

THE CALIFORNIA VOWEL SHIFT AND GAY IDENTITY

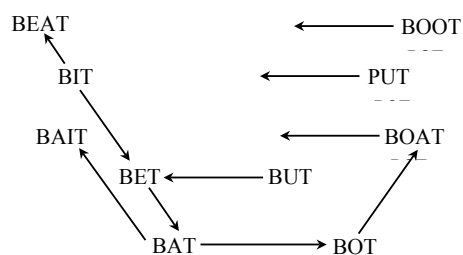
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ABSTRACT: Research on the acoustic correlates of sounding gay has underexamined the role of regional accent features like vowel quality. This article explores the potential connection between the California Vowel Shift (CVS) and gay identity by investigating intraspeaker vowel variation in the speech of one gay man from California (Regan). An acoustic analysis reveals significantly more shifted variants of four components of the CVS (fronting of BOOT and BOAT, raising of BAN, and backing of BAT) when Regan is speaking with friends than when talking in other situations. Regan's use of advanced variants of the CVS furthermore correlates with non-heteronormative prosodic patterns in voice quality and intonation. Based on these patterns and an analysis of the contexts in which they are produced, I argue that Regan is constructing a gay 'partier' persona. One component of this persona is the set of social meanings indexed by the CVS (e.g. 'laid back,' 'fun'), meanings that find roots in the stereotypical character types (e.g. surfer, valley girl) that led to the enregisterment of Californian speech styles. These meanings can be recruited in constructing particular brands of gay identity, such as Regan's 'partier' persona. The analysis crucially leaves room for regional accent features to index identities, including sexual identities, which may have little to do with geographic region.

Research on the acoustic correlates of sounding gay has underexamined the potential role of regional accent features like vowel quality in indexing gay identity (Munson and Babel 2007). By now, many studies have explored the strength with which a number of phonetic features, most notably fundamental frequency (Smyth, Jacobs, and Rogers 2003; Levon 2006; Munson 2007) and the acoustic properties of sibilants (Linville 1998; Levon 2006; Munson, Jefferson, and McDonald 2006; Munson, McDonald, DeBoe, and White 2006), cue gay identity. The relative neglect of vowel quality is at least partly attributable to its perceived primary role as a regional marker. One could reasonably argue that vowel quality is poorly suited for indexing gayness because vowels mark where speakers come from, whereas gay identity is generally not conceptualized in geographic terms. Though few would dispute the link between vowel quality and geographic region, recent work on enregisterment importantly shows that speech varieties (and the vowels they comprise) evoke a range of meanings far richer than a singular index of place identity (Agha 2003; Johnstone, Andrus, and Danielson 2006; Zhang 2008; Remlinger 2009). This paper focuses on Californian accents in particular, examining the California Vowel Shift (CVS) in the speech of one gay man managing identities across situations. I argue that California accent features, through their association with stereotypical characters like surfers and valley girls, can index a 'fun' or 'laid back' meaning. This meaning can be recruited to construct particular brands of gay identity characterized by fun, in this case a 'partier' persona.

The CVS involves two primary moves, as shown in figure 1 (based on Eckert 2008a: 34, who terms it the *Northern* California Vowel Shift). The first is the fronting of the high and mid back vowels (BOOT, PUT, BOAT), primarily their nuclei (Hinton, Bremner, Corcoran, Learner, Luthin, Moonwomon, and van Clay 1987; Hall-Lew 2009). The second is the counterclockwise rotation of the front and low back vowels (Eckert 2008a). In particular, BAT is splitting – raising (and fronting) before nasals (henceforth referred to as BAN), and backing in other phonological environments (henceforth referred to as BAT). This paper examines four components of the CVS: the fronting of BOOT and BOAT, the raising of BAN, and the backing of BAT.

FIGURE 1
The California Vowel Shift
(based on Eckert 2008a: 34)



While the connection between shifted vowels and place remains strong, variationists have additionally considered the use of regional accent features to construct other kinds of identity not necessarily associated with place. This is particularly evident in the case of the CVS. Eckert (this volume), for instance, discusses the importance of shifted vowels to California youth in locating themselves in the gender order and entering the heterosexual market. Other work points to the significance of ethnicity. Fought (1999), for example, documents Chicano English speakers' participation in a majority sound change (fronting of *BOOT*). In her work on the Sunset District of San Francisco, Hall-Lew (2009) further shows that Asian Americans lead in two sound changes (fronting of the back vowels, the low-back merger). Locally significant identities can also strongly correlate with more advanced features of the CVS. Mendoza-Denton (2008) and Fought (1999), in their studies of *BIT* raising and *BOOT* fronting, respectively, have shown that analyses taking factors like gang status into account produce more explanatory models than those that appeal strictly to standard demographic categories like gender, ethnicity, and class. Finally, Eckert (2008b) identifies correlations between the CVS and less enduring identities, such as emotional states and an adolescent girl's performance of a drama queen identity. In sum, even though the CVS is named and can be conceptualized in geographic terms, it participates in the construction of a wide array of identities. To date, no studies have investigated the possible role of the CVS in constructing gay identity.

As mentioned above, few studies – in California or elsewhere – have specifically examined vowel quality as a potential correlate of (reported or perceived) gay male identity, although a few notable exceptions merit discussion. Pierrehumbert, Bent, Munson, Bradlow, and Bailey (2004) found that gay men exhibit more expanded vowel spaces than their heterosexual counterparts. The gay men in their study had significantly more disperse vowel spaces than did straight-identified men, due to a global expansion of the vowel space (not any specific vowels), which may be indicative of a larger tendency toward hyperarticulation in gay-sounding speech. In another study, Munson, McDonald, DeBoe, and White (2006) identified differences between gay- and straight-identified men in the production of *BAT* and *BET*, which were lowered, and *BOOT*, which was fronter in the speech of gay men. It should be noted that both of these studies were conducted in regions of the Northern Cities Vowel Shift. If the patterns are to be taken as representative of gay speech outside the Northern Cities region, they make a number of predictions regarding the vowels under analysis in the current paper (*BOOT*, *BOAT*, and *BAT*). The more expansive vowel spaces of the gay-identified speakers reported in Pierrehumbert et al. (2004) suggest that *BAT* should lower and front, given that it occupies the front low corner of the vowel space, and that *BOOT* and *BOAT* should retract, in order to realize greater vowel dispersion. The patterns in Munson et al. (2006) predict that *BAT* should lower and that *BOOT* should front.

Previous work on the acoustic correlates of sounding gay has typically made use of read speech, which has obvious benefits with respect to experimental control and comparability. Most of this work, as well as the majority of work on the CVS, has also investigated interspeaker variation, comparing groups of speakers with the aim of uncovering distinctive linguistic practices. In this paper, I take a slightly different approach by investigating intraspeaker patterns in a single individual, Regan. This approach, in which I examine how Regan's vowel production differs across rather divergent speaking contexts, facilitates an exploration of how vowel quality might be employed as a dynamic resource for identity construction. To this end, I am examining naturally occurring conversational data, in which Regan is relatively more likely to express gay identity.

After providing methodological details of the study in the following section, I report on Regan's cross-situational variation patterns for BOOT, BOAT, and BAT. As will be shown, Regan exhibits systematic patterns across situations, with all components of the shift behaving in the same way from one situation to the next. That is, Regan produces more strongly advanced tokens in one particular situation. The next section characterizes his style in that situation, locating his vowel production in its ethnographic, discursive, and linguistic context. I then discuss the social meaning of California speech styles in terms of enregisterment and the stereotypical character types (e.g. surfer, valley girl) that facilitated the process. Thinking of regional varieties in terms of their social meanings, or cultural values, elucidates how regional accent features can be employed in constructing identities that have little to do with geography, such as sexuality. I conclude by identifying some useful directions for future research and discussing further issues concerning the relationship between regional accents and sexuality.

THE STUDY

The speaker under analysis is Regan, a self-identified gay Asian American man. Born to Vietnamese immigrants, he grew up in Orange County, California. He speaks English natively and Vietnamese as a heritage language. Regan currently lives in San Francisco, where he moved for work at age twenty-four upon completing his MBA. At the time of the recordings, he was thirty-one years old and working as a buyer for a major household products corporation. I have known him well for six years.

In order to capture a range of speech styles, I asked Regan to record himself in a variety of situations in which he felt comfortable. He was outfitted with a walkman-sized analog tape recorder (Sony WM-SR10) and a lavalier microphone (Sony ECM-C10) and instructed how to operate them. Regan submitted three recordings, all of which are analyzed here. The first recording was made at a weekly ritual known by Regan and his closest friends as Boys' Night Out, during which Regan and his friends gather for dinner, drinks, and dancing in the Castro neighborhood of San Francisco. They typically discuss the events of the previous week, with topics of conversation this particular week ranging from Regan's recent trip to Mexico to the frequency of some members' sexual encounters. In the second recording, Regan is having dinner at the apartment of his friend, Anthony. Anthony is not a member of the Boys' Night Out clique, but has been a close friend of Regan's for about three years. Over the course of the dinner conversation, Regan and Anthony assess Anthony's dating life, discuss Regan's current employment benefits, and negotiate the guest list at an upcoming party. In the final situation, Regan is meeting with his supervisor at the office. Regan is going on vacation the following week and is updating his supervisor with tasks that need to be done in his absence.

Recordings, each lasting about thirty minutes, were digitized at a sampling rate of 44.1 kHz for subsequent acoustic analysis in Praat. All stressed monophthongs, amounting to 2,590 tokens, were labeled in a TextGrid. Measurements were taken by script, using LPC formant tracking at the midpoint of vowels (with a maximum formant value set at 5000 Hz, and the number of formants set at 5). The script records the first through third formants; the maximum, minimum, and mean f_0 ; and the duration of the vowel. Formant tracking errors were corrected manually.

REGAN'S VOWEL PATTERNS

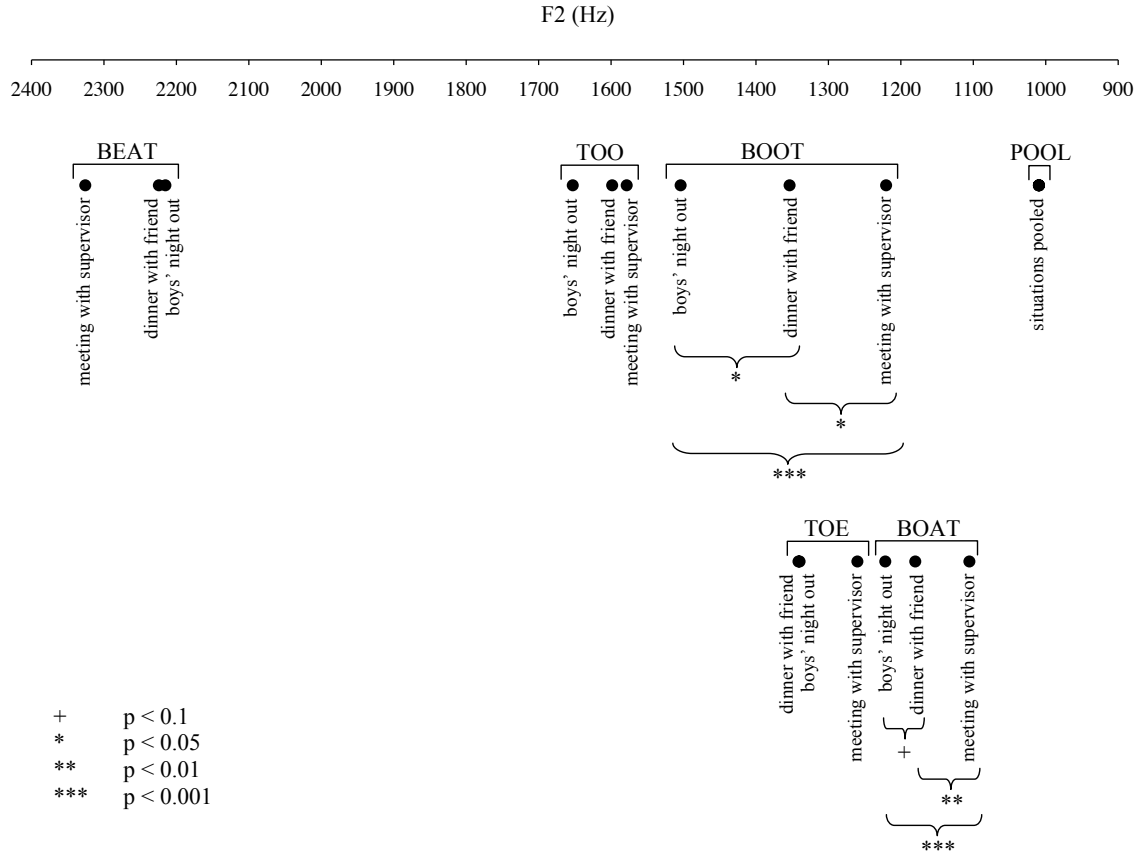
Figure 2 summarizes Regan's production of BOOT and BOAT in the F2 (front to back) dimension. The figure depicts the mean F2 for each vowel, reporting separate means for each situation. As we are interested primarily in the fronting of the back vowels, I have opted to depict only the F2 dimension.¹ Nonetheless, mean F1 and F2 values, along with the number of tokens for each vowel per situation, are provided in the appendix. In the figure, BEAT and POOL are provided as points of reference, with BEAT marking the front of the vowel space and POOL, referring to the BOOT vowel preceding /l/, marking the back. Although BOOT fronts in many phonological contexts, it usually stays back before /l/ (Labov, Ash, and Boberg 2006; Hall-Lew 2009), which is typically velarized in American English; POOL is therefore a reliable marker of the high back corner of the vowel space. Given the relatively low incidence of occurrence of POOL in the corpus, I have averaged this one vowel class across the three situations, as both the token count and number of lexical items represented are low relative to the other vowel classes examined. Finally, given the strong tendency for preceding anterior coronals to front back vowels (Flemming 2003), BOOT and BOAT were each split according to the preceding phonological context. When BOOT followed coronals, it was classified as TOO; the label BOOT was reserved for this vowel in non-coronal contexts. Similarly, BOAT was split into TOE (following coronals) and BOAT (following non-coronal places of articulation). Statistically significant differences between situations in the mean F2 for the target vowels, BOOT and BOAT, are also indicated.

With respect to the high back vowel, figure 2 shows that TOO follows a consistent fronting pattern that does not differ appreciably from one situation to another; no mean F2 values in any situation was significantly different from that of any other situation. Tokens of the target vowel BOOT, however, are most fronted in the boys' night out situation, less so in the dinner with the friend, and least fronted when Regan is meeting with his supervisor. There is a three-way statistically significant difference according to F2. In other words, the F2 of BOOT is higher in the boys' night out situation than in both the dinner with friend situation ($t[18] = 1.77, p = 0.047$) and the meeting with supervisor situation ($t[28] = 4.2, p = 0.0001$), and F2 is higher in the dinner with friend situation than in the meeting with supervisor situation ($t[28] = 2.11, p = 0.022$). It should be noted that formant measurements were taken at the vowel midpoint, so under the assumption that fronting would be most evident in segment of the vowel preceding this point, these fronting results for BOOT, as well as the results for BOAT below, are conservative.

Turning now to the mid back vowel, figure 2 shows a pattern nearly identical to its high back counterpart. The mid back vowel shows a rather consistent fronting pattern following coronals, with only one significant difference in the mean F2 for TOE across the situations. The mean F2 of TOE in the boys' night out situation is significantly higher than that in the meeting with the supervisor situation ($t[173] = 3.42, p = 0.0004$). The target vowel BOAT shows a stronger pattern across situations, resembling the cross-situational pattern seen above for BOOT. Here again, Regan exhibits the strongest degree of fronting in the boys' night out situation, an

intermediate degree in the dinner with a friend, and the least fronting in the meeting with supervisor situation. The mean BOAT F2 was significantly greater in both the boys' night out ($t[84] = 4.4$, $p = 0.0001$) and dinner with friend ($t[91] = 2.57$, $p = 0.006$) situations than in the meeting with supervisor situation, though the mean F2 of boat in the boys' night out situation was only suggestively greater than that in the dinner with friend situation ($t[89] = 1.43$, $p = 0.078$).

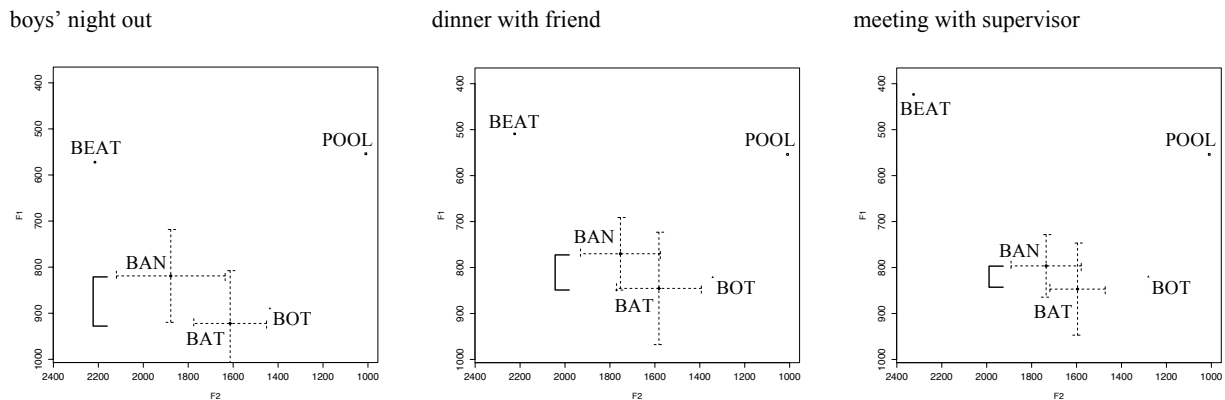
FIGURE 2
Fronting of the back vowels: mean F2 values (Hz) for BOOT and BOAT, by situation



Moving from the back to the front vowels, figure 3 depicts the degree of raising for BAN, the low front vowel preceding non-nasal consonants, across the three situations. In the figure, the point at which crosshairs intersect represents the coordinate for the mean F1 and mean F2, and the length of the bars represents 1.5 standard deviations from the mean. Since the raising of BAN is our primary concern, the difference in F1 (the height dimension) between BAN and BAT is indicated. The mean formant values for BEAT, POOL, and BOT are provided for reference. In the boys' night out situation, there is nearly no overlap between BAN and BAT, which is highly indicative of raised BAN. When Regan speaks with his friend, Anthony, at dinner, we see that the difference between BAN and BAT is less pronounced than was the case at boys' night out. Finally, the degree of overlap between BAN and BAT is greatest when Regan is meeting with his supervisor, with only a small difference in the mean F1 between the two phonological environments. For purposes of statistical analysis, the degree of raising was calculated for each

BAN token as the mean BAT F1 for the same situation minus the F1 of the BAN token in question. Statistical tests confirm that the degree of BAN raising was greater in both the boys' night out ($t[65] = 3.46, p = 0.0005$) and the dinner with friend ($t[64] = 1.68, p = 0.49$) situations than in the meeting with supervisor situation. The difference in the mean degree of BAN raising between the boys' night out and dinner with friend situations did not reach statistical significance, which may be due to relatively low token counts for BAN in these situations.

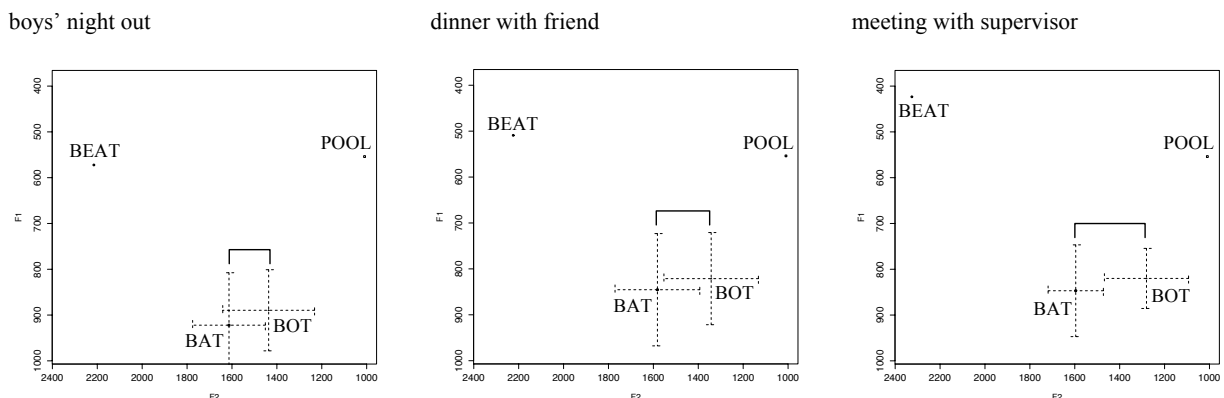
FIGURE 3
Raising of BAN: mean F1 and F2 values (Hz) for BAN and BAT, by situation



Recall that the raising of BAN is only one of two shifts affecting the low front vowel. The other is the backing of BAT in non-nasal contexts, which also varies according to speaking situation. Figure 4 shows the mean F1 and mean F2 for both BAT and BOT, with the length of bars again representing 1.5 standard deviations from the mean. Since the backing of BAT is our primary concern in this case, the difference in F2 (the front-back dimension) between BAT and BOT is indicated. When BAT is backed, and thus moves closer to BOT, we expect the difference in F2 to be relatively small. In the boys' night out situation, BAT and BOT overlap considerably in the F2 dimension, and the small difference between their means is indicative of the backing of BAT. In the dinner with a friend situation, there is still some overlap between BAT and BOT, which is again indicative of BAT backing, though the distance between the vowels' mean F2s is greater than was the case in the boys' night out situation. Finally, in the meeting with supervisor situation, we see that the vowel classes occupy rather distinct vowel spaces, indicating little or no backing of BAT. The degree of backing was calculated for each BAT token as the F2 for the token minus the mean BOT F2 for the same situation. Statistical tests reveal a three-way contrast in the degree of BAT backing between the three situations. The mean distance in F2 between BAT and BOT was smaller in the boys' night out situation than in both the dinner with friend ($t[159] = 3.3, p = 0.0006$) and meeting with supervisor ($t[205] = 10.21, p = 0.0001$) situations, and it was smaller in the dinner with friend situation than in the meeting with supervisor situation ($t[232] = 5.57, p = 0.0001$).

To summarize the results, we have seen that all four components of the CVS are realized differently depending on the speaking situation, and in the same way. Regan produces most advanced variants at boys' night out, less advanced but still somewhat shifted variants in the dinner with friend situation, and most conservative variants while meeting with his supervisor.

FIGURE 4
Backing of BAT: mean F1 and F2 values (Hz) for BAT and BOT, by situation



REGAN'S SHIFTED VOWELS CONTEXTUALIZED

To address the question of what these results mean, this section situates Regan's shifted vowels in their linguistic, situational, and interactional contexts. As argued in Podesva and Chun (2007), these three contextual dimensions considerably reduce the indeterminacy typifying the social meaning of a linguistic feature. By identifying the other linguistic features produced alongside advanced variants of the CVS, taking into account the particulars of the situation in which Regan produces such variants, and considering how Regan positions himself and others within that situation, we arrive at a clearer understanding of his speech style when he produces shifted variants of the CVS.

Beginning with the linguistic dimension of context, we might ask whether Regan's use of shifted vowels correlates with particular variants of other linguistic variables. Social meaning, after all, emerges not only through the employment of isolated variables, but through the ways in which variables are combined and packaged, as discussed in Campbell-Kibler (this volume). That is, the approach taken here treats style as 'a socially meaningful *clustering of features* within and across linguistic levels and modalities' (Campbell-Kibler, Eckert, Mendoza-Denton, and Moore 2006), emphasis mine.

Previous work on Regan's speech reveals systematic variation patterns in voice quality and intonation, depending on situational context. In Podesva (2006), I examined Regan's use of falsetto across the same situations examined here. Results indicate that Regan uses falsetto most often at boys' night out, less often when having dinner with a friend, and only once when meeting with his supervisor. His falsetto utterances were also more acoustically extreme at boys' night out, where falsetto lasted longer, reached a higher maximum fundamental frequency (f0), and occupied a wider f0 range compared to the other two situations. It is worth noting that his mean maximum f0 levels approach 500 Hz – considerably higher than the average male speaking f0 in the low to mid 100 Hz range. In seeking the meanings of Regan's use of falsetto, I examined how falsetto utterances functioned in discourse. Falsetto served expressive functions and was used to communicate surprise or excitement and to emphasize evaluative commentary, a discursive practice Regan participates in more often at boys' night out. Regan's intonational patterns are remarkably consistent with these falsetto trends. In Podesva (forthcoming), in which Regan's production of phrase-final nuclear accents in declaratives was examined in the same

situations, it was found that Regan produced final high pitch accents with higher f0 levels, wider f0 ranges, and steeper f0 slopes at boys' night out than the other situations. Work in psychology (e.g. Pell 2001), as well as an analysis of the discourse contexts in which the most extreme intonational patterns occur (Podesva forthcoming), links high pitch levels like these to animatedness.

To summarize, we see that the linguistic component of Regan's stylistic package at boys' night out is characterized by a number of features: advanced variants of the CVS; frequent and acoustically extreme use of falsetto; and falling declaratives with high max f0 levels, wide f0 ranges, and steep slopes. Perhaps the most obvious explanation for Regan's vowel patterns is that the boys' night out situation is the least formal of the three, given that he is talking to a group of close friends with whom he spends a lot of time. An attention-to-speech model of style-shifting (Labov 1972) would predict more vernacular forms in this situation, and indeed, this is what has been observed. However, we see that falsetto and extreme intonational variants of falling declaratives occur alongside California-shifted vowels. These prosodic features do not simply index informality, since such divergent pitch characteristics can hardly be said to characterize most kinds of informal speech. Recall that Regan's highest f0 levels are on average nearly five times higher than that of the typical adult man (roughly four times higher perceptually). That Regan's most advanced variants of the CVS occur alongside non-heteronormative pitch patterns hints at a connection between the CVS and gay identity. Connecting the CVS to a monolithic notion of gay identity is far too large a leap to make, but I suggest that the composition of Regan's linguistic style may enable him to construct a gay 'partier' persona that, although not reducible to gay, is gay in character.

This interpretation is motivated by an examination of the ethnographic and interactional contexts in which Regan produced the aforementioned linguistic patterns. The boys' night out group regards Regan as their most fun, and funniest, member. At the time of the recording, he went out to bars and clubs several times a week, and drank heavily when he did. Regan was frequently the organizer of dinner parties, nights out, and weekend trips, and at those events he could usually be observed making lewd comments, laughing, and carrying the conversation. In short, Regan was the life of the party.² In this particular recording, Regan often mentions alcohol consumption and frequenting clubs, gay circuit parties, and tea dances, which in effect reinforces his reputation as a partier. As discussed in Podesva (forthcoming), Regan often uses extreme linguistic variants on lexical items relating to the concerns of a partier (e.g. *tequila bar*, *fun*). He further establishes his partier persona interactionally in the way he intersubjectively positions himself in opposition to non-partiers, whom he characterizes as boring and less attractive. The partier persona is not wholly gay, of course, but it is a particularly gay brand of partying that Regan endorses (and it would be interesting to consider whether a straight-identified partier's linguistic practices would resemble Regan's).

CALIFORNIA CHARACTER TYPES AND THE SOCIAL MEANING OF THE CVS

We are now in a position to consider how California-shifted vowels in particular contribute to Regan's 'partier' style. To address this issue, I draw on the concept of enregisterment, defined as "processes through which a linguistic repertoire becomes differentiable within a language as a socially recognized register of forms" (Agha 2003: 231). Approaches to style couched in terms of enregisterment shift their focus away from the structural composition of styles, concentrating instead on the processes that give styles meaning. Such approaches have found it fruitful to look toward local character types in order to identify the social meanings, or "cultural values,"

associated with particular language varieties (Agha 2003, 2007). That is, social meaning lives in and travels through the character types that become emblematic of speech varieties. For example, Agha (2003, 2007) locates Received Pronunciation (RP) in the speech of a refined gentleman (“Mr. Round”), Zhang (2008) locates the rhotacization of Mandarin syllable finals in the speech of the Beijing Smooth Operator, and Remlinger (2009) locates utterance-final “eh?”, among other features, in the speech of the Yooper of Michigan’s Upper Peninsula. Crucially, these character types index much more than simply the regions from which such characters originate. They additionally index cultural values – like refinement, slipperiness, and beer-drinking, respectively. Agha (2003, 2007) notes the importance of the mass media in circulating and spreading such characterological representations through what he terms a speech chain. For example, the cultural values of RP reached the masses via penny weeklies (Agha 2003), those of Beijing Mandarin spread through the Beijing flavor literature (Zhang 2008), and those of Pittsburghese are disseminated through cultural artifacts like Pittsburghese t-shirts (Johnstone 2009).

California speech varieties, like those just discussed, are also closely tied to stereotypical character types represented in the media. Among the most notable are valley girls, surfers, stoners, and slackers. Images of these character types have circulated in popular movies like *Fast Times at Ridgemont High* (1982), *Bill and Ted’s Excellent Adventure* (1989), and *Clueless* (1995), all of which take place in California. Table 1 provides examples of famous lines delivered by the character types in question in each of these movies, taken from their “memorable quotes” pages on The Internet Movie Database. As these lines suggest, California character types are consistently portrayed as young and fun, with superficial concerns like parties, alcohol, and drugs. The quotations also exemplify lexical items that emblematically evoke the character types in question (e.g. *dude(s)*, *totally*, *so*, *like*, *awesome*). It is important to note, as Hinton et al. (1987) and Hall-Lew (2009) point out, that several of these emblematic lexical items (to which we can add *oh*, *whoa*, and *spoon*) contain high and mid back vowels that present their speakers with opportunities for fronting.

In sum, stereotypically Californian character types like surfers and valley girls evoke traits like being ‘fun,’ ‘laid-back,’ and ‘carefree.’ These meanings can be recruited, through the use and interpretation of linguistic features (e.g. lexical items, shifted vowels), to construct personas that themselves share these characteristics. To be clear, my argument is not that Regan’s shifted vowels index Californian character types themselves, but rather that they index the social meanings that reside in them. The CVS, and its indexical meanings, is compatible with Regan’s gay ‘partier’ persona and is therefore well represented in his speech at boys’ night out. It is unclear whether other regional vowel shifts would be as compatible with particular kinds of gay persona. Eckert’s (2000) work linking newer components of the Northern Cities Vowel Shift to ‘toughness,’ when considered next to the present study linking the CVS to ‘fun,’ suggests that features of some regional varieties may be more easily incorporated into specific gay speech styles than features of other varieties.

TABLE 1
Famous lines from three popular movies featuring iconic images of California character types

<i>character type</i>	<i>movie</i>	<i>character</i>	<i>line</i>
surfer/stoner	Fast Times at Ridgemont High	Jeff Spicoli	Make up your mind, dude, is he gonna shit or is he gonna kill us?
surfer/stoner	Fast Times at Ridgemont High	Jeff Spicoli	That was my skull! I'm so wasted!
surfer/stoner	Fast Times at Ridgemont High	Jeff Spicoli	Well Stu I'll tell you, surfing's not a sport, it's a way of life, you know, a hobby. It's a way of looking at that wave and saying, "Hey bud, let's party!"
surfer/stoner	Fast Times at Ridgemont High	Jeff Spicoli	Awesome! Totally awesome! All right, Hamilton!
slacker	Bill and Ted's Excellent Adventure	Bill Preston	How's it going, royal ugly dudes?
slacker	Bill and Ted's Excellent Adventure	Ted Logan	Party on, dudes!
slacker	Bill and Ted's Excellent Adventure	Ted Logan	You totally blew it, dude.
slacker	Bill and Ted's Excellent Adventure	Ted Logan	He didn't even card us, dude.
valley girl	Clueless	Cher Horowitz	I was like totally buggin'.
valley girl	Clueless	Cher Horowitz	Isn't my house classic? The columns date all the way back to 1972.
valley girl	Clueless	Cher Horowitz	It is one thing to spark up a doobie and get laced at parties, but it is quite another to be fried all day.
valley girl	Clueless	Cher Horowitz	Ugh. Skateboards. That's like so five years ago.

CONCLUSION

In this paper, I have argued that features of the CVS can be used in particular gay styles (Regan's gay 'partier' persona) because regional accents index a range of meanings much richer than geographic location. In particular, the CVS indexes 'fun' and 'laid-back' meanings that derive from stereotypical California character types (valley girl, surfer, stoner, slacker), whose circulation led to the enregisterment of Californian ways of speaking.

The link between California-shifted vowels and the proposed meanings remains suggestive, and further work is needed to more firmly establish their connection. Several promising directions for future work are conceivable. First, perceptual methods could be used to ascertain the meanings listeners associate with shifted vowels. I am currently developing a matched guise test that will contrast varying degrees of BOOT and BOAT fronting, BAN raising, and BAT backing. Stimuli will be constructed using formant resynthesis and played for three subject populations who could have divergent indexical associations for shifted vowels: people who know Regan well, people who do not know Regan but are from California, and people who do not know Regan from outside the Western U.S. Second, this research could be extended by examining how particular tokens of the CVS are employed in Regan's discourse. If linguistic features carry social meanings, an underlying assumption of third wave variation research, then we would expect variants to occur not uniformly over the course of an interaction, but rather at points in the discourse when their meanings might be at issue. Finally, it would be useful to pursue a more detailed analysis of the enregistered speech styles of California. While an examination of additional films can shed further insight on the range of social meanings indexed by Californian speech, analyses of other forms of mass media could also prove useful, as they have in other work (e.g. Agha 2007, Zhang 2008). Textual analysis is best suited to studying lexical components of enregistered California varieties, but phonetic components could also be considered, as orthographic representations of shifted vowels do exist (e.g. *kewl* for *cool*).

Another question that could be addressed in future research is whether individual components of the shift index the same meanings. This study demonstrated that Regan exhibited remarkably consistent cross-situational patterns for each of the four components of the CVS examined. That is, BOOT and BOAT fronting, BAN raising, and BAT backing were all most advanced in the boys' night out situation and least advanced in the meeting with supervisor situation. Yet these components of the shift are each at different stages in the shift's history. The fronting of BOOT, for example, is an older change than BOAT fronting (Hall-Lew 2009). Intriguingly, the newest components of the CVS are not present in Regan's speech, as the acoustic analysis of his other vowels (not discussed here) reveals no tendency to lower BET or front BUT. These different lexical classes also occur with different frequencies (Hinton et al. 1987), such that BOAT is much more common than BOOT. Does BOAT's greater frequency of occurrence make it a better carrier of social meaning? What effects factors like these have, if any, on the meaning potentials of different components of the shift remain to be determined.

Before concluding, I want to underscore Munson and Babel's (2007) point that work on phonetic correlates of sounding gay should take regional accents into account. The results presented here show that Regan's patterns are inconsistent with findings reported in previous studies. While Pierrehumbert et al. (2004) report an expansion of the vowel space for gay men, an indication of hyperarticulation, Regan's "gayest" style (boys' night out) was characterized by a smaller vowel space, due to the fronting of the back vowels. This particular pattern is consistent with Munson et al.'s (2006) finding that gay-identified men produced fronter BOOT

vowels, but the behavior of Regan's low front vowel at boys' night out differed from that of the gay men in Munson et al.'s (2006) sample. While the gay men in Munson et al. (2006) lowered BAT, Regan raised the low front vowel in nasal contexts and backed it elsewhere. What constitutes an extreme variant, or hyperarticulated vowel, depends on the particular linguistic system that structures the variation under consideration. In a CVS system, for example, hyperarticulation may be characterized by fronted back vowels, even though the result is a smaller vowel space.

I conclude by emphasizing the value of considering the multiple indexicalities associated with linguistic features. As Eckert (2008c: 453) has proposed, it is possible to conceive of social meanings and their interrelations in terms of indexical fields, or "constellation of ideologically related meanings, any one of which can be activated in the situated use of the variable." We have now seen that features of the California Vowel Shift have been linked to demographic categories like ethnicity (Fought 1999, Hall-Lew 2009); locally significant identities like gang affiliation (Fought 1999, Mendoza-Denton's 2008); and personas like 'drama queen' (Eckert 2008b) and 'partier.' As Eckert (this volume) discusses, the CVS is instrumental as preadolescent girls' heterosexual identities emerge and are put on display. That the CVS can be used to construct a particular type of gay identity, as discussed here, as well as heterosexuality, as Eckert discusses, is not at all an undesirable situation. Working out an indexical field for the CVS will force us to consider the *similarities* between constructing heterosexuality and constructing gay identity rather than assuming difference. I would argue that this is a crucial step in understanding how variation is used in the construction of sexuality.

APPENDIX

Mean Formant Values (Hz) and Token Counts by Vowel by Situation

	<i>boys' night out</i>			<i>dinner with friend</i>			<i>meeting with supervisor</i>		
	<i>F1</i>	<i>F2</i>	<i>N</i>	<i>F1</i>	<i>F2</i>	<i>N</i>	<i>F1</i>	<i>F2</i>	<i>N</i>
BEAT	572	2215	78	509	2224	83	423	2326	109
BOT	890	1437	40	821	1343	79	820	1281	94
POOL*	554	1009	7	554	1009	7	554	1009	7
BOOT	558	1504	10	492	1354	10	436	1220	20
TOO	597	1653	19	519	1599	16	431	1578	54
BOAT	698	1222	42	634	1180	49	609	1105	44
TOE	751	1340	72	665	1341	48	653	1260	103
BAN	819	1878	14	770	1753	13	796	1736	53
BAT	922	1613	67	845	1582	94	847	1596	140

* Formant values for POOL are for all 3 situations pooled, due to small token counts for this restricted vowel class.

NOTES

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1. In addition to the differences in F2, there was also cross-situational variation in F1. Specifically, Regan's vowels (irrespective of vowel class) in the meeting with supervisor situation were highest (i.e. with lowest F1), and those produced at boys' night out were the lowest (i.e. with highest F1). That Regan's vowel space varies across situations in the F1 dimension is a puzzling result, given that the recordings are of a single speaker using the same recording equipment. When formant normalization methods are used (both vowel-extrinsic and vowel-intrinsic), differences in F2 are preserved, and differences in F1 are reduced only marginally. Given that normalizing the speech of the same speaker may factor out some socially conditioned variation, I have opted to report on non-normalized values.
2. I have characterized Regan's persona in the past tense here because, five years after the recordings were made, he no longer inhabits the partier persona. While still viewed as the funniest member of the boys' night out group, he is now partnered and rarely engages in the activities for which he was once known. If the analysis presented here (that Regan's shifted vowels partly constitute the partier persona) is correct, one would expect his vowels to be less shifted at present-day incarnations of boys' night out (which, incidentally, rarely features drinking and dancing anymore).

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