

SEMANTICS, SYNTAX AND SENTENCE ACCENT

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It is well known that English has complex prosodic contours involving many levels of stress and . . . that these contours are determined in some manner by the surface structure of the utterance.

N. Chomsky & M. Halle (1968)

The location of sentence accents is not explainable by syntax or morphology. Accented words are points of information focus.

D.L. Bolinger (1972)

Performance evidence favours the latter view. In language production, speakers place accents to reflect the information structure of the message they wish to impart. In language comprehension, listeners use accentual structure to locate points of information focus. Moreover, children's acquisition of the production and comprehension of accent appears to be intimately related with the mastery of focal structure.

a. Production evidence

The source of relevant data here is the study of slips of the tongue. In some such slips the error consists solely in misconstruction of utterance prosody - misplacement of lexical stress, of phrase stress etc. (Fromkin 1977; Cutler 1980). Fromkin's con-

tribution to this symposium deals with many types of prosodic error. The present discussion, however, is concerned with only one type, namely accent assignment errors, such as (1)-(4); and these provide evidence relating to the determinants of accent assignment only indirectly, through their pattern of correction.

- (1) The only trouble WIth it is the hood is too small.
- (2) Ivan's trying to hoist Ewan with HIS petard
to avoid being hoisted with HIS own petard.
- (3) There's nothing like it right around where we
LIVE - where WE live.
- (4) Now if it only occurred - if it ONLY occurred
in free recall spacing with words, I'd say . . .

In my large collection of such errors, corrections appear to be issued only when the error has altered the content (the literal meaning or the pragmatic import) of the message the speaker was intending to convey. Thus the accent in (1) should have fallen on the word trouble. However, the incorrect accent placement does not suggest a particular interpretation of the utterance at variance with what the speaker clearly intended. It does not, for example, suggest a contrast with "the trouble without it", since this would be meaningless. (1) was not corrected. In (2), the accentuation of his in the first clause seems to have perseverated in the second, displacing the accent which ought to have been placed on own; but no obvious alternative interpretation of the utterance is called to mind by this error. (2) was not corrected. In (3) a correction was issued immediately - the reference was to a particular style of house, and although the literal meaning of

the utterance ("there's nothing like it where we live") remains unchanged by the accent shift, the pragmatic force does not. Accent on *we*, as intended, implies that, by contrast, there are such houses around where other people live; the erroneous placement of accent on live, on the other hand, implies that such houses may be found where the speaker does something else - e.g. works. Similarly, in (4), failure to give added prominence to only the first time round allows the phrase "if it only occurred" to be ambiguous with "if only it occurred", which the speaker did not intend. This pattern holds throughout my corpus of accent errors (or more properly, accent repairs: it is impossible to tell whether in an utterance like [4] the speaker has corrected an erroneous implementation of his original intention, or changed his intention once he became aware of the possible misinterpretation). When the accent placement suggests an alternative, unwanted, message, it is corrected; when it doesn't, no matter how anomalous it is, no correction is issued. In other words, in producing accent patterns, speakers have in mind the meaning of their message rather than its form.

b. Comprehension evidence

As listeners process an utterance, they actively search for the accented words, by using cues in the prosody which tell them where accent is likely to fall. This is shown by a series of studies using the phoneme-monitoring task, in which listeners respond as fast as possible to a pre-specified word-initial sound occurring somewhere in a sentence. Responses in this task are significantly faster if the target-bearing word is accented (Cutler & Poss 1977). This is not solely because accented words are acoust-

ically more distinct, because if two acoustically identical tokens of a particular word are substituted respectively for an accented and for an unaccented occurrence of the same word, the target which is in the "accented" position elicits faster responses than the one in the "unaccented" position (Cutler 1976). The only difference between the utterances with an "accented" word in this study and the paired utterances with the same word "unaccented" lay in the prosodic structure, so listeners were apparently using the prosody to tell them whether upcoming words were likely to be accented or not.

The usefulness of this strategy in sentence understanding is illuminated by a further experiment (Cutler & Fodor 1979) in which the effect of accent on phoneme-monitoring response time was mimicked by manipulation of semantic structure. By changing the surrounding discourse without changing the crucial sentence itself, it was possible to determine which part of the sentence was most important, i.e. which words were focussed. If a sentence such as "The janitor at the ballpark joined the custodians' union" occurs as answer to "Which janitor joined the union?", then the focussed information is that it was the ballpark's janitor, whereas if it answers "Which union did the janitor join?", then the focus is on "custodians'". Listeners were consistently faster responding to targets in focussed position. That is, those listening for a [b] in the example sentence responded faster if the preceding question had been the first rather than the second one, while the reverse was true for those listening for a [k].

This result suggests that listeners were directing their attention to the focussed points of a sentence in just the same

way as they direct attention to the accented parts of a sentence; in other words that the accent effect and the focus effect are likely to be alternative reflections of the same comprehension strategy. A further experiment in which accentual and focus information were placed in conflict showed that, as expected, either could produce a facilitatory effect upon response times, but when they were in conflict the effect of either one was only half their combined effect.

c. Acquisition evidence

Children's speech early acquires an accent pattern. Even at the two-word stage different accent placement can signify different underlying propositions (Brown 1973). Four-year-olds correctly use contrastive stress (Hornby & Hass 1970). However, there is evidence that full mastery of the use of accent is attained much later than this early production evidence would indicate, because comprehension of accentual information seems to be acquired rather later. Children who can produce contrasts of the "BLACKbird - black BIRD" type can not reliably perceive the same contrasts (Atkinson-King 1973). Nor are accentual cues to pronominal reference correctly interpreted (Solan 1980). Inappropriate accent does not disrupt four-year-olds' comprehension (Bates 1976).

In an attempt to compare the acquisition of the ability to correctly interpret accent placement and the ability to understand focal structure, Cutler and Swinney (1980) conducted a word-monitoring study with children analogous to the phoneme-monitoring studies with adults described in the preceding section. They found that six-year-old and older children responded faster to

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accented words than to unaccented words, just as the adults did; but four- to six-year-olds failed to show any response time difference as a result of accent pattern. It was then found that within this latter age group the older children responded faster to focussed targets than to targets which were not focussed; the younger children, however, did not exhibit an effect of focal structure. This suggests that although accent patterns are correctly produced by quite young children, these children do not apprehend the relation of accent to sentence focus; and that children have to learn that attention to sentence focus is a useful comprehension strategy before they can learn that attention to accented words is a way of implementing this strategy. The semantic/pragmatic nature of accentual structure in language performance is once again illustrated by this pattern of findings.

Conclusion

Performance evidence, then, suggests that in producing, comprehending and acquiring language, language users behave as if sentence accent placement were concerned with the semantic and pragmatic structure of utterances, rather than with their syntax.

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