

The changing voice of women

Barry Pennock

Universitat de València

ABSTRACT

Although changes in our verbal behaviour have affected both men and women, the latter have probably undergone more sweeping changes than the former. These changes have been remarked upon by many linguists, Lakoff (1975) and Tannen (1991) to mention but two. Most studies of the way women speak have centred on what women say rather than the way they say it (Coleman 1976, Graddol & Swann 1983, Biemans 1998, Cameron 1998, 2000). In this paper, therefore, I would like to look at voice quality and the way it conveys ideas about what women may be like to the listener. To illustrate the way voice quality affects our perception of women's personality I have analyzed the voices of three famous contemporary American actresses.

1. INTRODUCTION

In today's post-industrial society in which the service industries have taken over from the traditional industries of manufacturing, the way we dress, act and, what we are interested in here, speak, has become increasingly important, especially in the work place (Cameron 1998, 2000). Graddol & Swann (1987: 36) put this point even more forcefully when they say that our voices "... can directly affect the lives of individuals, their job opportunities and their relationships with other people." A corollary of this standpoint is that what we say and the way we say it may have changed over time due to societal pressure.

It is my contention that one particular voice characteristic, known as creaky voice, has become a common characteristic of the speech of young Americans, both male and female and that the increasing use of this type of voice among women has brought both groups closer together. In order to prove that creak is now an important characteristic of the speech of young American females I will compare the voices of three young actresses from the United States playing both American and British characters to show that they deliberately manipulate voice quality to attain specific "styling" effects.

2. ANATOMICAL CONSTRAINTS ON VOICE

It might be thought that the sound of each individual voice is as fixed as our fingerprints and it is true that anatomically a person's voice is relatively stable and is

generally beyond our conscious control. An example of just how difficult it is to change the basic characteristics of one's voice can be found in the case of men who go through a sex change. Although it is now possible to transform women into men and men into women using surgery and hormone treatment, in the case of the latter, the original sex of the transformee is often still evident even after speech therapy. This is because, according to most accounts men's fundamental frequency, and its perceptual correlate, pitch, is considerably lower than women's due to anatomical differences in the vocal folds. Differences in the size of supra-vocal tract also differentiate men from women. Graddol & Swann (1989: 15) state that the "size of the vocal cavities affect a voice's *timbre* rather than its pitch but the two impressions are frequently difficult for listeners to disentangle." Pitch, like many voice characteristics, may carry information for the listener which the speaker is unaware of. Such information is given the name "informative" by Lyons (1979: 33) in contrast to "communicative" which refers to the information we deliberately wish to convey.

3. VOICE SETTINGS

Among women and men there are, of course, innumerable types of voices and so one's biological sex is just one factor to be taken into account.. To explain these individual differences, Abercrombie (1967) uses the term "voice settings", that is the muscular adjustments that we all tend to make and which characterize our voices. Voice settings include such phenomena as pitch, creak, breathy voice, etc. In other words, our voices give other information we might be unaware of.

Although, as we have seen, pitch is determined by our physical size, that is, it is informative, according to Lyons (1979), it can also be manipulated purposely in which case it becomes communicative. For instance, Mattingly (1966: 75) found that the differences between adult males and females are actually higher than one would expect if only anatomical differences are taken into account while Graddol & Swann (1983) found that although men's size was reflected in the pitch at which they spoke, this was not the case with women. Men appear to stay within the lower limits of their pitch range, which are rather more monotonous while women are more variable in range and the differences between individual females are greater. This points to a greater tendency for women to change intonation depending on the context and perhaps to the fact that men deliberately restrict themselves to the lower frequencies. In this respect, Brend

(1975: 86) contends that men have three levels of pitch while women have four, that is, women use more of their range than men. Perhaps this is because men and women know intuitively that listeners judge speakers' 'masculinity' or 'femininity' mainly through pitch, a fact which is made clear in Coleman (1973) and many other studies.

Pitch manipulation seems to start early. Mattingly (1966) found that pre-pubescent girls actually had lower fundamental frequencies than their male peers even though differences in size between the sexes with regards to vocal folds and vocal tract are negligible at this stage in development. However the formants for the vowels /i/ and /u/ were lower for boys than girls. Apparently boys round their lips, which lengthens the vocal tract and, therefore, lowers the formants making their voices sound lower. Mattingly (1966: 75) affirms that women have a tendency to talk and smile at the same time, which produces the opposite effect. Evidence of lip-spreading and the concomitant raising of pitch have also been found by Stuart-Smith (1999: 211) in the voices of middle-class Glaswegian girls although she was loath to speculate as to whether this was done to sound 'feminine'.

Ohala (1983) sees lower pitch in both humans and animals as a sign of dominance and authority while high-pitched sounds are generally made by subordinate members of a group. This would explain, for example, why in questions we use high pitch at the end of an utterance. Obviously the connotations with regard to male and female speech are clear. Graddol & Swann (1989: 34) seem to agree with Ohala (1983) when they state that "the meanings of different voice qualities are *not* entirely arbitrary or conventional". Just like young boys women can learn to lower their pitch but doing that and acquiring a more authoritative voice has its drawbacks (Graddol & Swann 1989: 38):

... it seems that whilst a man can aspire to a voice quality which attracts many socially desirable connotations (bigness, sexually experienced, and authoritative) a woman will be faced with compromises. The vocal attributes which signal authority and competence, for example, conflict with those that signal desirable features of femininity and female sexuality.

The most obvious case of a woman who deliberately changed her voice quality to achieve more authority within politics is that of Margaret Thatcher (Cameron 1995: 170), a move which probably contributed to her masculine image.

4. CREAKY VOICE

Creaky voice, which is normally low pitch, is a voice setting produced by the vocal folds opening and closing very slowly. The frequency of creaky voice is often irregular. It is not usually found throughout an utterance but tends to occur with falling intonation at the end. In a way, it is an artificial method of lowering one's fundamental frequency and therefore one's pitch. Moreover, individuals with a high fundamental frequency, i.e., women, are capable of producing creaky voice just as well as men, who generally produce utterances with a low fundamental frequency.

Creaky voice may also depend on where one is from. It is not found in all varieties of English but it has been identified with speakers of Received Pronunciation [hereafter RP] (Laver 1980: 351 cited in Laver & Trudgill 1980). Creak is often accompanied by low falling intonation, signalling completion of turn. Esling (1978: 176) discovered in Edinburgh that greater social status corresponds to a greater increase of "creaky" phonation, lower social status, greater whisperiness and harshness. Paralinguistically, for RP speakers, a complete utterance with creaky voice signals "bored resignation" (Laver 1980: 126). Henton & Bladon (1988), Klatt & Klatt (1990) and Stuart-Smith (1999) all found evidence that men in certain geographical areas have creakier voices than women. Evidently, whether speakers in these areas acquired creaky voice in a conscious fashion or not, it is clear that creak can be learned. Another possible cause of creaky voice is age (Pittman 1994: 67) but in this case it is not a voice setting which acquired deliberately.

5. CREAKY VOICE IN YOUNG AMERICAN ACTRESSES

During my experience as a teacher of both Spanish, British and American students I noticed that some young American female students had noticeably creaky voices and that all the others shared this trait to a certain extent. I then noticed that creak could also be heard in the voices of young American actresses. This prompted me to analyze this phenomena and its possible causes. Therefore I focused on three famous Hollywood actresses in roles that embody positive stereotypes of femininity as it was my hypothesis that if creaky voice was prevalent in the voices of these actresses, it might mean that it was also a prestigious characteristic of contemporary female speech. As Graddol & Swann (1989: 27) point out:

It would be surprising if people did not use their voices to project a culturally desirable image. Other parts of the human body which have been endowed with social significance are manipulated, groomed or decorated before being presented in public.

I chose: Gwyneth Paltrow, Reece Witherspoon and Renée Zellweger due to the fact that they have played British and American characters. My hypothesis is that creak is an important component of contemporary female speech in the United States and not in Britain and this should be borne out if creak is not found in their portrayal of British women.

I looked at five films in which Gwyneth Paltrow appears: *Duos* and *Shallow Hal* in which she plays an American and *Emma* and *Shakespeare in Love* and *Sliding Doors* in which she plays a British character. In the latter three, according to most critics, she does a very good job imitating an English accent. Although less creaky than other actresses, creak is heard in the American films but not in the English ones.

In the case of Renée Zellweger, I analyzed two films, *Jerry Maguire* and *Bridget Jones's Diary*. In the first, Zellweger's voice is often creaky at the end of an utterance and is sometimes breathy –especially in intimate scenes. This ties in with Gobl & Chasaide's (2000: 182) research results which indicate that lax-creaky voice is associated with a high level of intimacy –even more so than breathy voice. In the British film, in which Zellweger was praised for her imitation of an English accent, creaky voice is also present to a much lesser extent as is breathiness –at least one reviewer mentions this as a characteristic of Zellweger's lapsing into Texan English. However, in later scenes in the film the creakiness is a lot less evident.

Finally, the Reece Witherspoon films I looked at were *Legally Blonde* and *The Importance of Being Earnest*. Of the three actresses, Witherspoon has by far the creakiest voice. Creak is present in many utterances in *Legally Blonde* but is entirely absent in this film version of *Wilde's play*. Of course, as the latter is a costume drama set in Victorian times, the comparison between the two films is complicated by the time factor.

These results would seem to point to the fact that stereotypically young American women employ creaky phonation to a greater extent than young English women. Thus creak is a voluntary articulatory setting in the case of these three actresses. So, desirability depends on the cultural setting –creak is desirable in America but less so in Britain.

6. CONCLUSIONS

The fact that creaky voice is a component of the voices of young American actresses who act as role models to so many young women in America leads me to conclude that it enhances their desirability. As usual, to decide whether art is imitating life or vice-versa would be sterile and impossible to prove empirically. My guess would be the former. I believe actresses are a product of their environment though they may later influence the environment themselves. If I am right, why have they acquired this feature of speech? It could be that creak is just a speech fashion which has caught on through imitation, a way of showing indifference or a certain detachment, which has also been a characteristic of the speech of the male members of the upper classes in Britain for quite a long time (Laver 1980). One only has to listen to the voices of British actresses from the thirties and forties to discover that creaky voice was not usually heard in the speech of women of this class, no matter what their age.

On the other hand, even if the reason for using creaky voice is to show a certain indifference, that is, if women artificially lower their fundamental frequency through creak, one result is that their speech is closer to that of men, whose voices are naturally lower.

In this respect it is interesting to compare creak with High Rising Terminal (HRT) where statements receive rising intonation as this phenomena is also found more commonly among women although the motivation for it would seem to be that if you sound like you are asking a question, you are leaving the responsibility for what you say to the listener (Gordon and Deverson 1999) and it could be said that a subservient role is being accepted by the speaker.

In the case of creak it is possible to conjecture that what is happening is that women are converging with men as far as pitch is concerned, possibly in an attempt to be like them. As women are becoming more and more integrated in the workplace and are sharing more and more roles with men, it is conceivable that convergence in this area is a positive step for them. Butler's (1990, 1993) concept of gender as being performative would fit in with this viewpoint in that taking on a different voice quality seems to prove that a favourable gender image is constructed rather than given.

From a pragmatic point of view further research is needed to ascertain whether creak in the speech of young American females depends on context although from a preliminary analysis of the speech of the protagonist in *Legally Blonde* it is found in

scenes involving intimacy and those in which the characters seem to be in control of the situation, or at least wishes to be seen as being in control, a trait which would be very useful for women wanting to fit into what is still a man's world.

Not all young women in the English speaking world have adopted creaky voice –in Australia and other regions HRT is also prevalent– but this may be because different societies move at different speeds and new dialectal characteristics take time to spread. Only time will tell whether gender convergence with regard to pitch will spread to other parts of the world or whether creak in women's voices is simply a passing linguistic fancy.

7. REFERENCES

- Abercrombie, D. 1967: *Elements of General Phonetics*. Edinburgh: Edinburgh University Press.
- Addington, D. W. 1971: "The effect of vocal variations on ratings of source credibility". *Speech Monographs*, 28, 242-247.
- Butler, J. 1990: *Gender Trouble. Feminism and the Subversion of Identity*. London and New York: Routledge.
- 1993: *Bodies that Matter. On the Discursive Limits of "Sex"*. London and New York: Routledge.
- Brend, R. M. 1975: "Male-female Intonation Patterns in American English". *Language and Sex: Difference and Dominance*. Eds. Thorne Henley & Nancy Henley. Rowley Mass. Newbury House. 84-87.
- Cameron, D. 1985 *Feminism and Linguistic Theory*. London: Macmillan.
- 1995: *Verbal Hygiene*. London: Routledge.
- 2000: *Good to Talk*. London: Sage.
- Coleman, R. O. 1973: "A Comparison of the Contributions of Two Vocal Characteristics to the Perception of Maleness and Femaleness in the Voice". *STL-QPSR*, 2-3: 13-22.
- Esling, J. K. 1978: *Voice Quality in Edinburgh: a Sociolinguistic and Phonetic Study*. Ph.D. Dissertation, University of Edinburgh.
- Gobl, C. & A. Ní Chasaide 2000: "Testing Affective Correlates of Voice Quality Through Analysis and Resynthesis". *Proceedings of the ISCA Workshop on Speech and Emotion: A Conceptual Framework for Research*. Eds. R. Cowie, E. Douglas-Cowie & M. Schröder. Belfast: Queen's University. 178-183.

- Gordon, E. & T. Deverson 1998: *New Zealand English and English in New Zealand*, Malaysia, New House Publishers Ltd.
- Graddol, D. & J. Swann 1989: *Gender Voices*. Oxford: Basil Blackwell.
- Henton, C. G. & R. A. W. Bladon 1985: "Breathiness in Normal Female Speech: Inefficiency Versus Desirability". *Language and Communication*, 5: 221-227.
- Klatt, D. H. and L. C. Klatt 1990: "Analysis, Synthesis, and Perception of Voice Quality Variations Among Female and Male Talkers". *JASA*, 87(2): 820-857.
- Laver, J. 1980: *The Phonetic Description of Voice Quality*. Cambridge: C.U.P
- Laver, J. & P. Trudgill 1979: "Phonetic and Linguistic Markers in Speech". *Social Markers in Speech*. Eds. K. R. Scherer & H. Giles. Cambridge: C.U.P. 1-32.
- Lyons, J. 1977: *Semantics*. 2 volumes. Cambridge: C.U.P.
- Mattingly, I. 1966: "Speaker Variation and Vocal Tract Size". *Journal of Acoustical Society of America*, 39, 1219.
- Ohala, J. 1983: "Cross-language Use of Pitch: an Ethological View". *Phonetica*, 40, 1-18.
- Pittman, J. 1994: *Voice in Social Interaction: An Interdisciplinary Approach*. Sage Publications. London, New Delhi.
- Stuart-Smith, J. 1999: "Glasgow: Accent and Voice Quality". *Urban voices: accent studies in the British Isles*. Eds. P. Foulkes & G. Doherty. London: Edward Arnold. 201-22.