On Initial Boundary Tones in English Conversation

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ABSTRACT

This paper examines the beginnings of intonation phrases at possible topic and sequence junctures in a naturally occurring English telephone conversation. It shows that the two speakers systematically make use of high pre-heads in conjunction with high onsets at these sequential locations to mark turn-constructional units as topic- and/or sequence-initiating. What counts as high pre-head appears to require a positionally sensitive answer: high with respect to the speaker's voice range in turn-initial position but high with respect to prior syllables when the turn-constructional unit is rushed into within a turn. The study further suggests that choice of pre-head height is not dependent on onset height and thus that high initial boundary tones are a resource deployed independently, e.g. in the management of topic and sequence organization in everyday conversation.

1. INTRODUCTION

Using conversation analytically inspired micro-analysis of naturally occurring everyday interaction, [1] has shown that high onsets function as a resource for the marking of reason-for-the-call turns in American radio phone-ins. [2] identifies onset level as one of several means for accomplishing topic shift either disjunctively or in stepwise transition in English conversation. The present study – an in-depth investigation of one 16-minute telephone conversation between two friends, young American college students[1] – corroborates this finding and suggests in addition that the pitch of pre-head syllables is implicated in cueing new starts. Section 2 reviews the case for high onsets as topic- and sequence-launchers using data from the conversation under investigation; section 3 presents the argument for high pre-heads.

2. HIGH ONSETS IN TOPIC- AND SEQUENCE-LAUNCHING TURNS

At possible topic and sequence junctures in conversation, i.e. where topical talk and the ongoing sequence have reached a point at which they could optionally close down, turns which begin with high onsets are recurrently observed to launch new topics and sequences, whereas turns which lack high onsets are heard as continuing the topic and/or sequence. For instance, a few minutes into the conversation under investigation, as the current topic (unpopular English teachers at A's school) is coming to a close, speaker B launches a new turn beginning *Yeah, .hh This feller I have-* and ending *fer Linguistics is really too much*. The token *Yeah*, delivered in this position and with low volume, proposes to close down the prior topic and sequence. The following turn-constructional unit has its first accent on the word *feller*, which displays a pitch peak high within the speaker's normal pitch range (marked by the dotted lines) reaching a maximum of approx. 462 Hz (Figure 1). As described in the literature [3],[4] for accented syllables at the beginning of (topic-initial) utterances, the high pitch accent on *fel-* peaks relatively late, not reaching a maximum until the following syllable. This turn-constructional unit with its high onset launches a disjunctive shift to the topic of B's Linguistics teacher.

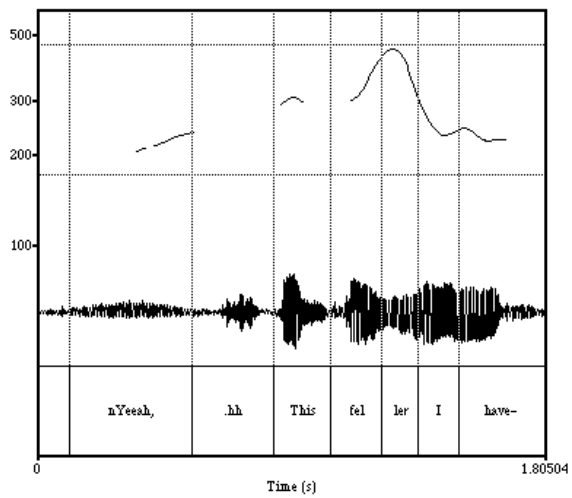

Figure 1: Pitch trace of topic-initiating turn-constructional unit (speaker B). All figures made with PRAAT, courtesy of Paul Boersma, University of Amsterdam.

A second case in point is towards the end of the conversation, when speaker A opens up closings by producing the following topically disjunct turn: *Yeh w'l I'll give you a call then tomorrow.* Here too the first accent on *I'll* reaches an extreme pitch (approx. 392 Hz) within the speaker's normal range and peaks late in the syllable (Figure 2). Note that speaker A does not use such extreme pitch when she repeats her turn *I'll give yih call tomo[rrow* following a next-turn repair initiator from speaker B (Figure 3). The same accent pattern is used in A's self-repair but the pitch accent on *I'll* only reaches 252 Hz. This can be taken as evidence that high onsets have a very

[1] I am grateful to E.A. Schegloff for permission to use this material. The original transcription has been retained in recognition of its high quality and to document those phonetic details which the transcribers found noteworthy.

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specific task in topic and sequence initiation, to mark first mentions. Repairs of topic- and sequence-initiating turns which involve recycling lack the quality of first mention and accordingly lack high onset.

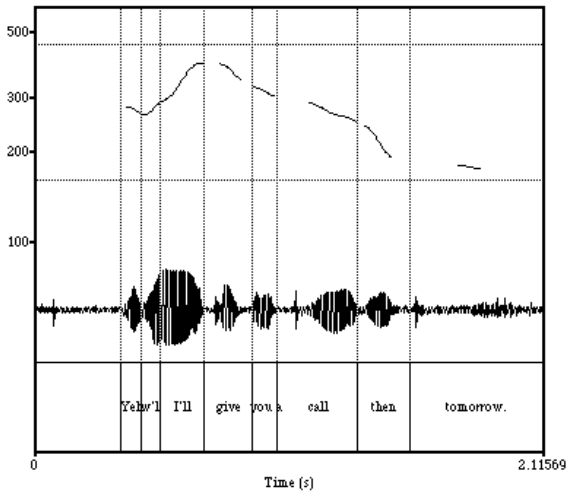

Figure 2: Pitch trace of sequence and closure-initiating turn (speaker A).

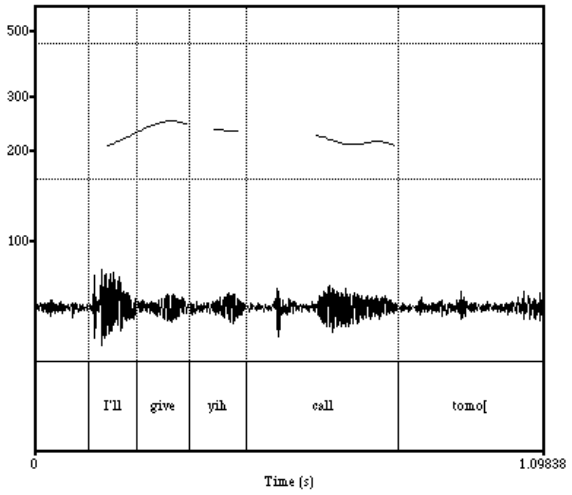

Figure 3: Pitch trace of repaired sequence and closure-initiating turn (speaker A).

Turns located at possible topic and sequence junctures which do not begin with high onsets are cued as continuing a prior topic or sequence in the conversation under consideration. For instance, towards the close of a telling sequence initiated by speaker A in which she assesses her Speech class as *really stupid* (see Figure 8 below) and following a brief gap in talk, speaker B produces the turn *Yih <u>have</u> anybuddy: that uh? (1.7) I would know from the English depar'mint there?* Yet B holds initial pitch in this turn at a level well below that associated with turns launching new sequences and disjunctive topics. The first accent on *have* is produced at approx. 204 Hz (see Figure 4). The absence of high onset here displays that this turn is being handled as part of the ongoing sequence. Because of its new referential material, people from the English department that B would know, it effects a gradual or stepwise shift of topic rather than a disjunctive one [5].

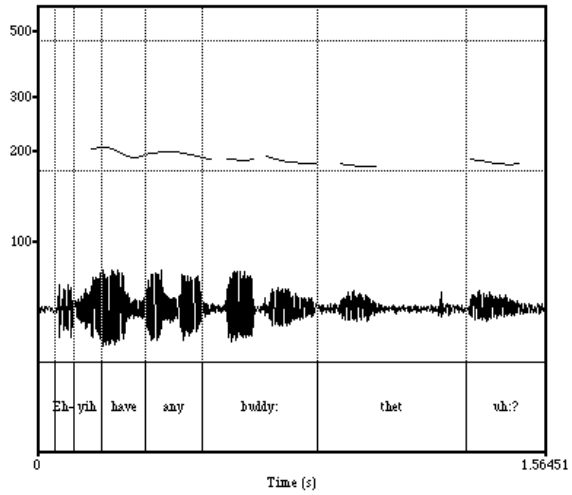

Figure 4: Pitch trace of sequence-continuing turn (speaker B).

3. HIGH PRE-HEADS IN TOPIC- AND SEQUENCE-LAUNCHING TURNS

Yet turns which are produced as disjunctive topic and sequence launchers in this conversation are characterized not only by high onsets. They regularly evidence high pre-heads as well. For instance, in Figure 1 the syllable *This* at approx. 326 Hz has a small local maximum which is relatively high compared to the recycled versions of the same phrase produced next in self-repair, *((iv) "felluh" this ma:n*. Here the pre-heads are at approx. 240 Hz and 192 Hz respectively (Figure 5).

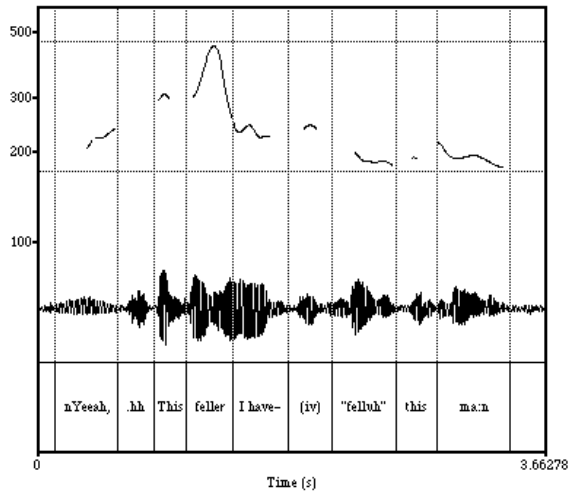

Figure 5: Pitch trace of repaired topic-initiating turn-constructional unit (speaker B).

Likewise, in Figure 2 the pre-head syllables *Yeh* and *w'l* at approx. 277 Hz and 256 Hz create a local peak which is relatively high compared to the level of A's other unstressed syllables.

Within an autosegmental metrical framework, the pitch configurations of pre-head syllables as in Figures 1 and 2 would seem to call for analysis as high initial boundary tones [3],[7]. When only one unstressed syllable precedes the onset, as in Figure 1, the boundary tone appears to be aligned with this syllable. Where there are two unstressed syllables prior to the head, as in Figure 2, the boundary tone appears to align with the first of these. Cases with more anacrustic syllables would be needed in order to determine exactly how fundamental frequency is configured between the initial boundary tone and the first pitch accent, i.e. whether it is simply interpolated over intervening material or not [8].

3.1 Judging pre-head height

As discussed in [3] and elsewhere, there is an issue in intonational phonology as to how pitch range is judged – whether purely relatively with respect to surrounding syllables or more 'absolutely' with respect to a given speaker's voice range. For present purposes the question is: What counts as a high pre-head? According to [6], the norm for pre-head pitch is a level slightly below that of the default onset, itself said to be a constant level roughly in the middle of a speaker's voice range. In the conversation at hand B's normal pitch range extends from approx. 170-460 Hz. Her default onsets tend to be located between 225-250 Hz. B's unmarked pre-head level might therefore be expected to lie slightly below 225-250 Hz.

The majority of B's topic- and sequence-initiating turns begin with pre-heads of 300 Hz and above (see e.g. Figure 1). Yet her new-start pre-heads are not invariably this high. Following the turn begun in Figure 4, speaker A declines the topic proposed, whereupon B makes a second attempt to launch a new topic in next turn [9]. In this second topic-launching turn-constructional unit *Did they geh ridda Kuhleznik yet hhh*, the pre-head syllables are at roughly 248 Hz and 298 Hz respectively with the onset syllable *geh* at 430 Hz (see Figure 6). These pre-head syllables are arguably heard as 'high' by contrast with the immediately preceding turn-constructional unit in B's turn. This unit consists of a third-turn receipt token, *Oh*, in response to A's prior turn and is accordingly pitched low (approx. 200 Hz). B's next TCU *Did they geh ridda Kuhleznik yet hhh* comes off as beginning 'high' because it is higher than *Oh*. (Its disjunctivity is marked additionally by the rhythmic break cueing a rush-through from the first into the second TCU.) Based on evidence from this conversation, the question 'What counts as a high pre-head?' appears to require a positionally sensitive answer: high with respect to the speaker's voice range in turn-initial position but high with respect to prior syllables when rushed into within a turn.

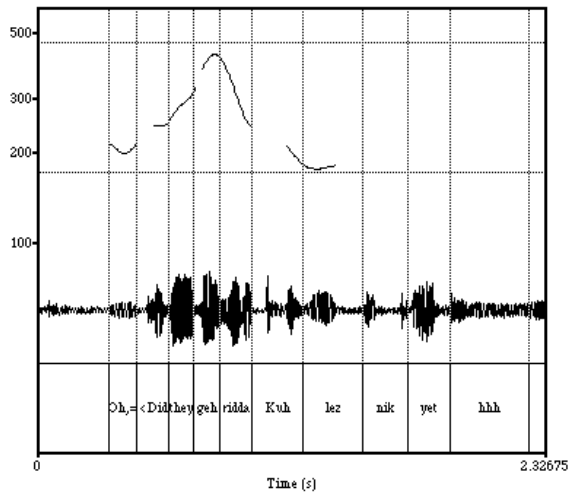

Figure 6: Pitch trace of second topic-initiating turn-constructional unit (speaker B).

3.2 Evidence for the interactional function of pre-head

There is evidence of two sorts in this conversation that high pre-heads are indeed functioning along with high onsets to mark topic- and sequence-initiating turn-constructional units. For one, speakers on occasion recycle turn beginnings, readjusting the pitch of anacrustic syllables upwards when they have begun a topic or sequence-launching turn without extra pre-head height. For instance, at another point of possible topical and sequence juncture in the conversation, speaker B says *Dihyuh have any- cl- You have a class with Billy this te:rm?* Her first try on this turn is pitched relatively low, at a level comparable to that in Figure 4. Before producing the first accent, however, she breaks off and recycles the turn, beginning with higher pitch on the anacrustic syllable *You* (Figure 7). The readjusted height of the pre-head in the recycled version suggests that speaker B is actively seeking to use pre-head pitch height together with onset height as a resource for marking topic- and sequence-initiating turns.

Second, when turn-constructional units begin with high onsets but do not initiate disjunctive topics or new sequences, pre-head syllables do not display extra pitch height. Talking about her Speech class at school, speaker A describes it as follows: *Yih know, it's a real Mickey Mou:se thing.=It's really stupid.* The onset syllable *real* is marked for strong affect and has a high pitch accent (452 Hz). Yet the pre-head syllable *it's* is produced at approx. 215 Hz and is not heard as being high (Figure 8).

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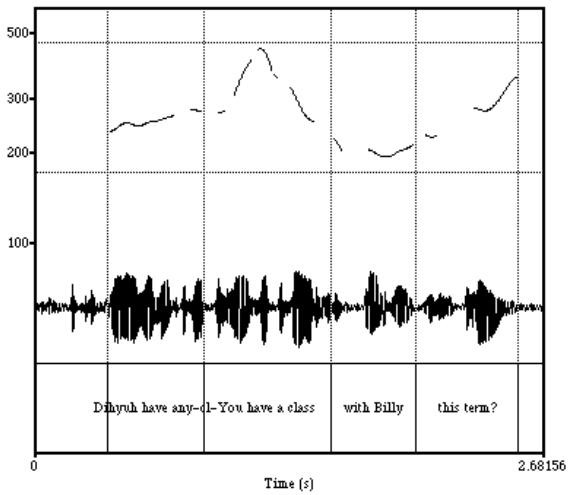

Figure 7: Pitch trace of recycled topic-initiating turn-constructional unit (speaker B).

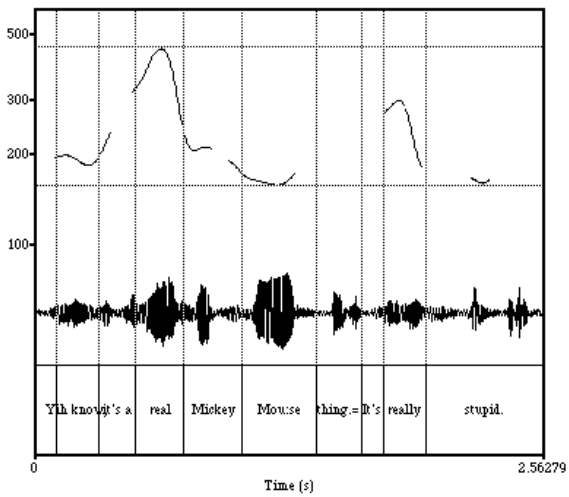

Figure 8: Pitch trace for turn-constructional unit with high onset which is not topic- or sequence-initiating (speaker A).

4. CONCLUSIONS

Evidence of this sort suggests that high pre-heads do not automatically accompany high onsets but are instead chosen independently, in order e.g. to mark topic and sequence initiation at possible junctures in conversation. This finding is revealing with respect to the question of whether pre-head and following pitch accent may tie to one another in a sort of ‚intonational compound' [8],[10]. The implication is clearly that they may, but the compounding attested here runs contrary to claims made in the literature that polar or contrasting sequences are favored [10],[11]. Instead it is the combination of high pre-head and high onset which is recurrently used at junctures in this conversation to mark the beginning of turn-constructional units launching disjunctive topics and new sequences. This pre-head+onset combination has the advantage that it projects unmistakably from the very outset of a turn that the talk about to be produced will be starting something new, the new start being cued quasi-iconically by the natural accompaniments of a fresh intake of breath, higher pitch and greater loudness. Due to its production in real time, natural conversation is crucially dependent on projective cues of this sort.

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