

**Summaries of the Papers Read at the Twenty-third Annual Meeting of
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On the Intonation of Sentence Adverbials in English

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It has often been claimed that intonation is independent of grammar. This view is explicitly reflected in the following quote from Bolinger (1989:67): "Intonation and grammar are pragmatically but not linguistically interdependent. Neither can be used to define the other in any strict sense, but both cooperate in giving communications a fix on their meaning." It might appear at first sight that this statement is true, given that the choice of intonation is heavily dependent on the speaker's attitude and that an intonation pattern of a word or a sentence seems to vary from context to context. For example, *yes-no* questions, which are commonly associated with a rising tune (hereafter, R), can be said with a falling tune (hereafter, F) when they are not intended as genuine questions but as orders (e.g., *Will you hand me that chisel?*). On closer inspection, however, certain cases are found where grammatical factors play a crucial role in determining intonation patterns.

To explore the relation between intonation and grammar, let us begin by examining the intonation of sentential adverbials. As for certain types of sentential adverbials, there are restrictions on the choice of intonation. Observe the responses given by the speaker B:

(1) A: Now all we need is Susan's potato salad!

B: a. {/*~Certainly / /*~Definitely}, she will forget to bring the potato salad.
That's for sure.

b. {~Probably / ~Possibly}, she will forget to bring the potato salad. She's terribly forgetful about it.

When *certainly* and *definitely* occur in sentence-initial position and form a separate intonation group, they can take F but not R (following previous analyses such as Cruttenden (1981), we regard a fall-rise tune as a variant of R). Adverbials such as *probably* and *possibly*, on the other hand, have no such restriction and can take either F or R.

We claim that this difference can be attributed to the semantics of the adverbials. These adverbs all present a speaker's comment on the truth value of the proposition, but they differ from each other the degree of his or her commitment to the truth value of the proposition: *certainly* and *definitely* express the speaker's strong belief about what is said, while *probably* and *possibly* express some degree of doubt. Two points are worthwhile to mention here: the adverbials in question are associated with a scale of "likelihood"; *certainly* and *definitely* map the proposition onto the upper endpoint of the scale. Based on the fact that these two adverbials cannot take R, we propose the following constraint on the choice of intonation: adverbials which express a maximal (minimal) degree of a scale cannot take R. This constraint also correctly predicts that *probably* and *possibly* can take either F or R. It is clear that they do not mark the upper or lower endpoints.

The constraint also holds for other types of adverbs. Let us first consider a class of adverbs called intensifiers (cf. Quirk et al. 1985:589). According to Quirk et al., intensifiers are associated with an intensity scale and have effects of scaling upwards or downwards from an assumed norm on the scale. Our constraint predicts that intensifiers, called maximizers, which express the upper end point of the scale cannot occur with R. This prediction is in fact borne out by the following examples, where the adverbs form a separate group in slow speech.

- (2) a. I must $\vee^*\vee$ absolutely refuse to listen to your grumbling.
 b. I agree $\vee^*\vee$ entirely with you.

The restriction on the choice of intonation is not limited to adverbs which express the upper extreme of intensification. The same applies to those which mark the lower endpoint of the scale, called minimalizers.

- (3) a. Well, you know, he $\vee^*\vee$ less realizes what trouble he has caused.
 b. I $\vee^*\vee$ hardly agree with you.

Another piece of evidence which supports our claim comes from the intonation of frequency adverbs. They are also classified into two groups when associated with a nuclear tone. As shown in (4), for example, *always* can be associated only with F, while *sometimes* can be associated with either F or R.

- (4) a. I go to school by bicycle $\vee^*\vee$ always.
 b. I go to school by bicycle $\vee\vee$ sometimes.

Again, the observed difference can be explained if we take into account a frequency scale associated with these adverbs. In (4a) *always* implies that the speaker rides on a bicycle whenever he or she goes to school. Given this, it is clear that this adverb expresses the upper endpoint of the scale. Thus, our constraint neatly accounts for the ban on the use of R as for this adverb. No such restriction is imposed on the adverb *sometimes*. This can be attributed to the fact that it expresses neither endpoint of the scale.

All the above observations support the validity of the constraint that adverbials which express a maximal or minimal degree of a scale cannot take R. A question then arises of why the constraint exists. Its existence can be attributed to the meanings conveyed by R. It is widely accepted that the meanings associated with R are "non-assertive" (cf. Cruttenden 1981) or "judgment reservation" (Imai 1997). Given this, we can easily understand why the adverbials at issue cannot take this intonation pattern: it is a contradiction to reserve judgment on the absolute meaning involved in them. These considerations lead us to conclude that the intonation patterns of adverbials expressing the endpoints of a scale are determined by their semantics. Although it is necessary to take other factors into consideration, our semantic characterization of the intonation of adverbials enables us to offer the strong suggestion as to correspondence between intonation and grammar.