Pragmatics and grammar: Motivation and control

Robert A. Dooley
SIL-UND

PRAGMATICS AND GRAMMAR: MOTIVATION AND CONTROL

Robert A. Dooley

1 Introduction

Much of what has been done as "pragmatics" has dealt with utterance interpretation, that is, with the influence of context on meaning. Relatively little has been said about the interaction between context and form. As a result, there is much we do not know about how pragmatic phenomena relate to the grammar of a language. The present paper makes three points in this regard: (a) it is not anomalous for there to be pragmatic phenomena encoded in the syntax and controlled by the grammar; (b) it is not anomalous for there to be pragmatic phenomena encoded in the syntax which show little or no grammatical control; and in general, (c) for pragmatic phenomena encoded in the syntax, grammatical control can be present in different degrees and in different ways.

Point (a) is not particularly controversial in principle, as the brief survey of the status of pragmatics and pragmatic phenomena in current linguistic theory (Sect. 2) should make clear. Point (b) is illustrated in Sect. 3, and (a) and (c) in Sects. 4 and 5. Examples are drawn primarily, but not exclusively, from languages of lowland South America. The phenomena under discussion are ordered according to roughly increasing degrees of grammaticalization. Sect. 6 provides a concluding discussion.

This paper, then, is of the genre that deals with external explanations for certain syntactic facts. Hyman (1984:67) gives the distinction between internal and external explanations as follows: "an internal explanation will propose an account in terms of the nature of syntax itself, while an external explanation will attempt to relate the syntactic problem to phenomena outside the realm of syntax (e.g. semantics or pragmatics)". But even though the focus of this study is on external explanations, it assumes that there are syntactic phenomena which require internal explanations, and that such explanations constitute the realm of grammar. The point being made is that along with internal explanations, or in some cases in lieu of them, there is a need for external explanations. Whether or not one deals with external explanations depends in part on the kind of linguistic description he is interested in, and in part on the kind of phenomena he chooses to examine.

2 Pragmatics in relation to semantics and syntax

Pragmatics is notoriously hard to define. There are at least four main problems. One is that there are many different ways to slice the linguistic pie into such things as pragmatics, semantics, and syntax, and each person tends to have his own way of doing it. A second difficulty is that pragmatics is often defined in terms of adjacent "pieces" of the pie (semantics and morphosyntax), and there is no general agreement on the domain of these adjacent pieces. The third problem in coming up with a neat linguistic distinction is that there may be no corresponding neat distinction in the reality of language; the interface between pragmatics and other subareas of language may be intractably fuzzy. And the fourth difficulty is the fact that, since so many different things have been discussed under the rubric of pragmatics, it may not constitute a unified or natural field of study at all; see, for example, discussion in Verschueren 1987. Nevertheless, there is general consensus that pragmatics deals with what John Gumperz calls "contextualization phenomena" (Verschueren 1987:26), different ways in which the context of an expression interacts with its form or interpretation.

2.1 Early definitions of pragmatics

Early pioneers in defining pragmatics were Charles Morris and Rudolf Carnap. Their strategy, which in broad outline has been followed up to the present, was to distinguish it from syntax on one hand and semantics on the other. The following is taken from the introduction of Searle, Kiefer, & Bierwisch 1980:

> According to Morris's earliest formulation of this distinction (1938), syntactics studies "the formal relations of signs to one another". Semantics studies "the relations of signs to the objects to which the signs are applicable". And pragmatics studies "the relations of signs to interpreters". But this

distinction between pragmatics and semantics is very unsatisfactory. For example, taken strictly, the above definitions would have the consequence that pragmatics is a branch of semantics, since signs are clearly "applicable" to interpreters. Morris later modified this definition, and redefined pragmatics as "that branch of semiotics which studies the origins, the uses, and the effects of signs" (1946). Carnap (1942), following Morris's earlier position, gave the following definition, which has proved influential to subsequent authors: "If, in an investigation, explicit reference is made to the speaker, or to put it in more general terms, to the user of the language, then we assign it to the field of pragmatics... If we abstract from the user of the language and analyze only the expressions and their designata, we are in the field of semantics. And if, finally, we abstract from the designata also and analyze only the relations between the expressions, we are in [logical] syntax. The whole science of language, consisting of the three parts mentioned, is called 'semiotics'" (p. viii).

2.2 The interface between pragmatics and semantics

Many subsequent treatments of pragmatics have been largely concerned with the interface between pragmatics and semantics. Searle, Kiefer, & Bierwisch state three conceptualizations of pragmatics which differ according to which view of semantics is being assumed (pp. ix-xi). First, against a background of formal philosophy and logic in which an expression's interpretation is given in terms of entities it denotes in some world, pragmatics is concerned with how an expression's interpretation can depend on the particular context of its use. This point of view is represented "classically" by Carnap and more recently by Stalnaker (1972). Second, against a semantic theory in which an expression can have both a context-free, literal meaning (its sense) and a context-dependent meaning, pragmatics is concerned with how speakers and hearers arrive at context-dependent meanings. Katz (1977) and Sperber & Wilson (1986) represent this viewpoint. Third, in the tradition of Austin (1962), Grice (1968, 1975, 1978), and Searle (1969, 1975, 1976), where the focus is upon speech acts and illocutionary force, the idea of context-free meaning is fictitious. On this view there is no semantics apart from pragmatics; all meaning involves the use of contextual conditions. This is "radical pragmatics" of a rather absolute type (Cole 1981).

The above sketch illustrates that, in many treatments of pragmatics, the focus has been very much on meaning and interpretation -- the interface of pragmatics with semantics. Thus, pragmatics has been defined as "meaning minus truth conditions" (Gazdar 1979:2), "the study of meaning in relation to speech situations" (Leech 1983:6), "the study of the interpretation of utterances" (Sperber & Wilson 1986:10), and "meaning minus semantics" (Roland Posner, cited in Verschueren

1987:14). This focus is not surprising, given the many interesting and important questions in this area, and given the interest in illocutionary force and utterance interpretation that has given impetus to the study of pragmatics from Austin 1962 until the present. Nevertheless, during this period the interface between pragmatics and syntax has generally been overlooked.

2.3 The interface between pragmatics and syntax

I follow Fillmore in a view of pragmatics which allows for an active interface with syntax as well as with semantics: "Syntax... characterizes the grammatical forms that occur in a language, whereas semantics pairs these forms with their potential communicative functions. Pragmatics is concerned with the three-termed relation that unites (a) linguistic form and (b) the communicative functions that these forms are capable of serving, with (c) the contexts or settings in which those linguistic forms can have those communicative functions. Diagrammatically,

Syntax   [form]
Semantics   [form, function]
Pragmatics [form, function, setting]"
    (Fillmore 1981:144).

While this formulation requires some amplification (the phrase "communicative function", for example), it clearly provides for an interface between pragmatics and syntax, since it includes linguistic form as one of the factors with which pragmatics deals. Fillmore has more recently made reference to this kind of interface: "The proposal I want to support is that there are many linguistic structures that appear to be dedicated to specific pragmatic purposes... there are a lot of grammatical constructions, there are lots of lexical items in particular grammatical contexts, that require for their interpretation an anchoring in some kind of a real situation; and beyond that there is a whole lot of pragmatics that is not connected with grammar" (Verschueren 1987:18, 43). That is, "some syntactic facts require semantic and pragmatic explanations and... some semantic facts require pragmatic explanations" (Fillmore, 144).

The notion of context, or setting as Fillmore refers to it, is generally recognized as being central to pragmatics. Gumperz (Verschueren 1987:26), in fact, prefers the term "contextualization phenomena" to "pragmatic phenomena". As Parrett (op. cit., 12) points out, "context is a very vague concept... there are existential contexts, psychological contexts, there are situational contexts", as well as linguistic contexts. Furthermore, as Gumperz notes, "there are some people who look at context as pre-existing the interaction. There are some people who look at context as emerging in the interaction. Some people think both views are valid" (op. cit., 47). For the purposes of this paper, the relevant context of a given expression in a given

instance is understood to comprise those factors which are external to it and interact with its form or interpretation (cf. Leech 1983:13).

2.4 Externally motivated phenomena encoded by grammar

The interface between pragmatics and syntax raises the question as to whether or not formal grammatical structures can be motivated by language-external, real-time phenomena. By "real-time" I am referring to discourse and other phenomena which motivate linguistic usage in particular instances, not merely those which have operated diachronically. That is, here my focus is not on "the functional explanation [which] applies on the evolutionary level -- either the evolution of the organism or the language" (Chomsky 1980:23). In regard to external, real-time phenomena, two extreme positions may be stated:

(a) formal grammatical structures are NEVER a result of
    real-time externally motivated phenomena;

(b) ALL structural phenomena in language are the result of
    real-time externally motivated phenomena.

Both positions (a) and (b), although they had in the past, and may still have adherents, are largely straw men in current linguistic debate. Against position (a), Chomsky (1975:56ff) states: "Surely there are significant connections between structure and function; this is not and never has been in doubt... Where it can be shown that structures serve a particular function, that is a valuable discovery." One example of Chomsky's own work in this regard is his study of focus-presupposition phenomena (Chomsky 1971:200ff). Newmeyer (1983:11f) makes a similar statement: "No generativist denies the interest of determining the discourse function (if any) of a particular syntactic construction or constraint... No generativist, to my knowledge, has ever disparaged the study of the interaction of form and function." Against (b), Givon (1979:82) states: "Rather than wind up with a formal and autonomous level of structural organization in language, we do indeed find syntax to be a DEPENDENT, functionally motivated entity whose formal properties reflect -- perhaps not completely, but nearly so -- the properties of the explanatory parameters that motivate its rise." Of interest here are the words "perhaps not completely" and Givon's recourse to non-real-time explanatory parameters.

The difference, then, between formalists and functionalists is not that one is at the opposite end of the spectrum from the other; nor does the difference turn on whether externally motivated phenomena exert historical influence on linguistic structure. The difference, rather, is that generativists see the influence of externally motivated, real-time phenomena as slight, while functionalists see it as more or less pervasive. Speaking of the system of grammatical rules for a language, Chomsky (1982:115) says, "The thesis of autonomy of syntax says that this system is pretty well self-contained. Undoubtedly, the system

interacts with other systems, but the interaction is more or less at the periphery." Similarly, Newmeyer (1983:111): "though we might find correlations between grammatical structures and their discourse functions, we only rarely find direct reflections of the latter by the former." The position of Givon, towards the other end of the scale, has already been cited. The question of whether the influence of such factors is at the periphery or the core of language is an empirical one which at the present has no generally accepted answer.

Thus, while not minimizing the important differences between generative and functionalist paradigms, I simply note here that even in the formal framework, it is in principle not anomalous for certain pragmatic phenomena to be grammaticalized.

2.5 Types of interaction between grammar and pragmatics

A useful distinction can be drawn between grammar and (morpho)syntax. I take the term "grammar" to refer to the body of system-internal rules which controls large portions of morphosyntax, phonology, and perhaps semantics. Thus grammar is, by definition, taken to deal with internal explanations in Hyman's (1984) sense. With this understanding, I will illustrate here that not all of morphosyntax need be controlled by grammar; a certain amount may be controlled directly from syntax-external considerations, such as from the area of discourse-pragmatics. Another way to state this would be to say that not all syntactic regularity or all rules of syntax, need be grammatical. To the extent that this is so, we use "autonomous" as a restrictive modifier when we speak of autonomous (morpho)syntax. Extralinguistic factors can influence morphosyntax both through the mediation of grammar, as noted by Chomsky and Newmeyer, or more directly, as will be illustrated, in lieu of grammar. In regard to a given syntactic phenomenon, it is always appropriate to ask whether it is best described grammatically or by an external explanation; in many cases, it is profitable to identify aspects of a phenomenon which lend themselves to one kind of description, and others to a different sort.

In the following sections I examine several different pragmatic phenomena and their interactions with grammar. By "pragmatic phenomena" I have in mind morphosyntactic phenomena which reflect real-time, pragmatic considerations; specifically, I will be dealing with motivation generally referred to as "discourse-pragmatic". Certain of these phenomena (Sect. 3) involve no apparent grammaticalization; they affect morphosyntax directly, without appreciable recourse to the mediation of grammar. Other pragmatic phenomena (Sect. 4) are externally (pragmatically) controlled part of the time, and internally (grammatically) controlled part of the time. Still others (Sect. 5) are fully grammaticalized, even to the point (Sect. 5.2) where real-time original pragmatic motivation cannot be consistently maintained.

3 Pragmatic phenomena with little or no grammaticalization

Here I illustrate the claim that not all of syntax is under grammatical control, and specifically that there exist pragmatic phenomena with little or no apparent grammatical control. Instances of this are predictably hard to come by, since "the driving force of grammar is to get control of whatever it can" (Hyman 1984:80); grammar tends to act as if all of syntax lay in its rightful sphere of influence. This can perhaps be understood in light of the natural human tendency to conventionalize, and even prescribe, things which are done frequently.

The illustrations in this section are from two Brazilian languages of the Tupi-Guarani family: Mbya Guarani and Wayampi.

3.1 Mbya hearsay particle

In Mbya, the basic word order is SVO and the basic or neutral pragmatic configuration is Topic-Comment. There exist other, special-purpose configurations which are used only under certain specifiable discourse conditions; these include Focus-Presupposition and a type of Topic-Comment configuration in which the Topic is given phonological salience. For more on pragmatic configurations in Mbya, the reader is referred to Dooley 1982, 1987a.

The division of an utterance into components such as Topic, Comment, Focus, and Presupposition is signalled by a variety of means. Among these are boundary phenomena such as an intonation break, pause, and the occurrence of certain particles which function as "spacers". Spacers are typically unstressed clitics of one or two syllables; semantically, they are sentential-scope operators signalling such things as mood (including evidentiality), tense, or aspect. Their positioning within the sentence is a pragmatic phenomenon: they are placed so as to indicate a constituent boundary in the pragmatic configuration of an utterance (Dooley 1982; 1987a; 1987b, Sect. 4.2). Their effect as spacers is due to their positioning plus their phonological and semantic properties, all of which combine to suggest a break in processing between message units (Osgood & Sebeok 1954:52, Haiman 1985:105).

One such spacer particle is **je** 'hearsay'. As with other Mbya spacers, it cliticizes to some grammatical phrase which is a clause constituent. Granting this grammatical control on the phrase level, the evidence I will present shows that the sentence positioning of **je** -- the fact that it attaches to one expression rather than to another -- is due to discourse-pragmatic factors rather than any apparent rule of grammar. For an overall view of pragmatic configurations in Mbya, the reader is referred to Dooley 1982.

In 1, **je** separates Topic from Comment:

(1)   Context: A hawk (unrecognized as such) was buying
        chickens from local farmers. He told the farmers
        that he would come to get them one by one, and that
        he didn't want them enclosed. He left, and
        afterwards when other farmers asked what had
        transpired, the farmers who had talked with the
        hawk said:

        -Topic-   -------Comment-------
        uru   je nha-mboty   eme
        chicken HSY 1+2-enclose NEG.IMPER
        'In regard to the chickens, as he said, let's not
        enclose them.'

Ex. 1 shows a fronted direct object **uru** 'chicken' as Topic, here a
resumptive topic of conversation. The particle **je** occurs "in the cracks"
between Topic and Comment.

In 2 **je**, in combination with the aspect enclitic **tema**
'continuously', occurs between Focus and Presupposition:

(2)   Context: A group of Mbya were on a long journey.

        ---Focus----   --Presupposition-
        ka'aguy anho tema je o-axa o-je'oi-vy
        woods   only CONT HSY 3-pass 3-go.PL-SER
        'They were only going through woods' [in contrast
        to open roads and fields].

In 3, **je** follows a sentence-initial connective, which is another
type of pragmatic component in Mbya:

(3)   Context: The local "chief of police" had sent his
        men out to lie in wait at every crossroads for a
        certain wanted man.

        Connective-   Topic ------Comment-----
        ha'e rire je Ø   o-arõ o-kua-py
        3.ANA after HSY Ø   3-wait 3-be.PL-SER
        'After that, they all waited for him.'

In 3, the subject 'they', represented by zero anaphora, is treated as an
unmarked (not especially informative) Topic.

For the examples presented thus far, one could posit not one but
two possible grammatical rules for the sentence positioning of **je**:
either in second position in the sentence, or preceding the main verb.
It turns out, however, that Mbya has no items whose positioning can be

described in either of those ways, and the following examples show that something further is happening with **je**. In 4, it occurs after a Setting expression which is itself in second position:

(4)   Context: A woman and her brother, in danger, were having to flee to another location.

```
Connective- --Setting--      Topic -Comment-
ha'e rire  o-vaê    râ je Ø      o-porandu
3.ANA after 3-arrive DS HSY Ø      3-ask
'Afterwards when they had arrived, they [the people
of that place] asked: ["Why have you come?"]' (7:29)
```

In 5, **je** occurs both after an initial connective 'after that' and between Focus and Presupposition:

(5)   Context: The preceding paragraph spoke of a group of Mbya travelling for one day. The following sentence begins a new paragraph:

```
Connective-      -----------Focus---------
ha'e rire  je peteî jaxy ha'e javi re  je
3.ANA after HSY one    moon 3.ANA all  for HSY

---Presupposition--
o-guata o-je'oi-vy
3-travel 3-go.PL-SER

'After that, it was for a whole month that they
travelled.'
```

6 has four occurrences of **je**:

(6)   Context: Text-initial sentence: 'Once a certain man went to the woods and saw a lot of wild game animals.' Second sentence:

```
--Conn--       -----------Setting-----------
ha'e vy je o-juka ta       o-iko-vy jave je
3.ANA SS HSY 3-kill about.to 3-be-SER when HSY

-----------Setting-----------      --Setting--
peteî ava o-vaê    ha'e py vy je ij-ayvu  vy je
one    man 3-arrive 3.ANA in SS HSY 3-speech SS HSY

Topic ------Comment------
Ø      aipo-e'i   ix-upe
ANA    thus-3.say 3-DAT
```

'And so, just as he was about to kill them, a
certain man arrived there, and he [the second man]
spoke up and said to him: ["Don't kill them."]'

Note that the second occurrence of **je** in 6 is not juxtaposed to any
verb. There does not appear to be any theoretical limit to the number of
occurrences of **je** in a sentence, but all occurrences take place at
boundaries in a plausible pragmatic configuration, plausible with
respect to the flow of information in that context. Of the grammatical
rules which have been found for particle positioning in lowland South
American languages (Dooley 1987b), none account for the the placement of
je in Mbya. It can be concluded that its placement in the sentence is a
pragmatic phenomenon which shows no apparent grammaticalization: it is
due to the direct influence of pragmatic motivation on the syntax.

3.2 Wayampi main clause word order

Thompson (1978) makes the point that "some languages utilize
predicate-argument order primarily for pragmatic purposes, and some
primarily for grammatical purposes. There are also languages which use
predicate-argument order for both purpose[s] without giving priority to
either" (20). She cites Russian and Mandarin Chinese as languages with
basically pragmatic word order; in those languages, "the known
information tends to be placed sentence initially and the new
information sentence finally" (21). In such languages, the overall
ordering of sentence elements is largely a pragmatic phenomenon, not
controlled by the grammar.

A language whose word order has come under study for similar
reasons is Wayampi of northern Brazil (Jensen 1980, Payne 1987). In
Wayampi, however, pragmatic categories are manifested in word order in a
different way: in main clauses, items which the speaker is presenting as
particularly new or informative precede the verb, while less informative
items follow it. More specifically, "items precede the verb when:
(a) the speaker instructs the hearer to establish a new cognitive file,
    or entry, for the item, relative to the universe of discourse;
(b) the speaker instructs the hearer to establish the item as a major
    topic for the ensuing discourse, in contrast to whatever has been
    the major topic up to that point;
(c) an already-established major topic will precede the verb if it
    occurs in a restatement clause which closes a thematic discourse
    unit...;
(d) the information is highly pragmatically marked.

Items otherwise follow the verb when:
(e) the hearer is not instructed to establish a new cognitive file,
    either because such a file has already been established, or because
    the speaker anticipates it will not be needed. Specifically
    included are items which the speaker assumes are already

identifiable to the hearer, and some non-referential entities" (Payne 1987).

The influence of pragmatics on main clause word order in Wayampi is illustrated in 7 by a portion of a text describing various kinds of birds (Jensen 1980):

(7) a. mytõ   ywy-rupi-te   oata   **S** V
         mutum ground-along-only 3.walk
         'The mutum (currasow) walks only along the ground.'

    b. oke-ta   reme-te   wate ojupi   V
         3.sleep-FUT when-only above 3.climb
         'Only when it is going to sleep, it
         climbs up above.'

    c. owewe wate   V
         3.fly above
         'It flies above.'

    d. wate-te   mytõ oke   **S** V
         above-only mutum 3.sleep
         'The mutum sleeps only up above.'

    e. ywyra 'a   o'u   mytõ   O V **S**
         tree fruit 3.eat mutum
         'The mutum eats fruit from trees.'

    f. ka'a   ro   o'u   mytõ   O V **S**
         jungle leaf 3.eat mutum
         The mutum eats jungle leaves.'

    g. pira o'u   O V
         fish 3.eat
         'It eats fish.'

    h. mytõ o'u   **S** V
         mutum 3.eat
         'The mutum eats them.'

    i. jakami iwowe   **S** V
         jacamim likewise
         'The jacamim is the same way.'

Sentences 7a-h constitute a paragraph about the mutum, and 7i begins a new one about the jacamim. (In the indication of the order of the major clause constituents that is given to the right of each example, the one referring to the mutum is in boldface.) The preverbal position of **mytõ** 'mutum' in 7a indicates the speaker's instructing the hearer to establish a new cognitive file for it (Payne's point (a) above), and

also to establish it as a major topic for the ensuing part of the discourse (point (b)). Once so established, it reverts to postverbal position (point (e)) or nonphrasal representation in 7b-g. 7d appears to be an exception to this, but it could also be an instance of closing a small thematic unit (point (c)), one consisting of the three sentences 7b-d and dealing with where the <u>mutum</u> sleeps. In 7h we find another preverbal occurrence at the end of perhaps two coterminous thematic units: 7a-h about the <u>mutum</u> in its different habits, and 7e-h specifically about what it eats. In 7i, where begins a thematic unit about the <u>jacamim</u>, **jakami** is found in preverbal position. In 7e-g, preverbal position is accorded to the three items which the <u>mutum</u> eats: **ywyra** **'a** 'fruit from trees', **ka'a ro** 'jungle leaves', and **pira** 'fish'. These three items can be considered "highly pragmatically marked" (point (d)) in the sense that they constitute the most informative elements of their respective utterances.

Other examples of highly pragmatically marked information in preverbal position include contrast (ex. 8a-b) and the answers to information questions (9b) (each of these two examples is composed of contiguous text material; Jensen 1980):

(8) a. jimi'apuku jaopy
         long.flute we.play
         'We play a long flute.'

    b. takwari   papa   opy
        small.flute father plays
        'Father plays (by contrast) a small flute.'

(9) a. mope-kyty   wyi poko owae   uu?
         where-place from Q   3.arrive come
         'Where did he come from?'

    b. kyty wyi   te   uu
        place from only come
        'He came from right there.'

Although a full analysis of word order in Wayampi is not currently available, and there is some evidence that SVO or (particularly) SOV, or both, may have a more basic status than other orders (Jensen 1980), facts such as those presented above indicate that discourse-pragmatics is the major motivating factor for word order in main clauses. Subordinate clauses are consistently (S)OV (ibid.).

4 Pragmatic phenomena with partial grammaticalization

The linguistic picture would be simpler if pragmatics and grammar acted separately and independently upon morphosyntax. However, such is not always the case. Given a view of grammar as a type of conventionalization (Givon 1979, Dooley 1983), it is not surprising that

we find pragmatic phenomena which are grammaticalized in different ways and to differing degrees. This section provides three illustrations of partial grammaticalization of pragmatic phenomena. Sect. 5 illustrates grammaticalization of a more complete kind.

4.1 Mbya future marker

One way that grammaticalization can be seen as partial is by operating on a part-time basis. That is, something may be a pragmatic phenomenon and under more or less complete pragmatic control part of the time, and a nonpragmatic phenomenon under grammatical control the rest of the time. This is the case with the positioning of the Mbya Guarani future tense marker **va'erá** and its contracted form **'rá.**

In Mbya, **va'erá** occurs in the verb phrase following the main verb:

(10)   ko'ê rá ja-vy'a   va'e-rá ja-kua-py
            dawn DS 1+2-be.happy REL-FUT 1+2-be.PL-SER
            'Tomorrow we will celebrate together.'

When the speaker is expressing strong interpersonal feeling -- lack of patience, for example -- the contracted monosyllabic form **'rá** can be used instead:

(11)   Ne-kane'ó vy nd-ere-o-ve-i   'rá.
            2SG-tired SS NEG-2SG-go-more-NEG FUT
            'When you get tired, you won't go on any farther'
            (said in a disparaging way).

(12)   Ha'e rami teí xee a-a   tema 'rá.
            3.ANA like but 1SG 1SG-go CONT FUT
            'Even so, I'll keep right on going'
            (said in reply to an utterance like 11).

Both **va'erá** and **'rá** are unstressed enclitics.

When **va'erá** and **'rá** occur in the verb phrase after the main verb, they are occurring in a position which is grammatically determined and can be described in terms of grammatical categories. Consider, however, the sentences of 13:

(13)   Context: A young lady was to throw a flower to
            indicate her choice of a husband. Her sisters were
            to do the same. At different points in the text,
            she told both her mother and her sisters which
            young man was her choice:

```
a.  Topic    (-----------Focus---------     --Presup-)
    xee  ko  pe-va'e    ae  re  rive    'rá  a-mombo
    1SG  OP  nearby-REL EXA at merely FUT 1SG-throw
    'As for me, I'll throw [mine] merely at that one.'


b.  -------Focus--------         (Top (Topic  -Comment-))
    pe-va'e     re  rive    'rá  ko  xee  yvoty  a-mombo
    nearby-REL  at merely FUT OP 1SG   flower 1SG-throw
    'It's merely at that one that I will throw my
    flower.'
```

In neither 13a nor 13b does the future marker **'rá** occur in its grammatically determined postverbal position. Rather, it is positioned as a spacer to help indicate constituent boundaries in the pragmatic configurations that are labelled. The enclitic **ko**, which indicates that the speaker recognizes that what is being said reflects a personal viewpoint, is also used as a spacer. The difference between **'rá** on one hand and **ko** and **je** (Sect. 3.1) on the other, is that whereas the latter two are always spacers, the task of positioning **'rá** is split between grammar and pragmatics. There is a grammatically determined position in which it occurs when it is not particularly needed as a spacer; but when pressed into service by pragmatics, it functions as a spacer. When the Mbya future marker is used in this way, it is always the contracted form **'rá** which occurs. As a result, when **'rá** is used as a spacer, it is not capable of encoding the nuance of strong feeling that it does when in paradigmatic opposition with the longer form **va'erá** in postverbal position. In 14, another sentence from the same text as 13 but spoken by one of the sisters, the future marker **'rá** is not employed for pragmatic ends, hence occurs in its grammatically determined position:

```
(14)     ----Focus----  (Top  ---Comment---)
         pe-va'e     re ko xee  a-mombo    'rá
         nearby-REL  at OP 1SG  1SG-throw FUT
         'It's at that one that I will throw mine.'
```

Sentences 13a, 13b, and 14 have essentially the same semantic content. In 13a, however, the top-level pragmatic configuration (Topic-Comment) indicates a "double-focus" contrast whose nodes of origin are the speaker and her sister. In 13b, the top-level configuration shows "single-focus" contrast, pointing out the young man at which the speaker was going to throw her flower. The configuration which is on the top level of structuring in one is shown at an embedded level in the other. In this way, both kinds of contrast are coded in both sentences. Example 14 is similar in its pragmatic configuration to 13b, though simpler.

4.2 Hixkaryana hearsay particle

In Hixkaryana, a Carib language of northern Brazil, the positioning of the hearsay particle is similar to that of the future marker in Mbya

Guarani (Sect. 4.1), in the sense that two types of positioning are involved: one type, in the verb phrase, is grammatically determined and gives no evidence of pragmatic motivation; the second type, as a spacer to indicate a boundary in the pragmatic configuration of an utterance, is fully motivated pragmatically. In this way, pragmatic motivation of sentence positioning operates on a part-time basis. But whereas the positioning of the Mbya future marker as a spacer is not describable by a grammatical rule, the positioning of the Hixkaryana hearsay particle as a spacer can, in fact, be thus described: it occurs in clause-second position.

In Hixkaryana there are five evidential enclitics (called "verification particles" in Derbyshire 1985), each of which has both of the two types of positioning described above: **ti** 'hearsay', **na** 'uncertainty', **mpini** 'certainty / prediction / warning', **we** 'opinion / recollection / counteraffirmation', and **mpe** 'positive doubt, scepticism'. "The basic order of constituents is OVS, with adjuncts normally following the subject. There is an optional rule which moves the subject or an adjunct to the clause-initial position for purposes of emphasis" (74f). When an evidential occurs, "it is often placed in the verb phrase, which may or may not be the initial phrase of the sentence; however, when a subject or adjunct phrase is fronted for emphasis, the verification particle is usually placed in that initial phrase" (129). In 15a, **ti** 'hearsay' (along with **ha** 'intensifier') occurs in the verb phrase; in 15b, it occurs with a locational adjunct which is "fronted for emphasis":

(15) a. mana yonahyatxkon hati, ohoryen   heno komo
         manna they-ate-it HSY   your-ancestor dead COLL
         'Your ancestors ate manna.'

     b. Emphasis   ----Remainder of utterance---
         ito   ti nehxakon ha   kamara yohi
         there   HSY he-was   INTENSFR jaguar chief-of
         'The jaguar chief was there.' (147)

In 16 it is a grammatical subject which is "fronted for emphasis" and followed by **ti**. The context is provided in Derbyshire 1986:

(16)   Context: The sentence preceding indicated that the
        sloth was not in the village where he might have
        been expected to be. That sentence, in which the
        sloth is referred to by a pronoun, together with
        the following one, reintroduces the sloth into the
        discourse:

        Emphasis   Remainder of utterance
        xofrye   mah   ti ehxera n-ehxakoni
        sloth   CTEXP HSY be.NEG 3S-be+DP
        'The sloth was not there.'

In discussing 16, Derbyshire states that "the clause-initial, preverbal subject noun phrase [**xofrye** 'sloth'] is a grammatical device that correlates with the semantic factors to indicate that there is some sort of thematic break at this point" (1986:250).

Pragmatic motivation of second positioning is not surprising, since sentence-initial position is often a highly significant one for discourse-pragmatic reasons: the fronting of informative Topics and Focus expressions, for example, is highly universal cross-linguistically (see papers in Givon 1983; Dayley 1985). As Steele puts it, "the tendency of modals, specifically, to sentential second position is a function of the importance of first position" (1975:238).

The Hixkaryana hearsay particle **tɨ**, then, has two sentence positions, both of which can be described separately by a grammatical rule. The overall positioning of **tɨ** is only partially grammaticalized, however, since the choice between those two positions is made on pragmatic rather than grammatical grounds: **tɨ** is pulled out of the verb phrase and placed after a fronted element when it is desired there as a spacer, to highlight the constituent division in a marked pragmatic configuration.

4.3 Hixkaryana afterthought elements

Basic word order in Hixkaryana has been featured in published studies for over ten years (see Derbyshire 1981, 1985, 1986, and references listed therein). Hixkaryana has "obligatory person-marking verb prefixes which agree with subject and object", a "consequent scarcity of noun phrase subjects and direct objects in most discourse contexts", and "OVS as its basic order in clauses that have subject and object noun phrases" (1986:280). When adjuncts occur, they normally follow the subject (1985:74). Breaking the OVS order into its subparts, Derbyshire states that OV is a very rigid order and VS is rigid to a fair degree, in the sense that "OV and VS can, and do, occur in all kinds of discourse-pragmatic environments" (1986:282).

In a comparative study involving other Carib languages, Derbyshire (1981) shows how the present OVS order in Hixkaryana can be seen as the result of drift from earlier SOV; the major motivation for the drift seems to be the grammaticalization of afterthought patterns (Hyman 1975). "Such patterns occur in probably all languages, without necessarily becoming grammaticalized. They occur where a speaker adds something after he has completed the main predication for the purpose of clarification, disambiguation or emphasis, or simply to supply information he had forgotten to include in the main part of the sentence. The afterthought element is phonologically dislocated from the main predication by pause and a new intonation contour, and this signals a highly marked order of sentence constituents. After a period of time, however, the afterthought element may become grammaticalized; that is,

it may become part of the intonation contour of the main predication, without pause, and with a new, relatively unmarked, ordering of syntactic elements" (Derbyshire 1981:216).

In Hixkaryana, the grammaticalization of afterthought elements is "fairly well developed" (1981:218), in the sense that "the normal position of a subject or adjunct phrase is to the right of the verb". There remains, however, "an option for the speaker to make them a part of the main intonation pattern of the clause or to dislocate them" (1985:78). Further, the phonological criteria are often unclear as to whether there is actual right dislocation or not (1986:240). In 17a there is a right-dislocated subject **xofrye** 'sloth', and in 17b non-dislocated final subject **toto heno komo** 'the (former) people'; in 18a there is a right-dislocated adjunct **atunano wya** 'by fever', and in 18b a non-dislocated final adjunct **rowya** 'to me':

(17) a.   noseryehokekoni, xofrye
           he.was.upset   sloth
           'The sloth was upset' (1986:245)

     b.   namryekyatxkoni   toto   heno komo
           they.went.hunting person dead COLL
           'The people used to go hunting' (1985:30).

(18) a.   ekeh   me   wehxaha, atunano wya
           sick.one DENOMLZR I.am   fever   by
           'I am sick with fever' (1985:34).

     b.   yawaka yimyako   biryekomo rowya
           axe   he.gave.it boy   to.me
           'The boy gave the axe to me' (1985:35).

In Hixkaryana, then, the pragmatic phenomenon of afterthought elements is grammaticalized sufficiently to establish OVS as the basic word order when full noun phrases are present, but when desired, the speaker can still present such elements as being less than fully integrated into the grammatical structure of the clause.

5 Pragmatic phenomena with more or less full grammaticalization

Pragmatic motivation can exist alongside partial grammaticalization (Sect. 4), or even alongside full grammaticalization. In the latter case, a grammatical rule for the phenomenon is adequate for formal description. What is the point, then, in considering the possibility of pragmatic motivation? There would be no point if one's goal does not go beyond formal description. If, however, it includes giving a description which models "the linguistic intuition of the native speaker" (Chomsky 1964:28) in regard to function as well as form, then all motivation is relevant which can be shown to be operative.

But if a formal rule works, what evidence could there be for system-external motivation? Two types of explanation might be possible. (a) One might be through analogy with phenomena in which the motivation must be recognized on empirical grounds, phenomena such as are described in Sects. 3 and 4. For example, since the pragmatic notion of spacer seems to be necessary to explain the positioning of certain particles in Mbya and Hixkaryana, it might be of interest to consider whether, in another language, certain particles whose positioning is describable in purely grammatical terms (such as second position, Sect. 5.2) could have a certain amount of pragmatic motivation as spacers (cf. Dooley 1987b). (b) A second line of evidence should take into account whether the motivation in question is consistently plausible for all occurrences of the phenomenon. If the argument from motivation shows "leaks", then the purported explanation is not observationally adequate, although pragmatic motivation may have been a factor diachronically. For a fuller discussion of "validating pragmatic explanations," see Nunberg 1981.

In this section, I present two phenomena which are fully grammaticalized. For the first of these, English WH-clefts, it is possible to furnish both of the above lines of evidence, so that full pragmatic motivation can be established; for the second, Dutch auxiliary placement, attempts fall short of that goal.

5.1 English WH-clefts

This section will illustrate that English pseudo- or WH-cleft constructions are fully motivated pragmatically as well as being fully describable grammatically. In this, I follow the analysis of Prince 1978.

Consider the following sentences:

(19) a. Carol's mom made a cake.

b. What Carol's mom made was a cake.

19a is the unclefted form and 19b a corresponding WH-cleft. (In the interests of simplifying the discussion, I am not considering here (it-)clefts such as **It was a cake that Carol's mom made.**) The two sentences in 19 have the same semantic content, but differ along pragmatic lines. The major difference is that 19b conveys a presupposition such as

(20)   Carol's mom made something,

whereas 19a conveys no such presupposition. We may speak of 19b as containing a WH-constituent (**what Carol's mom made**) and a predicate (**was a cake**). In a WH-cleft, the presupposition is conveyed by the WH-constituent; such a presupposition, according to Prince, is presented

as GIVEN, assumed to be in the hearer's consciousness at the time of the
utterance (903). Consider 21:

(21) a. "Nikki Caine, 19, doesn't want to be a movie star.
       WHAT SHE HOPES TO DO IS BE A STAR ON THE HORSE-SHOW
       CIRCUIT." (**Today,** 10/10/76, p. 44, cited in
       Prince, 887)

     b. ...SHE HOPES TO BE A STAR ON THE HORSE-SHOW
        CIRCUIT.

Both 21a and the more neutral 21b are acceptable in this context. But
consider a different context:

(22) a.? Guess who I ran into today — Nikki Caine! WHAT SHE
         HOPES TO DO IS BE A STAR ON THE HORSE-SHOW CIRCUIT.

     b. ...SHE HOPES TO BE A STAR ON THE HORSE-SHOW
        CIRCUIT.

The acceptability of the cleft construction in 22a sharply diminishes
when the context does not make obvious why the presupposition should be
presented as given.

Prince discusses subtle contextual conditioning of WH-clefts which
we will not go into. The point here is simply that WH-clefting
exemplifies a phenomenon which, although consistently motivated, can be
formally described as a grammatical phenomenon, without recourse to
motivation of any kind. It provides a rather straightforward
illustration of Chomsky's (1980) distinction between "grammatical
competence" and "pragmatic competence", "restricting the first to the
knowledge of form and meaning and the second to knowledge of conditions
and manner of appropriate use" (p. 224).

5.2 Dutch auxiliary placement

This final example differs from the preceding ones in that
pragmatic motivation cannot be consistently maintained. Examples up
until the present have been moving towards the grammaticalized end of
the scale for pragmatic phenomena; the following is just off that end of
the scale, since the pragmatic motivation it shows is partial and
incomplete.

The verb phrase in Dutch often contains more than one word: **heeft
geslagen** '(has) hit', **zijn vertrokken** '(have) left', **deed dicht** 'closed
(did close)', etc. The first word in a VP is always a finite verb, and
when the VP has more than one word, the first is an auxiliary verb. In
considering the placement of the auxiliary verb in the independent
declarative clause, I follow Kooij 1978.

According to Kooij, independent declarative clauses have 23 as an unmarked order of constituents:

(23)   S V1 ... O ... Compl V2 (...)

Here V1 is the first word in the VP, V2 is whatever may remain of the VP, and "Compl is a cover symbol for separable prefixes, directional adverbs, and predicative adjectives." Given 23 as an unmarked ordering, "the ordering of constituents in the Dutch sentence is rather free" (Kooij, 32).

A primary means of expressing this freedom is through fronting, that is, placing a nonsubject constituent in first position. When this is done, the subject moves to a position to the right of V1 (Kooij, 33). Consider the sentences of 24 (Kooij, 30):

(24) a.   Ik heb dat verhaal gisteren aan Wim verteld
          I have that story   yesterday to Bill told
          'I told Bill that story yesterday.'

     b.   Dat verhaal heb ik gisteren aan Wim verteld
          that story   have I yesterday to Bill told

     c.   Aan Wim heb ik gisteren dat verhaal verteld
          to Bill have I yesterday that story   told

     d.   Gisteren heb ik dat verhaal aa Wim verteld
          yesterday have I that story   to Bill told

24a has unmarked ordering. In 24b, the direct object is fronted; in 24c, it is an indirect object; and in 24d, a temporal adverb.

According to Kooij, there are three distinct situations in which a constituent can be fronted. Each is described in pragmatic terms: (a) when the constituent is an anaphoric, background expression; (b) when it is a sentential-scope expression of setting or modality; or (c) when it is a new or contrastive focus expression. Type (a) fronting can be illustrated by sentences 24b and 24c, in a context in which both the subject **ik** 'I' and the direct object **dat verhaal** 'that story' are backgrounded as given information, not presented as highly informative. Type (b) fronting can be illustrated by 24d. Another illustration of type (b) is the following (Kooij, 45):

(25)   Gelukking   deed Jan op tijd de   deur dicht
              fortunately did   John in time the door close
              'Fortunately, John closed the door in time.'

Type (c) fronting can be illustrated by the following sentences (Kooij, 36):

(26)   Hard heeft-ie niet gewerkt
              hard has-he   not   worked
              'He did not exactly work hard.'

(27)   Een auto hebben ze   gisteren aam Wim gegeven!
              a   car have   they yesteday to Bill given
              'It's a car they gave Bill yesterday!'

As the added accent marks indicate, fronted constituents of this type receive phonological prominence. Sentence 26 would be appropriate in a contrastive situation that could be paraphrased by 'You may claim that the boy worked hard, but I claim that he did not' (Kooij, 36).

Since fronting is common in Dutch (much more so than in English, Kooij, 40), and since it is also common for the auxiliary verb to follow the fronted element, it would not be unreasonable to ask if the placement of the auxiliary had pragmatic motivation. The question has more point when one compares the auxiliary element with Mbya and Hixkaryana spacer particles (Sects. 3.1, 4.1, and 4.2). Like spacer particles, Dutch (and many other) auxiliaries are typically short, unstressed elements with largely sentence-scope semantics (tense, aspect, and mood). Recall, as well, that spacer particles function as spacers just by means of these properties, along with one other: their positioning between components of a plausible pragmatic configuration (Sect. 3.1). In regard to type (c) fronting, Kooij states that the fronted focus elements "are, as it were, cut off from the rest of the sentence by intonation, and... by the finite verb" (p. 37). Let us, then, entertain the hypothesis that the placement of Dutch auxiliary verbs is pragmatically motivated, and that they function as spacers.

Notice first of all that in order to dismiss this hypothesis, it is not sufficient merely to make the point that the placement of Dutch auxiliaries is grammatically controlled, fully describable by grammatical rules. As we saw in Sect. 5.1, it is possible for full pragmatic motivation to coexist with grammatical control. Rather, we must show that the putative pragmatic motivation is not consistently the case; the pragmatic explanation leaks.

In the present case, that is not difficult to do. We simply observe that the auxiliary occurs following subjects or other constituents which cannot be plausibly maintained to be components in a pragmatic configuration. Consider, for example, dummy subjects (Verhagen, 179):

```
(28)      Er    sal  waarschijnlijk in november met  de
          there will probably       in November with the

          afwerking            worden begonnen
          finishing.touches get     started

          'Probably the finishing touches will start in
          November.'
```

It would be difficult to imagine motivation which would justify a dummy subject as a constituent in a pragmatic configuration.

There are two other considerations which mitigate against considering the auxiliary as a consistent boundary marker between pragmatically significant constituents. First, the second positioning for auxiliaries is but a subcase of a broader rule which says, "The finite verb invariably occupies the second position" (Kooij, 30). That is, a functional explanation for auxiliary placement would need to address the placement of finite verbs in general, and that would present even more difficulties, for example in regard to prototypical properties of spacers. Second, there is some evidence that modal adverbs regularly occur at the boundary between topic and comment. This point is made implicitly by Kooij (p. 35) and explicitly by Verhagen (1986:96ff). Consider sentence 29 (Verhagen, 98):

```
(29)      Marie zal  hem waarschijnlijk afwijzen
          Marie will him probably       reject
          'Marie will probably reject him.'
```

Here the position of the modal adverb **waarschijnlijk** 'probably' indicates that both **Marie** and **hem** are background material, not in the comment (the most informative part of the utterance), which consists only of **afwijzen** 'reject'. If this is so, it would be hard to maintain that the auxiliary **zal** indicates another kind of pragmatically relevant boundary.

We are left, then, with a leaky pragmatic explanation. It might be interesting to investigate whether pragmatic motivation was active diachronically in assigning the auxiliary to second position. It does seem likely that this positioning carries real-time pragmatic motivation in certain situations, such as type (c) fronting referred to above. But as a global explanation, it appears inadequate to say that real-time pragmatics provides motivation for the second positioning of Dutch auxiliaries.

6 Concluding remarks

In this paper I have attempted to show that (a) there are externally motivated -- specifically discourse-pragmatic -- phenomena which are encoded in the syntax and fully controlled by the grammar; (b) there are phenomena of this type which are encoded in the syntax but are only controlled by the grammar in some minimal sense; and (c) there are phenomena of this type which are encoded in the syntax and controlled by the grammar to varying degrees and in different ways. Thus, this study assumes a model of language description in which pragmatics and grammar can, on the one hand, compete for control of syntactic phenomena or, on the other, cooperate, to the extent that pragmatic motivation and grammatical patterning are mutually compatible.

The mere fact that grammaticalization of pragmatic phenomena takes place does not argue for a purely formal approach to syntax any more than it argues for a functional one; grammaticalization itself can often be seen as a particular instance of conventionalization, a phenomenon broadly observable in many aspects of human activity. On the other hand, the fact that there exist system-external explanations for certain syntactic facts cannot be taken to imply that other facts should not be explained internally, at least in the synchronic, real-time sense. Indirectly, then, a study of this kind constitutes an appeal for linguistic description that allows for both functional and formal approaches. Reductionism in either direction -- the positing of one model to the exclusion of the other -- though it might make for exciting polemics, lends itself to a caricature of language.

NOTES

1. I would like to acknowledge helpful suggestions given by a number of people in the preparation of this paper, particularly Albert Bickford, Des Derbyshire, and Gloria Kindell. In this regard I have two regrets: first, that time and geography have not allowed the input of others, and second, that in this paper it has not been possible to address all of the important issues raised by comments I did receive. Shortcomings remaining in the paper are, of course, my own responsibility.

2. This paper makes use of various sources of data, and only light editing was done on the glosses of examples, principally limited to formatting; the original authors' preferences were followed in matters of style and abbreviation. The following abbreviations occur:

ANA	anaphora
CONT	continuative
COLL	collective
CTEXP	contrary to expectation
DAT	dative
DENOMLZR	denominalizer
DP	distant past
DS	different subject
EXA	exactly
FUT	future
HSY	hearsay
IMPER	imperative
INTENSFR	intensifier
NEG	negation
OP	opinion of speaker
PL	plural
Q	question marker
REL	relativizer
SER	serial verb suffix
SG	singular
SS	same subject
1	first person
2	second person
1+2	first person plural, inclusive
3	third person

REFERENCES

Austin, J. L. 1962. How to do things with words. Oxford: Clarendon Press.

Carnap, Rudolf. 1942. Introduction to semantics. Cambridge, MA: Harvard U. Press.

Chomsky, Noam. 1964. Current issues in linguistic theory. The Hague: Mouton.

_____. 1971. Deep structure, surface structure, and semantic interpretation. Semantics, ed. by Danny D. Steinberg and Leon A. Jakobovits, 183-216. Cambridge: Cambridge University Press.

_____. 1975. Reflections on language. New York: Pantheon.

_____. 1980. Rules and representations. New York: Columbia University Press.

_____. 1982. The generative enterprise: a discussion with Riny Huybregts and Henk van Riemsdijk. Dordrect: Foris.

Cole, Peter, ed. 1981. Radical pragmatics. New York: Academic Press.

_____ and Jerry L. Morgan, eds. 1975. Syntax and semantics, vol. 3: speech acts. New York: Academic Press.

Dayley, Jon P. 1985. Why all languages aren't SOV or VOS, or How competing motivations lead to natural inconsistency. Proceeding of the Eleventh Annual Meeting of the Berkeley Linguistics Society, 52-64. Berkeley, CA: Berkeley Ling. Society.

Derbyshire, Desmond C. 1981. A diachronic explanation for the origin of OVS in some Carib languages. Journal of Linguistics 17:209-20.

_____. 1985. Hixkaryana and linguistic typology. Dallas: Summer Institute of Linguistics and Arlington: U. of Texas at Arlington.

_____. 1986. Topic continuity and OVS order in Hixkaryana. Native South American discourse, ed. by Joel Sherzer and Greg Urban, 237-306. Berlin: Mouton de Gruyter.

Dooley, Robert A. 1982. Options in the pragmatic structuring of Guarani sentences. Lg. 58.307-31.

_____. 1983. Grammaticalization: an introduction. Notes on Linguistics 28.4-12.

_____. 1987a. Basic configurations of pragmatic structuring. 1987 Work Papers of the Summer Institute of Linguistics, University of North Dakota session, volume 31, ed. by Desmond C. Derbyshire, 1-27. Grand Forks, ND: SIL.

_____. 1987b. The positioning of non-pronominal clitics and particles in lowland South American languages. Paper presented at the Working Conference on Amazonian Languages, U. of Oregon, Eugene, Oregon, August, 1987.

Fillmore, Charles J. 1981. Pragmatics and the description of discourse. In Cole, pp. 143-66.

Gazdar, Gerald. 1979. Pragmatics: implicature, presupposition, and logical form. New York: Academic Press.

Givon, Talmy. 1979. From discourse to syntax: grammar as a processing strategy. Syntax and semantics, vol 12: discourse and syntax, ed. by Talmy Givon, 81-112. New York: Academic Press.

_____, ed. 1983. Topic continuity in discourse: a quantitative cross-linguistic study. Amsterdam: John Benjamins.

Grice, H. P. 1968. Utterer's meaning, sentence meaning and word meaning. Foundations of Language 4:225-42.

_____. 1975. Logic and conversation. In Cole & Morgan, 41-58.

_____. 1978. Further notes on logic and conversation. Syntax and semantics, vol. 9: pragmatics, ed. by Peter Cole, 113-28. New York: Academic Press.

Haiman, John. 1985. Natural syntax: iconicity and erosion. Cambridge: Cambridge U. Press.

Hyman, Larry M. 1975. On the change from SOV to SVO: evidence from Niger-Congo. Word order and word order change, ed. by Charles N. Li, 113-48. Austin: U. of Texas Press.

_____. 1984. Form and substance in language universals. Explanations for language universals, ed. by Brian Butterworth, Bernard Comrie, and Osten Dahl, 67-85. Berlin: Mouton.

Jensen, Cheryl. 1980. Word order in Oiampi. ms, University of Oregon.

Katz, Jerrold J. 1977. Propositional structure and illocutionary force. New York: Crowell.

Kooij, Jan G. 1978. Fronting in Dutch. Studies in fronting, ed. by Frank Jansen, 29-51. Lisse: Peter de Ridder Press.

Leech, Geoffrey N. 1983. Principles of pragmatics. London: Longman.

Morris, Charles. 1938. Foundations of the theory of signs. International Encyclopedia of Unified Science, Vol. 1, No. 2. Chicago: U. of Chicago Press.

_____. 1946. Signs, language and behavior. New York: Prentice-Hall.

Newmeyer, Frederick J. 1983. Grammatical theory: its limits and its possibilities. Chicago: University of Chicago Press.

Nunberg, Geoffrey. 1981. Validating pragmatic explanations. In Cole, 199-222.

Osgood, Charles E. and Thomas A. Sebeok. 1954. Psycholinguistics: a survey of theory and research problems. IJAL, Memoir 10. Baltimore: Waverly Press.

Payne, Doris L. 1987. Meaning and pragmatics of order in selected South American Indian languages. Paper presented at Conference no. 105, Wenner-Gren Foundation for Anthropological Research, The Role of Theory in Language Description, Ocho Rios, Jamaica, Oct. 31-Nov.8, 1987.

Prince, Ellen F. 1978. A comparison of WH-clefts and it-clefts in discourse. Lg. 54.883-906.

Searle, John R. 1969. Speech acts: an essay in the philosophy of language. Cambridge: Cambridge U. Press.

_____. 1975. Indirect speech acts. In Cole & Morgan, 59-82.

_____. 1976. A classification of illocutionary acts. Language in Society 5.1-23.

_____, Ferenc Kiefer, and Manfred Bierwisch, eds. 1980. Speech act theory and pragmatics. Dordrecht: Reidel.

Sperber, Dan and Deirdre Wilson. 1986. Relevance: communication and cognition. Oxford: Basil Blackwell.

Stalnaker, Robert. 1972. Pragmatics. Semantics of natural language, ed. by Donald Davidson and G. Harman, 380-97. Dordrecht: Reidel.

Steele, Susan. 1975. On some factors that affect and effect word order. Word order and word order change, ed. by Charles N. Li, 197-267. Austin: U. of Texas Press.

Thompson, Sandra A. 1978. Modern English from a typological point of view: some implications of the function of wort [sic] order. Linguistische Berichte 54.19-35.

Verhagen, Arie. 1986. Linguistic theory and the function of word order in Dutch: a study on interpretive aspects of the order of adverbials and noun phrases. Dordrecht: ICG Printing.

Verschueren, Jef, ed. 1987. Concluding round table, 1987 International Pragmatics Conference. IPrA Working Document 2. Antwerp: International Pragmatics Association.