

Ling 201
Review

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The Listener as a Source of Sound Change (Ohala, 1981)

As the title of his article plainly states, Ohala focuses on various aspects of the role of listeners with respect to sound change “attested in diverse, unrelated languages, ie., those likely to have a phonetic origin” (Ohala 1981: 178). After his initial discussion of the “inherent ambiguity in the speech signal” (an ambiguity that the listener is not always able to resolve), Ohala steps through several different processes that may influence sounds during real-time communication between speakers and listeners, and highlights the role of the listener with respect to these processes. Listeners do things like “factor out the distortions in speech,” and can compensate for the distortion of co-articulated sounds, for example (Ohala 1981: 181). These processes fall into roughly three different categories, some of which ensure that sound change doesn’t occur, some of which cause sound change, as follows:

Preventative sound change: Basically, Speaker intends to say one thing, but the actual utterance may be distorted due to co-articulation (or other phonetic context effects). In those phonetic environments where the listener has certain expectations of a particular sound pattern in phonetic context, listeners are able to (sub-consciously) reconstruct from the errant material the sound as it ‘should have been,’ and thereby, when they are speakers themselves, reproduce the sound as it had been intended by Speaker in the first place.

Mini-sound change: On the other hand, if listeners haven’t apprehended the environment causing the distortion (as occurs in preventative sound-change scenario), Ohala tells us, the listener won’t apply the reconstructive rules in which case, listener (when in the role of speaker), uses the form he believes he heard. In this case, the sound is indeed different from what Speaker had intended, and hence the Listener is effectively changing the sound in his/her output. (Ohala calls this ‘mini-sound change’ because it is localized to this particular interaction, but if/when the change propagates through society, that’s how we might account for broader sound changes over time.)

Hypercorrection: Listeners may “second guess” the speaker, thinking the speaker has *not* used the correct form; when it’s their turn as speaker, they may then use their perception of the “correct” sound, thereby introducing a change to the sound that didn’t exist before. (Ohala 1981: 187-189).

Some of Ohala’s more interesting characterizations (from my perspective) in this paper are his conception of the vocal tract and the speech signal as a “many-to-one relationship” (Ohala 1981: 178), and the fact that this can lead to a speech signal that is “inherently ambiguous with respect to how it was articulated.” This succinct characterization called to mind the “McGurk effect” video you showed us awhile back in class and our inability (sometimes?) as listeners to effectively distinguish the source of articulation correctly, given the conflicting cues (visual as well as sound).

Ohala’s use of the visual system as a point of analogy seemed unnecessary, however, and although this analog seemed somewhat plausible in most of his examples, in the case of the “viewer’s brain compensating for the color distortion” [in a photograph taken at dusk, in which the color red is so prominent but had not been apprehended by the photographer when the photograph was taken] (Ohala 1981: 187) as analogous to “sound change” (in cases where listener has failed to apply reconstructive rules), seems not only an unnecessary comparison but also a faulty one: the color film (its relationship to color temperature recording range vis-à-vis “daylight temperature” and color film’s response to that temperature) is the issue, not the photographer’s vision.

Furthermore, the visual sense does not seem completely analogous to speech sound, since there is no analog to the language filter working when we perceive visual stimulus. In other words, since we are trying to tease meaning out of sound using language, the percept of speech sound carries with it additional information, while in the realm of visual perception, it seems like more of a “what you see is what you get” situation: whether we discern a color as ‘blue’ or ‘bluish’ does not affect the meaning of the percept, I don’t think? So I guess I’m just trying to re-iterate that this analog didn’t seem necessary. Ohala’s

example's from the represented languages seem more than sufficient to build and support his proposals. He also provides several counter examples, playing 'the devil's advocate' regarding his own proposals and doing what I believe is a convincing job of making his case.