Available online at www.sciencedirect.com
ScienceDirect
Journal of Communication Disorders 43 (2010) 1–5
Journal of Communication Disorders

Discussion

# Variation, implied pathology, social meaning, and the 'gay lisp': A response to Van Borsel et al. (2009)

Benjamin Munson *

*Department of Speech-Language-Hearing Sciences, University of Minnesota, 115 Shevlin Hall, 164 Pillsbury Drive, SE, Minneapolis, MN 55455, United States*

Received 21 June 2009; accepted 2 July 2009

**Abstract**

This brief communication is a response to the article "The prevalence of lisping in gay men" (Van Borsel, J., De Bruyn, E., Lefebvre, E., Sokoloff, A., De Ley, S., & Baudonck, N. 2009. *Journal of Communication Disorders, 42*, 100–106). I argue aspects of that study's design, measurement, and interpretation limit the strength of its authors' conclusions that there is a higher incidence of lisping in gay men than in heterosexual men. Suggestions for further research are presented.


*Keywords:* Lisping; Gay men; Sexual orientation; Phonetics; Sociolinguistics

Van Borsel et al. (2009) (henceforth 'VB et al.') report on an auditory-perceptual evaluation of the production of anterior alveolar sibilant fricatives in the speech of Belgian adults. Native-speaker transcriptions revealed a higher incidence of dental variants of alveolar sounds than apical variants in men who self-identify as gay. Though the authors concede that the origin of this group difference is unclear, they interpret it as empirical verification of the social stereotype that gay men lisp.

The authors are to be applauded for tackling the gnarly and potentially controversial topic of sexual orientation and speech, and for doing so using something approximating population-based sampling. The use of self-referred convenience-samples in previous studies has limited the conclusions that can be drawn. Indeed, many of the authors of those studies – including this author – acknowledge that fact. On the other hand, aspects of VB et al.'s data analysis and interpretation require comment. There is broad interest in this topic in the general population, and hence high potential for VB et al.'s study to be read and cited by scholars in other disciplines, and by a lay audience. The statement that 40% of gay men lisp has the strong potential to be interpreted by the media, and by our colleagues in related disciplines like biology, psychology, and cultural studies, as evidence that gay men's speech is somehow impaired relative to heterosexual men's speech. VB et al. provide no evidence to support this, and many of their findings suggest otherwise. Given the potential harm that might come from this interpretation, I regard it as crucial that readers reconsider some aspects of their article, and of this general area of inquiry, before they draw their own conclusions about the topic of fricative production and male sexuality.

* Tel.: +1 612 624 0304.
*E-mail address:* Munso005@umn.edu.

0021-9924/$ – see front matter 
doi:10.1016/j.jcomdis.2009.07.002

## 1. Acoustics and articulation: 'higher frequency' is not always 'more frontal'

The first critique is that there is one frank error in the authors' interpretation of the articulatory–acoustic relationships for /s/. The authors interpret the higher peak frequency of gay men's /s/ in Munson, McDonald, DeBoe, & White (2006) and Linville (1998) as indicating a more-anterior constriction for that sound and, by association, something closer to a frontally misarticulated /s/. This is incorrect. Jongman, Wayland, & Wong (2000) showed that /θ/, a sound anterior to /s/, has a significantly *lower* spectral mean than /s/, and that these sounds are most clearly differentiated in the second spectral moment (i.e., the spread of the distribution of energy in the fricative), not the spectral mean. This is further complicated by the fact that models of the articulatory–acoustic relationship for fricatives are much more complex than are the simple source-filter models that are successful in predicting vowel formants. Simply put, acoustic analyses of gay and straight men's speech provide no support that frontal variants are more prevalent in North American English-speaking gay men's speech. This includes the study by Munson and Zimmerman (2006), who make no claim that lisping is a marker of gay identity. That study did show that adult listeners perceive talkers as more gay-sounding when the stimuli over which they make these ratings contain frontally and dentally misarticulated variants of /s/relative to ratings for stimuli that contain an apico-alveolar /s/; however, the stimuli that contained the frontal and dental /s/ variants were created acoustically, using the /s/ productions of a trained phonetician, combined with natural vocalic bases that had been produced by talkers who varied in their perceived sexual orientation. They also found that stimuli containing a token of /s/ with a high peak frequency and a highly negatively skewed spectrum elicited judgments of gay-soundingness that were statistically identical to those containing a frontal /s/. Based on these findings, I think that it is safe to claim that lisping is associated with GLB identities in the minds of listeners. However, Munson and Zimmerman provide no evidence that gay men are more likely to produce a frontal or dental /s/ than heterosexual men, or that the use of such a variant of /s/ is a marker of gay identity. The dissociation between the observed facts about /s/ variation and listeners' judgments led Munson and Zimmerman to hypothesize that the association between frontal /s/ and gayness is a stereotype about gay men. Admittedly, there is little documentation of this stereotype in research studies, though Madon (1997) does provide evidence that gay people believe that gay men speak in a 'soft voice' and they *reject* the propensity to speak in a 'deep voice'. Moreover, as Russo (1987) discusses extensively, this stereotype is robustly represented in media depictions of gay men.

## 2. Measuring articulation: beyond transcription

Having said that, it is quite striking that VB et al. found differences in alveolar consonant production between gay and heterosexual men. The difference between this finding and others' earlier work may be wholly attributable to the use in the current study of something more closely approximating population-based sampling. There is, however, one alternative possibility that must be explored before we can conclude this with confidence, namely, that the differences relate to how production accuracy was measured. The two individuals who coded the data were blind to the talkers' self-stated sexual orientation. However, numerous studies – many of which VB et al. cite in their paper – have shown that listeners use many acoustic cues to ascertain talkers' sexual orientation, such as the fundamental frequency and resonant frequencies of vowels. It is possible that although the coders were blind to the talkers' sexual orientation, there were sufficient vocalic cues to at least some of the talkers' sexual orientation causing the coders to perceive the talkers as gay or straight, thereby affecting how these talkers' fricatives were coded. A recent study by Munson (2009) showed that listeners' identification functions of a synthetic /s/–/θ/ continuum were shifted when the formants in vocalic base to which the continuum was appended were shifted higher. Work by Schellinger, Meyer, Munson, Edwards, & Beckman (2009) demonstrated that individuals' ratings of the accuracy of natural /s/ and /θ/ tokens can biased experimentally when listeners are led to make different assumptions about the talkers who produced them (in that case, assumptions about the talkers' age and overall speech-production ability). The easiest way to address this would be to supplement the impressionistic transcriptions with detailed acoustic analyses.

## 3. Pathology, variation, and social meaning

Imagine that VB et al. did complete such an acoustic analysis and found that the gay talkers in their study are indeed producing alveolar sounds that are demonstrably more dental than their heterosexual counterparts. This still could not