

PROSODIC ASPECTS OF M.L. KING'S "I HAVE A DREAM SPEECH"

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ABSTRACT

This research examines the prosodic characteristics of Martin Luther King's "I have a dream today" speech in an effort to better understand both the prosody of oratory and the prosodic qualities of King's speech that move people. The peroration of the speech was digitized and analyzed using the Waves program on a Sun SparcStation. Among the salient findings were King's sustained high pitch, several recurrent pitch patterns and various special effects. Many of these features are exemplified with reference to pitchtracks. Some discussion of the characterization of oratory with respect to speech and nonspeech modes of perception ensues.

1. INTRODUCTION

Martin Luther King is probably the first person that comes to many Americans' minds when they think of a great orator. In this paper, I wish to explore some of the prosodic manifestations of King's oratory. Ultimately, such an enterprise might contribute to an understanding of what it is acoustically in such oratory that moves people, abstracting away from the content of the words. More narrowly, I hope this research contributes to what we know about English intonation in general, since we are all likely to employ some of the features discussed below, albeit in a modified way, for some communicative effect in our own speech. Viewed in this way, the register of the public oration might be looked at simply as an exaggeration of some of the prosodic tools that we already possess and use in everyday verbal interaction. More strongly, however, we may interpret the special prosodic features of the oration investigated here as cues to listeners that cause the acoustic signal to be perceived by a poetic, rather than a strictly speech, mode of perception.

King's oratory falls within the tradition of American black preachers. Many traits of his delivery can be seen in the sermons and political speeches of contemporary black clergymen and politicians such as Jesse Jackson and William Gray. The literature on black preaching and

oratorical style only hints at the kinds of issues that are profitably investigated with the aid of acoustic analysis. For example, Boulware offers the following critique:

King made great use of his nasal resonators, which enriched his vocal tones. These tones were slightly flat, because of his failure to make more oval the openings of his vocal outlets.¹

The text chosen for analysis here is the peroration of King's "I Have a Dream Today" address to several hundred thousand people at the March on Washington on August 28, 1963.² This is probably his best known speech, and many of its passages are intimately familiar to many Americans. I have isolated several prosodic highlights of the speech which I will describe below, making use of pitch contours, amplitude contours and spectrograms produced with the Waves speech analysis software package on a Sun SparcStation.

2. HIGH PITCH

One of the first observations I made in the course of intonational analysis was the extremely high pitch at which "I Have a Dream Today" was delivered. King's pitch peaks generally average between 280-300 Hz; well above the average pitch for an adult male. The high pitch is most likely due to the high amplitude at which King delivered the speech. According to Cruttenden, "...producing syllables with extra loudness produces extra airflow through the vocal cords and pitch goes up accordingly."³ It seems likely that the emotional content of the speech and the effect King wished to produce were responsible for the loudness, since his microphone would have obviated the need to shout. Nevertheless, King certainly would have had a motivation to talk over the muting effect of several hundred thousand people talking, coughing, etc.

¹Boulware (1969), p. 250.

²I would like to thank Raymond Trent, of the Biddle Law Library for providing me with an excellent recording. I digitized the recording at 8000 Hz on a Sun SparcStation using the Waves speech analysis package.

³Cruttenden (1986), p. 50.

In order to see what King's pitch level would be in conversational circumstances, a brief analysis was made of his "Letter from Birmingham Jail," of April 16, 1963. While the letter is not exactly conversation, it has the advantage of dating from the same year as "I Have a Dream Today" and being delivered in the understandably sober tones of one who is in jail. In the "Letter," King's pitch ranges mostly between 80 and 120 Hz.

3. RECURRENT PITCH PATTERNS

I studied pitch contours from approximately the last five and one-half minutes of the "Dream" in order to note recurring fundamental frequency patterns. In the broadest sense, there are steadily decreasing and steadily increasing patterns. The steadily decreasing, or downstep, patterns are often characterized by a final pronounced fall. The steadily increasing patterns often have a final post-tonic fall, or a downstepping final pattern.

3.1. Steadily Decreasing and Steadily Increasing Pitch Patterns: Downstep and Upstep

Figure mlk5 provides an example of the steadily decreasing pattern on a fairly long phrase. In this case there is a brief rise up to the pitch accent, after which the steady decrease in fundamental frequency begins. In all examples of this kind, there is a pronounced fall on the last word, creating a break with the steadier decreases leading up to it. In figure mlk5, there is a rise up to the first *dream*, and then steady downstep to the final *dream*. A variant of the steadily decreasing pattern appears on some of the very short phrases that punctuate the "Dream," as exemplified by figure mlk16. If it is to be imbued with any consistent meaning in the "Dream," the downstepping patterns described here could often be said to conclude the passages in which they occur. This is frequently not the case, as downstepping patterns may be followed by upstepping patterns on the same theme. Nevertheless, series of upsteps and downsteps generally reach their final conclusion on a downstep.

Figure mlk8 is an example of upstep without a final fall. It is followed by a 1.5 second pause until the beginning of the next phrase. The upstepping pattern combined with a long pause is likely to be a suspense-creating device. King also achieves this effect by elongating final words in upstepping passages. Such long final words often exhibit a steady decrease in pitch.

3.2. Upstep followed by Downstep

When King's phrases are taken two at a time, a recurrent pattern emerges whereby an upstepping pattern is followed

by a downstepping pattern, creating a fairly complete unit of thought. The upstepping phrase is often accompanied by final syllable lengthening and a pause of over 1 second, thereby creating suspense for the concluding downstepping phrase. For example, figure mlk8's upstep pattern is followed by a downstepping phrase with a pronounced final fall, figure mlk9. A large complex of up-down patterns, resulting in a frenzied, breathless passage is represented by Figures mlk39-mlk42. Figure mlk39 is an upstep without a final fall, followed by mlk40 which is a downstep that also does not dip particularly low, preparing the way for mlk41, which contains a brief upstep to the first syllable of *crooked*, which has one of the highest fundamental frequencies reached in the speech: 411 Hz. The latter half of figure mlk41 is a downstep without a pronounced final fall, leading to the the upstep in Figure mlk42, which *is* concluded by a low-dipping final fall on the last syllables of *together*, thus ending this powerful prosodic and thought unit.

3.3. Lists

Efforts to create parallels are present on both the prosodic and textual levels of the "Dream." One manifestation of textual parallelism might be termed the "list." The following passage contains a list of states and their characteristics which happen to break down roughly into pairs that can be analyzed according to the upstep-downstep pattern discussed in the previous section. In this way, the textual parallelism of high places in various states is overlaid with a prosodic parallelism of upstep-downstep patterns.

UPSTEP: ...from the mighty mountains of
New York

DOWNSTEP: let freedom ring from the
heightening Alleghenies of Pennsylvania

UPSTEP: let freedom ring from the snow-
capped Rockies of Colorado

DOWNSTEP: let freedom ring from the
curvaceous slopes of California

Another memorable list that King evokes is that of contrasting kinds of people whom King wishes to see brought together. Consider the following passage containing three lists of groups of people (italicized), "...we will be able to speed up that day when all of God's children, *black men and white men, Jews and Gentiles, Protestants and Catholics* will all be able to join hands..." King applies parallel downstepping pitch patterns and levels on the elements of the first two lists. For the last list, *Protestants and Catholics*, King employs a slightly different strategy. The unstressed, normally unpronounced orthographic *o* of *Catholics* is pronounced as a schwa,

giving *Protestants* and *Catholics* three syllables each. The insertion of an extra syllable into *Catholics* contributes to the staccato effect of *Protestants and Catholics*, picking up on the staccato effect of *black men and white men*.

4. SPECIAL EFFECTS

In addition to his manipulation of up- and downstepping pitch contours, King employs various prosodic special effects to help catapult his speech into the memorable oratorical register for which he is famous. In contrast to pitch contours, many of these effects are realized on single segments or words, including vibrato and the extreme lengthening of certain vowels and consonants. Other effects, such as breathiness, breathlessness, staccato, and the non-reduction of reduced vowels to achieve even timing, are associated with whole phrases.

4.1. Vibrato

Traditionally vibrato is divided into two categories: pitch vibrato and amplitude vibrato. King employs both, in addition to a vibrato that appears to manifest itself in a tradeoff of formant values in the course of a segment. *Made*, in figure mlk41, has a pitch vibrato with a frequency of approximately 10 Hz. Spectrographic analysis of the segment appears to show pulsating, varying energy in the formants, perhaps aiding the vibrato effect. *My*, in Figure mlk24, appears to feature a combination of pitch and amplitude vibrato, as can be seen in the pitch contour and the intensive cyclic pattern present in the amplitude contour.

4.2. Segment Lengthening

To effect vibrato on a segment requires that the segment be of longer than normal conversational length. In fact, all of the vibratoed words discussed above are realized as particularly long segments. *Down*, in Figure mlk30, is an example of extreme vowel lengthening: the word is 1.34 seconds long. Such a long word also provides a stage on which a steadily decreasing contour can be realized. Long vocalic segments often feature rising patterns as well, as evidenced by *my* in Figure mlk24 (.67 seconds) and *rise* (.52 seconds) in Figure mlk8.

Extremely long [s] segments at both the beginning and ends of words can be found in the "Dream". The phrase "sweltering with the heat of injustice" has an initial consonant that is .18 seconds long. The use of this device on this word has onomatopoeic effect, as it might conjure up the hiss of a furnace or a desert snake. Here, prosodic special effects are grouped near one another, as the final [s] of the above phrase lasts .34 seconds.

4.3. Breathiness, Breathlessness and Frenzy

Breathiness is an intermittent feature of King's speech in the "Dream." It is exemplified in the passage, "...from every state and every city," particularly on the word *city*. The combination of breathiness and low pitch of the final syllable (120-160 Hz) results in a particularly grave and grandiose effect. Contrastively, a lack of breath characterizes certain passages which I call frenzied. These are long, quickly spoken passages in which King hardly pauses between phrases. Such a passage is illustrated by figures mlk39 through mlk42, lasting 12.3 seconds, which have already been discussed regarding their repeating upstep-downstep pattern. Another such passage also lasting about 12 seconds consists of the words:

UPSTEP: ...we will be able to work together

DOWNSTEP: to pray together

DOWNSTEP: to struggle together

DOWNSTEP: to go to jail together

DOWNSTEP: to stand up for freedom together

DOWNSTEP: knowing that we will be free
one day.

The first phrase has a rising pitch pattern, while all of the subsequent phrases exhibit falling pitch patterns. Instead of creating biphrasal pitch parallels as in mlk39-mlk42, King has simply created uniphrasal parallels in the latter passage.

5. CONCLUSION

Martin Luther King employs suprasegmental effects to a high degree of artistry in the "Dream." Through them he is able to affect his audience in ways that penetrate deeper than the semantic value of the words would normally imply. Tsur has introduced the concept of a poetic mode of speech perception⁴ which, while embedded within the speech mode (as elaborated by Liberman and others⁵), is activated by particular acoustic events, thus allowing for the affective or right-hemispheric qualities of the speech signal to be more fully realized than they would be in normal speech. Viewed in this light, the "Dream's" lasting impact is owed to some extent to the ability it has to cause listeners to process the acoustic signal via this poetic mode, thus awakening some of the emotive power normally restricted to the nonspeech mode of perception.

⁴Tsur (1992).

⁵See for example, Liberman *et al.* (1967).

REFERENCES

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