

On Constructing Social Meaning with Stop Release Bursts

Robert J. Podesva
Stanford University
podesva@stanford.edu

Thanks to Kathryn Campbell-Kibler, Edward Flemming, John Rickford, Mary Rose, Devyani Sharma, Julie Sweetland, Andrew Wong, Arnold Zwicky, and especially Penny Eckert for helpful discussions of this work.

The Social Meaning of Variation

- Phonological variables as resources for constructing social meaning (Eckert 2000, Zhang 2001).
- Meaning derives from the frequency with which a given variant (or set of variants) occurs.

Introduction

Goals of the Talk

1. To show that the frequency with which variables occur does carry social meaning
2. To make the case that social meaning is also transmitted through the phonetic details that differentiate tokens
3. To outline an analysis of how phonological variables take on and transmit social meaning

Introduction

Released –t/d

Why this variable?

- variation in *consonant* production
- relatively rich history of work on social aspects of this variation

Introduction

Previous Work on Released Stops

- Bucholtz (1996) – Girl Nerds
- Ashburn (2000) – Science Fiction Fans
- Benor (2001) – Orthodox Jewish Men
- Podesva et al. (2002) – Gay Activist Lawyer



Together, these studies hint at a relationship between releasing stops and performing competence or precision.

Confirmation: Campbell-Kibler's (2004) matched guise study

Introduction

Alternative Meaning of Word-Final Stops

- Released stops have also been suggested as a feature of 'sounding gay' (Walters 1981, cited in Barrett 1995).

Introduction

Speakers

Heath

- Medical school student
- Gay
- White
- Mid-twenties
- Jack's boyfriend
- 'Diva'

Jack

- Medical school student
- Gay
- Asian American
- Mid-twenties
- Heath's boyfriend
- 'Friendly'

Current Study

Cross-Situational Design

Research Question:

What do Heath and Jack use stop release bursts to do?
(*not* What do stop release bursts mean?)

	Social Situation	Professional Situation
Heath	barbecue with friends	meeting with patient
Jack	dinner with boyfriend	meeting with professor

Current Study

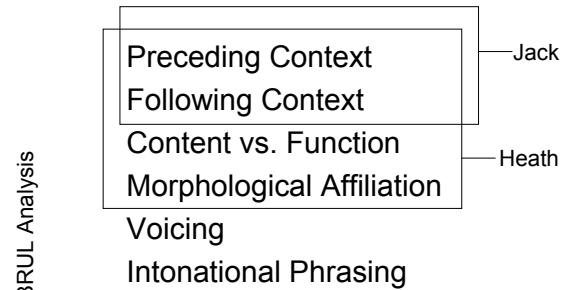
VARBRUL Analysis

- 30 minutes from each of the 4 situations
- Heath – 776 tokens / Jack – 508 tokens
- 6 linguistic factor groups
- 3 social factor groups
- Realizations (based on acoustic representations)



VARBRUL Analysis

Significant Linguistic Factors



VARBRUL Analysis

Significant Social Factor

Speaking Situation

(results from full regression model)	Heath			Jack		
	Factor Weight	N	%	Factor Weight	N	%
professional	0.605	24	6	0.701	16	9
social	0.389	12	3	0.411	13	3

input=0.019, p≤0.048 input=0.041, p≤0.039

Both Heath and Jack are more likely to release –t/d in their respective professional situations, consistent with the competence/precision meaning.

VARBRUL Analysis

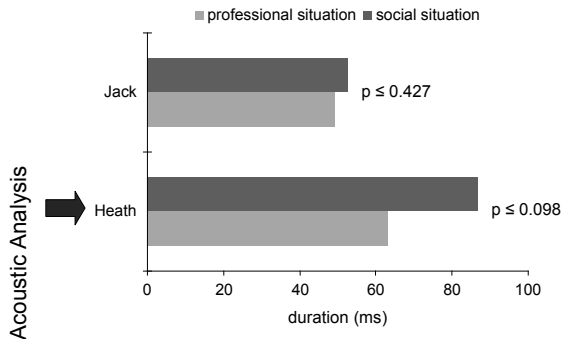
Acoustic Analysis

Release bursts were measured for

- Duration
(based on spectrographic representations)
- Peak Frequency
(based on LPC spectrum over 10 ms analysis window)

Acoustic Analysis

Raw Duration of Release Bursts (by situation)



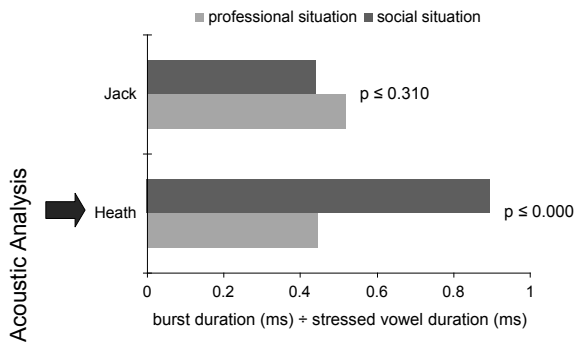
Acoustic Analysis

Speech Rate Normalization

- The raw burst durations must be considered in relation to some value characterizing the speech rate local to the burst.
- The value should vary minimally across various linguistic environments.
- The *duration of stressed vowel* (Crystal and House 1990) is remarkably immune to the effects of linguistic context.
- Procedure: raw burst duration was divided by the duration of the stressed vowel in its stress group.

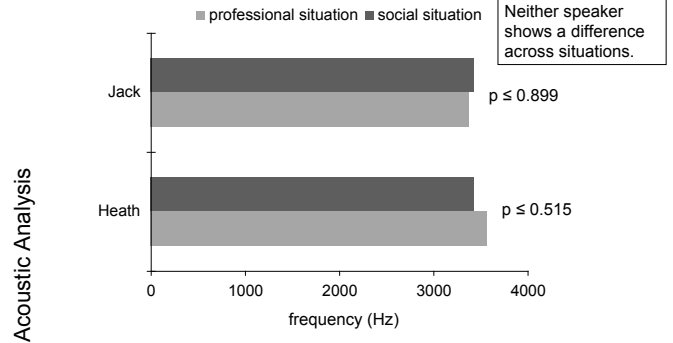
Acoustic Analysis

Normalized Duration of Release Bursts (by situation)



Acoustic Analysis

Peak Frequency of Release Bursts (by situation)



Acoustic Analysis

Summary of Results

- Heath and Jack release stops more frequently in their professional situations.
- Neither Heath nor Jack use peak frequency stylistically.
- Jack's burst durations do not differ across situations.
- Heath's bursts, though less frequent, are longer in the social setting.

Phonological Variables as Semantically Underspecified

Claim

Phonological variants and phonetic qualities become associated with the social circumstances under which they are produced. The social history of a variable endows the variable with some degree of meaning, with repetition leading to greater large-scale social intelligibility.

released -t/d

competent
precise
intelligent

Heath and Jack

Use released -t/d to project a professional image.

Campbell-Kibler (2004)

Speakers with more frequent bursts rated as sounding more intelligent.

Constructing Social Meaning

Why does Heath produce longer bursts in the social situation?

The duration of release bursts indexes not just precision, but the degree of precision, such that super-long release bursts index something more like 'prissiness'.

The jump between precise and prissy

- The mapping between linguistic form and meaning is elastic and subject to reworking (*bricolage*, as in Hebdige 1979).
- By adding more phonetic substance, in the form of additional burst duration, Heath is intensifying the conventional meaning.

Constructing Social Meaning

How do variables take on meaning in context?

- Discourse function
- Knowledge of speaker personae
- Co-occurrence with other variables

Constructing Social Meaning

The Role of Discourse Function

The discourse function of an utterance containing a phonological variant (or a phonetic quality) can help imbue the variant with social meaning.

Using a long stop release burst to express prissiness:

Heath: Oh my God^h. I haven't had Hi-C since, like, like, like at a junior high school party or somethin'.

Constructing Social Meaning

The Significance of Personae

Distinctiveness and Style

'The characteristics of a style cannot be explained independently of others.' (Irvine 2001: 22)

Heath

Heath distinguishes himself not only as a gay man, but a particular type of gay man, one with a flamboyant diva persona. Using stop release bursts to perform prissiness is a means of constructing this persona.

Jack

Jack does not exploit long stop release bursts because performing prissiness would not be consistent with his friendly persona (or any of the other personae he constructs).

Constructing Social Meaning

Co-occurrence with Other Linguistic Features

Styles are built out of clusters of features, not isolated variables, so one feature of a style may take on meaning through its association with others.

- Falsetto
- Extreme Variants of Vowels

Constructing Social Meaning

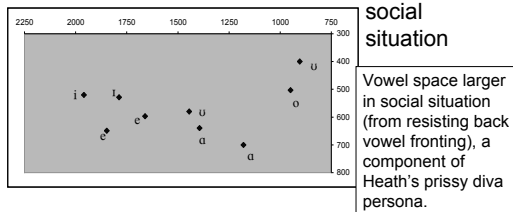
Falsetto

Podesva (2002) reports that Heath uses falsetto more frequently in the social setting than in other situations, and that the falsetto is longer in duration, higher in fundamental frequency (f₀), and wider in f₀ range, patterns attributed to Heaths performance of flamboyance.

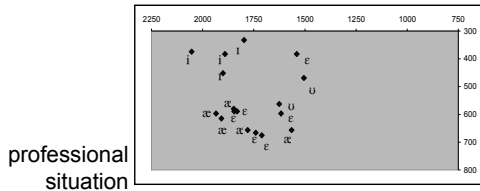
Using a long stop release burst with falsetto:

Heath: Some kid^h was gonna, shoot, what the hell do you call those little . What *do you call* those little things that, a crossbow . I was, I was *rollerblading* today and some kid's like, '*I'm gonna shoot you with my crossbow!*' *This little guy.*

Constructing Social Meaning



Heath's Pre-Burst Vowel Space (by situation)



Discourse functions of utterances with non-fronted back vowels

Constructing Social Meaning

- /o/ *sarcastically offer an explanation*
It's 'cos he's old^h.
- /u/ *express surprise*
They're *cooked*^h already.
- /a/ *act prissy*
Oh my God^h. I haven't had Hi-C since, like, like, like at a junior high school party or somethin'.

Conclusions

- Future Work
Do patterns extend to other gay professionals?
How does meaning arise out of variable co-occurrence?
- Phonological variables are phonetically multidimensional, with some dimensions participating in the construction of styles and others not.
- Analyses couched solely in terms of frequency of occurrence may fail to capture subtleties in the construction of social meaning.
- Low-level phonetic details, often treated as lying beyond the borders of sociolinguistic relevance, may play an integral role in encoding the meaning of variation.

Conclusions

References

- Ashburn, Karyn. 2000. Mainstream perceptions of SF [Science Fiction]. Panel discussion at Minicon 35, Minneapolis, MN.
- Barrett, Rusty. 1995. Supermodels of the world unite! Political economy and the language of performance among African American drag queens. In William Leap, ed. *Beyond the Lavender Lexicon*. Buffalo, NY: Gordon and Breach, 207-26.
- Benor, Sarah Bunin. 2001. The learned /t/: Phonological variation in Orthodox Jewish English. *Penn Working Papers in Linguistics (Papers from NWAV 29)* 7.3: 1-16.
- Bucholtz, Mary. 1996. Geek the girl: Language, femininity, and female nerds. In J. Ahlers, L. Bilmes, M. Chen, M. Oliver, N. Warner, and S. Wertheim, eds. *Gender and Belief Systems*. Berkeley, CA: Berkeley Women and Language Group, 119-32.
- Campbell-Kibler, Kathryn. 2004. Listener perceptions of sociolinguistic variation: ing and /t/ release. Paper presented at the Annual Meeting of the Linguistics Society of America (LSA) 78, Boston, MA.
- Crystal, Thomas H. and Arthur S. House. 1990. Articulation rate and the duration of syllables and stress groups in connected speech. *Journal of the Acoustical Society of America* 88.1: 101-12.
- Docherty, Gerry and Paul Foulkes. 1999. Derby and Newcastle: Instrumental phonetics and variationist studies. In P. Foulkes and G. Docherty, eds. *Urban Voices*. London: Arnold, 47-71.
- Eckert, Penelope. 2000. *Linguistic Variation as Social Practice*. Malden, MA: Blackwell Publishers.

- Foulkes, Paul, Gerry Docherty, and Dominic Watt. 1999. Tracking the Emergence of structured variation – Realizations of (t) by Newcastle children. *Leeds Working Papers in Linguistics and Phonetics* 7: 1-23.
- Hebdige, Dick. 1979. *Subculture: The Meaning of Style*. London: Routledge.
- Irvine, Judith. 2001. 'Style' as distinctiveness: The culture and ideology of linguistic differentiation. In Penelope Eckert and John Rickford, eds. *Style and Sociolinguistic Variation*. Cambridge: Cambridge University Press, 21-43.
- McConnell-Ginet, Sally. 2002. Queering semantics: Definitional struggles. In Kathryn Campbell-Kibler, Robert Podesva, Sarah Roberts, and Andrew Wong, eds. *Language and Sexuality: Contesting Meaning in Theory and Practice*. Stanford, CA: CSLI Publications, 137-60.
- Podesva, Robert J. 2002. Falsetto and the use of phonation type as a stylistic variable. Paper presented at New Ways of Analyzing Variation (NWAV) 31, Stanford, CA.
- Podesva, Robert J., Sarah J. Roberts, and Kathryn Campbell-Kibler. 2002. Sharing resources and indexing meanings in the production of gay styles. In Kathryn Campbell-Kibler, Robert Podesva, Sarah Roberts, and Andrew Wong, eds. *Language and Sexuality: Contesting Meaning in Theory and Practice*. Stanford, CA: CSLI Publications, 175-89.
- Stevens, Kenneth. 1980. Acoustic correlates of some phonetic categories. *Journal of the Acoustical Society of America* 68.3: 836-42.
- Walters, Keith. 1981. *A proposal for studying the language of homosexual males*. Austin, TX: University of Texas, Ms.
- Wong, Andrew. 2003. *Tongzhi, ideologies, and semantic change*. Ph.D. thesis, Stanford University.
- Zhang, Qing. 2001. *Changing economy, changing markets: A sociolinguistic study of Chinese yuppies*. Ph.D. thesis, Stanford University.