the traditional Fregean principle that reference (where it is present) is mediated through sense.

The lie test is, in fact, only one of many possible procedures for determining whether a sentence has the property of being a possible topic of further conversation. Any test which assigns a truth, probability, or even interest value to a sentence would do just as well. Thus we could replace '... is a lie' with '... is highly probable', '... is true', '... is amusing', etc. All of these predicates qualify propositions expressing a possible state of affairs.

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11 We are grateful to J.R. Ross for suggesting this test.
in one way or another; and so, if they can be naturally applied to a complement sentence, this shows that the proposition (representation of a possible state of affairs) expressed by that sentence can be taken as that which the speaker wants to pick out for his hearer for purposes of further discussion. It should be noted that once the lie test (or a similar test) has been successfully applied to a sentence, that sentence is, as a result, turned into the subject of an assertion and, therefore, it must be taken as dominant in its occurrence in the previous sentence. The lie test provides a method for determining the possibilities of dominance within a given matrix sentence by actualizing these possibilities; i.e., by forcing a dominant interpretation of a particular sentence. It should also be emphasized that we are not associating the dominant constituent c of a sentence S with the actual topic (discourse subject) of S. If c is dominant, then it is the subject for discourse which takes place after the utterance of S.

For certain kinds of complements it will be necessary to modify the lie test. For example, the propositions expressed by subjunctive complements such as

(4) He proposed that you be a physicist.

do not specify states of affairs which can be regarded as holding in the actual world, and so they can not be denied. The propositions which they express describe unrealized states of affairs. Therefore, it is possible to attempt to bring these complements into the center of discourse by commenting upon the situations which would exist if they were true.

(5) Bill said: He proposed that you be a physicist.

a. which is a lie – he didn’t.

b. which is a good idea but it would involve your working for the government.

To test for dominance of an embedded NP with respect to its embedding NP we first construct a question about the entire NP and then one about the embedded NP.

(6) You saw a picture of the Prime Minister yesterday.

a. Do you remember it?

b. Do you remember him?

(7) You saw Bill’s picture of the Prime Minister yesterday.

a. Do you remember it?

b. *Do you remember him?
The fact that (6b) is a natural question with respect to (6) while (7b) is not natural relative to (7) indicates that an embedded NP can be taken as dominant in the NP a picture of but not in the NP Bill's picture of. This test focuses on an NP by making it the object of a question. If the question is not acceptable in the discourse context defined by the preceding sentence, it follows that a speaker can not make this NP the topic of conversation by uttering that sentence. The relation between this test and DOM can thus be understood in a manner analogous to that in which we explicated the connection between the lie test and DOM.

We are aware that speakers may vary in their judgements concerning the results of these tests. We take this as a reflection of the fact that there is variation among speakers in the distribution of the possibility of dominance. However, we do wish to maintain that for any given speaker there is a predictable correlation between the structure of dominance possibilities which he allows and his application of certain syntactic and semantic rules.

In our definition of dominance we specify that a constituent c is dominant when the speaker seeks to draw the attention of his hearer to the intension of c. Moreover, we have stated that our proposed operational tests succeed in identifying possibly dominant constituents because they discern which items in a sentence can become topics of future discourse. At this point it could be objected that we have not given a sufficiently clear indication of what we mean by the notion of attention in terms of which our definition is formulated. Is it not possible, in principle, for a hearer to take an interest (direct his attention) to any item in the sentence uttered by a speaker? We are, in fact, assuming that in discourse the speaker seeks to treat certain items in a sentence as of more central importance than others. These items constitute the dominant components of a sentence and if, in his response, the hearer does not treat them as such, his contribution to the discourse will be inappropriate. Our assumption receives empirical support from the following consideration. If we maintain that a necessary condition of well formedness for a discourse sequence is that the hearer distribute his attention over the items of a sentence in a manner consistent with the structure of dominance possibilities present in that sentence, then we can account for the anomaly of conversations such as

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12 In fact (7b) is acceptable when 'him' is taken as co-referential with 'Bill' rather than with 'the Prime Minister'. But this clearly indicates that the embedded NP can not be dominant here.
S: I saw the man who was reading the Times yesterday and invited him home for dinner.

H: Oh, but I can't stand the Times. Their editorials are so conservative.

H's response to S's statement exhibits the bizarre irrelevance which we often associate with the dialogue in certain light comedies. What is wrong with H's response is that it takes an item in the relative clause 'who was reading the Times' as the topic of conversation. If we apply the lie test to the relative clause in S's sentence, we find that it can not be dominant:

(7') Bill said: I saw the man who was reading the Times yesterday and invited him home for dinner.

*which is not true, the Times didn't appear yesterday.

What this example shows is that H cannot understand S as wishing to assign primary import to the relative clause (or any constituent contained within it) and hence it is not the case that, in this discourse context, the hearer is free to direct his attention indiscriminately to all constituents in the speaker's sentence. In order to respond appropriately to the speaker's utterance he must distinguish between those expressions which (at least potentially) bear the main force of the speaker's contribution to the conversation and the items whose role in this contribution is secondary.

Finally, it is important to decide whether dominance is an absolute or a relative property; i.e., can different constituents of a sentence have varying degrees of dominance in relation to each other, or once a constituent is interpreted as dominant are all other constituents thereby excluded as equally non-dominant? It is our view that dominance is an absolute property. The reason for this is that by means of our definition and the operational procedure we suggest for locating this property, we have identified dominance with the subject of further discourse, and it seems that by uttering a sentence (once) within a given discourse context a speaker can pick out (as actual) only one future topic of conversation. If this were not the case, then a discourse sequence could have, at any given point, two or more actual subjects and a situation of this kind would appear to be incompatible with the conditions for coherent interchange between speaker and hearer. The hearer would encounter an ambiguity in what the speaker wishes to direct the hearer's attention to and, consequently, it would be unclear with reference to what the hearer is expected to formulate his contribution to the conversation.

This is not to deny that a speaker can wish to pick out several things at one time. It is simply to point out that there can only be one subject of
conversation at any given point in a discourse. It seems to us that when the
speaker intends to set up several things as a future topic of conversation by
means of uttering a sentence it is invariably the case that these things are con-
connected by a relational property or constitute a single state of affairs. In situations
of this kind it is the relation or the state of affairs (more accurately, their inten-
sional counterparts) which constitute the genuine topic of future discourse. How-
ever, we are claiming that in abstraction from particular discourse con-
texts, sentences often contain several constituents any one of which could be
interpreted as dominant. Which of these possibilities is actualized depends
upon the intentions of the speaker in conjunction with other discourse factors.
A sentence may be said to have a structure of dominance possibilities. In the
remainder of this paper we will attempt to show that several syntactic and
semantic processes are crucially dependent upon this structure.

In the second part of this paper we will consider the relation between
dominance and rules of extraction, such as relativization and question for-
mation. The hypothesis we propose concerning this relation may be stated
as follows.

DH: An NP can only be extracted out of clauses which may be inter-
preted as dominant or out of phrases in which the NP may itself
be regarded as dominant.

We refer to this condition as the dominance hypothesis on extraction (DH).
On previous accounts of extraction (particularly Ross (1967)) conditions on
extraction rules are stated as constraints on movement transformations. These
are, in effect, generalized descriptions of the syntactic contexts to which these
rules can apply. The extraction islands which they define are treated as purely
structural phenomena and no attempt is made to explain their occurrence in
terms of other sorts of linguistic factors. An advantage of DH is that, if it is
correct, it permits us to understand the syntactic process of extraction with
respect to the function which this process plays in discourse. DH specifies
that it is possible to relativize, question, or topicalize an NP only if it can be
in the center of discourse or if it is contained within a sentence which can be
taken as the main point of conversation. DH permits us to treat extraction rules
as syntactic devices for emphasizing an NP. It is possible to look upon extrac-
tion as performing a function analogous to that of the lie test and the "remem-
ber" test. These tests turn a constituent into a subject of conversation; the
topic of an assertion in the case of the lie test and of a question in the case of
the "remember" test. Extraction also transforms an NP into a subject of a
predication (which is expressed by a relative clause), or of a question. DH claims
that a necessary condition for performing such operations of emphasis is that the NP which undergoes extraction must occur in a syntactic environment within a sentence which permits it to be interpreted as placed within the center of discourse through the utterance of that sentence. On this approach, islands are environments which exclude dominant interpretations of the material they contain by virtue of (certain of) their syntactic and semantic features.

It is important to clarify the sense in which DH provides the basis for a functional explanation of extraction in order to avoid objections of the following kind. We have defined dominance as a pragmatic property which is assigned to constituents in actual contexts of discourse. DH specifies that an NP can not be extracted out of a constituent which excludes dominance. However, the syntactic structures from which NP’s are extracted are not surface structures. Hence, it appears that DH requires us to assign a discourse property to constituents at some point in a derivation prior to their occurrence in surface structure. But it is, of course, only surface structures which are used in discourse.

In fact, what DH states is that a necessary condition for extraction is that the clause or complex NP to which it applies does not exclude dominance; i.e., that the material in these environments can be interpreted as dominant. We do not assign dominance to constituents outside of discourse contexts, but we do maintain that certain sorts of linguistic environments rule out a dominant reading of the material they contain regardless of what extra-linguistic contexts they occur in. DH is, then, formulated in terms of the notion of potential dominance.

The clauses and NP’s (more accurately, forms which are equivalent to them) to which extraction rules apply can themselves appear on the surface and be tested for dominance. Hence we are able to test syntactic structures appearing at each relevant stage of the derivation for the distribution of dominance possibilities. What we are claiming is that extraction is limited to those environments in which the constituent to which it applies is, prior to extraction, potentially dominant. Rules of extraction, such as relativization, move NP’s out of clauses or complex NP’s into the next highest syntactic constituent. In so doing they place these NP’s into positions in which they are potentially dominant within the environments into which they have been moved. Hence, extraction can be seen as a device for preserving the potential dominance of the NP to which it applies relative to the syntactic context into which it moves that NP. Thus for example in

(8) I saw the student who has been bothering the logic professor. You know the one I mean don’t you?
'one' can be naturally interpreted only as anaphoric with 'the student' and not with 'the logic professor' (it is interesting to note that this interpretation remains more natural even when 'the logic professor' is replaced by 'one of the logic professors'). However, in

(9) a. Bill said: I saw the student who was bothering the logic professor.
   b. *Which is a lie – he wasn't bothering the logic professor.

(9 b) is not an appropriate continuation of (9 a). This indicates that as a result of relativization 'the student' is potentially dominant within the clause into which it has been moved, while the clause from which it was extracted is not potentially dominant relative to the sentence. It must be emphasized once again that we are talking here about relations of potential dominance among constituents of a sentence. To say that 'the student' is potentially dominant relative to the clause into which it has been moved is to claim that a speaker could treat it as dominant within that sentence were he to use the sentence in discourse. Similarly, the claim that the clause from which it has been extracted is not potentially dominant entails that should a speaker employ this sentence in a discourse context he will not be able to treat the relative clause as dominant.

It follows from DH that a structure of dominance possibilities is assigned to a sentence at different points in its derivation and that, at least in the case of extraction rules, the relations among these structures are crucial in determining whether or not the derivation is well formed. DH represents a model of explanation for syntactic phenomena which is quite different from those which have been traditionally employed in generative grammar. According to this model, constraints on syntactic rules are predicted and explained by principles which specify the connection of these rules to discourse-related functions. We wish to suggest that this is a particularly fruitful paradigm of explanation because, rather than forcing us to treat the structural features of a language as brute facts, it holds open the possibility of accounting for them in terms of deeper considerations of the way in which they figure in communication. We regard the model which we are developing here as belonging to the tradition of functional analysis initiated by the Prague School of linguistics.

In conclusion we should make clear the precise sense in which our model provides a functional explanation of syntactic processes. We are not claiming that all the syntactic processes in the grammar of a language can be predicted on functional grounds. The set of syntactic processes which characterize a given language represent one of several possible strategies for generating sentences. Clearly, the selection of these strategies is not determined
in all respects by functional considerations. Syntactic rules possess a significant degree of autonomy in the sense that they cannot be entirely characterized in discourse terms and so do not follow directly from factors of communication. What we do claim is that, given the selection of certain syntactic strategies (for examples transformations of various kinds), it is possible to understand important aspects of their operation and interaction in functional terms. DH, in particular, does not attempt to account for the existence of movement transformations as such (although it does shed some light on this question), but offers a functional explanation of the fact that their operation is limited to a highly specific set of environments.

2. In this section we will show how well-known constraints that have been proposed as syntactic constraints that define islands can be explained as an outcome of dominance restrictions. In other words, it will be shown that the constraints are not basically syntactic. Those cases where syntax does play a role will be pointed out. In order to make the reading of this section easier we will deal with the syntactic constraints, as they are known, one by one.  

2.1. The Complex Noun Phrase Constraint

Ross' (1967) proposed Complex NP Constraint has been redefined syntactically by a number of linguists, however the arguments against the original constraint will apply similarly to all other syntactic versions.\(^{14}\) The example will in this case come from Danish since Danish provides a clearcut case where only the theory proposed here is descriptively adequate. Other cases, from English for example, would be equally adequate, but maybe less obviously so, since the force of the argument would be primarily the explanatory adequacy of the current proposal as was outlined in the first section.

\(^{13}\) For more data see Erteschik (1973). For further applications see Erteschik-Shir (forthcoming).

\(^{14}\) For a descriptively adequate theory one might of course propose that DH be invoked for those cases which do not conform to a specific structural analysis. However, that would indicate that some constraints are purely syntactic, whereas others depend on dominance. There would be no prediction as to which is which. More importantly, in section 3 we show an instance of a semantic interpretive rule which depends crucially on dominance. Syntactic approaches (see especially Chomsky 1973) are based on a view where all the constraints are relevant to syntactic rules (movement rules in particular) and cannot be extended to account for such cases.
2.1.1 The Danish data is given in (10) and (11). Extraction out of most relative clauses is blocked as it is in English. (Example (10). However, extraction is possible in a subset of Danish relative clauses (11).

(10) a. *Det er den dreng som Peter kender pigen der kan lide. It is that boy that Peter knows the girl who likes (Peter knows the girl who likes \textit{that boy}; the underlined NP is extracted.)
b. *Det er dette slags vejr som jeg gav en bold til en pige der kan lide. It is this kind of weather that I gave a ball to a girl who likes (I gave a ball to a girl who likes \textit{this kind of weather}.)
c. *Det er den is som en mand der kan lide kom til forretningen. It is that icecream that a man that likes came to the store (A man that likes \textit{that icecream came} to the store.)

(11) a. Det er der mange der kan lide. That there are many who like (There are many who like \textit{that}.)
b. Det kender jeg mange der kan lide. That know I many who like (I know many who like \textit{that}.)
c. Det har jeg mødt mange der har gjort. That have I met many who have done (I have met many who have done \textit{that}.)
d. ?Det har jeg spurgt mange der har gjort. That have I asked many who have done (I have asked many who have done \textit{that}.)
e. *Det har jeg drillet mange der har gjort. That have I made fun of many that have done (I have made fun of many that have done \textit{that}.)
f. *Det hus kender jeg en mand som har købt. That house know I a man who has bought (I know a man who has bought \textit{that house}.)

What is it that distinguishes the examples in (10) and (11) and what makes acceptability worse as we progress through the examples of (11)? First we must show that there is no syntactic distinctions to be found between the acceptable and non-acceptable cases. If all the cases in (11) were equally acceptable we might propose the following syntactic constraints for Danish relative clauses. Extraction is blocked when the head NP of the relative clause is definite (10a), or when the relative clause is not in direct object position (10b and 10c). However, there is no possible syntactic distinction to be found between the more and the less acceptable cases in (11). A descriptively adequate explanation must therefore be sought elsewhere. It is not difficult to test whether the notion of dominance distinguishes adequately between the cases. The lie test distinguishes the cases perfectly.\textsuperscript{15}

\textsuperscript{15} It has been pointed out to us that relative clauses of the sort we consider here might be
(12) Bill said: Peter knows the girl who likes that boy.
a. which is a lie – he doesn’t.
b. *which is a lie – she doesn’t.

(13) Bill said: I gave a ball to a girl who likes that kind of weather.
a. which is a lie – I didn’t.
b. *which is a lie – she didn’t.

(14) Bill said: A man who likes that icecream came to the store.
a. which is a lie – he didn’t.
b. *which is a lie – he doesn’t.

(15) Bill said: There are many people who have done that.
a. which is a lie – there aren’t.
b. which is a lie – nobody has done that.

(16) Bill said: I know many people who have done that.
a. which is a lie – he doesn’t.
b. which is a lie – nobody has done that.

(17) Bill said: I have met many people who have done that.
a. which is a lie – he hasn’t.
b. which is a lie – nobody has done that.

(18) Bill said: I have asked many people who have done that.
a. which is a lie – he hasn’t.
b. *which is a lie – nobody has done that.

(19) Bill said: I have made fun of many people who have done that.
a. which is a lie – he hasn’t.
b. *which is a lie – nobody has done that.

(20) Bill said: I know a man who has bought that house.
a. which is a lie – he doesn’t.
b. *which is a lie – nobody has bought that house.

treated as open sentences with the relative pronoun functioning as a free variable. If this were the case, then the lie test would of course be inapplicable to them. However, this, in fact, is not a problem for us, as the relative pronoun is anaphoric with the head noun of the relative clause and may be interpreted as bound by it.

The test is given in English to ease the reading. Moreover, the results of the test in either language depend on each particular speaker.

The question of why extraction is predicted correctly by the test only for Danish and not for English in this case, is discussed further on.
What this series of tests illustrates is that in general relative clauses are used non-dominantly. The dominant part of the sentence is in the main clause. One could say, in general, that an important function of the relative clause is to introduce non-dominant material into the sentence.\textsuperscript{16} However, there is a subset of relative clauses in which the relative clause can be used dominantly as the tests (15) - (18) show, and it is exactly in those cases that extraction is possible in Danish. Moreover, where the tests indicate that it is more difficult to interpret the relative clause as being dominant, extraction is less acceptable in Danish. So far we could say that the DH proposal accounts for relative clauses in Danish. Extraction is only possible out of those relative clauses that can be interpreted as being dominant.

It remains to discuss what factors in the sentences enable relative clauses to be interpreted dominantly or vice versa, and which factors block this interpretation. It is easiest to interpret a relative clause as being dominant when the matrix consists of the existential operator as in (11a). In that case it is impossible to interpret the matrix as being dominant because that would mean that the speaker is trying to draw the attention of the hearer to the statement that many people exist. The existential operator here merely serves to introduce the head of the relative clause about which something is being asserted. Any matrix which can be interpreted as serving this function, i.e., as introducing into the sentence the head of the relative clause, will also allow an interpretation where the relative clause is interpreted as being the dominant part of the sentence. Conversely, the more complexity is introduced into the matrix, the more difficult it is to interpret this matrix in a manner analogous to the existential operator. It should be noted that not only must the matrix verb be relatively empty semantically, but the head of the relative clause must be indefinite (as with the existential operator) and the subject of the matrix must be first person.\textsuperscript{17} These factors further facilitate the interpretation of the matrix as an operator of introduction. Take (11b): The sentence is interpretable as follows: There are many people who like that and I know them. In order for the relative clause to be interpreted dominantly the italicized part must be sufficiently empty to be taken as non-dominant. Stress on the matrix verb, as in (11f), or the use of a semantically complex verb are factors which block such an interpretation. The dominance test which was given for these cases in (12) - (19), shows that the difficulty in getting the dominant interpretation for

\textsuperscript{16} See Schachter (1972) for a similar approach.

\textsuperscript{17} Having anything but a first person pronoun as the subject of the matrix also blocks the dominant interpretation of the relative clause and hence extraction.
the relative clause is proportional to the complexity of the matrix verb and (20) shows that stressing the matrix verb has the effect of blocking the dominant interpretation of the relative clause as well.\textsuperscript{18}

Since we have seen that the dominance relations which hold in the subset of relative clauses that allow extraction in Danish are the same with respect to their English counterparts, we must see whether extraction also holds in these English cases. Interestingly enough, it turns out that the extraction facts for English are parallel to those in Danish.

(21) a. This is the kind of weather that there are many people who like.
b. *This is the kind of weather that I know many people who like.
c. *This is the kind of weather that I am familiar with many people who like.

In other words, we get a hierarchy quite similar to the one discovered in Danish. This subset is also distinct other relative clauses in English with respect to processes other than extraction. McCawley (1976) calls them Pseudo-relative clauses and points out that insertions of parenthetical material is freer in these clauses (his 4):

(22) a. There are few Americans, as I'm sure you know, who enjoy opera.
b. *Few Americans, as I'm sure you know, who enjoy opera like the way the MET is run.
c. *The IRS harasses few Americans, as I'm sure you know, who support opera.

\textsuperscript{18}Kuno (1975) presents what seems to be a similar approach to this kind of data. He accounts for constraints on relativization on the basis of the following principle: A relative clause must be \textit{a statement about its head noun}. There are two problems with this principle. It is not clear how it can be extended to question formation and so it does not constitute a general theory of extraction of the sort we offer here. A second and more basic objection is that Kuno does not provide precise definitions of being “about a head noun” and the related notion of theme, or operational procedures for identifying aboutness or theme independently of the data he is trying to account for. As a result one is left only with one’s intuitions concerning the presence of the property of aboutness when trying to evaluate Kuno’s facts. In fact, one can only decide whether a relative clause is about its head noun after relativization has applied. This would seem to be a clear case of prediction after the fact. In the case of our theory we have given both a precise definition of dominance and an independent set of criteria for discerning dominance in a constituent. We are therefore in a position to predict and verify the presence of dominance without relying on the data provided by extractability. As a result our theory admits of counterexamples whereas it is not clear that this is the case with respect to Kuno’s principles.
Another case from Erteschik-Shir (1973), illustrated by the following contrast, is

(23)  a. Oddly enough, here is the man who likes Peter = Here is the man who, oddly enough, likes Peter.
   b. Oddly enough, there are people who like Peter = There are people who, oddly enough, like Peter.

In (23a) *oddly enough* qualifies the statement made by the matrix, since it is dominant, and it can only qualify the embedded clause if it is inserted into it. In (23b), however, the embedded clause is dominant; *oddly enough* qualifies it, therefore, even if it is stated initially in the sentence. In other words the existence of a subset of dominant relative clauses in English cannot be ignored. It does seem, however, that extraction for most speakers of Danish is somewhat freer here than for most speakers of English and some explanation is called for. A clue to the solution of this problem may be found by examining the use of topicalization in both Danish and English. It is a well-known fact that many speakers of English do not use topicalized sentences and find them somewhat peculiar when uttered by others. For example,

(24)  a. John, I am very fond of.
   b. This meal, I spent a lot of time cooking.

In Danish these sentences would not be frowned upon. For those speakers for whom (24a) and (24b) are normal (be they speakers of Danish or English), fronting occurs as a basic strategy which may facilitate (for these speakers) the perception of the connection between the extracted item and the locus of extraction as in the following figure:

(i)  \[ X \ldots \ [ \ldots Y \ldots ] \] (where X is the fronted item and Y is the locus of extraction)

The distance variable represented by (i) could be considered as a perceptual factor of performance which varies from speaker to speaker. The use

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Gundel (1977) distinguishes two kinds of topicalization: one where the fronted item is stressed and interpreted contrastively and one where the nuclear stress is found in the rest of the sentence and the fronted element functions as the topic of the sentence. It is the latter case that we are interested in here.
of a process such as topicalization may strengthen this performance strategy for speakers. Since the same strategy (i) must be employed in the perception of sentences such as (21a) through (21c) and (11a) through (11f), the cut off point for acceptability of these sentences will be better for those speakers for whom (i) is stronger.\textsuperscript{20}

The comparison between English and Danish here should be read as a hint at the kind of explanation one might look for in trying to determine differences in the employment of syntactic strategies between speakers of a given language and between languages. This is by no means meant as a definitive solution, and it is hoped that further research will shed more light on this question.

2.1.2. The Complex NP Constraint also was designed to block movement out of embedded sentences headed by the \textit{fact} such as:

\begin{equation}
\text{(25) John regrets the fact that Mary likes Peter.}
\end{equation}

It has often been pointed out that extraction is blocked in all such cases:

\begin{equation}
\text{(26) *This is the boy that John regrets the fact that Mary likes.}
\end{equation}

follows automatically from DH as well from the structural constraint. One might say that the \textit{fact} functions to prevent the dominant reading of the embedded sentence.\textsuperscript{21} The lie test bears this out:

\begin{equation}
\text{(27) Bill said: John regrets the fact that Mary likes Peter.}
\begin{align*}
\text{a. which is a lie – he doesn’t.} \\
\text{b. *which is a lie – she doesn’t.}
\end{align*}
\end{equation}

\textsuperscript{20} It should be emphasized that this is not an attempt to account for the existence of certain strategies, (say topicalization), in a given language or for a specific speaker, but rather to predict their occurrence or non-occurrence in a given case (say in certain relative clauses).

\textsuperscript{21} One indication that this is so is the following pair of sentences:

(i) I regret the fact that the U.S. is in Southeast Asia and I am quite upset about it.
(ii) ?I regret that the U.S. is in Southeast Asia, and I am quite upset about it.

In these sentences, the context and the stress on the main verb are intended to force the interpretation where the matrix is dominant. Under this interpretation, the presence of the \textit{fact} in the matrix is more natural than its absence.
A set of cases for which a structural account is hard to maintain is illustrated by the following examples

(28) ?What did she make the claim that he had done?
(29) ?This is the girl that I had the feeling that he liked.
(30) ??This is the structure that Jay advanced the hypothesis that he had accounted for.
(31) ??Which issue did the congressman put forth a motion that they should shelve?
(32) *What did she discuss the claim that he had done?
(33) *This is the structure that Jay analysed the hypothesis that Peter had accounted for.

In all the above cases the structure is that of a complex NP. Hence, according to any structural account (28) - (33) should be equally bad and as bad as sentences such as (26), unless some syntactic structural difference could be suggested for those cases where extraction is not so bad. One such proposal is that of Ross (1967) in which it is suggested that the fact that the following paraphrases exist for cases such as (28) - (31) allows a different structural analysis which gives the correct distribution of acceptability for the extraction cases:

(34) She claimed that he had done it.
(35) I felt that he liked the girl.
(36) Jay hypothesized that he had accounted for the structure.
(37) The congressman moved that they should shelve the issue.

However, as the examples show, extraction is not equally good in all these cases. Furthermore, there are similar cases where no such paraphrase can be found:

(38) He put forth the idea that they should shelve the issue.

There does not seem to be one verb that could capture the meaning of the italicized phrase in (38) in the way that the paraphrases (34) - (37) correspond to
(22) - (25). As (39) illustrates, extraction here falls into the acceptability range of cases such as (28) - (31):

(39) The issue did he put forth the idea that they should shelve.

It seems to be an accidental morphological gap that no verb is to be found in English that accurately paraphrases the italicized phrase in (38), and hence no theory that is based on the existence of such paraphrases can explain the extraction facts satisfactorily.

Let us examine what the dominance theory can do to explain this data. Notice that the less weight found in the matrix verb in (28) - (31), the better extraction is. Make and have in make the claim and have the feeling are the most basic of the set of verbs that are used to introduce the NP. One could say that when a speaker chooses to say (41) rather than (40), he is trying to force the interpretation where the embedded sentence is non-dominant, but the embedded sentence is still more easily interpreted as being dominant in comparison to (42):

(40) She claimed that he had done it.
(41) She made the claim that he had done it.
(42) She discussed the claim that he had done it.

In (42) the verb adds semantic content in addition to functioning as an introducer of the NP and hence the matrix must be interpreted as being dominant. It has already been illustrated by means of various examples that extraction becomes progressively worse from (40) - (42). It remains to show that the dominance test predicts these extraction facts:

(43) Bill said: She claimed that he had done it.
   a. which is a lie – she didn’t.
   b. which is a lie – he hadn’t.

(44) Bill said: She made the claim that he had done it.
   a. which is a lie – she didn’t.
   b. which is a lie – he hadn’t.

(45) Bill said: She discussed the claim that he had done it.
   a. which is a lie – she didn’t.
   b. *which is a lie – she hadn’t.
The facts here are very similar to those presented in the section on Danish relative clauses. Again, the more weight the speaker chooses to put in the matrix, the harder it is to interpret the embedded clause as being dominant and the harder extraction becomes. Using *make the claim* rather than *claim* is a strategy that the language offers for speakers to clarify dominance relations in the sentence. This strategy is similar to but not as clearcut as the use of *fact* which was discussed before. It should be noted that the use of *advance and put forth* in (30) and (31) makes it harder to interpret the embedded sentence as being dominant since these verbs are not quite as frequently used and they therefore cause the matrix to be put in focus to a greater extent than do *make* and *have*. For those speakers for which this is not the case, i.e., lawyers who constantly *put forth motions*, extraction should be as good as in (28) and (29).

2.1.4. In order to illustrate exactly how the dominance principle operates in a case which is slightly more involved, we would like to bring in cases of relative clause extraposition which have been analyzed in some detail in Ziv (1975). The approach presented there is very much in line with the ideas of this paper. Ziv concludes that the function of extraposition of relative clauses is to foreground the relative clause, or in other words, to ensure its dominant interpretation. This transformation offers the speaker a way of making an otherwise non-dominant clause dominant.\footnote{It should be emphasized that extraposition of relative clauses would seem to be a syntactic rule which is distinct from extraposition of non-relative S's. Certainly the conditions are very different: relative clause extraposition depends on the nature of the head of the clause. Regular extraposition depends on the nature of the matrix predicate. It is therefore hard to imagine how the two rules could be collapsed. In any case one cannot predict that their function is the same with respect to dominance: relative clause extraposition functions to ensure the dominant interpretation of the clause. Regular extraposition allows a choice of subject position or predicate position for some embedded S's. As will be pointed out in 2.2, the function of choosing subject position is to ensure a non-dominant interpretation of the S; choosing object position (in most cases final position) does not necessarily mean that the embedded sentence will be dominant as it does with extraposed relatives.} The following (Ziv's (1) and (2)) exemplify this case:

(46) A man who was wearing very funny clothes just came in.
(47) A man just came in who was wearing very funny clothes.
Ziv provides several tests to show that the italicized clause in (47) is indeed the main assertion, i.e. dominant. Our lie test also demonstrates that this is the case.

(48) Bill said: A man just came in who was wearing very funny clothes.
   a. which is a lie – nobody came in.
   b. which is a lie – he wasn’t.

The possible response 48b. indicates that the extraposed relative clause can be easily interpreted as being dominant. Contrast this with the non-extraposed relative clause:

(49) Bill said: A man who was wearing very funny clothes just come in.
   a. which is a lie – nobody came in.
   b. *which is a lie – he wasn’t.

If indeed the function of extraposing relative clauses is to ensure their dominant interpretation, one would expect that those processes that depend on dominance would operate better in an extraposed relative clause than in a non-extraposed one. Ziv mentions that extraposed relative clauses are indeed weaker islands than non-extraposed ones, but curiously enough extraction out of them is totally blocked. This would appear to be a counter-argument to the theory proposed here. However, if we take a closer look at the function of these operations we will see that it is possible to solve this problem quite easily. The function of extraposing relative clauses is to ensure a dominant interpretation of the clause. It would be peculiar if a language then allowed a process to apply to this extraposed relative clause which endangered the possibility of its interpretation as dominant. Extraction would in fact constitute such a process. Although, as we have seen for a number of cases, extraction depends on the potential dominance of the clause out of which extraction occurs, it also causes the same clause to exclude potential dominance once extraction has occurred. For example:

(50) John claimed that Peter liked Mary.
(51) This is the girl that John claimed that Peter liked.

23 Ziv's discussion of which clauses can naturally be interpreted as dominant is important to a deeper understanding of dominance, but not of direct relevance to the extraction issue under discussion here.
In (50) the italicized clause can be interpreted as being the dominant one. In (51) extraction has occurred out of such a clause and the clause is now part of a relative clause, i.e., it excludes dominance. If extraction were to occur out of an extraposed relative clause, the language in which such extraction were permitted would allow two functionally contrary processes to apply to the same clause at the same time. One process would promote a dominant interpretation, and the other would exclude such an interpretation. It is this contradiction of “interest” that blocks (52) (Ziv’s (76)):

(52) *This is the deal which a letter just got to my office which practically cancels.

Ziv notes (and this is her reason for calling extraposed relative clauses weaker islands) that these relative clauses allow interjections like “ah” to refer to them. The interpretation of “ah” as referring to a certain clause depends on the dominance of the clause, and “ah” actually reinforces this interpretation, hence (Ziv’s (6)):

(53) Ah, a letter just got to my office which practically cancels the deal.

Here Ah reinforces the interpretation that what is important in the sentence is that the letter practically cancels the deal, i.e., ah does not interfere with the dominant interpretation of the extraposed relative clause and a reading is therefore not blocked, as in the case after extraction. In our theory, readings are blocked only when the processes which have applied operate jointly in such a way as to both promote and exclude dominant readings of the same clause. We are now in a better position to understand the nature of the distinction between “weak” and “strong” islands. A “strong” island is an island with respect to all processes where as a “weak” island is an island with respect to certain processes and not at all an island with respect to a different process. The theory we present here can differentiate between and thus predict these cases.

2.2. The Sentential Subject Constraint

We would like to propose that the Sentential Subject Constraint follows from DH. Since there is no situation in English where a sentential subject could be interpreted as being dominant, the dominance condition on extraction correctly predicts that extraction out of sentential subjects can never occur. The following tests show that an embedded sentence which can
be interpreted as being dominant in object position cannot be thus interpreted in subject position:

(54) Bill said: It is likely that Sheila knew all along.
   a. which is a lie – it isn’t.
   b. which is a lie – she didn’t.

(55) Bill said: That Sheila knew all along is likely.
   a. which is a lie – it isn’t.
   b. *which is a lie – she didn’t.

The fact that (55) is unacceptable shows that this sentential subject must be interpreted as being non-dominant. Since (54) is acceptable, the same sentential complement can be interpreted as being dominant in (54), and we can, therefore, conclude that it is the subject position of the complement which is responsible for its necessarily non-dominant interpretation. Here again we have an instance in which a speaker of English has a choice of saying a sentence in two ways, and his choice involves a difference with respect to dominance. The purpose of choosing the version where the sentential complement is in subject position is to ensure the non-dominant interpretation of the complement. It is this strategy which is reflected in the sentential subject constraint.24

It must be demonstrated that all embedded complement types which can be interpreted as being dominant in object position must be interpreted as being non-dominant in subject position. The following sentences support this claim:

(56) Bill said: For Mary to arrive on time is unlikely.
   a. *which is a lie – for Mary to go to London is unlikely.25
   b. which is a lie – it isn’t.

(57) Bill said: Her buying Kosher meat was anticipated.
   a. *which is a lie – she didn’t buy anything.
   b. which is a lie – it wasn’t.

Note furthermore that in subject position where sentential complements must be interpreted non-dominantly, the presence of the fact improves the sentence:

(i) That she was a miserable student was unfortunate.
(ii) The fact that she was a miserable student was unfortunate.

In (51a) the full response is necessitated by the fact that an infinitive cannot be negated as an independent sentence. The value of the test, however, is no different.

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(i) ?That she was a miserable student was unfortunate.
(ii) The fact that she was a miserable student was unfortunate.

25 In (51a) the full response is necessitated by the fact that an infinitive cannot be negated as an independent sentence. The value of the test, however, is no different.
Notice also the difference in dominance relations in the following two cases:

(58) Bill said: I know that Peter likes icecream.
    a. which is a lie – he doesn’t (know).
    b. which is a lie – he doesn’t (like icecream).

(59) Bill said: That Peter likes icecream is known by everyone.
    a. which is a lie – it isn’t.
    b. *which is a lie – he doesn’t.

In the passive version of sentence (59) it is impossible to interpret the embedded sentence as being dominant. A function of passivization, in this case, is to force the non-dominant reading of the that-clause. The sentential subject constraint can thus be seen as a structural expression of various functional strategies which enable the speaker to position embedded sentences in subject position in order to force a non-dominant reading. It is the fact that subject position excludes a dominant reading which blocks extraction.

2.3. The coordinate structure constraint

Here again, we would like to show that the syntactic constraint follows from the discourse function of the coordinate structure. It has been noted in the literature that one cannot conjoin just any two sentences. There must be some logical relationship between the conjuncts. In addition, we would like to add that when the speaker chooses to conjoin two sentences, it is because both conjuncts are to be presented as being equally dominant. Thus, (example (46) from Ross (1967)):

(60) Bill said: The nurse polished her trombone and the plumber computed my tax.
    Mary said: It’s a lie – a. *she didn’t.
    b. *he didn’t.
    c. they didn’t.

(61) Bill said: Tom and Susan hate their kids.
    Mary said: That’s a lie – a. *she doesn’t.
    b. *he doesn’t.
    c. they don’t.

These tests show that one conjunct cannot be interpreted as being dominant without the other. Hence, each conjunct, taken in itself, excludes dominance and extraction is blocked in accordance with DH.
2.4. *that*-complements

The factors governing extraction out of English *that*-complements have defied any general syntactic theory. The following examples show the range of acceptability for some speakers:

(62) What did you say that he had done?
(63) *What did Peter lisp that he had heard at the scene of the crime?*
(64) *What did the paper editorialize that McGovern had done?*
(65) What did John think that he'd seen?
(66) *This is the girl that John knows that Peter likes.*
(67) *This is the girl that John is aware that Peter likes.*
(68) *This is the girl that John regrets that Peter likes.*
(69) *This is the girl that John grieves that Peter likes.*
(70) *This is the girl that it is well known that Peter likes.*
(71) *This is the girl that it is fortuante that Peter likes.*
(72) *This is the girl that it is interesting that Peter likes.*

The data may vary from speaker to speaker, but for all speakers it is the case that no syntactic distinction can be found to account for the hierarchy of acceptability. An attempt has been made to distinguish the cases of this sort (68-72) according to factivity.\(^{26}\) Cases (63) and (64) are cases of non-factive verbs where extraction is not totally acceptable. (66) - (72) illustrate cases of factive verbs where extraction produces sentences with different degrees of acceptability. Hence, it does not seem possible to account for these facts in terms of the feature of factivity (regardless of whether it is treated as semantic or syntactic in nature).

We would like to propose that the notion of dominance accounts for the full range of facts and more importantly, that this account also provides a natural explanation of these facts. In order to argue for the dominance condition on extraction, it suffices to show that the lie test will predict the correct dominance relations for the verbs listed:

\(^{26}\) See Kiparsky and Kiparsky (1970).
We would like to suggest that when a speaker chooses the verb *lisp*, for example, as the verb in the matrix, it is in order to focus on the manner of the subject's speech rather than on the content of the embedded clause; it is therefore less easy to interpret the embedded sentence as being dominant than if the speaker has chosen the verb *say* in the matrix. The tests indicate this fact. Support for this claim is provided by the following discourse situation. Assume that we all know Peter and that we know that he always lisps. This situation dramatically improves both (63) and (74b), because in that situation the verb *lisp* is not used to focus on Peter's way of speaking and the verb therefore functions, in that context, analogously to the verb *say* in other contexts. A speaker's choice of a specific matrix verb in a certain context plays an important role in influencing the hearer's determination of what the speaker intends to function as the dominant part of the sentence. For various speakers and for various contexts a given verb may facilitate a dominant reading to a greater or lesser extent, and this is what accounts for the variability in acceptability of the sentences in different contexts and for different speakers. What is specifically predicted by the theory presented here is that if, for a particular speaker in a given context, a certain embedded sentence must be interpreted as excluding dominance, then extraction will be blocked.

Let us turn to cases (65) through (72). (66) through (72) exemplify cases of "factive" verbs. It is important to point out that factivity of the matrix verb (as it is assigned in Kiparsky and Kiparsky (1971) does not necessarily imply non-dominance of the complement. Consider the verb *know*.

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27 We are grateful to Mark Liberman for this fact.
Who does Mary know committed the crime?

Who did Mary know committed the crime?28

Notice, moreover, that the lie test also distinguishes between the tense in the matrix:

Bill said: Mary knows Peter committed the crime.
   a. which is a lie – she doesn’t.
   b. which is a lie – he didn’t.

Bill said: Mary knew Peter committed the crime.29
   a. which is a lie – she didn’t.
   b. which is a lie – he didn’t.

(78) and (79) indicate that depending on the tense, a factive verb can be used dominantly. The proposal here is that only verbs (factive or otherwise) which allow the dominant interpretation of the complement will also allow extraction. It has been noted30 that regret is often used non-factively to mean “regret to inform”:

Harvard regrets that children cannot be accommodated.

This sentence can be used (as indeed it was) to inform the reader that children cannot be accommodated, and again the dominance test shows this:

Bill said: I regret that children cannot be accommodated.
   a. which is a lie – he doesn’t.
   b. which is a lie – they can; special beds have been set up for them.

What this indicates is that, since regret (as well as know) can be used in such a way that its complement can be interpreted as being dominant, it is not at all strange that extraction can occur out of this complement. As a matter of fact,

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28 These facts are due to E. Keenan.

29 Some speakers feel that the complementizer is obligatory in (79), i.e., it is preferable to say: Mary knew that Peter committed the crime.

For many speakers it seems to be the case that the less easy it is to interpret the embedded sentence in a that-complement as being dominant, the more obligatory is the presence of the complementizer. This is an indication that the distribution of the complementizer also depends at least to some extent on dominance. This topic, however, needs further research.

30 L. Karttunen, personal communication.
this would follow directly from the condition on extraction proposed. Furthermore, for many speakers, regret, (where it is not used to mean “regret to inform”) also allows a dominant complement:

(82) Bill said: John regretted that he had ever gotten into leftist politics.
   a. which is a lie – he didn’t regret it.
   b. which is interesting, since I never thought that he would ever travel in those circles.

It follows that (for those speakers for whom the test applies as in (82b)), extraction should be allowed as in:

(83) This is the kind of politics that John regretted that he had ever gotten into.

It is also worth noting that a factive verb such as grieve in (69), which is a case of a verb not often used, makes it almost impossible to interpret the complement as being dominant. When the speaker chooses to employ a less commonly used verb it is in order to focus on the matrix and ensure that the complement does not function dominantly. This is the explanation for the fact that the more unusual the matrix verb, the less easy extraction is.

From considerations of this sort it becomes clear that dominance is a pragmatic property which must be defined in terms of a speaker’s intentions with respect to his hearers in a discourse context, and that it can not be analyzed in terms of semantic presupposition.

In this section an account of extraction out of / syntactic complements has been given which explains the full range of facts concerning extraction out of structures of this kind. Similar accounts could have been provided for other complement types, but in this paper we are concerned to show how the principle operates, rather than illustrate all the cases to which it applies.

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31 See Erteschik (1973). It has been pointed out to us by Alex Grosu (in a talk entitled “How Semantic are Island Constraints?” at Tel-Aviv University on November 8, 1977) that Contrastive Stress in the matrix facilitates extraction:

(i) Here are the men who Bill is sorry that Mary was in love with, and here are the men who he is glad that she was in love with.

Grosu points out that this sentence is totally acceptable whereas the following case without contrastive stress is not:

(ii) ??Here is a man who Bill is sorry that Mary was in love with.

One might consider this, then, as a counterexample to DH if one analyses (i) as having a dominant matrix (due to the contrastive stress) and a non-dominant embedded clause.
2.5. *Picture Noun Phrases*

It seems, however, worthwhile to present a case of another sort in which the dominance principle offers a natural explanation of extraction facts. This case illustrates how the definition applies to noun phrases. Consider the following sentences:

(84) Who did you see pictures of?
(85) Who did you see a picture of?
(86) ?Who did you see the picture of?
(87) *Who did you see John's picture of?

These facts are by no means new, and have been mentioned, by, among others, Chomsky (1971). According to Chomsky, (87) is ruled out by means of the specified subject constraint. The fact that (86) is intermediate in acceptability to (85) and (87) is accounted for by incorporating the notion of definiteness into the specified subject constraint - a somewhat artificial maneuver. We would like to show that these facts follow naturally from the dominance principle and that this principle not only provides a descriptive account but also a genuine explanation.

Let us then examine the unextracted cases parallel to (84) - (87):

(88) You saw pictures of *Otto*.
(89) You saw a picture of *Otto*.
(90) You saw the picture of *Otto*.
(91) You saw John's picture of *Otto*.

This problem was anticipated in Erteschick (1973, Chapter 3, A (iii)), where it was pointed out that contrastive stress in the matrix does not necessarily block a dominant interpretation of the embedded clause. It was also mentioned that extraction out of such an embedded clause, where it is not dominant as in Grosu's example, is only possible in a highly specific sort of context. For example i) is only interpretable in a situation in which the hearer is aware that Mary was in love with a number of men and that Bill was sorry about some of these and glad about others. The purpose of this sentence, then, is to distinguish between the former and the latter; it can not express the fact that Bill was sorry or glad about something. In other words neither the matrix nor the subordinate clause is, in itself, dominant in this sentence. In Erteschik-Shir and Lappin (in preparation) we will examine exactly what, if anything, constitutes dominance in this and similar sentences. We will analyze the relationship between contrastive stress, echo-questions and dominance in detail.
We would like to argue that while in (88) and (89) the speaker could be trying to direct the attention of his hearers to *Otto*, this is progressively less feasible in (90) and (91). It is possible to interpret (88) and (89) as being about *Otto* but (91) cannot be interpreted as such and an interpretation of this kind is not easy to get for (90). Let us apply the dominance test for NPs to these sentences:

(92) You saw the pictures of *Otto* last night.
   a. Do you remember them?
   b. Do you remember him?

(93) You saw a picture of *Otto* last night.
   a. Do you remember it?
   b. Do you remember him?

(94) You saw the picture of *Otto* last night.
   a. Do you remember it?
   b. *Do you remember him? (i.e., Otto)

(95) You saw John’s picture of *Otto* last night.
   a. Do you remember it?
   b. *Do you remember him? (i.e., Otto)

The sentences where b. is possible are those in which extraction is acceptable. This indicates once more that extraction depends solely on dominance, where the definition of dominance covers NPs.32

32 Chomsky (1973) uses the Specified Subject Condition to account for (84)–(87). This condition would exclude (87). Chomsky proposes to make the condition sensitive to definiteness as well in order to account for the intermediate acceptability of (86). However, the following set of facts cannot be accounted for by such a structural condition:

(i) *Who did John see Picasso’s drawing of?*
(ii) *Who did John see a drawing by Picasso of?*
(iii) *Who did John see a drawing of by Picasso?*
(iv) *Who did John see a Picasso of?*
(v) *Who did John see a drawing that Picasso has of?*
(vi) *Who did John see a drawing of that Picasso has?*

The Specified Subject Condition as it stands would exclude only the first of these. But Chomsky notes, with respect to some completely different facts, that it may be that the condition should be formulated as a “specified agent” condition rather than one which involves the formal subject. Such a rewriting of the condition would be a rather natural way of accounting for (ii) through (iv) (in addition to i); however, it would not be sufficient to account for (v) and (vi), nor could it account for 1) under the interpretation that Picasso is the possessor. We will leave it to the reader to verify for her/himself that the dominance test predicts (ii)–(vi) correctly.
A set of facts which defy structural analysis in an even more striking manner are given in the following cases which were supplied by an informant who is a native speaker of English:

(96) Who did John paint a picture of?
    draw
    see
    find
    ?comment on
    *destroy
    *tear up

(97) Who did John read a book about?
    write
    illustrate
    see
    like
    publish
    outline
    ?comment on
    ?type
    ?copy-edit
    *destroy
    *tear up

Here again the possibility of dominance depends on the verb and the explanation is the same as the one we have given above. The more unusual a verb the speaker chooses for the context, the greater the degree to which he focuses on that part of the sentence, and the more difficult it is to interpret the NP within the picture noun phrase as being dominant:

(98) John painted a picture of Mary recently; do you remember her?
    drew
    saw
    found
    ?commented on
    *destroyed
    *tore up

Again it should be pointed out that different verbs may yield different results for different speakers. Our prediction remains that extraction facts correspond to dominance facts for any given speaker.
Here we have shown that the extraction facts depend crucially on the possibility of interpreting a noun phrase as being dominant. We have seen that the same factors that influence dominance relations among sentences also define dominance with respect to noun phrases.

2.6. Possible extensions

In this part of the paper we have illustrated the relevance of the dominance hypothesis to various constraints on extraction. It is assumed that the same constraints apply to cases of questioning, relativization, topicalization, etc., and these transformations were, for the sake of convenience, referred to as extraction transformations. It has been pointed out by Ross (1972) that extraction may be better or worse depending on which transformation applies. We will leave this issue for further research since the data involved is too extensive to be dealt with in the scope of one article. However, it might be useful to point to the general approach that our line of research would use in dealing with this kind of data. We have assumed here that the purpose of all extraction transformations is to focus on a noun phrase and the explanatory power of DH lies in the fact that it implies that a speaker cannot both use an embedded sentence which excludes dominance and, at the same time, focus on one of its constituents. Extracting out of a necessarily non-dominant clause would involve doing precisely that. However, a more thorough analysis must try to define exactly the manner in which different extraction transformations focus on noun phrases. As each transformation has a different purpose (questioning, relativizing, etc.) it would be natural to assume that the constraints on the application of each transformation will differ to some extent, in spite of their common functional basis.

This brings us to the question of how our theory could be incorporated into a generative grammar. If the DH is correct, the distribution of dominance possibilities must be represented at various stages in the derivation of a sentence (at least in the case of extraction rules). The actual property of dominance is assigned to a constituent of a sentence only when that sentence is actually used by a speaker in a given discourse context. But the generation of the sentence is, in part, constrained by the configuration of dominance possibilities which hold at any given point in its derivation. The application of rules such as extraction transformations to the environments which define such configurations may give rise to new distributions of potential dominance which further influence the derivation of the sentence.
We do not wish to go into detail concerning the specific apparatus required for representing potential dominance at different points in a derivation, but we will limit ourselves to a general comment on the choice of a framework for the construction of such an apparatus. At this point two alternative approaches are available. According to the first, DH will be stated as a condition on extraction transformations which will constrain their operation at each point in the cycle. On the second approach, DH will be formulated as a surface filter which will apply to an entire derivation within the framework of a theory of trace. It might well turn out that these two approaches are in fact equivalent modes of formalizing DH. However, we leave this problem for further research.

In this paper, so far, we have limited our discussion of dominance to its relevance to extraction transformations. In the next section we shall show that a certain interpretive rule also depends on dominance. Due to limitations of space we shall not deal with other cases, even though they are abundant. A full appreciation of the role played by dominance in grammar will have to wait till all such cases have been dealt with.

3. There has been considerable discussion recently of the fact that sentences such as

(99) Mary is taller than she is.

create ambiguity when they occur in contexts such as

(100) John believes that Mary is taller than she is.

(101) If Mary was taller than she is, she would have made the team.

(102) Mary could have been taller than she is, if she had eaten her wheaties.

On one reading of (100) - (102), (99) expresses a contradictory belief or an impossible state of affairs. On the other reading, a subject’s belief, or a possible state of affairs represents a situation in which Mary’s height is greater than it is in the actual world.

Postal (1974) claims that a non-contradictory reading of comparatives like (99) is possible only when they are embedded in environments which are not extraction islands.\textsuperscript{34} Given our analysis of islands in terms of dominance,

\textsuperscript{34} See Postal (1974), p. 383-388
we may interpret Postal’s claim as stating that there is a negative correlation between non-contradictory readings of comparatives (such as (99)) and environments which exclude dominance. If this statement is correct, then we are obliged to account for the (purported) fact that non-dominance prevents non-contradictory readings. However, it is not all obvious that such a correlation exists. Liddell (1975) presents the following examples in which non-contradictory readings are available within islands.35

(103) For ease of calculation, we will accept the assumption that lead weighs more than it does.

(104) The IRS claim that we earned more money than we did worries me.

(105) Somehow, Ed got the idea that he makes more money than he does.

Three further counter-examples to Postal’s claim are

(106) The fact that Mary could be taller than she is delights her mother.

(107) John’s insistence on Mary’s being more diligent than she is annoys me.

(108) Sam doubts the possibility that Mary could be taller than she is now.

What seems to produce the non-contradictory readings in (100) - (108) is the presence of a modal factor (such as a belief assigned to someone other than the speaker, or a modal operator) which establishes the existence of a possible world other than the actual world, such that the first part of the embedded comparative holds in it while the second part holds in the actual world. As (103) - (108) illustrate, when modal factors are present in islands they are still able to generate ambiguity.

It has, on occasion, been maintained that the ambiguity characteristic of (106)-(108) is of the same kind as that found in

(109) The fact that Harry is as tall as he is makes him hard to miss.36

On one reading of (109), the state of affairs referred to by a tautology is the cause of Harry’s being hard to miss. On the second reading, Harry’s having a certain (unspecified) height is the source of this property. However, while there is no direct correlation between non-contradictory readings and non-

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islandhood, there is a relation between non-tautological interpretations of the sort in question and islands. Both comparatives of the form of the sentential complement in (109) and assertions of identity such as

(110) The current president is the president.

can be interpreted non-tautologically only when they occur in islands; in our terms, only when they appear in environments which are interpreted non-dominantly.

(111) The fact that Mary is as old as she is is surprising.

(112) The fact that the current president is the president upsets Bill.

(113) John regrets that Mary is as old as she is.

(114) John regrets that the current president is president.

(115) Sam doubts the possibility of its being the case that Mary is as old as she is.

(116) Sam doubts the possibility of its being the case that the current president is the president.

(117) *If Harry was as tall as he is he would he hard to miss.

(118) *If the current president was the president he would be popular.

In (119) and (120)

(119) John believes that Mary is as tall as she is ('doesn't he?)

(120) John believes that the current president is the president ('doesn't he?)

a non-tautological reading is possible, although it is not preferred. This is due to the fact that the complement of 'believes' can be interpreted as non-dominant, as shown by the results of adding the tag question. However, the dominant reading of the complement tends to be more natural.

Notice that even when we introduce a modal factor into a non-dominant environment containing a tautology, the non-tautological interpretation is still available.

(121) The fact that John could be as tall as he is amazes his wife.

(122) The fact that the current president could be the president led the members of his party to revise their constitution.
This provides clear-cut evidence for claiming that the possibility of a non-tautological reading of these sentences depends upon the location of their complements in syntactic contexts where they can be read as non-dominant.

Postal (citing R. Lakoff) suggests that when 'the claim' replaces 'the fact' as the head noun of a sentential complement, the non-tautological reading is either ruled out or is very difficult to get.37

(123)  
a. The fact that Jerry is as old as he is worries me.
    b. *The claim that Jerry is as old as he is worries me.

While the non-tautological interpretation is considerably more natural for (123a) than for (123b), it seems to us that such a reading does exist for (123b). What appears to interfere with this reading in sentences like (123b) is that when nouns expressing propositional or psychological attitudes (such as ‘claim’, ‘belief’, ‘hope’, ‘state’, ‘infer’, etc.) occur as the head nouns of sentential complements they tend to induce a quotational interpretation of their embedded sentences. These sentences are taken as more or less literal expressions of the propositions to which their head nouns define an attitude. It is possible to increase the acceptability of the non-tautological reading by inserting ‘in fact’ in the second clause of the embedded sentence.

(124)  
a. The claim that Jerry is as old as he in fact is worries me.
    b. The belief that Mary is as tall as she in fact is has only recently gained acceptance.
    c. The statement that Sam is as bright as he in fact is delighted his parents.
    d. The inference that Bill earns as much as he in fact does was made on the basis of his company’s financial report.

It is also worth noting that these sentences can be further improved by replacing the head nouns of their complements with corresponding gerunds.

(125)  
a. Claiming that Jerry is as old as he in fact is is bound to upset his coach.
    b. Believing that Mary is as old as she in fact is is something her mother could never bring herself to do.

37 See Postal, p. 415–16, op. cit.
c. Stating that Sam is as bright as he in fact is was Bill’s way of endearing himself to Sam’s parents.

d. Inferring that Bill earns as much as he does was not difficult once we received his company’s financial report.

Regardless of how one chooses to account for the difference between (123a) and (123b), the data presented here clearly indicates that at least a necessary condition of a non-tautological reading of sentences such as (111) - (116) is that their complements occur in non-dominant environments.

Postal accounts for the relevant ambiguity as follows. He proposes two alternative underlying forms for

(126) The fact that Jerry is as tall as he is disturbs me.

The tautological reading is derived from

(127) The fact that SAME x [Jerry is tall to x] y [Jerry is tall to y] disturbs me.

In the complement of (127) ‘SAME’ is a two place higher predicate which takes ‘x’ and ‘y’ as its arguments. These two variables range over degrees of height and they are specified by their adjacent restrictive relative clauses. In order to arrive at the surface form of the complement it is necessary to lower ‘SAME’ and the material which its sister adjoins into the position of ‘x’ in the restrictive relative clause which modifies the variable ‘x’. The non-tautological reading of (126) comes from

(128) The fact that (Jerry is tall to x [SAME x y [Jerry is tall to y]]) disturbs me.

The embedded sentence in (128) does not assert that Jerry’s height x is identical to Jerry’s height y (as is the case in (127)). Rather it states that Jerry is tall to the degree x which is such that x is the same as the degree y to which Jerry is tall. According to Postal, this is a vacuous way of specifying Jerry’s height, but it does not constitute a tautology. As in the case of (127), the derivation of (126) from (128) involves lowering ‘SAME’ and its clause-mates into the position of ‘x’ within the restrictive relative clause modifying ‘x’.38

There are several important difficulties with this account. The first, pointed out by Liddell39, concerns the process of deriving (126) from (128).

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3 See Postal, p. 413–18, op. cit.
In (128) 'SAME' occurs within the relative clause adjoining the initial 'x' and there is no relative clause adjoining the 'x' which it takes as an argument. Hence, there is no environment into which 'SAME' and its clusmate ('y' plus its restrictive relative) can be lowered.

The second problem involves Postal's claim that the sentential complement of (128) is not tautological. According to Postal

(129) Jerry is tall to x [MORE x y [Jerry is tall to y]].

is self-contradictory and will produce the same reading as

(130) MORE x [Jerry is tall to x] y [Jerry is tall to y]

He states that the distinction between the sentential complement of (128) and (129) is "based on the principle that while a restrictive relative which says what the main clause it is embedded in says yields a statement whose arguments are simply poorly identified, a restrictive which says the negative of the main clause in which it is embedded necessarily yields a contradiction." (p. 418, op. cit.). But it is not at all obvious why we should accept this principle. Presumably

(131) Jerry is tall to x [SAME x [y Jerry is tall to y]]

is not tautological because the restrictive relative on 'x' does not assert identity between two arguments specified as having the same reference. However, it is also the case that in (129) non-identity is asserted between arguments which are not specified as identical. If (129) implies a contradiction when the description of 'x' in its restrictive relative is compared with the predicate asserted of 'x' in the main clause, then it is not clear why (131) can not be taken as implying a tautology on the basis of a similar comparison.

The most plausible way of formalizing (129) and (131) would appear to be

(129') H_i x (x \neq \iota y H_y)\textsuperscript{41} (where 'H' denotes the property of being the degree to which Jerry is tall and '\neq' replaces 'MORE').

(131') H_i x (x = \iota y H_y)

\textsuperscript{40} '\iota x' is the iota or definite description operator. '\iota x(\ldots x \ldots)' is read as 'the x which is such that \ldots x \ldots'.
respectively. It is hard to see how one can escape the conclusion that whatever motivation one has for saying that (129') implies a contradiction would also count in favour of the claim that (131') contains a tautology.

Finally, it is not clear how Postal's account could be extended to sentences like

(114) John regrets that the current president is the president.

Using his model one might suggest that the tautological reading of the complement of (114) is derived from

(132) \textsc{same} \: x \: \text{[the current president} \: x \: \text{] y} \: \text{[the president} \: y \: \text{]}

and the source of the non-tautological reading is

(133) The current president is \: x \: \text{[same} \: x \: y \: \text{[the} \: y \: \text{]}}

But this involves treating the copula in (114) as derived from two different sources -- the 'is' of identity in the first case and the 'is' of predication in the second. The difference between the two readings of the sentence becomes not simply one of the relative scope of '\textsc{same}' and its arguments, but a distinction in the logical character of its underlying forms. (132) is an assertion of identity while (133) is a predication. This is an arbitrary claim to the extent that it is motivated solely by the need to explain the ambiguity in (114), as this ambiguity does not seem to turn on a difference in logical form of the sort exemplified by (132) - (133). We conclude, then, that Postal's analysis is not acceptable. We will now present an alternative account of the ambiguity in question.

What seems to give rise to the non-tautological interpretation is that one of the two identical (or near identical) constituents of the embedded sentence is interpreted as a free variable. Thus, on the non-tautological interpretation, (114) is read as

(134) John regrets that \: x \: \text{is the president}.

and (112) becomes

(135) The fact that \: x \: \text{is the president upsets Bill}.

The value of the variable is determined as the object which satisfies the deleted description 'the current president'. Similarly, (126) is interpreted as
(136) The fact that Jerry is x tall disturbs me.
and
(137) Sam regrets that Jerry is as tall as he is.
as
(138) Sam regrets that Jerry is \( \chi \) tall.

Here the value of ‘\( \chi \)’ is the quantity indicated by the deleted comparative ‘as tall as he is’; i.e., the extent of Jerry’s height in the actual world.

The non-tautological reading consists in taking sentential complements having tautological form as open sentences whose values are fixed as the entities which are either denoted by the subject NP, or represent the measure of the property mentioned in the comparative phrase. When tautological complements are taken as non-dominant they serve to refer to states of affairs rather than to assert their existence.\(^{41}\) In this manner they introduce a situation as the topic of discourse which is commented upon by the main VP, or by the entire main clause. When applied in contexts where these clauses are taken as non-dominant, the rules for interpreting tautological complements as open sentences transform these complements into referring expressions which pick out states of affairs in the real world, in accordance with the above mentioned rules for fixing the values of the free variable in the open sentences. The result is a non-tautological statement in which the matrix sentence attributes a property to the state of affairs referred to by its complement. In (136), the property denoted by the main VP ‘disturbs me’ is asserted with respect to the fact that Jerry has his actual height. In (137) the property of being regretted by Sam is attributed to the state of affairs in which Jerry possesses his actual height. However, when tautological complements are read as non-dominant and not interpreted as open sentences, they

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\(^{41}\) Huddleston (1971) attempts to account for the difference between tautological and non-tautological reading of sentences like (131) by claiming that in the case of the latter the sentential complement is “presupposed”, while in the former it is asserted. In our theory, the critical distinction is not between assertion and presupposition but between the use of the complement as an assertion making expression and as a referential expression. Moreover, the interpretation of the complement as a referential expression is a necessary but not a sufficient condition for obtaining the non-tautological reading. In order to derive this reading we must also interpret the complement as an open sentence in the manner indicated.
refer to the states of affairs which they express outside of such environments. As these states of affairs correspond to tautologies, the matrix sentences are interpreted as attributing properties such as those indicated by 'disturbs me' and 'John regrets that' to logical facts. The result is an anomalous reading. When tautological complements are taken as dominant, as in

(139) *If the current president was the president, he would be popular.

they function as assertion-making expressions and so can only be interpreted tautologically. In (139) the matrix sentence asserts a counter-factual connection between the assertion that a logical fact holds and the claim that the president is popular.

The crucial point here is that it is only when embedded sentences are taken as non-dominant that they can be used to refer to states of affairs and, therefore, it is only in environments where they can be non-dominant that it is possible to apply the rules which yield non-tautological readings. We have not given a precise formulation of these rules. But we have given a rough characterization of them and indicated how they operate. Moreover, we have provided an explanation for the correlation between factual readings and non-dominance by showing why the rules which give these readings can only apply to sentences which are regarded as non-dominant.

4. In conclusion, we have defined dominance as a discourse notion and shown that it is possible to account for both specific syntactic and semantic facts within the framework of theories which make essential use of this notion. We believe that future research will show that it is possible to fruitfully apply dominance and other related discourse concepts to a wide range of linguistic phenomena. The most important advantage which we wish to claim for our approach is that it affords the possibility of understanding structural features of natural languages in terms of the functions which they can be used to perform in discourse.
REFERENCES


GRICE (1957), Meaning in the Philosophical Review Vol. 66.


GUNDEL, J. (1977), Role of topic and comment in linguistic theory. Indiana Linguistics Club.


Ziv, Y. (1975), On the Relevance of Content to the Form-Function Correlation (An Examination of Extraposited Relative Clauses). In CLS Volume on Functionalism.