When Phonation Matters:

The Use and Function of *yeah* and Creaky Voice

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This paper illuminates the conversational functions of the combination of creaky voice quality and the response token *yeah*. Jefferson (1984) described *yeah* as an acknowledgement token that also projects "a preparedness to shift from recipiency to speakership" (p. 200). This speaker incipiency is not consistent, though. While *yeah* is sometimes used to indicate a shift from recipient to speaker, it is sometimes used simply as an acknowledgement token. This difference in function of apparently similar items may be related to token shape. This paper examines several telephone interactions and finds the use of *yeah* with creaky voice to indicate passive recipiency and either a dispreference to continue the current topic, or a disalignment with the primary speaker. This analysis contributes to the study of phonetics in interactional linguistics. In addition, it supports the notion that token-shape distinctions can account for functional differences within token types. It suggests that phonation or other behavior below the word level may be significant in verbal interaction.

1. Introduction

Interactional Linguistics is the emerging endeavor to study traditional linguistic interests, including syntax and phonology, using the tools of Conversation Analysis (Selting and Couper-Kuhlen 2001). At the level of sound patterns, much work has clustered around analyses of prosody and intonation (e.g. Couper-Kuhlen and Selting 1996), and their functions in conversation. To date, there has been less attention paid to narrower, phonetic analysis of speech sounds[1].

This paper presents an analysis of the conversational functions of the combination of creaky voice quality and the response token *yeah*. While response tokens are extensively studied within Conversation Analysis, voice quality has not been widely considered from an interactional point of view. Nonetheless, this paper will suggest that qualities such as creaky voice are available to speakers as resources, and that voice quality may interact with the word *yeah* to perform a set of conversational functions.

Within the field of phonetics, creaky voice, or laryngealization, has been described as one of a number of phonation types, or voice qualities. Ladefoged (1982) catalogs a variety of phonation types, including modal voicing – the normal vibration of the vocal folds which, according to Ladefoged, occurs in all spoken languages – as well as aspiration, murmur, "glottal catch," pharyngealization and laryngealization[2]. However, in his brief discussion, Ladefoged mentions only cases in which these glottal distinctions are phonemic; he makes no mention of the occurrence of such phonation types in languages whose speakers do not systematically utilize or orient to them as distinctive. However, implicit in Ladefoged's opening remarks is the suggestion that such varieties might occur

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1. However, see, for example, Local and Kelly 1986, Fox Tree and Clark 1997, Bybee and Schiebman 1999, and Jurafsky et al. 2001.

2. This compares to five features for glottal stricture described in Ladefoged (2001): [voiceless]; [breathy voice]; [modal voice]; [creaky voice]; and [closed], the setting for glottal stops.

in any normal speaker's repertoire. Indeed, Ladefoged (2001) notes that creaky voice "occurs at the ends of falling intonations for some speakers of English," (125) even though English has no laryngealized phonemes. There is, though, no discussion of the functions of creaky voice in languages where it is not distinctive.

Other scholars have suggested that creaky voice can have communicative function in English. Pittam (1987) suggests that, for Australian speakers, creaky voice indexes low solidarity and is associated with male speakers. Blount and Padgug (1976) describe creaky voice as characteristic of English care-giver speech. Duncan and Fiske (1977) suggest that, when coupled with low pitch, creaky voice can signal the end of a conversational turn.

From an interactional point of view, two works bear particular mention. Ogden (2001) suggests that among Finnish speakers, creaky voice often co-occurs with syntactic completion, pragmatic completion, and sentence final intonation at the end of a turn-constructional unit (TCU; Sacks, Schegloff and Jefferson 1974). Such a combination of potential turn-end markers indicates a Complex Transition Relevance Place (CTRP; Kärkkäinen, Sorjonen and Helasvuo, to appear), where a current speaker typically gives way to a new speaker. This use of creaky voice contrasts with glottal stops, which are generally not treated as transition relevant, even when followed by a long pause. Furthermore, when creak co-occurs with one or more of these elements, but speaker transition is not affected, TRP is retracted by, for example, rushing through the next TCU.

To date there are no widely reported findings for English orientation to creaky voice which would compare to Ogden's findings in Finnish. However, Jasperson's (1998) work on repair in English suggests that glottal stop may function in a comparable way in each language. In several types of focus-repairs described by Jasperson, a speaker may produce a significant pause after a glottalized cut-off. According to Jasperson (personal communication),

> Closure cut-off (which can, under the right conditions, be realized by glottal stop) is routinely used to initiate same-turn repair of the TCU-so-far, and to that extent projects more talk to come (the repair), the continuation of the TCU. Silences that may follow closure cut-off, before the resumption of phonation, get interpreted as belonging to the speaker, because she has not brought the turn to possible completion.

Thus, in English as in Finnish, glottal closure is not treated as transition relevant. It remains to be seen whether English speakers treat other glottal strictures, such as creaky voice, as marking transition places.

Unlike creaky voice, the lexical item *yeah* has inspired a great deal of writing by linguists. In fact, the shear volume of information precludes a thorough review here. However, two studies that bear on the issues discussed here should be mentioned.

Jefferson (1984) offers a preliminary analysis of the interactional work which speakers can accomplish through the deployment of acknowledgement tokens *mm hm*, *uh huh*, and *yeah*. According to Jefferson, *mm hm* and *uh huh* mark "passive recipiency" (202). *Yeah*, on the other hand, is said to mark "imminent speakership" (202); that is, a recipient who produces *yeah* as an acknowledgement token also projects an assumption of primary speakership. However, Jefferson points out that not all tokens of *yeah* prefigure a change in speakership. What accounts for this variability? The answer is not

entirely clear, but Jefferson suggests that "token-shape" may account for differences in function of apparently similar tokens. This suggestion leaves open the possibility that phonation or other behavior below the word level may be important to the form and function of acknowledgement tokens.

The work of Drummond and Hopper (1993a) is in some ways a continuation and expansion of work begun by Jefferson (1984, 1993), particularly Jefferson's suggestion that there is a continuum from the passive recipiency of *mm hm*, to go-ahead markers such as *oh really?* to the speaker incipiency marked by *yeah*. Drummond and Hopper find *oh* and *okay* frequently at the end of tellings, often projecting a change in speaker and/or topic[3]. The tokens *mm hm*, *uh huh*, and *yeah* all occur earlier in the telling, and prefigure a continuation of the telling. When all three tokens occur during the course of an extended telling, *mm hm* tends to be realized earliest in the sequence, and *yeah* latest. Further, *yeah* may signal a shift in speakership, with the participant who utters the token taking over as primary speaker. As Jefferson (1984) found, though, *yeah* can also prefigure a continuation of the telling.

2. Data and analyses

The data for this study consist of approximately twenty-five minutes of telephone conversations. This may be considered 'found' data; it was not recorded by the investigators for the purpose of analysis. Instead, phone calls were recorded by men who were 'teasing' telemarketers, attempting to keep them on the line for as long as possible with no intent of buying the service advertised. The peculiar nature of these conversations may make it impossible to generalize about much of the behavior recorded. However, since speakers seem not to have any metalinguistic knowledge of their ability to manipulate phonation type (despite the facility of manipulation found by Jasperson 1998 and Ogden 2001), we assume that the particular phonetic behavior described here is not affected by the nature of the conversation[4].

The investigators worked with audiotapes of the conversations; the tapes were transcribed and coded for the occurrence of various discourse markers. 'Discourse marker' was defined to include items such as *oh, ok, really, mm, mhm, uh huh,* and *yeah*[5]. Within the transcripts, *yeah* was the most frequent lexical discourse marker, accounting for 87 of the 260 markers coded. Also coded was the occurrence of creaky voice, determined impressionistically (see Local 1996). A word was coded for creaky voice when creak was hearable over at least one syllable of the word.

Distributional analyses (see below) showed that *yeah* with modal voicing tended to be followed by additional speech much more often than *yeah* delivered with creaky voice.

3. This is comparable to the go-ahead responses that Schegloff (1995) describes in pre-expansion sequences and minimal post expansions.
4. Reviewers have also pointed out potential ethical dilemmas related to the use of recorded telephone conversations. This is certainly an issue that researchers should be sensitive to. However, all names and individual identifiers have been suppressed from the data. Furthermore, since both the company employing the telemarketers and the customers themselves reserved the right to record the interactions, we have decided to use the data. Both federal and state law allow for such recording when, as in this case, at least one party grants consent.
5. For a fuller description of discourse markers, see Jucker and Ziv (1998).

Conversational Analysis was then carried out on portions of the data that featured the word *yeah*, both with and without creaky voice.

(1) Example 1. Creaky and non-creaky *yeah*.

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    Track_02:45-50
44  M: mean if you only make five calls uh you know five times
    thirty five that's like ((water stops))(0.80) you kno::w (0.6)
    m'sorry (0.72) little slow on m'math . it's like=
45  R: =oh, it's like a dollar fifty somethin'\ [(>you know uh<)
46  M:                                          [yeah, it's like a
    dollar fifty five,
47  R: %ye:[ah,%
48  M:     [th]at's for five calls at dollar fifty fi[ve,        ]
49  R:                                               [%;ye::ah;%]
50  M: that# that's a lot less then paying like four ninety five a
    month for you just for making like . you know five ca:lls you
    know,
```

In example 1, neither instance of creaky *yeah* is accompanied by other speech. Both function as minimal responses and indicate passive recipiency (Jefferson 1984). However, we would expect the function of the non-creaky *yeah* to be different. Although it still functions as a minimal response acknowledging the past turn, it signals high speaker incipiency. That is, it secures that the speaker who has just uttered *yeah* will remain or will become the primary speaker. Indeed, this is the case following the non-creaky *yeah* in example 1.

In the interaction so far, M has been the primary speaker, describing a telephone rate plan to R. At line 45, R co-constructs M's turn by supplying the answer to M's calculation. So, M's *yeah* at line 46 demonstrates his intent to remain the primary speaker. On the other hand, creaky *yeah* in line 47 has the complimentary function indicating passive recipiency. R does not express interest in taking the floor, but rather he merely gives an indication that he accepts or is following M's ongoing explanation. Similarly, after the creaky *yeah* at line 49, M continues his sales pitch with no interruption from R.

(2) Example 2. No uptake.

```
    Track_02:96-101
96  M: =yeah\ so right now you are probably payin' about three
    ninety five if ya have qwest for your long distance\
97  (0.62)
98  M: of course i'm# i'm not ((dishes start up again)) exactly
    certain cause . i mean unless you know which program you have
99  (0.85)
100 R: ri:ght, (0.27) *%yeah right%*=
101 M: =but like i said right now i can getchyou seven cents no
    monthly fees or minimums\
```

Example 2 illustrates another case of creaky *yeah* used to indicate passive recipiency. Of particular interest in this example is the sequence organization between the two speakers. Although M is providing a space for R to reply -- this space is evident in the silences between M's turns -- there is no uptake by R. When R finally produces a reply

and M does not resume speaking, R produces creaky *yeah* signaling his intent to remain a passive recipient.

From these examples it appears that creaky *yeah* functions to mark passive recipiency, not projecting further speech from the speaker who produces it. Furthermore, creaky yeah may be seen as an attempt to close out a sequence or discontinue the current topic. As seen in Example 1, however, this attempt by the primary recipient to close a topic may or may not be respected by the primary speaker. That is, the attempt to close a sequence is not always successful, since it depends on concurrence of the interlocutors. It is often the case, as in Example 2, that creaky *yeah* displays dis-alignment or dispreference for continuing the sequence. Thus, creaky *yeah* can be seen to function both as a marker of passive recipiency and as a tool to accomplish sequence closings.

The following example shows a possibly deviant case. In Example 3, which precedes and includes a portion of Example 1, M produces creaky *yeah* and follows it with a substantial turn.

(3) Example 3. Deviant case analysis.
```
     Track_02:31-44
  31 R: [and then . on top                 ] of the seven cents
               there [and so was like]  forty [two cents]
  32 M:            [yeah, yeah     ]         [there . is a . ]
       there is a thirty-five cents surcharge yeah,
  33 R: we::ll there you go,   that's what I'm [gettin at,
  34 M:                                        [ye:ah,]
  35 M: but that's only when you use it i mean you say you don't
       make many calls i mean you make an an average amount of calls
       though right?
  36 R: i don't know wha[t an average amount of calls is,
  37 [((dishes banging continuously))]
  38 (0.38)
  39 M: you said about five to ten right?
  40 R: ((long inhalation)) sss i don't kno:w,=
  41 M: =that's about average for most people,=
  42 R: =is it?
  43 (0.49)
→ 44 M: %ye:ah,% i mean it's# it's not a lot ((water running))of
       calls really? (0.49) mean if you only make five calls uh you
       know five times thirty five that's like ((water stops))(0.80)
       you kno::w (0.6) m'sorry (0.72) little slow on m'math . it's
       like=
```

In this example, M is the primary speaker. Again, he is making a sales pitch, to which R displays recipiency. Unlike previous examples, where the primary recipient utters creaky *yeah*, here M uses the token, at line 44. Lines 42-44 constitute an insert sequence within the on-going interaction. At line 42, R produces a checking question, which M answers at line 44 with creaky *yeah* before resuming the larger activity in which he has been involved. Thus, the creaky *yeah* at 44, followed by sentence final intonation, accomplishes much the same function as that displayed in Examples 1 and 2.

In terms of speaker incipiency, creaky *yeah* appears to be similar to *mm hm* or *uh huh*, as described by Jefferson (1984, 1993) and Drummond and Hopper (1993a, 1993b). That is, a participant who utters either *mm hm*, *uh huh*, or creaky *yeah*, continues to be a

recipient, and allows her conversational partner to continue as the primary speaker. There appears to be a slight difference between these tokens in terms of alignment, however. Example 4 shows that the use of *uh huh* indicates alignment with the primary speaker.

(4) Example 4. Alignment with *uh huh*
```
Track_04:127-135
127R: so thirty five cents no matter what,
128M: right thirty five cents no matter what\ [and then (   )]
129R:                                         [and then seven
   cents] on top of that,
130M: right [but you know ]
131R:       [so if i     ] if i just call one minute\
132M: uh-hmm?
133R: it's seven=
134M: =forty two,=
135R: =seven cents plus thirty five,
```

Here, R is checking his understanding of the sales-pitch-so-far. At line 128, and again and at 131, M has produced speech in overlap with R. In both instances, M drops out, and allows R to speak. M's *uh hmm?* at line 132 indicates passive recipiency, allowing R to continue as primary speaker. Further, *uh hmm* indicates alignment with the turn that R is in the midst of producing. This alignment is further evidenced by the co-construction of the number and its significance in lines 133-135.

Contrast the alignment shown by *uh hmm* with the dis-alignment and topic transition that creaky *yeah* marks in Example 5.[6]

(5) Example 5. Disalignment with creaky *yeah*.
```
Track_03:358-368
358M:               [yaa::h, . heh,            ]        =yaa::h\
   that's a good college,
359R: you know i TELL you ma:n\ every weekend\ those# those da:mn
   kids are up there BURNin' the DA:MN hill down\
360R: you [know, kickin' in the windo:ws]
361M:     [he he he                      ]
362R: and drinking bee:r and throwing up and all over the damn
   street\ and [burnin'] sofas/
363M:           [hhhhh  ]
364 (0.598)
365R: those {expletive deleted} crazy over there those BA:stards,
366M: %yaa::h%,
367 (0.694)
368M: so like what you think about that other pla:n,
   (unintelligible) the surcha:rge with thirty five cent
   connec[tion fee:?        ]
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In response to M's observation in line 358, 'Yeah, that's a good college,' R produces a telling that may be seen as disagreeing. R describes some negative aspects of college

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6. A potentially offensive expression has been removed from Example 5.

life, and ends with an unflattering characterization of the students, which includes an offensive racial epithet. This remark is followed by M's creaky *yeah* at line 366. The use of creaky *yeah* signals M's desire for R to end the current topic, but allows for R to remain the primary speaker. Following the creaky *yeah* there is a significant silence, during which R fails to resume speakership. After a pause, M self-selects and begins a new topic.

3. Results

The data from this pilot study revealed a high proportion of creaky voice tokens occurring on the word *yeah* (n=5 of 8 creaky voice tokens). As mentioned on the previous section, we conducted a distributional analysis on the audio data comparing occurrences of creaky and non-creaky *yeah*. Tables 1 and 2 show the results of this analysis.

	speech final	non-final	total
count	37	56	93
%	40%	60%	

Table 1. Number of speech-final occurrences of *yeah* versus *yeah* followed by speech.

	speech final	non-final	total
count	4	1	5
%	80%	20%	

Table 2. Number of speech-final occurrences of **creaky** *yeah* versus **creaky** *yeah* followed by speech.

The above tables show that instances of non-creaky *yeah* are likely to be followed by additional speech. This finding is analogous to Drummond and Hopper's (1993b) observation that 46% of *yeah* tokens are followed by speech. The instances of creaky *yeah*, on the contrary, tend not to be followed by speech. In fact, they appear to show preference to occur alone.

Although our research is preliminary and based on a very small set of data, it nevertheless shows a clear distinction between creaky and non-creaky *yeah* and functional interaction between voice quality and lexeme. This distinction is not unlike the one presented in Jefferson's (1984) analysis, which showed a distinction between *yeah* and *Mm hm*. Jefferson suggested, "This systematic distinction, raised in a single-instance analysis which generated a collection, can now serve as a resource to be turned to further single-instance analysis, where some otherwise obscure interaction-bits can be brought to focus" (206).

Our analysis shows that voice quality may interact with words to perform a set of conversational functions. Discourse uses of the combination of creaky voice quality and response token implicate the following semantic functions: passive recipiency, a dispreference to continue the current topic, or a disalignment with the primary speaker. These findings support the notion that token-shape distinctions can account for functional differences within token types and that qualities such as creaky voice are available to speakers as resources. Our research contributes to the study of phonetics in interactional linguistics as it pays attention to the narrower, phonetic analysis of speech sounds. In addition, it suggests that phonation or other behavior below the word level may be significant in verbal interaction.

4. Conclusion

This study set out to illuminate the functions of a response token, *yeah*, and a phonation type, creaky voice. We have demonstrated that creaky *yeah* is not identical in function to *yeah* with modal voicing or other types of glottal stricture. While Jefferson (1984) suggests that *yeah* generally signals high speaker incipiency, *yeah* in conjunction with creaky voice signals passive recipiency. This observation may support and explain Jefferson's suggestion that token-shape distinctions can account for functional differences within token-types.

Considerable work exists to describe the functions of *yeah*. A recurrent suggestion (Jefferson 1984, 1993; Drummond and Hopper 1993b, 1993c; Gardner 1998, 2001) is that *yeah* marks speaker incipiency. To date, however, analysts have described this incipiency as variable. While *yeah* can both respond to a previous utterance and project continued speech, it is not always followed by further talk. The present analysis suggests one possible reason for this: creaky *yeah* features speaker incipiency so low that it has the complementary function of indicating recipiency.

Very little interactional research has been done on creaky voice. Ogden's (2001) research on glottal phonation and turn transition in Finnish is one example of such work. Ogden's suggestion that creaky voice occurs at the ends of turns, and signals transition relevance, is compatible with our findings. In Finnish, creaky voice signals the end of a speaker's turn. This invites an interlocutor to take the floor, and projects recipiency on the part of the speaker who produces creaky phonation. We have suggested that, in English, creaky *yeah* similarly signals recipiency and requests a change in topic. Our further suggestion that creaky *yeah* indicates dis-alignment or dispreference may be limited to English or to this token alone. It remains to be seen what, if any other functions creaky voice has in English talk in interaction.

Appendix A

Transcription Conventions

?	terminal rise
،	terminal fall
/	non-terminal rise
\	non-terminal fall
.	short pause (< 0.2)
(0.6)	pause in seconds
#	cut off or interruption
(( ))	transcriber's notes
( )	transcriber's best guess
(unintel)	unintelligible speech
* *	low volume
¡ ¡	low pitch
% %	creaky voice
> <	relatively fast speech
BAstards	relatively high volume
pho:ne	long segment
!	alveolar click
hh	exhaled breath

NB: These transcription conventions were designed for easy reproduction in ASCII character sets. Thus, they can be used with most transcription software and most email or other file-sharing software. Note also that, unlike earlier systems, each mark of punctuation has only one function.

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