

## Intonation Patterns and Syntactic Ambiguity

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John Lyons is one of the most active and influential linguists now practicing, and most members of the profession have nothing but praise for his insightful writing. Yet in one of his important books there is what seems to me an omission that results in misunderstanding. In his *Introduction to Theoretical Linguistics*, he concludes his discussion of phonology with this statement: «Whole areas of phonology have been left untouched in the very brief treatment of the subject that has been presented here. Nothing has been said about stress and intonation in phrases and utterances...»<sup>1</sup>. Unfortunately it is difficult, to say the least, to describe phrases and utterances without attention to just the areas of phonology that Lyons has chosen to omit.

The difficulty emerges clearly in the treatment of three constructions treated later. The constructions are thought of as grammatical English sequences, though each is presented merely in spelling. The three are given as examples of ambiguity, and they are

- (a) *They can fish*
- (b) *Beautiful girl's dress*
- (c) *Some more convincing evidence*

Of these Lyons says that «ambiguity may be a function either of the distributional classification of the elements or of the constituent structure, or of both together.»<sup>2</sup>

Thus in (a), according to Lyons, the 'ambiguity is accounted for by the double classification of both *can* (as a modal auxiliary or a transitive verb) and *fish* (as an intransitive verb or a noun). In (b) the ambiguity is in the constituents; i.e., *beautiful* modifies either *girl* or *girl's dress*. In (c) *some*

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<sup>1</sup> *Introduction to Theoretical Linguistics*, Cambridge, University Press, 1969, p. 132.

<sup>2</sup> *Introduction*, pp. 212-13.

and *more* go together to modify *convincing* in one reading, while in a second reading *more* modifies *evidence*.

All of these statements are true, but all ignore the most striking fact about the three constructions. None of them is ambiguous in speech; the ambiguity is altogether in the written forms. If a student has the unvarying written form before him, he can construct variant interpretations for each construction, without changing the spelling. If he pronounces these sequences, he must, on the other hand, give an intonation pattern in accord with one interpretation or the other—he can not give both at once. Furthermore, I believe that rendering with the full intonation patterns of utterance also occurs in internal speech—it is not something that occurs only when language is translated into airwaves.

In (a) if *can* is a modal auxiliary, its identity is shown by weak stress, which in turn forces the interpretation of *fish* as a verb. In (b), if *beautiful* modifies *girl*, the peak of stress is on *dress*, forcing the interpretation that *beautiful girl* is a constituent. If *beautiful* modifies *girl's dress* the peak of stress is on *girl*, and *girl's dress* is then a constituent. In (c), if *some more* is pronounced with weak stress on *some*, and only a single /m/ between the vowels, then *some more* is a constituent modifying *evidence*. If *more* gets a major stress and the final and initial /m/s are distinctly pronounced, then *more convincing* is a constituent.

By omitting any discussion of the stress and intonation of utterances, Lyons, perhaps inadvertently, presents a view of intonation in accord with a common layman's view of interpretation. That is, many 'naive expert speakers' believe that we deliberately decide what an utterance means and only then apply the intonation patterns which accord with the chosen meaning<sup>3</sup>. Actually, however, occurrence with specific intonational entities is a very real part of the identity of lexical forms, quite as much as occurrence with specific syntactic patterns. The weak stress of *can* as modal auxiliary identifies it quite as much as occurrence with a following verb, or substitutability with a past tense *could*.

I do not believe that it is necessary to make decisions on identity of forms in terms of what I have elsewhere called correspondence meaning. That is, I do not believe that it is necessary to know the correspondences between the sentence spelled *They can fish* and the circumstances that it signals, in order to identify the elements of which it is constructed. Such a demand would result in an intolerable degree of circularity, equivalent to saying that meaning gives identity and identity gives meaning.

What is necessary to determine identity is the concept of differentiation, the Bloomfieldian notion of 'same' and 'different' as the most impor-

<sup>3</sup> Thus in a review of my *Constituent and Pattern in Poetry*, Eugene R. Kintgen takes me to task for saying that proper utterance of a line of poetry makes it understandable, saying that «the addition of stress and juncture, which are not very well represented in the text, is a result of comprehension, not a cause of it.» *Structuralist Review* no. 2 (1979), p. 125.

tant relationships in language. To recapitulate briefly, /p/ and /b/ are different phonemes because they identify different words, as with *pat* and *bat*. *Pat* and *bat* in turn, are different words because they identify the differing sentences 'I gave it a pat,' and 'I gave it a bat.' The crux, however, is in deciding whether words which sound alike, or sound alike in some situations, are 'sames' or 'differents' in this sense. There is a technique which can be applied, as I said in 1970<sup>4</sup>. Let us set up the sentence

*They'll eat all they can.*

Notice that in this sentence, the form spelled *can* is truly ambiguous, since it gets the peak of stress in final position, whether or not it is an auxiliary. Now let us put the sentence in two differing contexts:

1. They've been canning lots of peaches. *They'll eat all they can.*
2. They must think they won't get any food tomorrow. *They'll eat all they can.*

The test of identity is then made by asking a jury of native speakers if the underlined sentences are instances of the same sentence, or are different sentences. In my experience, the response is invariant and reliable<sup>5</sup>. The two are different sentences, marked as different by the separate identities of the forms spelled *can*. One *can* differs from the other semantically, but also in its occurrence under differing stress in such sentences as the pair presented by Lyons.

In Lyons' phrase (b), the test is simpler. All that is necessary is to ask the jury whether the phrase pronounced with one pattern is the same as when it is pronounced with the other. The same is also true of (c).

What is ultimately involved in interpreting Lyons' three constructions is the nature of communication between hearer and speaker, or writer and reader. In the speaker-hearer situation, a pattern of phonemes, morphemes, words, stress and intonation, is a stimulus to the hearer, who constructs a matching internal sentence. If the match is perfect, the hearer has understood. In the writer-reader situation the difference is that black marks on paper are the external stimulus, but the internal response sentence is the same. Again, if the internal sentence matches that signalled

<sup>4</sup> «Laymen, Lexicographers, and Linguists,» *Language* 46 (1970), pp. 245-58. Cf. particularly pp. 254-56.

<sup>5</sup> Lyons' monumental work, *Semantics*, has been made the target of an astonishingly anti-linguistic review by T. P. Waldron in *The Modern Language Review*, vol. 74, part 1 (1979), pp. 117-22. Among such charges as that Lyons follows men like Whitney and de Saussure in mistakenly treating linguistics as a science, is the statement that he remains «doggedly in a certain Anglo-American tradition (which is deeply committed to triviality and introspective fantasy — inventing disembodied sentences and then investigating their meaning)...» Waldron's attacks are in general not worth answering, but at least it can be pointed out that jury-testing is the best way of avoiding undue reliance on introspection.

in writing, the reader has understood. In either instance understanding involves the construction of complete and perfect internal sentences. Intonation and stress are necessary components of such sentences, and so of understanding. They are not merely icing on the fully baked cake.