THE STRUCTURE OF INTONATIONAL MEANING

Evidence from English

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CHAPTER III

The Phonology of Deaccenting

1. The Concept of Relations

So far I have emphasized the perceptual aspect of the rhythm hypothesis: the acoustic nature of prominence may be explained in part by assuming that the physical realities are organized cognitively into a rhythmic structure, which in turn affects our perception of the physical realities. A more significant aspect of the idea for linguistic theory, as Liberman and Prince emphasize, is its focus on the concept of relations. Because of the success of segmentation in linguistic analysis, linguists have always attempted to see stress in segmental terms—either as actual segments (Trager–Smith stress ‘phonemes’), or as features of segments (Jakobson and Halle’s ‘prosodic features’, Chomsky–Halle stress levels). The point of the rhythm hypothesis is, in Liberman’s words (1978:169), that “prosodic features are features of structure, rather than features of segments.” The essence of stress and stress patterns is to be found in the relations between segments or constituents, and not in the segments themselves. Older analyses of stress have in effect reified the audible manifestations of these abstract relations, in order to incorporate them into a theory that knows only segments. Liberman and Prince propose instead that linguistic theory must be enriched to include relations among its primes.

This is their fundamental point, and it is one we do not easily assimilate after thinking in terms of segments for so long. Schane, for example, in a paper entitled “The Rhythmic Nature of English Word Stress” (1977), adopts Liberman’s terms ‘weak’ and ‘strong’, but he uses these labels as features of individual syllables, features that can be assigned to a given syllable without regard to the features of any other syllable; the stress level of a given syllable is seen to depend on a bundle of prosodic features (strong or weak, heavy or light, etc.). Schane’s system thus misses the most important insight of Liberman and Prince’s work, which

is that ‘weak’ and ‘strong’ cannot be defined on single syllables alone. Segmental features—say, features of vowel quality—are paradigmatic, and a given vowel can be high or front or round independently of other vowels. But ‘weak’ and ‘strong’ have meaning only syntagmatically; it is meaningless to speak of a given constituent as weak, except in relation to a paired constituent that is strong.\footnote{An analogy may help clarify this point. In the couplet}

(1) I think that I shall never see
A poem as lovely as a tree

we say that tree rhymes with see. The rhyme is part of the phonological aspect of the couplet, but it is not a segment, nor is it a feature of any segment or set of segments. We do not account for our feelings about the sound of (1) by positing a segment /R/ at the end of each line, nor do we assume that the vowels of see and tree have (in addition to their other distinctive features) a feature [+rhyme]. Rather, rhyme is a relation between two items, based on certain of their phonological characteristics and their positions in the rhythmic structure of the couplet. We can describe the phonological characteristics of tree which make us say that it rhymes with see, but we cannot, on the basis of those characteristics, say that “tree rhymes.” In the same way, we can describe the phonological and rhythmic features that make us perceive one constituent as weaker than another, but we cannot, on the basis of those characteristics, say that that constituent has a particular stress level. Liberman and Prince’s theory suggests that talking about, say, tertiary stress, independently of context, is exactly as meaningful as asking, “Does tree rhyme?”

It seems likely that the concept of relations will prove rich and productive far beyond Liberman and Prince’s original application of it. The whole question of phonological boundaries, for example, cries out for a relational solution; the neo-Bloomfieldian ‘plus juncture’ is surely a case of reifying the audible manifestations of an abstract relation (cf. Chapter 7 Section 5 below). Moreover, it is presumably no accident that grammatical relations are currently receiving new attention (in, e.g., Shibatani 1977, Kac 1978, and the various writers on ‘relational grammar’); it seems to me that a unified notion of linguistic relation—both phonological and grammatical—will emerge from this preliminary work. While it is beyond the scope of this book to develop the formalism for dealing with rhythmic relations any further than Liberman and Prince have already done, we can show the applicability of the idea to a specific problem of English
2. The Relational Nature of Deaccenting

Deaccenting is seen in the behavior of accent placement in coordinate sentences and sentences in connected discourse. It goes by such names as deaccenting, destressing, anaphoric destressing, deaccentuation, etc., or is lumped under the all but useless cover term 'contrastive stress'. It is illustrated in the following examples.

(2) A: Has John read Slaughterhouse-Five?
   B: No, John doesn't read books.

(3) A bill was sent to Congress today by President Carter which
    would require peanut butter sandwiches to be served at all
    government functions. At a press conference today, a group
    of Senators led by Republican Barry Goldwater of Arizona
    denounced the measure. Goldwater said...

(4) Harry wants a VW, but his wife would prefer an American car.

In each of these examples the deaccented noun has somehow been referred to or alluded to earlier in the discourse. Thus in (2) the discussion is about a book; in (3) the measure is coreferential with a bill... earlier in the paragraph (this is a case of what might be called 'journalistic coreference', an essentially stylistic device that permits a reporter or newscaster to avoid repetition of a word); in (4), the sentence is about a car.

Observations of this sort are, of course, plentiful in the literature. The phenomenon has been noted, discussed, and alluded to in a variety of contexts by a variety of investigators with a variety of points of view (e.g., Bierwisch 1968, Bolinger 1963b, 1972a, Chafe 1969, 1973, 1974, 1976, Gunter 1966, 1972, 1974b, Halliday 1967b, Hultén 1956, Schmerling 1976). Most of these writers talk about the deaccenting of 'repeated' or 'presupposed' material or 'given (old) information' or items which are 'already in the discourse' or are in some way 'predictable'. Chafe has developed an approach to these matters based on what the speaker takes to be in the addressee's consciousness. Schmerling concludes that deaccented items are treated as 'insignificant' in some way by the speaker. Gunter (1974b) is an excellent essay pointing out that whatever may be going on here, it is not 'predictability'. We shall return to this question at the end of Chapter 4.

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Since most writers have been concerned with the (broadly) grammatical aspects of deaccenting, its phonological nature has not received much attention. As a result, many discussions of the subject are filled with inconsistencies and unwanted implications. A conspicuous example is Schmerling (1976), who indicates deaccenting by marking /ˈ/ on the most prominent vowel of the deaccented word. She glosses /ˈ/ as indicating items "which fail to be assigned stress," (75) but distinguishes these from syllables with no stress mark at all ("I have here ignored the 'reduced stress' frequently found on certain auxiliaries, conjunctions, and so forth, for which the ′ is perhaps more traditionally employed." [5])

On the other hand, she also distinguishes /ˈ/ from three higher levels ˈˈˈ, though she notes that she is doubtful about the difference between /ˈ/ and /ˈ/, and also (citing Vanderslice and Ladefoged) about the difference between /ˈ/ and /ˈ/ when they occur after /ˈ/. This presumably implies that, after /ˈ/, the other three levels /ˈ/, /ˈ/, and /ˈ/ may all actually be the same thing. For example, if the stress pattern on what she would write as . . . Barry Goldwater denounced the measure [from our example] and on Barry Goldwater retires tomorrow are actually the same, and if what she writes as There's a car coming might just as well be written There's a car coming, then it follows that the stress sequence /ˈˈˈ could be equivalent to /ˈˈˈ/. And in fact, it is not hard to accept this conclusion if we compare examples like her Johnson died with what she might well write as Tráman died last month, and now just yesterday Johnson died. In short, Schmerling's implication that deaccenting is a special level of stress is fraught with inconsistencies, and her /ˈ/ notation must be interpreted as signifying simply "this syllable is deaccented, whatever that may involve phonologically."4

Similarly untenable is Chafe's vague conception of deaccenting as a phenomenon of low pitch (e.g., 1974, passim). This covers plenty of obvious cases, but it is far too specific. That is, low pitch does signal deaccenting in, say, John doesn't read books, but high pitch works just as well, as in the following:

(5) A: John was mad because he got nothing but books for Christmas.
   B: Oh, doesn't John read books?

The common basis of descriptions like Schmerling's and Chafe's is fairly easy to see. The most obvious cases of deaccenting are those (like John doesn't read books) where the deaccented item occurs in the tail of a falling nuclear tone. The impression of greatly reduced 'stress' (Schmerling) and of markedly lower pitch (Chafe) are both simply con-
sequences of postnuclear position. Vanderslice and Ladefoged (1972:828) recognize this, and propose an apparently simple account of deaccenting as actual deletion of the feature [+accent]. In the example John doesn’t read books, they would see contextual factors changing books from [+accent] to [−accent], which would then automatically, given their rule of intonation center assignment, shift the intonation center back to read. By comparison to John doesn’t read books, the deaccented version of books has a markedly lower level of stress ( [+heavy +accent +intonation]) instead of [+heavy +accent +intonation]); it also, assuming a falling intonation contour, has lower pitch as well. Vanderslice and Ladefoged see these phonetic characteristics as a consequence of the deletion of the feature [+accent], not, like Chafe and Schmerling, as the phonological essence of deaccenting.

Vanderslice and Ladefoged are certainly on the right track. While the most obvious cases of deaccenting are certainly the postnuclear ones on which Chafe’s and Schmerling’s analyses are based, it is not hard to demonstrate with evidence from accent placement in dialogue that the phenomenon extends to prenuclear deaccenting as well. For example:

(6) a. i. [‘out of the blue’, parents accented]
   What time are you meeting your parents?

   a. ii. [in context of talking about parents’ visit, parents deaccented]
   A: Boy, I really have to get moving. My parents are coming today and I’ve still got to finish this paper and get the place cleaned up and get some laundry done and... Wow, I don’t know if I’m going to make it.
   B: Oh, yeah, I forgot about that. What time are you meeting your parents?

   b. i. [‘out of the blue’, parents accented]
   What time are your parents coming?

   b. ii. [in context, parents deaccented]
   A: Boy, I really have to get moving. My parents are coming today and I’ve still got to finish this paper and get the place cleaned up and get some laundry done and... Wow, I don’t know if I’m going to make it.
   B: Oh, yeah, I forgot about that. What time are your parents coming?

Similarly:

(7) a. i. A: What’s the matter?
   B: I’ve forgotten how to make French toast.

   a. ii. A: Why don’t you have some French toast?
   B: I’ve forgotten how to make French toast.

   b. i. A: What’s the matter?
   B: There’s nothing to make French toast out of.

   b. ii. A: Why don’t you have some French toast?
   B: There’s nothing to make French toast out of.

In all the ii sentences, parents or French Toast is deaccented, in the sense that the accent placement seen in the i cases is changed. In the a cases, the accent shifts to the left, and the ‘level of stress’ on parents or French Toast accordingly appears quite reduced. This is the typical case of deaccenting. But in the b cases the accent shifts to the right and the ‘stress’ on parents or French Toast would normally be written /*/ or level 2—that is, in traditional terms, the stress is reduced very little. The same kinds of contextual factors are present in both cases; the only difference is the relative position of the deaccented item and the accent. But Schmerling’s /* notation or Chafe’s ‘low pitch’ make it impossible to relate these cases to postnuclear deaccenting.

Unfortunately, because of their narrow view of sentence stress discussed in the previous chapter, Vanderslice and Ladefoged cannot account simply for these cases either. Their analyses of the ‘normal’ (non-deaccented) versions of When are your parents arriving? and There’s nothing to make French Toast out of would presumably be:

(8) +inton -inton +inton -inton
    +accent -accent +accent -accent
    +heavy +heavy +heavy +heavy

Deletion of the [+accent] on parents or Toast should, according to their intonation center assignment rule, shift the intonation center to the left—as in the case of John doesn’t read books. The rightward shift that actually occurs in these cases involves, in Vanderslice and Ladefoged’s terms, a reaccenting of arriving and out of. Thus the Vanderslice–Ladefoged
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This relative weakening will naturally have different phonetic effects depending on how the resulting rhythmic structure matches up with the intonation contour. In both of these examples, the deaccenting involves switching a single pair of node-labels from weak-strong to strong-weak, or vice-versa; but in John doesn’t read books, books falls after the nucleus, i.e., in a very weak position, while in When are your parents arriving, parents precedes the nucleus and keeps 'secondary stress'. Deaccenting is perceived in both cases by inferring a rhythmic structure in which the deaccented item is weaker than it would be if it were not deaccented. It does not depend on anything as straightforward as 'failure to be assigned stress' or 'low pitch'.

Failure to recognize this has led at times to the postulation of special sentence-types to account for deaccenting. Bresnan (1972) proposed a distinction between what she called 'initiatory' and 'elicitory' questions, in order to account for the different accent placement in the following:

(11) 'initiatory' Which turn should we take?

(12) 'elicitory' A: We should take one of these turns. B: Which turn should we take?

This is identical to the accent shift in When are your parents arriving? and When are your parents arriving? just discussed. Bolinger (1972b) was quick to point out that 'elicitory questions' are merely an instance of deaccenting:

I cannot imagine why question types should be invented . . . when what is involved is the de-accenting of repeated elements and the accenting of new elements, which is to be found everywhere:

If you have a hundred dollars, then spend a hundred dollars.
I had a headache, but fortunately it wasn’t a bad headache.
I won’t give it to John because I know John.

. . . It is inaccurate to say that an elicitory question “presupposes that there is information being withheld.” What is presupposed is the information that is given. If you say My dad gave me a pen, you are not withholding the information that it is a good pen; but if I am interested in knowing I will ask How good a pen is it? The point of the question, good, is accented; the repeated pen is de-accented, because that is what is presupposed. [64]

Similarly, the sentences that Schmerling (1976:89-98) discusses as ‘topic/comment’ sentences are also deaccenting in disguise. Compare:
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The 'separateness' and 'newness' of A may be illustrated by what happens in a narrative. If one is telling a story in which a fog has been introduced, at a later point one may say

\[
\text{The fog had deepened.}
\]

But a B accent for something new and unexpected is unnatural. If we encountered

\[
\text{A bomb had wrecked it.}
\]

at all, it would probably be in a time of violence when bombs are commonplace. For something as inherently unlikely as a bombing,

\[
\text{A bomb had wrecked it.}
\]

with two A accents, or

\[
\text{A bomb had wrecked it.}
\]

with one A accent, on bomb itself, is more probable. [1958a:53]

Again, in (1957a:62), he notes that:

Accent B is widely used as the first element in what might be termed 'intermediate compounds', phrases which have become unitary, whether because of unitary reference or as simple cliches, and in which the 'separateness' of two A accents is no longer appropriate. An example is the contrast between

\[
\text{flying} \quad \text{and} \quad \text{flying}
\]

where the first represents a variety of fish and the second a fish that flies or is flying, whether of that special variety or not.

Dozens of similar examples are given in Bolinger (1965b, Sec. V), including 'quantifying and degree modifiers':

3. Pretonic Accent and Deaccenting

Bolinger observes that in phrases and short sentences, where there are often two accent peaks, the accent on the first peak tends to be A (falling) if the accented word is contrastive or important or new to the discourse, and B (step-up-to or rising) if the accented word merely qualifies the following A-accented word, or if it is not new to the discourse. He has numerous examples of this in a number of articles (especially 1958a, 1957a, 1965b).
It should be emphasized that Bolinger is not claiming a one-to-one grammatical correlation between certain types of constructions and the BA accent pattern. He goes on to say that the speaker is always free to replace the B accent with an A to imply a separation or a greater degree of assertiveness, e.g.

\[
\text{real \go \od}
\]

I have merely tried to illustrate certain prevalent associations of the patterns. [1965b:176]

Now clearly Bolinger has identified a general phenomenon here, which any suprasegmental analysis must be able to account for. Moreover, his ‘accent’ framework seems to make it easy to equate sentence contours which are superficially quite different. Thus

\[
\text{real go} \quad \text{and (21) It’s go}
\]

are both BA despite the different pitch levels involved. But there is a quirk in Bolinger’s taxonomy that has made it possible for him to point out this phenomenon without observing that it goes beyond the cases he has described.

The quirk in his taxonomy has to do with Accent B. Recall that Bolinger (1958a) posits two separate shapes for the B, the common characteristic being ‘upmotion’; let us number these two for easy reference:

\[
\begin{align*}
\text{B1} & \quad \text{B2} \\
\end{align*}
\]

Now, all the BA examples we have been discussing so far have involved only B1. Moreover, the semantic contrast that Bolinger identifies between B (i.e., B1) and A is paralleled by the same contrast between B1 and B2. That is, the extra punch or emphasis added to really by changing

\[
\text{really go} \quad \text{to (23) It’s ly od}
\]

[1965b:175-76]
is paralleled exactly by changing

\[(24) \text{Is it } \underline{\text{really good}} \underline{\text{to (25) Is it}} \underline{\text{really good}}\]


Similarly:

\[(26) \text{Is that a } \underline{\text{thousand dollar bill}} \underline{\text{[making change at a Las Vegas casino]}}\]


\[(27) \text{Is that a } \underline{\text{thousand dollar bill}} \underline{\text{[at the corner snack bar]}}\]


Compare:

\[(28) \text{Hey } \underline{\text{lo thousand dollar bill}} \underline{\text{[seeing one on a tour of the Government Printing Office]}}\]

A A A

\[(29) \text{My } \underline{\text{lo thousand dollar bill}} \underline{\text{[finding one on the street]}}\]

A A A A

The distinction that Bolinger’s taxonomy allows him to write simply as BA vs. AA is exactly paralleled by the distinction between B1-B2 and B2-B2, but Bolinger’s three-accent system leaves us with no ready way to write this one. So there seems to be a good case for revising the taxonomy to make B1 and B2 separate entities.

Moreover, the same sort of contrasts that support dividing B accent into B1 and B2 can be found with C accents, and we may divide Bolinger’s C into C1 and C2. For example, really can have punch or emphasis added to it in the same way as in the examples we have already discussed:

\[(30) \text{Is it } \underline{\text{really good}} \underline{\text{vs. (31) Is it}} \underline{\text{really good}}\]

C1 C2 C2 C2

\[(32) \text{Is that a } \underline{\text{thousand dollar bill}} \underline{\text{ vs.}}\]

C1 C2 C2 C2

\[(33) \text{Is that a } \underline{\text{thousand dollar bill}} \underline{\text{ vs.}}\]

C2 C2 C2 C2

Now, B1 and C1 seem to have a number of things in common which set them apart from other accents, including B2 and C2. First, they obviously share the semantic function of deemphasizing the prominent syllable to which they apply, and it is often nearly impossible to detect meaning differences between them. This is certainly not true of B2 and C2, which contrast sharply, for example, as answers to WH-questions:

\[(34) \text{A: Where did you get your degree? B: } \underline{\text{Cor}} \underline{\text{nell vs. }} \underline{\text{ne l}}\]

B2 C2

With a B2 the answer might mean “have you heard of it?” whereas with a C2 we may get a meaning like “what are you going to make of it?” or “can’t fault me there.” But the difference between B1 and C1 in analogous contexts is often impossibly subtle and sometimes even hard to hear:

\[(35) \text{A: Where did you hear something like that? B: } \underline{\text{rie Smith’s brother told me}} \underline{\text{ vs.}}\]

B1 C1 C2 C2 C2
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Second, B1 and C1 are defined solely in terms of pitch movement to the accented syllable, up or down respectively. This contrasts with A and B2, which are explicitly defined in terms of pitch movement *during* or *after* the accented syllable. (C2, I believe, is also to be defined this way, though this is not so clear from Bolinger's definitions. I have equated C3 with the British low-rising tone, and thus consider the rise to be one of its distinguishing characteristics. Bolinger does note [1958:50] that in C-accent "a further fall seems to be avoided." )

Third, all of Bolinger's examples of the contrast between B (i.e., B1) and A involve contrasts on accented syllables which precede other accented syllables. B1 does not seem to occur as the final accent of a sentence—the one which in more conventional accounts would often be identified as the sentence stress or nucleus—but only in earlier positions. This is true of C1 as well.

From all of this it is reasonable to conclude that B1 and C1 must be lumped together as 'pretonic' accent, a jump up or down to a prominent syllable in a pretonic contour—that is, a rhythmically strong syllable in the head. Pretonic accent signals a prominence that is somehow subordinating to other accents, as shown by its use in signalling discourse relationships and emphasis. The distribution of B1 and C1 is determined, I think, not by any semantic difference between B and C (as Bolinger's taxonomy would imply), but simply by the shape of the head of which the accented syllable is a part. For example, in the two versions of *Marie Smith's brother told me* in (35), the tunes are grossly

The fact that we have a B1–C1 (–C2) sequence in one and a B1–B1 (–C2) sequence in the other should be attributed, I believe, to the occurrence of a single phenomenon of pretonic accent in different overall pitch contours.

The general range of labels—'expected, stereotyped, commonplace'—which Bolinger suggests for the meaning of 'pretonic' accent (i.e., his 'B' accent in the passages quoted above) is strikingly like the meanings that have been attached to deaccenting. There is good reason to believe that deaccenting and pretonic accent are somehow the same phenomenon.

For example, it is well known that epithets are usually deaccented:

(36) A: How did your operation go?  
B: Don't talk to me about it—I'd like to strangle the butcher.

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The deaccenting of *butcher* signals that it is an epithet, which is intended to refer to the doctor whose presence in the context is somehow understood. If *butcher* is accented, it seems to refer to a literal butcher, and B's reply sounds like incoherent psychopathic raving:

(37) A: How did your operation go?  
B: Don't talk to me about it—I'd like to strangle the butcher.

Similar observations could be made for *bastard, cat,* and various others whose literal meanings are quite different from their meanings as epithets. Thus, in *What's the matter with that cat?* the referent of *cat* is readily taken to be human, given an appropriate context, while in *What's the matter with that cat?* it is likely only to be feline.

The interaction of pretonic accent and epithets is identical. Consider the following dialogue:

(38) A: Everything OK after your operation?  
B: Don't talk to me about it! The butcher charged me a thousand bucks!

With a pretonic accent (B1) on *butcher,* this makes perfect sense:

(39) The butcher charged me a thousand bu cks.

But with an A accent we have a literal butcher once more, and incoherence:

(40) The butcher charged me a thousand bu cks.

Or again with *cat:*

(41) He wasn't a damned valet and he wasn't a damned bodyguard. He was a working road manager. [He] took care of money, airplane reservations, getting the band to where they were supposed to go. The cat worked his ass off. [Rolling Stone no. 221, 9 Sept. 1976, pp. 13–14]

The last sentence must be

(42) The cat worked his ass off.
Indeed, some of Bolinger's pretonic accent examples can readily be explained in terms of the analysis of deaccenting already presented earlier in the chapter. For example:

\[(47) \text{A bomb had wrecked it}\]

with a pretonic accent on bomb, will be seen as representing

\[(48) \text{A bomb had wrecked it}\]

in which bomb is relatively weaker than in the 'normal' rhythmic structure

\[(49) \text{A bomb had wrecked it}\]

Deaccented bomb has a pretonic accent because of the pitch jump on the first long syllable of the sentence (see Chapter 2, Section 1), but the rhythmic phenomenon involved is exactly like other cases of deaccenting.

Viewing deaccenting as relative rhythmic weakening thus makes it possible to subsume a number of rather different phonetic effects under the same functional rubric—effects, like Chafe's 'low pitch' and Schmerling's 'absence of stress' and Bolinger's 'B accent', which have been observed and described piecemeal for many years. As Liberman suggests (1978:167), such a view also makes it possible to give a coherent account of the function of accent, with deaccenting and contrastive or focus accenting seen as opposite sides of the same coin. This is the task undertaken in the next chapter. Before moving on, however, we should mention some residual problems posed by certain cases of pretonic accent.

Pretonic accents like the one in A bomb had wrecked it, which cause a shift in the location of the nucleus, are easily handled by the relational view of deaccenting, but others, like the distinction between pretonic accent and nuclear A accent on really in It's really good, are more difficult. They seem to be more purely intonational, rather than rhythmic, and it is not at all clear what sort of different rhythmic structures might underlie the pretonic vs. nuclear distinction in these cases.
There are two principal alternatives, both involving formal modifications already discussed by Liberman (1978). The first is that the distinction might reflect different *metrical bracketings*; these are discussed by Liberman (1978:110ff and 170ff) in connection with the behavior of clitics and other rhythmically weak syllables. For example, we might assume that the rhythmic structure

\[(50) \quad R \quad S \quad S
\]

would be associated with pretonic accent on *really*, while the special prominence conveyed by the extra nuclear A-accent on *really* would reflect a rhythmic structure

\[(51) \quad R \quad S \quad S \quad S
\]

But we have no real way of telling what might constitute motivation for associating a particular rhythmic structure with a particular intonation, especially in longer sentences like *The butcher charged me a thousand bucks*, where the number of conceivable rebracketings is enormous. The line is thinly drawn between insight into the workings of language and the clever manipulation of formalisms.

However, a second, and, I think, more promising possibility for explaining the use of pretonic accent in terms of rhythmic structures is to assume that each nuclear tone is associated with a coordinate constituent (T) of a rhythmic structure. Thus:

\[(52) \quad T \quad R \quad S \quad S
\]

*The butcher charged me a thousand bucks*

(butcher used literally, with A-accent)

There are at least two reasons why this proposal is worth considering.

First, it seems fairly clear that we will in any case have to account for what Liberman (1978:119ff) calls *complex tonal patterns* and what Crystal (1969:244-252) treats as *subordinate tone units* by means of rhythmic structures which are more complex than the ones we have illustrated so far. Liberman, for example, discusses intonational tags—like the vocative in *Sam struck out, my friend*—dividing the rhythmic tree first into 'Stem' and 'Affix'. Thus no expansion of the formalism would be involved in dividing the tree into coordinate constituents.

More importantly, such a formal device emphasizes the purely intonational (as opposed to rhythmic) nature of the contrast. We will in any case have to allow for utterances with more than one nucleus (e.g., the 'parallel' examples in Chapter 4 Section 2c, or the sentences with a fall and a fall-rise treated in Chapter 7). My proposal suggests that each T node defines the domain of an intonational *tune* of head + nuclear tone. That is, *the butcher*, in the sentence where it has an A-accent and its literal meaning, would not be in the head at all, but in a separate tune of its own with the nucleus on *butch*. Obviously, work remains to be done on this problem.
CHAPTER IV

The Grammar of Accent Placement

1. Syntactic vs. Semantic Approaches

Treatments of the placement of accent can be divided into two basic approaches, which we might call ‘semantic’ and ‘syntactic’ or, perhaps more accurately, Bolinger’s and all the rest. The discussion generated by Joan Bresnan’s article “Sentence Stress and Syntactic Transformations” (1971) is a good illustration of the dichotomy. Bresnan attempts to remedy the problems with Chomsky and Halle’s Nuclear Stress Rule (NSR) by suggesting that it must apply cyclically to underlying Ss and NPs. We will give an example here, since it will be useful to return to it in subsequent discussion.

(1) Helen left directions for George to follow.

(2) Helen left directions for George to follow.

(3) I have instructions to leave.

(4) I have instructions to leave.

(The second pair is from Newman 1946.) Bresnan explains the meaning difference (and subsequently the accent placement) in (1) and (2) by arguing that in (1), follow has an underlying object (namely directions) in the subordinate clause (i.e., George was to follow the directions), while in (2) there is no object of follow (i.e., the directions said George was to follow). In (1), directions in the lower sentence in deep structure is stressed on the lower cycle, reducing the stress on George and follow, then is deleted on the higher cycle; the higher directions must now receive the stress, since George and follow have been reduced. But in (2), follow is stressed in the lower cycle and retains the stress throughout the derivation. Similar processes would apply to (3) and (4). In their replies to Bresnan’s article, G. Lakoff (1972), Berman and Szamosi (1972), and Stockwell (1972) all come up with numerous examples in support of their own theories, examples which show that Bresnan cannot be right, at least not in detail. But both Bresnan and her critics accept the fundamental premise that accent placement is determined by syntax.

This premise is not shared by Bolinger (1972). Like Lakoff and the rest of Bresnan’s critics, Bolinger adduces numerous counterexamples to her specific proposals, but unlike the others, he goes on to argue—as he has elsewhere—for a ‘semantic’ as opposed to ‘syntactic’ theory of accent placement. Accent, independent of syntax, goes on the ‘point of information focus’ in the sentence, or on items of contrast or ‘emotional highlighting’; “the speaker adjusts the accents to suit his meaning” (635). Copious examples back up this claim, which is summarized in the title, “Accent Is Predictable (If You’re a Mind-Reader).”

This basic idea—that accent is not predictable from syntax—is taken in a different direction in Schmerling (1976). Schmerling sees two sides to Bolinger’s arguments. What she calls his “negative claim” is that accent does not depend solely or even principally on syntax; the “positive claim” is that it does depend on the point of information focus. Schmerling finds Bolinger’s arguments for the first position convincing, and herself devotes an entire chapter (Chapter 4) to discussion of additional evidence for this view. But the second point, she says, leaves a great deal unexplained, and the major proposals in her book are an attempt to pin down more specifically the rules—whatever they may depend on—governing accent placement. In effect, Schmerling accepts that you have to be a mind-reader to predict accent, but argues that even if Bolinger were a mind-reader, he would not get very far with his specific suggestions about ‘point of information focus’ and ‘relative semantic weight’.

Two examples will suffice to show that even when we accept unpredictability of accent as a fact of life, we find that Bolinger has identified a problem rather than a solution. The first example is taken from Schmerling (1976:41-42):

A particularly telling pair of examples showing the inadequacy of a theory which attempts to account for stress in this way can be found in the recent reports of the deaths of two former presidents as I heard them; the examples are worth discussing in some detail. In December of 1979 former president Truman was hospitalized in critical condition. He remained in the hospital for some time, and daily reports concerning his now critical, now serious, now critical condition were given in the news media. Because of the seriousness of Truman’s con-
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dition and his advanced age, it could reasonably be assumed that he would not survive this crisis and that it was just a matter of time before he would die. At the time when Truman finally did die, I was visiting my parents; one morning I came downstairs to breakfast, and my mother, who had gotten up earlier and listened to the news, announced to me:

(91) Truman diéd.

A few weeks later I was back at my job at the University of Texas. One afternoon my husband drove to campus to pick me up when I was finished working for the day, and as I got into the car he announced:

(92) Johnson diéd.

Though Johnson’s health had been in the news some time previously, he was apparently recovering from the heart attack he had had, and his condition had ceased to be newsworthy. (In fact, the most recent news concerning Johnson had been his attendance at a civil rights conference at the LBJ library in Austin.) Johnson’s health was not on people’s minds as Truman’s had been, and when his death came it was a surprise.

What is significant for the present discussion is the difference in the contexts in which these two reports were uttered: Truman’s death was expected; Johnson’s was not. Bolinger’s theory would appear to suggest, however, that the mention of Truman in the relevant context should have suggested ‘death’ and, therefore, that died in (91) should not be stressed. On the other hand, the mention of Johnson in the relevant context should not have suggested ‘death’ any more than anything else one might have wanted to say about him, and therefore died in (92) should be stressed. Bolinger’s theory would thus appear to predict stress contours opposite to the ones which actually occurred.

The second example is from Bolinger himself. He lists a number of examples with a NP-Infinitive sequence (like instructions to leave or directions for George to follow) which violate Bresnan’s rule and illustrate his point that the accent placement in these depends on ‘relative semantic weight’ including:

(5) I can’t finish in an hour—there are simply too many topics to elucidate.

(6) I need a light to read by.

(7) I need a tool to write with.

His comments on the last of these are illustrative of the problem he has created. It is true, as he says, that “in tool to write with, tool is a relatively empty word; Get me a pencil to write with [not intended as contrastive—

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Bolinger’s footnote] has a semantically richer noun, one to which write with is relatively incidental.” But he goes on to say: “In fact, Get me a tool to write with would probably be contrastive, suggesting that one intended to write with a hammer or a screwdriver instead of a pencil” (636). This fascinating observation goes unexplained. I don’t believe that tool to write with must be ‘contrastive’ in any explicit sense† (e.g., addressee brings speaker a pencil, speaker says no, bring me a tool to write with) for the meaning of ‘hammer’ or ‘screwdriver’ to be possible. Is tool then simply the point of information focus? If it is, why the shift in meaning from general ‘implement’ to specific ‘implement used for certain building and repairing tasks, e.g., hammer, screwdriver’? Notice that there is no comparable shift in the meaning of directions in the two versions of directions for George to follow, or in any of Bolinger’s other examples. ‘Point of information focus’ leaves this unexplained.

It seems to me that Schmerling is correct, then, in pointing out that Bolinger’s observations are more programmatic than definitive. But in following Bolinger’s program, Schmerling very early takes a wrong turn by disposing of ‘normal stress’. Such a concept is, I believe, central to an understanding of the whole problem, and it is treated separately in the following section.

2. ‘Normal Stress’ and Focus

For all their considerable differences, the two general approaches to accent placement—Bolinger’s and the syntactic approach—both presuppose a distinction between contrastive and normal. The syntactic approach makes this distinction explicit: its rules attempt to account for ‘normal stress’ and not for any ill-defined ‘contrastive’ intonation. Bolinger’s contention that the “accent goes on the point of information focus” appears to preclude the existence of a syntactically defined normal accent position, yet the notion of a semantically neutral accent is there, at least implicitly in references to context-free intonations and to accent placements with and without presuppositions, as well as in references (like the one above in tool to write with) to ‘contrastive’ accent.

There are, as Schmerling points out, a lot of hidden assumptions involved here which surely won’t stand the light of day, and in her Chapter 3 (substantially the same work as Schmerling 1974), she claims that ‘normal stress’ is a concept which can only mislead us, not enlighten us. She suggests and rejects two possible characterizations of ‘normal stress’, one
more or less syntactic, one more or less semantic, both more or less familiar. The semantic definition is essentially "the accent placement used in a neutral context," but Schmerling argues rightly that any context at all involves assumptions which may affect accent placement. This is even true, as she shows, for 'citation forms' (1976:50-52). Since these forms have been the last bastion of those who seek a purely 'syntactic' definition of 'normal stress', the fact that even citation creates a context of its own reduces syntax-based stress rules to circularity: "My rules account for normal stress, and 'normal stress' means the stress my rules predict" (48).

But Schmerling's line of reasoning amounts to the following: "Here are two possible characterizations of 'normal stress' which are implicit in the literature. They don't work. Therefore, normal stress must not exist." There is, of course, another possibility, which I think is closer to the truth, namely that some sort of neutral accent placement exists but has not been characterized correctly. It seems to me that recent work on the concept of 'focus' points the way to understanding 'normal stress', and that interpreting normal stress in terms of focus will allow us to integrate the insights of the 'semantic' and 'syntactic' approaches.

a. A Characterization of Normal Stress

The interaction of focus and accent placement is discussed in Halliday (1976b), Chomsky (1971), and Jackendoff (1972). The most important point that emerges from these works is that while most of the possible accent placements in a sentence signal a narrow focus, one leaves the focus broad or unspecified. While focus is hardly a well-defined concept, its effects in dialogue provide hard data for those unsatisfied by intuitive definitions. Halliday's examples will illustrate. In

(8) John painted the shed yesterday.

the focus can be the shed, or painted the shed, or the whole sentence, etc. Thus (8) could be used to reply to a range of questions like What's new, What did John do, What did John paint yesterday, etc. By contrast, other possible accent placements narrow the focus, so that for example

(9) John painted the shed yesterday.

could only answer the question Who painted the shed yesterday, and

(10) John painted the shed yesterday.

could only answer When did John paint the shed. Chomsky's article and its example Was he warned to look out for an ex-convict wearing a red shirt make the same point: 'normal stress' can signal multiple foci, while 'contrastive stress' narrows the possible range of foci to a particular constituent or small set of constituents. Jackendoff incorporates Chomsky's observations into his discussion of focus and the scope of words like even.

'Normal stress', then, appears to mean the accent placement that leaves the focus broad or unspecified, and on the face of it, this phenomenon makes trouble for the 'semantic' approach. Schmerling, of course, simply contests the relevance of focus in this context and denies the existence of normal stress. Bolinger, however, talks of focus himself, and admits the existence of context-free intonations. Unfortunately, his explicit statement—what Schmerling calls his "positive claim"—that accent goes on the point of information focus applies only to cases where the focus is a single point. If the focus is broad or unspecified, accent cannot go on the 'point' of focus; in such cases one item is somehow chosen to bear the accent, and this is the phenomenon which the syntactic analyses have attempted to describe.

Indeed, even though Schmerling says she does not believe in 'normal stress', this unmarked-focus accent is in general what she has tried to account for. This is seen most clearly in her discussion of sentences like John is a wonderful man (accent marks as shown by Schmerling 1976:43). She is puzzled by the fact that, as she puts it, there is "primary stress on an item which appears to be conveying little if any information at all... Clearly, [this sentence] involves an assertion concerning John's character; man seems to add hardly any information." In the original version of her dissertation she proposed an explanation that she admitted was unsatisfactory; in the published version, this explanation has been deleted and the puzzle is left to stand unsolved.

The point is that she fails to come up with an explanation of the accent placement in such sentences, but rather that she fails to realize that what she is trying to account for is the very 'normal stress' pattern whose existence she denies. It is obvious that there is nothing inherent in such sentences that prevents them from being accented in the way that Schmerling seems to expect:

(11) A: What kind of a man is John?
    B: Oh, he's a wonderful man!
But it is also obvious that the difference between the two accent placements is that this version focuses on *wonderful* in a way that Schmerling's version does not: these intuitions about focus are the basis of the traditional judgments 'normal' and 'contrastive'. Schmerling examines the notions of 'normal' and 'contrastive' and finds them wanting, but as a native speaker of English she still has the intuitions about focus, and intuitively she directs most of her efforts to accounting for the accent on the cases with 'unmarked focus' even while denying any validity to the concept 'normal stress'.

However, if we make explicit that what we mean by 'normal stress' is the accent placement that signals an unmarked focus, then we are in a position to profit from the insights of Bolinger's and Schmerling's semantic approach. For there is a problem with the concept of normal stress, namely, the implication that 'every sentence has a 'normal' pronunciation, and that any special prosodic properties can be described in terms of deviations from this norm' (Schmerling 1976:49). Defined this way, normal stress is indeed, as Schmerling maintains, a mirage. Her examples of sentences that 'must have contrastive stress' show this clearly:

(12) Even a two-year old could do that.

(13) John was killed by himself.

If we take sentence accent as a signal of focus, noting that focus can be unmarked, then these sentences present no problem. It is no surprise that a word like *even* precludes an unmarked focus; its very function is to focus on some part of the sentence (cf. Jackendoff 1972:247). If we want to phrase it paradoxically, we can say that there is no normal stress pattern possible for sentences like *Even a two-year-old could do that*, but this is a paradox only insofar as we insist on having a syntactic 'norm' against which to measure 'deviations'. If instead normal stress is taken to be the accent pattern that signals an unmarked focus, then the absence of such an accent pattern in sentences like these is exactly what we would expect. In this sense the point against the semantic approach is a small one: our definition of normal stress is based on the semantics of focus. Bolinger's formulation might be changed from "accent goes on the point of information focus" to "accent goes on the point of information focus, unless the focus is unmarked, in which case the accent goes in a location determined by the syntax." But focus remains a semantic phenomenon; we have simply added an unmarked case.

Once we understand the role of accent in such terms, we see that the investigator's task is not to write rules by which 'normal stress' can be assigned to any sentence, but to discover the principles by which the meanings of broad and narrow focus are signalled. Here the work of the 'syntactic' approach represents a solid basis for further work; for an opening into the problem we can simply reinterpret the Trager-Smith-Chomsky-Halle normal stress rule (Chomsky and Halle's 'compound and nuclear stress rules') in terms of focus. Instead of saying that normal stress goes on the rightmost acceptable item in the sentence, we will say that accent—in general—goes on the rightmost acceptable item of the focus constituent. If the focus constituent is the whole sentence, we get 'normal stress'; if not, we get a narrow focus on the constituent identified by the placement of the accent.

This formulation is similar, of course, to those found in other work on focus. Thus:

The tonic falls . . . on the last accented syllable of the item under focus. [Halliday 1967b:207]

If a phrase P is chosen as the focus of a sentence S, the highest stress in S will be on the syllable of P that is assigned highest stress by the regular stress rules. [Jackendoff 1972:237]

But it is important to point out a subtle difference between Jackendoff's and Halliday's statements which is the essence of the difference between the straight 'syntactic' approach and the view adopted here. Jackendoff considers his focus rule to be a principle that interacts with the 'regular stress rules', i.e., syntactic rules that assign normal stress. In my opinion Halliday's formulation is more nearly correct: there are no 'regular stress rules'. The focus rule is the accent placement rule. There is no essential difference between normal stress and any accent placement that signals narrow focus; broad and narrow are simply points on a spectrum.

This can be shown with an example involving *even*.

(14) Even a nineteenth-century professor of classics wouldn't have allowed himself to be so pedantic.

Suppose I say this to take a friend to task for a pedantic remark. Assuming the friend has nothing to do with classics, is not a professor, and is more or less contemporary, then we could reasonably say that the focus

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is nothing more than accent placement that signals narrow focus, and narrow focus can be used for reasons other than explicit contrast. Various phenomena which have never made much sense in terms of contrast make more sense in terms of narrow focus. For example, Chomsky (1971:205) notes that "in parallel constructions, in some sense of this notion that has never been made quite clear, contrastive intonation is necessary." He illustrates with:

(15) John is neither eager to please, nor easy to please, nor certain to please...

Now, these accents are ‘contrastive’ only in the sense that they are not ‘normal’; they can better be seen as focusing on the points of difference in otherwise identical phrases.

Lest the reader think that I am offering the same product under a new label, however, I should reemphasize that focus is an independent semantic phenomenon. By trying to predict accent patterns on the basis of syntax, Chomsky puts the cart before the horse. He assumes that ‘parallel’ is a syntactic phenomenon, which somehow ‘triggers’ contrastive stress. In fact, however, I would argue that ‘parallel’ is a semantic notion signalled by the paired foci. Chomsky picks his examples of parallel constructions on the basis of the accent pattern and then argues that the syntax is the deciding factor. We have here an illustration of Bolinger’s precept that “the error of attributing to syntax what belongs to semantics comes from concentrating on the commonplace” (1972b:634). That is, in Chomsky’s example just cited, it is undoubtedly true that eager is felt to be parallel to easy and certain partly because of the syntax. But the syntax is not decisive; ‘parallel’ is an independent semantic notion, as the following example shows.

Suppose A and B are in a conversation about the difficulty of staying in touch with relatives.

(16) A: When was the last time you saw any of your relatives?
   B: My mother called me yesterday—does that count?

There are three equally plausible accent patterns for B’s remark, with three distinct meanings. In each case the tag question does that count asks, in effect, whether the focus signalled by the accent is acceptable to the other members of the conversation. If B says My mother called me yesterday, he wants to know whether parents are to be included among the relatives being discussed. If he says My mother called me yesterday,
he is asking whether telephonic contact counts. But if he says *My mother called me yesterday*, he is specifically setting up a parallelism between (relative) (get in touch with) (member of conversation) and (member of conversation) (get in touch with) (relative), and wants to know if that parallelism is acceptable. That is, he is asking whether situations in which the contact is initiated by the relative are to be considered as fulfilling the family obligation under discussion. It should be clear that the syntax in no way determines the accent placement: if, and only if, the speaker wants the accent pattern that says ‘parallel’, he uses it.

I should note that I am uncertain whether ‘parallel’ is to be regarded as a specific accent pattern, or whether the semantic nature of focus is such that one possible meaning of paired foci is ‘parallel’. In either case, one specific use of ‘parallel’ is ‘reciprocal’ or ‘vice-versa’, as we have just seen. Another example is:

(17) A: Hey, come here.
B: No, you come here.

The reciprocal meaning also seems to be at work in the old standby:

(18) John hit bill and then he hit him.

Once we get away from the idea that the accents on he and him are ‘contrastive’, and see instead paired narrow-focus accents combining to form the accent pattern meaning ‘parallel’, then this example is no longer mysterious.

d. Summary

In summary, the dispute between the ‘semantic’ and ‘syntactic’ approaches to accent placement reminds us again of the story of the blind sages and the elephant: everyone has a piece of the truth. I have argued in this section for integrating the two approaches as follows: treating accent as a signal of focus, treating focus as a semantic notion involving no inherent normal-contrastive dichotomy, and assuming that focus can apply to any constituent and that accent falls on the rightmost acceptable item of that constituent. However, this particular elephant is a fairly complicated creature, and the last statement—that accent falls on the rightmost acceptable item of the focus constituent—is the source of numerous difficulties which are the subject of the remaining sections of this chapter.

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3. Default Accent

Not all cases of what would traditionally be called ‘contrastive stress’ can be considered narrow focus accents; rather, they are a kind of by-product of deaccenting which I will call default accent. If deaccenting is seen as the relative weakening of an item or constituent, then necessarily—because of the relational nature of rhythmic structure—it must also involve the concomitant strengthening of some other item or constituent. This strengthening can be seen as a kind of accenting by default. Such a notion expresses the effect of the accent in two of our earlier examples, repeated here:

(19) A: Has John read Slaughterhouse-Five?
B: No, John doesn’t read books.

(20) A bill was sent to Congress today by President Carter which would require peanut butter sandwiches to be served at all government functions. At a press conference today, a group of Senators led by Republican Barry Goldwater of Arizona denounced the measure. Goldwater said...

The accent in (19) is in no sense ‘contrastive’, as it is often said to be: the meaning of B’s reply is not the explicit contrast ‘John doesn’t read books, he writes (reviews, collects, burns, etc.) them.’ Rather, the point of the accentual pattern is that books is deaccented; the focus is broad, but the accent falls on read by default. Similarly, in (20), the accent on denounce does not signal any sort of focus, but is there by default, because of the deaccenting of the measure.

The idea of default accent applies to scores of examples.

(21) I can’t imagine what it would be like to be a dentist—but I’m awfully glad there are guys who want to be dentists.

(22) A: Man, it’s hot! Doesn’t feel like it’ll cool off till tomorrow at least.
B: Yeah, they said it would be hot all day.

(23) What happens to male spiders, anyway? Are they like a lot of male insects [. . . in that the female eats them after mating?]

In (23) the speaker has implied that spiders are insects. By accenting insects, the opposite would be implied.

One of the puzzles in Akmajian and Jackendoff (1970) suggests a solution in terms of default accent:
As they point out, in (24) the implication is that I wanted John to wash the car, while in (25) I wanted to do it myself. In terms of 'contrastive stress', Akmajan and Jackendoff have no explanation for these nuances. But if we see someone else in (25) as deaccented, to signal coreferentiality with John, then the accent falls on afraid by default.

There are a number of reasons that the phenomenon of default accent seems not to have been noticed before. First, of course, is the existence of the term 'contrastive stress': since default accent is not 'normal', then by the traditional definition it must be contrastive. Second, the idea of default accent emerges clearly only from an understanding of the relational nature of deaccenting. As long as writers (like Schmerling and Chafe) treated deaccenting as an actual level of stress, low pitch, etc., there was no reason to suspect that the accentual behavior of any other item in the sentence might be affected by it. Once we see deaccenting as a relative weakening, the discovery of concomitant relative strengthening comes as no surprise. Finally, however, there are many cases where the 'contrastive stress' explanation seems quite satisfactory. For example, in

(26) Harry wants a VW, but his wife would prefer an American car.

it does seem reasonable to talk of 'contrast' on American; the need for a separate notion of default accent in cases like these is obscured.

The existence of such cases should not be taken as casting doubt on the notion of default, however, for there is evidence for the distinction between default and narrow focus accent in the form of actual ambiguity. Consider the question linguists have all been asked many times: How many languages do you speak? While the neutral accent placement seems to be on languages, I have also been asked the question this way: How many languages do you speak? This version has two possible interpretations, one corresponding to rather complete ignorance of linguistics and one corresponding to a somewhat sophisticated understanding of the field. The ignorant speaker has deaccented languages to convey the implication 'I know that linguistics means studying languages.' The knowledgeable speaker, on the other hand, has accented speak because he knows that many linguists know a great deal about certain languages without neces-

(27) How many languages do you speak? [deacc]

(28) How many languages do you speak? [focus]

In (27), the accent on speak is a default accent; in (28), it is a narrow-focus accent.

The distinction is thus clear in principle; it becomes muddled only in some contexts, like (25), where we cannot say for certain if the accents are placed by default, or as narrow-focus accents, or for some intermediate reason. The structure allows either interpretation, and in some cases the context may not require or even permit us to distinguish. But this indeterminacy should not trouble us; it is implied by the relational nature of stress patterns. The rhythmic structure for American car will be

(29) American car

This configuration of strong and weak can result from relative strengthening of American (for narrow focus) or from relative weakening of car (for deaccenting), but there is no reason to assume that it cannot also result from both at once. Bolinger has suggested to me that "perhaps accents go where they do both in order to highlight what they are on and to cast in the shade what they are not on." This aptly sums up the semantic force of accent, and captures in metaphor its relational nature: if we shine the spotlight on one actor, everything else on stage is in shadow by comparison. In deciding how to accent a sentence, a speaker must take account of where he wants light and where he wants shadow; the decision can involve an enormously complex tradeoff between conflicting semantic forces. But in many cases the various forces are all more or less in harmony. Indeed, speakers probably cast most sentences so as to assure that the forces will be in harmony. These are the cases like American car, where we want American accented and car deaccented. One accent placement is compatible with both intentions.
4. Degrees of Accentability

One danger of tying the ‘focus rule’ to traditional normal stress and focus rules, as we have so far, is that we inherit their inadequacies. I think their most significant inadequacy—the unexamined assumption that is the source of most of their difficulties—is the concept of accentability. The Trager-Smith-Chomsky-Halle tradition assumes that content words are inherently accentable and function words are inherently not accentable. This is how they account for the accent placement data in sentences like the following:

\[(30)\text{I'm leaving for Crête tomorrow. (neutral)}\]

\[(31)\text{I'm leaving for Crete tomorrow. (focus on tomorrow)}\]

According to the focus rule or the traditional normal stress rule, neutral accent falls on Crete because it is the rightmost acceptable item. Tomorrow is somehow not acceptable.

It is clear that there is a difference of accentability between Crete and tomorrow; the same difference is reflected in the narrower foci in the following:

\[(32)\text{Even a guy who's leaving for Crête tomorrow shouldn't look so pleased with himself.} \]

(multiple focus interpretations possible within the constituent a guy who's leaving for Crete tomorrow)

\[(33)\text{Even a guy who's leaving for Crete tomorrow shouldn't look so pleased with himself.} \]

(focus on tomorrow)

What is not so clear is that this difference is a simple dichotomy: content word vs. function word, acceptable vs. non-acceptable. While most of the accent placement data examined so far would support such an interpretation, at least two types of sentences, discussed in the previous chapter, disturb the generalization. These are the types of sentences which have given rise to Bresnan’s distinction between initiatory and elicitory questions and Schmerling's notion of topic-comment sentences: sentences with subject and intransitive predicate, and WH-questions ending with a verb. What is exceptional about these is that the neutral accent placement is on the last noun:

\[(34)\text{My parents called.} \]  
(neutral)

A: Maybe we ought to call your parents and tell them.

\[(35)\text{B: My parents called—they already know.} \]

(parents deaccented)

\[(36)\text{How many languages do you speak?} \]
(neutral)

\[(37)\text{How many languages do you speak?} \]

(languages deaccented, or speak focused)

(For more examples see Chapter 3 Section 2.) Since many sentences have a noun as their last content word, a rule putting the accent on the last content word and one putting it on the last noun will be equivalent in many cases. But cases like those just cited provide a way of distinguishing the two rules, and the one referring to the last noun seems to account for more of the data. In sentences without nouns, like I hate him or She didn't want to leave, the rule referring to the last content word still holds.

This suggests not a dichotomy between content words and function words, but rather a hierarchy of acceptability, where content words are more acceptable than function words—this is surely uncontroversial—and where nouns are more acceptable than other content words. That is, lexical items are not, as the Trager–Smith–Chomsky–Halle tradition implies, either acceptable or not acceptable; acceptability is a matter of degree. The most important implication of this is that accent placement within the focus constituent can no longer be seen as the mechanical selection of the ‘rightmost acceptable item’. Rather, accent placement depends somehow on the interaction of position in the constituent and some poorly understood hierarchy of parts of speech. The focus rule must be revised:

Revised Focus Rule: Accent goes on the most acceptable syllable of the focus constituent.

It would be possible, of course, to formulate the traditional normal stress rule this way: the difference lies in what is subsumed under ‘most accept-
able'. Only the view presented here makes allowance for degrees of acceptability: acceptability is not absolute, as in the traditional view, but relative within the focus constituent. By treating acceptability this way, we can, in addition to accounting for the difference between nouns and other content words, begin to incorporate a good deal of other data into a unified explanation of accent and focus. The remainder of this section is devoted to a brief discussion of a few such topics.

a. Compounds

Within noun compounds, acceptability is determined by internal factors. This does not affect the application of the focus rule. Suppose we modify an earlier example:

(38) Even a nineteenth-century classics professor wouldn't have allowed himself to be so pedantic.

In order to focus on the whole constituent nineteenth-century classics-professor, we have to put the accent on classics. In effect, we have put the accent on the constituent classics professor, which is farthest to the right; within that constituent, classics is more acceptable than professor for reasons having to do with the syntax and semantics of compounds. While acceptability within compounds is not well understood, its principles are clear enough to the native speaker that accent placement can take them into account. Thus

(39) Even a nineteenth-century classics professor wouldn't have allowed himself to be so pedantic.

would likely be interpreted as a narrow focus (professor as opposed to student, perhaps), because we know that normally classics would be more acceptable than professor.

b. Bolinger's 'Contrastive Stress'

Notice that the focus rule says that the accent goes on the most acceptable syllable of the focus constituent. This fits with Bolinger's notion of stress as a potential for accent. Given accent on a certain word, the lexical stress determines which syllable of the word is actually accented. This is exactly the same as the application of the rule to compounds that we just discussed: given accent on a certain compound, the internal prin-

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ciples of acceptability within the compound determine which word of the compound is actually accented. And just as we could infer narrow focus in (39) by knowing the principles of acceptability in compounds, so we can infer 'contrastive stress'—in the restricted sense of Bolinger (1961b)—by knowing the usual stress placement in a word. In Bolinger's example, This whisky wasn't exported, it was deported, there is a real sense in which we are focusing on one syllable (or morpheme) of the word. We are signalling to the hearer that the whole point of the sentence lies in the contrast between these two possible syllables. Given the constituent structure

\[
\begin{array}{c}
\text{de} \\
/ \end{array} \begin{array}{c}
\text{port} \\
\text{ed}
\end{array}
\]

the de- is the most acceptable syllable of only one constituent—itself. Hence we infer narrow focus—contrastive stress—on de-. But we can do this only because we know that word stress rules would put the accent on -port- if the focus were any broader.9

c. Deaccenting

With a concept of relative rather than absolute acceptability, we can return to our discussion of deaccenting and include it as an integral part of an account of accent rather than a separate phenomenon. If deaccenting is to be seen as a lowering of the degree of acceptability of an item or constituent, then, like compounding or lexical stress, deaccenting will interact with the focus rule. This explains the phenomenon of default accent. Consider again example (19):

(19) A: Has John read Slaughterhouse-Five?  
B: No, John doesn't read books.

If we consider this a broad focus in the reply, and note that books, by being deaccented, is less acceptable in the focus constituent than read, then the accent will fall on read quite normally by the focus rule. The noteworthy feature of the accent placement in this sentence is precisely that it does not signal narrow focus on read; that is why we proposed the notion of default accent. The focus rule, together with the concept of
deaccenting as a lowering of acceptability, makes it clear how the focus remains broad.

One of the puzzles in our discussion of deaccenting was the question of why deaccenting sometimes shifts the accent to the left and sometimes to the right (Chapter 3 n5). As we saw, this phenomenon makes problems for an analysis like Vanderslice and Ladefoged’s, which explains deaccenting in terms of the deletion of the feature [+accent] in a linear sequence of accents. Vanderslice and Ladefoged assume that deaccenting is a function of the shifting of the intonation center, which they locate by rule at the last [+accent] syllable in the sentence. This predicts that deletion of [+accent] could produce only a leftward, never a rightward shift. The analysis proposed here, however, which incorporates both reference to constituent structure (not just linear sequence) and to degrees of acceptability (not just [+accent]), explains and predicts accent shifts in deaccenting correctly.

An especially interesting case of rightward shift in deaccenting is seen in nominal compounds, as in the following examples:10

(41) We’ve got lots of books, but we haven’t got any bookcases.

(42) [To a couple who has just returned from a dance floor, said by someone who was impressed by their dancing ability]: Did you two ever take dancing lessons?

(43) [Student in phonology class discussing Jakobson’s theory explaining the rarity of certain types of speech sounds in terms of acoustic distance from other types]: Maybe the reason clicks are so rare is just that they’re difficult to produce.
[Professor]: Well, speakers of click languages wouldn’t think so.

(44) Come on down and take advantage of our oil change special this week. We’re selling [brand] 10W-30 all-weather oil for just 52¢ a quart, and we’ve got [brand] oil filters for only a dollar ninety-five.

(45) A: Hasn’t the faculty voted on that yet?
B: No, it’s coming up at the next faculty meeting.

In each case, the normally accented member of the compound—book, dancing, click, oil, faculty—has a reason in the context for being deaccented. The contextual factors in the deaccenting in all these cases are similar to those we have seen in others; what is different is that the accent shifts to the right. But we can explain this in terms of our discussion so far: the focus principle puts the accent on the compound, and within the compound the usual hierarchy of acceptability is reversed by the deaccenting. Notice what would happen if accent shifted to the left in any of these cases: the focus would be narrowed because the accent would fall in a much smaller constituent (e.g., We’ve got a lot of books, but we haven’t got any bookcases).

There are many other examples of rightward shift; I cite only two more. In I looked the answer up, in order to deaccent the answer, the accent must fall on the verb looked up, the next most acceptable item in the sentence. Within this constituent, lexically determined accent patterns make up more acceptable than looked, hence the accent ‘shifts right’ and falls on up. Shift left to looked would be interpreted as a narrow focus on looked (say, looked up instead of wrote up), because, as in the case of deported; looked is the most acceptable item of only one constituent, itself. Similarly, in How many languages do you speak?, ‘leftward shift’ from languages would give How many languages do you speak?, with a narrow focus on how many. Given the degrees of acceptability within the focus constituent—i.e., the whole sentence—speak is more acceptable than how many, so once languages is deaccented, the accent shifts all the way right to speak. All these examples make clear that a treatment of deaccenting in terms of linear sequence alone is inadequate.

The account presented here also makes it possible to explain Schmerling’s observations (1976:55-56,67-70) that context plays a role in determining normal stress. It is true that in certain contexts, a particular accent placement may be interpreted as neutral even though in another context it might be interpreted as signalling a narrow focus. Her example:

(46) This is the doctor I was telling you about.
(presumed ‘normal’).

(47) This is the doctor I was telling you about.
(‘normal’ if spoken in the context of a hospital or medical convention).

Schmerling uses examples of this sort as further evidence against the notion of ‘normal stress’. Yet it is clear that both of these sentences do convey a broad focus on the entire predicate NP: this is x. In the hospital context, doctor can be deaccented; its acceptability as a noun is lowered and the verb telling is the most acceptable item in the focus constituent. It is exactly because it is easy (in the hospital context) to interpret doctor as deaccented that (47) is interpreted as a broad focus, i.e., ‘normal’. Out-
side the hospital, where there would be no apparent reason to deaccent doctor, it would be more acceptable than telling, and would receive the accent. Here an accent on telling would leave the hearer puzzling to find a connection between doctor and the context, or trying to understand why the speaker was insisting on telling.

A similar case is seen in the common pronunciation among linguists of language acquisition with the accent on acquisition. This is an exception to the usual pattern in compounds expressing an object–verb semantic relation, compounds such as basket weaving, auto repair, oil production, crop rotation, wish fulfillment, and so on. The explanation is simple: in countless contexts where linguists would have reason to speak of language acquisition, there would also be reason to deaccent language, as in the following:

(48) A: What’s his dissertation about?
    B: Something to do with language acquisition.

A linguist’s dissertation is likely to be about some aspect of language—so language can safely be deaccented. But the linguist’s proud parents, who are not linguists, would tell their friends, who are also not linguists, that their son’s dissertation was about language acquisition. For them language would not be deaccented, and the usual relationships of accentability within the compound would apply.

d. The Accentability of Nouns

Finally, I should return to discuss various doubts and questions concerning the idea that nouns are more acceptable than other content words. Unlike the difference in accentability between content words and function words, which is universally assumed, the primacy of nouns is suggested in only a few places. Gunter (1966:175) speculates that in a truly context-free sentence, all the nouns are accentuated; a similar principle is incorporated into the accent rules for speech synthesis devised by Coker et al. (1973). Schmerling states the idea quite explicitly in her Principle II: “The verb receives lower stress than the subject and the direct object, if there is one; in other words, predicates receive lower stress than their arguments, irrespective of their linear position in surface structure.” (Though Schmerling’s Principle refers to predicates and arguments rather than nouns and verbs, all the evidence she cites is compatible with either interpretation.) I believe these formulations can best be expressed by the hierarchy of accentability proposed here.
with a 'news' locative, one with a metaphorical locative, and one with an instrumental phrase:

(51) I found a piccolo in my mailbox.

(52) You haven't got a military bone in your body.

(53) John carved an elephant with his Swiss knife.

(in (52), the other possible accent placement *You haven't got a military bone in your body* deaccents the locative and refers to the physical context, i.e., the addressee's literal body, thereby conveying the surrealistic implication 'Everyone was issued one; where's yours?') The accentability of nouns also seems to depend to some extent on whether they are definite or indefinite; not surprisingly, indefinite nouns are more accentable than definite. In a sentence like (50), this means that if the complement NP is definite and the locative NP indefinite, the accent is more likely to fall on the locative, as in

(54) I left my car in a tow zone.

What the cases discussed in this subsection make clear—like Schmerling's example *This is the doctor I was telling you about*—is the extent to which deaccenting, in the sense of relatively lower accentability, is an integral part of many examples which linguists have been inclined to see as exhibiting normal stress. If we are sensitive to this possibility, we may find that the answer to many puzzles about accent placement lies in the principle that nouns are in general more accentable than other content words, but that they may also be deaccented—or lowered in relative accentability—for quite a variety of reasons. Also, these cases remind us that focus and deaccenting are in the same linguistic pot with such things as newness, definiteness, word order, and contextual reference, and that as we make progress in understanding those phenomena in the languages of the world, we will be in a position to understand better the details of noun accentability in English.

5. Semantics of Deaccenting

This leads finally to a detailed discussion of the meaning of deaccenting. Up till now I have merely exemplified deaccenting, glossing over an explanation of when it occurs with rough intuitive notions like 'given' or 'already in the discourse'. If I have demonstrated that there must be a unified relational phenomenon of deaccenting, I have scarcely touched on the semantic reasons underlying its use. Why do we deaccent? What does it mean when we do?

For an opening into the problem, let us return to example (20), in which deaccenting seems specifically to signal coreference.

(20) A bill was sent to Congress today by President Carter which would require peanut butter sandwiches to be served at all government functions. At a press conference today, a group of senators led by Republican Barry Goldwater of Arizona denounced the measure. Goldwater said...  

The lack of accent on *measure* says something like "this noun is interpretable only by reference to some other part of the discourse"; *the measure* here means specifically "the bill that was sent to Congress today by President Carter which would require peanut butter sandwiches to be served at all government functions." Obviously, "legislative act or proposal" is only one of many dictionary meanings of *measure*, and obviously, too, no dictionary would ever list "bill sent to Congress today by President Carter which would require peanut butter sandwiches to be served at all government functions" as a meaning for *measure*; yet just as obviously, that is exactly how *measure* is interpreted in this context.

But coreference is only one reason for deaccenting; most examples cannot be so simply explained. Even in our early examples like *American car* and *John doesn't read books* there is no strict coreference, and in other examples the nature of the connection to the context is even murkier. What we need is a more general description of the function of deaccenting, which will cover both coreference and the less specific uses. Such a general rubric is provided by Jakobson's notion (1971) of *shifter*, an item which can be fully interpreted only by reference to the context. (The most obvious examples are pronouns.) Deaccenting, I would argue, is a signal that the deaccented word has become a shifter in this sense. In the context of (20), the pronoun *it* (which is inherently a shifter and thus has far less inherent semantic marking) would have risked being unintelligible, its referent being unclear; by using *the measure*, which is not inherently a shifter and has some lexical meaning of its own, the speaker "fleshed out" the shifter, so to speak, to make clear just where in the discourse the hearer is to seek the referent; but the shifter-like quality, the interpretability only with reference to something else in the context, is clearly signalled by the lack of accent.
Such a description of the function of deaccenting is attractive, because it ties together the ‘obvious’ cases of deaccenting like John doesn’t read books with other cases like those cited at the end of the previous section, which are not generally recognized as involving deaccenting. Moreover, it provides a simple solution to the tool to write with problem mentioned at the very beginning of this chapter. As we said, Bolinger notes that tool to write with would be the usual accentual pattern, and that toul to write with “would probably be contrastive, suggesting that one intended to write with a hammer or screwdriver instead of a pencil.” In this latter case, tool, accented, stands on its own, semantically speaking, and is likely to receive its most usual specific meaning of “implement used for certain building and repairing tasks, e.g., hammer, screwdriver,” or some such. In the other case, tool, deaccented, is stripped down to its semantic bare bones, ‘implement’, and reaches out in the context for something to flesh out its meaning—just as the measure did in the previous example.

Notice that the principles of accentability presented in the last section predict that neutral accent in a construction like tool to write with will fall on the noun, and that therefore the accent on the verb in tool to write with is a default or focus accent. By showing the sense in which tool is referred to its context for its full interpretation, we not only provide justification for considering deaccenting to be a single semantic process, but also confirmation of the accentability principle which predicted that tool in tool to write with would in fact be felt as deaccented.

It should be emphasized that the meaning just given for tool to write with is not the only possible one. Given only this context, tool does seem to depend on to write with; but given a richer context, tool may find semantic support elsewhere. We can imagine a comedy routine:

(55) A: What did you bring me this for? I asked for a tool to write with, not a tool to drive screws with.
B: I don’t care what you do with it—you can scratch your nose with it for all I care. You asked for a tool, I brought you a tool.

Speaker A has deaccented tool in each construction with reference only to the immediate grammatical context, fleshing out the meaning within the construction itself. Speaker B replies as if tool were deaccented with reference to the broader context, taking the contextual referent in each case to be the screwdriver at hand.

Similar observations could be made for the case of Helen left directions for George to follow. The two versions are repeated here:

(56) A: George didn’t have any idea he was supposed to follow Helen.
B: Whaddya mean—Helen left directions for George to follow!

(57) A: George feels pretty bad about ruining dinner, but the package didn’t have any directions.
B: I know, but—gee, didn’t you look over on the counter by the toaster? Helen left directions for George to follow.
In these cases, *for George to follow in (56) and directions in (57) are deaccented to refer them to the broader context (i.e., speaker A’s sentence), and the accent shifts accordingly. But we still infer in (57) that George is supposed to follow the directions, while in (56) he is just supposed to follow, even though the accent placement is the reverse of Bresnan’s examples. Accent, as Bolinger maintains, is independent of syntax. Berman and Szamosi (1972:313) make a similar observation of an ambiguous sentence where “both readings are obtainable with either stress pattern.”

There is, to be sure, much for the skeptic to wonder about in the foregoing discussion. For example, I said that *the measure* in (20) had, in effect, become a shifter—referring to the *bill sent to Congress...* earlier in the paragraph—and I used that to argue for my characterization of deaccenting as a signal of contextual reference. But it would be difficult to maintain that all deaccented words are shifter in any obvious sense. In the case of *John doesn’t read books*, for example, *books* still means ‘books’, and its interpretation can hardly be said to depend on the context. Yet the deaccenting still signals a kind of contextual reference; it implies a special relevance or relation of the deaccented part of the answer to the addressee’s question. “With reference to your question whether John has read *Slaughterhouse-Five*,” the speaker is saying, “you might want to know the following: John doesn’t read books.”

Or consider Schmerling’s account of the examples about the deaths of Truman and Johnson, quoted at length at the beginning of the chapter. When her mother announced *Truman died*, the deaccenting of *Truman* said: “This noun has some special relevance to the context.” Since (by Schmerling’s account) this was the first thing her mother said to her one morning, the reference to the context had to be something other than any immediately preceding discourse. But since Truman’s illness had been in the news, any hearer who had been listening to the news would, in Schmerling’s situation, assume that that was the contextual reference. Her mother was saying in effect: “I know that you know that Truman has been critically ill: well, he died.” Speaker and hearer were thus able to make sure that their fund of common knowledge and assumptions was still operative.

But suppose Schmerling had been busy finishing her dissertation and had not been following the news; then she might have been unaware of Truman’s condition. Then when her mother said *Truman died*, Schmerling’s reaction might have been “Oh, was he expected to?” or “Was something wrong with him?” or (depending on how early in the morning it was) perhaps just “Huh?” Schmerling would have interpreted *Truman* as deaccented, but would have been unable to figure out what its special contextual relevance was. Her mother, seeing her puzzlement, would have realized that she had presupposed too great a common context between herself and her daughter and would have backed up one square: “You knew he was sick, didn’t you?” This kind of misunderstanding happens all the time. The well-known phenomenon of cryptic conversations between married persons or friends who have known each other for a long time is based in part on the phenomenon of deaccenting to refer to a context to which the outsider has no access.

Now, in the case of *John doesn’t read books*, the relevance signalled by the deaccenting of *books* is so obvious that the explanation seems forced. “Everyone knows *Slaughterhouse-Five* is a book,” the skeptic might say; “*books* is deaccented because the conversation is about a book.” But there are two replies to the skeptic. First is the obvious fact that *books* need not be deaccented in this context. The speaker could just as well have replied *John doesn’t read books*, which seems to convey greater finality, or perhaps a nuance of surprise that the hearer was unaware of John’s reading habits. The conversation is no less about a book; but the speaker simply chooses to connect answer to question in a slightly different way. Second, consider a possible reply like *John doesn’t read trash*. The conversation is not “about trash” in any meaningful sense. Rather, deaccented *trash* is referred to the context; the hearer is told “this word has some special relation to the context.” Given the context, of course, the special relation can only be the implication of the speaker’s critical evaluation of *Slaughterhouse-Five*. The grammatical device of deaccenting and its function are the same as in *John doesn’t read books*; the difference is that in one case the special relation inferred by the hearer verges on the inappropriate (just answer the question, please), whereas in the other case it passes virtually without notice. I think that ‘automatic’ deaccenting of the sort in *John doesn’t read books* plays a considerable role in keeping discourses on the track and helping interlocutors monitor potential misunderstandings—as did the deaccenting of *Truman* in our hypothetical embellishment of Schmerling’s example just discussed.

In any case, we have here another illustration of Bolinger’s dictum that “the error of attributing to syntax what belongs to semantics comes from concentrating on the commonplace.” It is easy enough to look at a dialogue like the *Slaughterhouse-Five* exchange, see the obvious fact that the dialogue is about a book, and conclude that there is a syntactic
rule that deaccents books in the context. But the situation is more subtle than that. The rule—if we could call it that—says rather "deaccent something in order to signal its relation to the context." Speakers use the rule in obvious cases to let the hearer know that they share certain basic knowledge about the world and that the conversation is running smoothly. But they also use it in other cases—or fail to use it—when they have some special effect in mind. The deaccenting ‘rule’ in the more usual sense of the word rule is simply the focus rule—accent goes on the most acceptable syllable of the focus constituent—together with our knowledge of the relative acceptability of different items in different contexts. These details in the operation of the rule, important though they may be, should not be confused with the reasons for which the speaker chooses to operate the rule in the first place.

6. Summary

The foregoing three chapters make two broad points of theoretical significance. First, I have discussed a variety of phenomena which can be seen as part of a single unified system once we accept a rhythmic/relational view of prominence like that proposed by Liberman and Prince (1977). Such a theory accounts for a wider range of experimental data than the simpler ‘accent’ view, which tends to look for cues to prominence on a syllable-by-syllable basis, and is forced to treat timing as a separate phenomenon; in a rhythmic account of prominence, timing and pitch prosody are among the concrete cues to a more abstract cognitive structure. Moreover, if we understand prominence relationally, we can unify a variety of phonetically disparate phenomena under a single rubric of ‘deaccenting’, which provides us with significant insights into the placement of accent. For one thing, it relieves us of the necessity of giving duplicate explanations for different manifestations of deaccenting (e.g., Schmerling’s ‘topic-comment sentences’ or Bresnan’s ‘elicitory questions’); for another, it enables us to see deaccenting and focus as opposite sides of the same coin if we treat acceptability as relative within constituents.

The second important point, raised throughout Chapter 4, has to do with the balance between syntax and semantics in our grammatical descriptions. In a paper entitled “Free Will and Determinism in Describing Languages” (Bolinger, 1978b), Bolinger makes the point that one of the goals of much linguistic work has been to explain as much as possible of what speakers say in ‘deterministic’ terms: as the automatic, syntactically-

specified consequence of other choices. Bolinger challenges this view (as he has elsewhere; e.g., 1972b, 1977), saying that it can be maintained only if we “concentrate on the commonplace.” By forcing ourselves to treat in our analyses the kinds of subtle distinctions that speakers are capable of making when appropriate (if unusual) circumstances arise, we find that many phenomena which seem, at first glance, to be syntactically determined, actually reflect some element of meaningful free choice on the part of the speaker. Specifically, in Chapter 4 I have treated accent placement from Bolinger’s general point of view. I have shown how the deaccenting of an item or constituent signals that it has some special relation to the context. The nature of this special relation is not spelled out by the grammar, however, but must be inferred by the hearer on the basis of the linguistic context, the situation, and the fund of shared assumptions between speaker and hearer. More generally, I have argued that neither focus nor deaccenting is a consequence or output of a syntactic rule. Rather, they are part of the meaning of the sentence intended by the speaker. The syntax tells us how to convey a certain focus or deaccenting, but it does not specify when.