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THE LIMITS OF MEANING: SOCIAL INDEXICALITY, VARIATION, AND THE CLINE OF INTERIORITY

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The structural focus of linguistics has led to a static and modular treatment of meaning. Viewing language as practice allows us to transcend the boundaries of subdisciplines that deal with meaning and to integrate the social indexicality of variation into this larger system. This article presents the expression of social meaning as a continuum of decreasing reference and increasing performativity, with sociolinguistic variation at the performative extreme. The meaning potential of sociolinguistic variables in turn is based in their form and their social source, constituting a cline of 'interiority' from variables that index public social facts about the speaker to more internal, personal affective states.*

Keywords: variation, social meaning, semantics, pragmatics, iconicity, indexicality, semiotics

> 'I have resisted the term *sociolinguistics* for many years, since it implies that there can be a successful linguistic theory or practice which is not social.' (Labov 1972:13)

1. Introduction. Language is a social practice, a dialectic between structure and agency: structure constrains action, and action in turn reproduces structure. As Giddens (1984:2) puts it, 'In and through their activities agents reproduce the conditions that make these activities possible'. It is in practice that meaning is constructed and that language is reproduced and changed. But linguistics has been primarily a study of structure, resulting in a separation of language from its social use, and in a modular approach to the linguistic system itself. Semantics has developed with a focus on truth-conditional meaning, leaving it to pragmatics to reach out to context to fill in the logical steps necessary to make truth-conditional meaning meaningful in practice. The emphasis in pragmatics has been on the linguistic practices that could be said to be common to all speakers, and less on how those practices bring the diversity of the social world into language. That falls to sociolinguistics. The subfield differences in analytic practice have led us to talk about meaning as coming in three kinds—semantic, pragmatic, and social, and at this point we need to step back and consider how these come together in the wider meaning system of language. I argue that it is not so much the meanings themselves that are different as the ways in which they are expressed.

The structural focus in sociolinguistics has been on correlations of linguistic variability with replicable social-structural categories such as class, age, and gender. Because these macrosocial categories are fundamental to the social order, they correlate regularly with linguistic variation. This is not because the categories themselves engage directly with linguistic practice, but because their intersections structure the conditions and everyday experiences of life on the ground, and variation takes on meaning in the local social practice that unfolds in response to these conditions. In recent years, some variationists have turned their attention to the role of variation as a meaning-making practice (see Eckert 2012), and to the role of that practice in not only linguistic change but social change as well (Eckert 2016). This increasing interest in the meaning of vari-

* This article is based on my 2019 LSA Presidential Address in New York. I dedicate it to the memory of Beatriz Lavandera, who pointed out early on that the quantitative study of variation above the level of phonology suffered 'from a lack of an articulated theory of meanings' (Lavandera 1978:171). I only hope that this article would have met with her approval. I'd like to thank Eric Acton, Kathryn Campbell-Kibler, Annette D'Onofrio, Chris Potts, and an anonymous referee for comments that have no doubt brought that possibility closer.

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ation has coincided with a growing interest in semantics and pragmatics in expressivity (e.g. Kaplan 1999, Potts 2007, Gutzmann & Gärtner 2013) and social meaning (e.g. Burnett 2017, Beltrama 2018, Acton 2019). My purpose in this article is to explore the range and nature of meaning in sociolinguistic variation in and of itself, and in the larger context of language as a system of meaning. I argue that an integrated theory of meaning lies in the balance of reference and performance—a balance that is determined by the exigencies of social practice. Sociolinguistic variation lies at the performative extreme, and I argue that the meaning potential of a given sociolinguistic variable is constrained by its source and its form.

2. STYLE, PERFORMATIVITY, AND PERSONA. There are a variety of things one might need or prefer to communicate nonreferentially—things one prefers not to 'put in so many words'. Assertions require extra verbiage, and they assume intentionality with all of the attending consequences. Assertions such as 'I'm cool' can backfire, and others like 'I'm tough' or 'I'm smart' are unconvincing. If I want my hearer to think I'm smart, I'm better off carrying around math journals, speaking a standard variety, and using big words. Some things—particularly emotions—can be more convincingly conveyed with the extreme directness of expressivity—saying 'I'm angry' is less convincing than shouting 'damn!'. And speaking with a New Jersey accent lets people know I'm from New Jersey (or thereabouts) without being told. In other words, communicating certain things performatively can be more economical, more strategic, more believable, and more deniably intentional; and the ability to do so is a design feature of language.

Austin (1962) introduced the notion of performativity as the function of utterances not simply to describe, but to change, social reality. He concluded that while some utterances do this more explicitly than others, ultimately all utterances are performative since the act of informing is purposeful as well as descriptive. This notion of performativity has since spread beyond speech acts, particularly in the work of Judith Butler, who expanded performativity to a more general 'discursive practice that enacts or produces that which it names' (Butler 1993:13). Butler argues that gender is not prediscursive, but is produced and maintained in myriad gendered acts as constrained by one's assigned place in the gender order. This is more generally the case at the intersections of major categories such as age, class, and ethnicity (Crenshaw 1989). Performative acts are the everyday means of participating in society, and of changing in relation to society as one moves through life. In other words, performativity is the engine of social practice, coordinating social and individual change. Performativity was generally in the air at the time of Austin's William James Lectures, for instance in the emergence of performance art, which made the artist's self and artistic process an integral part of the artistic product (Jackson 2012). One could say that a potential component of linguistic performativity is the extent to which the speaker's body and subjectivity enter into the means of expression. As I argue below, this extent is key to the meaning potential of sociolinguistic variables.

Sociolinguistic variables do not occur independently, but as components of styles. Although style is commonly thought of as ancillary to language, it is inherent in every utterance and binds the utterer to the social world. The claim of a lack of style is a claim to unmarked, hegemonic, status. Style is the perceptible manifestation of social distinctiveness (Irvine 2001) and does not pick out trivial things. Archeologist Ian Hodder has argued that stylistic innovation (in this case, in the style of pot decoration) is linked to ideologies and is most likely to occur '[w]here social groups are threatened or contradicted, or are otherwise concerned with self-legitimation' (Hodder 1982:193). Kiesling

(2009) has argued that style in language is stance, or the accretion of stance-taking moves (DuBois 2002, Rauniomaa 2003, cited in Bucholtz & Hall 2005). This is an important perspective, as it locates social meaning in practice, and specifically in the speaker's orientation to the social landscape. Speech style is part of a larger stylistic complex that includes adornment, demeanor, activities, and patterns of consumption—in other words, any perceptible ways of being that are socially distinctive. Observers notice when a person's speech style is incompatible with their other stylistic modalities, as the ensemble of stylistic modalities together constitutes a coherent and interpretable persona. Campbell-Kibler (2008) has shown that the interactional meaning of (ING)[1] is interpreted on the basis of hearers' assessments of the speaker's more general persona. For example, experimental participants who thought the speaker they were hearing was an educated northerner heard the velar variant as unmarked and the apical variant as condescending, while a person judged as a southerner and using the velar variant was heard as trying too hard.

Style is performative in that it creates a persona (Coupland 2007)—a self-presentation that takes on meaning in, and with respect to, the social-semiotic landscape (Eckert 2019). The notion of social landscape is a perspective on social structure from the ground—that is, people perceive social structure in terms of the patterned types of personae who inhabit and constitute structural categories. It is common to speak of identity in this context, but persona gets more directly at the speaker's indexical behavior without implications of a stable sense of self or identification with social groups or categories. It is a fluid self-construction that signals the kind of person we claim to be in the situation. The importance of assessing the 'kind of person' cannot be overemphasized, as it sets up expectations of common ground, provides the predictability necessary for embarking on an interaction (Goffman 1959, Meyerhoff 2001), and serves as essential context for semantic and pragmatic construal. The landscape is articulated by prominent landmarks in the form of characterological figures (Agha 2003), widely conventionalized personae (e.g. *Valley Girl*, *Hippy*, *Cholo*, *Soccer Mom*) that mark particularly salient social distinctions that are specific to time and place. They embrace macrosocial categories such as class, gender, and ethnicity, but always by virtue of salient properties of figures at the intersections of these categories. These figures are both the outcome of, and resources for, stylistic practice.

Stylistic practice is a process of bricolage (Lévi-Strauss 1962, Hebdige 1984), or 'tinkering', in which people recombine things that are already at hand to create something new. This process is based in the pattern-seeking and -making process that underlies linguistic practice more generally.[2] Stylistic agents parse styles, picking out stylistic elements and linking them to perceived social qualities. These elements can be incorporated into an already-existing style to tweak its meaning. In an ethnographic study of a California high school, Bucholtz (1996) found that a group of high school girls adopted hyperarticulated stops as part of their claim to a 'geek' identity. In a Palo Alto high school in 1985, the 'New Wavers', precursors of Goth, were the new emerging counter culture, with black clothing and pegged pants as prominent features of their distinctive style. Two 'preppy' girls pegged their designer blue jeans, in a conscious move to signal their independence from Preppy conformity. As the girls reported, wearing black would have been too radical a statement, so they chose pegging as a more moderate sign of independence

[1] Following Labov (1966), I use parentheses to indicate the status of a form as a variable.

[2] Koenig and Michelson (2018) propose that specialized domain grammars (in this case Oneida possession) involve bricolage, as they reuse common rules or constraints, in combination with some unique ones.

(Eckert 2000:214). Such stylistic moves performatively pull small social distinctions into expression, and if a particular distinction is sufficiently salient and widespread, that expression may become conventionalized, or enregistered, as a social index.

3. SOCIAL MEANING AND SOCIAL INDEXICALITY. Reference and performativity lie in the nature of the signs used to signal meanings. Peirce's (1960–1966) system of nested sign trichotomies has at its base three sign types, or relations between the sign vehicle and its object: SYMBOLS by pure convention, ICONS by resemblance, and INDEXES by existential relation. Peirce emphasizes that signs are rarely simple, as any of the three sign relations can cooccur in a single sign.

Linguistic symbols are conventionally bound to the entities, qualities, and relations to which they refer, and their performative potential is rooted in that conventional meaning. By uttering an explicit performative such as 'I promise … ', one enters an obligation into a relationship; by saying 'Harry is an idiot', one inscribes an attitude and a relationship into the immediate situation and ultimately into the social landscape.

Icons invoke the natural, bringing the physical and embodied world into speech. In this sense, they are the ultimate performative resource, as witnessed particularly in their use as ideophones (Dingemanse 2018). Icons are not direct reflections of the natural but the products of cultural constructions of resemblance to things in the natural world. Nonetheless, speakers feel that there are natural links between form and meaning. As Benveniste (1939, cited in Jakobson 1965:25) observed, 'only for a detached, alien onlooker is the bond between the signans and signatum a mere contingence, whereas for the native user of the same language this relation changes into a necessity'. Iconic connections are central to language ideology (Irvine & Gal 2000), allowing the construal of language features or entire varieties as natural reflections of a characterological construal of their speakers. Iconicity is also fundamental to variation (and expressivity more generally), as the social meaning of a variable can be intensified by repetition and, in the case of phonological variables, by phonetic intensification.

Indexes indicate rather than refer, entering directly into the interactional common ground to 'point to' interpretation. Central to indexicality is its associativeness. An indexical sign evokes something in the physical, temporal, or social world, and that something can evoke other things in the world with a flexibility limited only by common ground. The progression through indexical associations is captured in Silverstein's (2003) ORDERS OF INDEXICALITY, as discursive practice involves a continual construal and reconstrual of signs within what one might call an ideological field. A southern accent, for example, indicates that the speaker is from the south, and the construer may go on to infer qualities stereotypically associated with southerners. In a matched-guise experiment (Campbell-Kibler 2007), college students in California and in North Carolina who judged a speaker to be southern also judged them as rural and uneducated, and linked them to the 'redneck' characterological figure. To the extent that a particular association is widespread across the population, one can say that the southern accent has entered a new order of indexicality. That is, the first-order indexicality of being from the south has given way to, or competes with, common 'redneck' associations. Multiple associations may accumulate, constituting an INDEXICAL FIELD (Eckert 2008) or array of ideologically related meanings. It is in this process, the indexical promotion of commonly held associations, that sociolinguistic variation gains its meaning and its performative range.

4. SOCIAL-INDEXICAL RESOURCES. In what follows I move through what I call, for lack of a better term, a 'cline of interiority', beginning with linguistic resources whose use is clearly intentional and whose social indexicality is closely tied to their semantics,

and moving to ones that are purely performative, often unconscious, and whose indexicality inheres in the alternation of form alone. One might take the latter as the strict definition of the sociolinguistic variable, but the boundary of the variable is fluid. Labov (1993) proposed an INTERFACE PRINCIPLE, by which social meaning does not access structure but accrues to surface forms only. This principle notes the limited availability of abstract patterns to carry indexicality. For example, Cheshire (2005) found systematic class and gender differences in the use of bare vs. full NPs to introduce discourse-new entries, with the use of full NPs reporting explicit information while bare NPs invite the interlocutor to co-construct the discourse. These are interactive differences that have been independently linked to class and gender, but the formal differences are too abstract to take on indexicality in and of themselves. Thus she points out that social meaning might accrue not to the syntactic alternation itself, but to the larger distinctive interactive style that the alternation activates.

For an alternation of form to take on social meaning, then, its alternants must be easily parsed, extracted, and recombined—taken 'off the shelf' (Eckert 2003). Labov (1993) argued that morphosyntactic forms can take on social meaning when treated (or when treatable) as lexical alternations. This is a crucial point, as the boundary between the grammar and the lexicon is not fixed, but in some cases can be subject to change as well as to speakers' construal (see e.g. Meyerhoff & Walker 2013). Comparing distinct social groups in the same high school in Northern England, Moore and Podesva (2009) found that the use of tag questions differed in ways that were indexical of each group's shared social stance: while all groups used tags conducively, they differed in what they conduced (e.g. shared norms vs. intellectual authority vs. differentiation from other groups). Tags are more lexical than bare NPs, but their indexicality appears to lie at the level of their pragmatic use (e.g. a 'coercive person'). At the same time, phonetic and morphosyntactic variability in the tag itself emphasized its lexical status and indexed salient class-related social differences among the groups.

Weiner and Labov (1983) did not find any macrosocial correlates with the use of the agentless passive. The pragmatics of the passive can be seen, however, as indexical, as agentless passives background agency, and motivations to do this can include a speaker's real-world desire to hide agency. Ehrlich (2001), for example, has shown that the use of the agentless passive is a common defendant strategy in sexual assault hearings. But this does not rise sufficiently to the characterological level to manifest itself in discernable social patterns. I note that the one place where passives take on clear indexical meaning is in academic writing, as the use of passives remains obligatory in the 'hard' sciences, and the use of the first person is becoming increasingly common in the humanities and social sciences. The choice indexes not only one's academic field, but even within the humanities and social sciences, one could say that it indexes the writer's ideology about objectivity.

In general, the use of a demonstrative presupposes something in the immediate spatio-temporal context, and this is commonly expanded to COMMUNAL common ground (Clark 2006), or belief that is assumed to be shared by the interlocutors' common community. Sarah Palin's tropic use during her vice-presidential campaign of *that*, as in 'Americans are cravin' that straight talk', was a good example of an appeal to communal common ground and was indexical in two ways. As Acton and Potts (2014) have shown, it pointed to some particular straight talk, hence presupposing its presence in the common ground, and resolving which (or whose) straight talk was at issue. Rather than simply telling her audience that they were all part of a community of like-minded conservatives, she performatively invited them to participate in the resolution of her index-

icals. In so doing, she created a connection with those who already shared her ideology and repelled those who did not. What was repellent, I would argue, was the conducive nature of the assumption of common ideological ground—a bid for presupposition accommodation (Lewis 1979) without the dialogic possibility of refusal. The other sense in which this move was indexical was its relation to persona. Acton and Potts (2014) have shown that Palin's prolific use of demonstratives became part of her persona, as the association of familiarity and even closeness with an ongoing assumption of common ground performatively contributed to Palin's folksiness. But it is the wider style—her use of the apical variant of (ING) and tropes such as 'dontcha know'—that carries the main folksiness, and the use of the demonstrative points to the sharedness of that folksiness, as it could point to the sharedness of any ideological space.

Acton (2019) has shown that using a definite article rather than a bare plural when talking about all or typical members of a group of individuals tends to depict that group as a monolith separate from the speaker. The effect, as in Donald Trump's famous use of 'the gays' and 'the blacks', can be one of othering. Acton has shown that Democrats and Republicans in Congress are significantly more likely to use the definite article when referring to the membership of the other party than to that of their own. In the process, they are both indexing their attitude toward the other party and strengthening the boundary between the two. And if one does this regularly enough, one might be seen as someone who habitually others people. But once again, it is not likely to move up the food chain to an identifiable social category. Journalists and members of the public have pointed to those usages as evidence of Trump's racism and heterosexism, but it is the nature of the category that is being othered that connects to social categories like *racist* and *heterosexist*, rather than the othering strategy itself.[3]

These are cases in which pragmatic strategies common to all speakers gain social indexicality by virtue of the discourses in which they occur and the social types associated with those discourses. In other cases, alternations in form take on indexicality primarily by virtue of the categories of speakers that use them, and their truth value may be secondary or eventually bleached. Personal datives (*I got me a beer*) are a southern regional way of expressing an action that would have a positive effect on the subject. Horn (2013) has pointed out that in the south where it is part of the local dialect, the personal dative is a purely semantic device, and not socially evaluated. However, while people outside of the south might recognize the affective meaning of this construction, they are also likely to hear it—and indeed to use it—as indexing aspects of southern stereotypes.

Be like emerged as a distinctive quotative based on its approximative semantics, which allowed the speaker to quote internal dialogue or even gesture (Singler 2001, Tagliamonte & D'Arcy 2004). Similarly, the extension of *totally* (Beltrama 2018) from its use with bounded-scalar adjectives (*totally full*) to unbounded ones (*totally tired*) is based on the potential for its extended (hence marked) use as an intensified intensifier. It is the entailments of the innovative forms that provide their potential for indexical use, and the youthful social practices in which they are used contribute social indexicality. Thus these forms are commonly recognized as indexing youth and both positive and negative qualities associated with youth (Beltrama & Staum Casasanto 2017), and as they gain social-indexical meaning, they lose some or potentially all of their pragmatic specificity.

[3] This is Nunberg's (2018) perspective on slurs.

Areas of the lexicon that engage ideology are particularly likely to be socially indexical. For example, to the extent that reference to bodily functions and body parts is taboo, the mere discussion of these functions and parts indexes the situations and speakers' reasons to engage in such discussion. There will also exist taboo items for these referents, such as *shit* vs. *excrement*, that intensify any violation. Such intensification will correlate in some way with the extent to which a speaker violates taboo more generally, and may be used to index a more general stance toward taboo or polite and institutional norms. How this falls out in terms of macrosocial categorizations such as gender, age, and class could ultimately be related to the motivations for violations of taboo (see e.g. Vincent et al. 1982).

If variationists, focusing on indexicality, have worked to exclude truth-conditional meaning, semanticists have focused on distinguishing speaker subjectivity, or expressivity, from truth value. This has ranged from the pejorative coloring that distinguishes *cur* from *dog*, which is beyond the interests of this discussion, to the expressive indices (e.g. *damn*, *fuckin'*) discussed in Potts 2007.[4] In the latter case, the forms' semantic origins suit them for expressive use, which in turn bleeds them of their semantic content. Unlike the quotatives and intensifiers discussed above, they act not on the content or common ground (Beltrama 2018) of the utterance, but on the expressive setting of the context in which they are uttered. They are entirely performative, and the set of properties by which Potts defines them—independence, nondisplaceability, perspective dependence, descriptive ineffability, immediacy, and repeatability—applies to sociolinguistic variables as well.

5. VARIABLES AND THE CLINE OF INTERIORITY. Urban (2006) has argued that the trichotomy of symbol, index, and icon forms a hierarchy of mediation: symbols based purely in knowledge, icons in unmediated experience, and indexes in between. Accordingly, as we move from the symbolic to the iconic realm, we follow a continuum from the expression of what one might call external, or public, information—public facts—to expressions of one's 'inner self', or affective states. And we move from the most explicit to the most implicit expression of meaning. The forms I have discussed so far have indexical potential that is closely tied to their semantics. I distinguish sociolinguistic variables from these resources on the grounds that their indexicality is based entirely in their form and their social origins, not in their semantic content. But the boundary between pragmatics and variation is fuzzy and is the site of change as forms trade reference and social indexicality.

In fact, social differences lie in the fact that people don't all say the same things, and what we think of as variables simply constitute the extreme performative end of a continuum of social-indexical resources—a continuum of diminishing reference and increasing performativity. Acton (2020) has pointed out that the same person saying 'I'm goin fishin' and 'I'm going fishing' may communicate two distinct kinds of activities, based in the speaker's evaluation of the seriousness of the activity. In this case, the indexicality of sociolinguistic variability enriches the descriptive content of the utterance. And if the guys in the fraternity try to get John to go for a beer and John replies 'I'm studying', they are probably less likely to push than if he says 'I'm studyin'. Campbell-Kibler's (2011b) experimental work with (ING) shows that the apical and velar variants are indexically distinct, as hearers judged the apical variant as sounding 'casual' and velar variants as 'educated'. In other words, stylistic and class stratification have taken on separate indexical lives in the two variants, which might then be seen as separate

[4] Gutzmann 2013 details a wide variety of such expressions.

morphemes. As Campbell-Kibler points out, the focus on the social meaning of variation raises a variety of issues in language processing and social cognition.

Thus the boundary between pragmatics and variation is fuzzy because it is the site of change as forms gain and lose reference and social indexicality. Consonant with this, another fuzzy area is intentionality. Pragmatics is based in speaker intention (Grice 1975), while the presence or absence of intention has been a central issue in variation. Certainly, speakers are held more accountable for what they say than for how they say it, and as we move away from semantic content, the speaker's intention becomes increasingly deniable.[5] The vernacular construct (Labov 1966) posits a basic system, which may be modified when speakers are paying attention to their own speech. This construct is fundamental to accounting for sound change, which arises from systemic pressures and takes on social indexicality only as it patterns socially. Van Hofwegen (2017) has shown that speakers have a default style, from which they depart according to the situation. The role of attention to speech in this process is unclear, and work in cognitive science (e.g. Smith & Kosslyn 2007) shows that most of what we do, including when we speak (Jackendoff 2012), we do unconsciously. I would say that speakers are primarily aware of the persona they are trying to convey, and that speech style, and the individual features that constitute the style, may emerge more automatically. One might make the analogy with deciding to open a door vs. the many automatic movements it takes to accomplish the task. At the same time, there are stylistic moves that are unquestionably intentional, and there is probably a range of intentionality. But linguists are not the only ones concerned with intentionality, as it is central to language ideology and can be attributed or denied, as speakers and hearers alike are concerned with the potential for linguistic quirks to betray or hide the speaker's 'true self' or the speaker's intention.

The concern in the following discussion is the indexical potential of variables, and part of that potential is attributability to intention—what kinds of variable the hearer might interpret as 'natural'. This in turn is partially consonant with variables that are, indeed, more or less subject to conscious control. Certainly, phonological units that pass by quickly are less subject to control than larger structures, but there may be factors such as jaw setting, or general processes such as fortition, that can be subject to control at a higher level. One might, therefore, see the cline of interiority also as a cline of intentionality, but most certainly of its attribution. This cline begins with morphosyntactic variables since, although their indexicality is detached from their reference, their referential status makes each occurrence more salient. The cline then moves through phonological variables whose orders of indexicality emerge from the speakers who are seen as their users. I then move to iconic variables, beginning with segmental iconicity, and moving to prosody and voice quality at the extreme of interiority.

5.1. Morphosyntactic variables. There is a set of morphosyntactic forms that occur on a regular basis and have clear social variants. Negation, subject-verb agreement, past-tense and plural markers, and individual items that are clearly associated with stigmatized groups, such as *ain't*, offer semantically identical alternatives. In all of these cases, there is a clear opposition between standard and nonstandard variants, whose segmental size and referential components raise them to a level of awareness, making them the focus of standard ideology and educational attention. It is no doubt for this reason that these variables are highly enregistered, functioning as shibboleths, with quite fixed social meanings associated with class and ethnicity. I would argue that all of

[5] Acton (2014:41) points out that a semantic account of social meaning requires 'relaxing the requirements of intentionality and mutual recognition thereof'.

these variables are generally felt to be associated with what one might call public social facts about the speaker and that they enter into indexical orders that emerge from these external facts, perhaps particularly institutional (beginning with educational) orientation, and on to qualities and activities associated with this orientation.

Negative concord is the English poster child of nonstandard syntax. Wolfram's (1969) study of African American English in Detroit showed a perfect stratification of the use of negative concord, as it varies inversely with class status and with female gender. But this study also showed that while children and adults show regular class stratification in the use of negative concord, adolescents do not (see Eckert 1988:186). This is an indication of the stylistic practice involved in the peer social order that emerges in the move toward adulthood. An ethnographic study of an all-white high school in suburban Detroit (Eckert 2000) showed a nuanced use of negative concord based in a class-based, but not class-determined, orientation to the school institution. Two polar categories constituted the extremes of variation in keeping with their orientation to school: the school-oriented 'Jocks' used significantly less negative concord than urban-oriented and school-alienated 'Burnouts'. While parents' socioeconomic status correlated with, but did not determine, social category affiliation, both sound changes in progress and negative concord correlated with social category affiliation rather than parents' socioeconomic status. Within each category the boys used more negative concord than the girls, with a greater gender difference among the Jocks than among the Burnouts. However, if we take the student body as a whole, including Jocks, Burnouts, and In-Betweens (those who affiliated with neither category), the greatest users of negative concord were a network cluster of particularly wild girls known as the 'Burned-out Burnouts', and the most standard speakers were the boys who were active in student government—the corporate types. In other words, standard negation is indexing what one might call a corporate stance, while negative concord is indexing an autonomous and anti-establishment stance. This pattern is repeated in sound change currently spreading from the urban periphery (see Eckert & Labov 2017:14). Clearly the category differences are an indication of the larger tendency of speakers to cleave to school norms, and negative concord can move along orders of indexicality to index associations with an anti-institutional stance, such as a claim to autonomy, rebelliousness, or toughness.

The indexical nature of morphosyntactic variables also shows up as people alter their personae. In an ethnographic study of a high school near Manchester, England, Emma Moore (2004) followed several groups of girls through two years of high school. The girls in one of these groups, known as 'Populars', were mildly transgressive, anti-school, and partied on weekends. Toward the end of their ninth year, some of the Populars started to hang around with a group of older boys and to engage in more extreme weekend behavior involving sex and drugs. By their tenth year, they split off from the Populars and came to be known as 'Townies'. While those who remained with the Populars retained pretty much the same use of negative concord and nonstandard *were* (as in *I were so drunk*) from year nine to ten, those who became Townies showed a significant increase in their use of negative concord and nonstandard *were*.

In each of these cases, the use of nonstandard morphosyntactic variants signals participation in social categories that emerge in response to institutions. But beyond categories, the use of standard and nonstandard variants serves as a resource for individuals to invoke educational associations. Geoffrey Nunberg (2002) provides an example of the metapragmatic use of this range of meaning in the case of a dean from a prestigious eastern university who was quoted in the *Chronicle of Higher Education* as saying, 'Any junior scholar who pays attention to teaching at the expense of research ain't

going to get tenure'. Nunberg cites this use of *ain't* as implying that this was not an expert judgment and 'should be clear to anyone with an ounce of sense'.

While morphosyntax is a focus of educational attention, phonological variation is not. This is not to say that phonological variables go unnoticed, but they are seen as less under the speaker's control than contentful items. Phonological variables, furthermore, are fairly regularly distributed in the stream of speech, allowing a cumulative and nuanced use independent of propositional constraints on occurrence. Phonological variables also have an iconic advantage, as not only their frequency of use but also phonetic intensification can strengthen their indexicality. I distinguish between phonological variables that are associated with place or macrosocial category and those that emerge from additional kinds of iconicity.

5.2. Regional and ethnic segmental features. Regional and ethnic phonological features take on indexicality based on common construals of the population in which they originated. Characterological figures associated with place play an important role in the use of regional features. For example, Becker (2014) found that hearers associate a New York raised (oh) with a mean person from the outer boroughs. The mean persona they have in mind is a well-known local stereotype of the working-class New Yorker who is outspoken even with strangers.

The backing of (æ) in nonnasal contexts is a prominent component of the California Vowel Shift, and part of the Valley Girl stereotype. In a phoneme-categorization task, D'Onofrio (2018) presented gradient phonetic tokens on a continuum from [æ] to [ɑ] embedded in minimal pairs (e.g. *sack-sock*) and instructed participants to identify which of the two words they had heard. A baseline control was established in which participants were given no information about the speaker. Judgments of participants who had been told simply that the speaker was a Chicago Bears fan were the same as the baseline. Participants who were told they were listening to the voice of a business professional were more likely than those with no speaker information to identify a more backed token on the continuum as /æ/, meaning that they expected some degree of TRAP-backing from the persona, and those who were told they were listening to the voice of a Valley Girl identified extremely backed tokens as /æ/ significantly more than either of the other groups. This is in keeping not only with the fact that young Southern Californian women lead in this sound change, but also with the association of Valley Girls with extreme stylistic flamboyance.

Labov's (1963) study on Martha's Vineyard identified an 'authentic Vineyarder' persona leading in the use of the centralized pronunciations of the nuclei of (ay) and (aw) that were widely associated with the traditional island dialect. Speakers on the island more generally had been lowering these vowels, moving closer to mainland speech, and the reversion to island pronunciation emerged as an index of opposition to mainland incursion. This reversal was led by the local fishing community that was particularly threatened by this incursion, and by young people who did not plan to leave the island to pursue a mainland adulthood. This case of the recruitment of a regional variant in an ideological conflict presents a clear confirmation of Kiesling's (2009) claim that style is based in stance. There is little question that the ideological divide emerged in conversation and confrontation, in which the use of a traditional island feature supported a claim to island authenticity and authority. Particularly intriguing is that Labov identified a more general 'close-mouthed' articulatory posture among these speakers as indexical of social affect, suggesting that these diphthongs were part of a more general persona. I return to this embodied aspect of persona below.

Southern features moved into California with the dust bowl migration of the 1930s, and as migrants settled in the rural areas of the Central Valley and the lumber regions of the north, the southern *pin*/*pen* merger took on indexicality based in the concurrence of Southern and rural California ideology. A distinction between 'town' people and 'country' people is particularly salient in rural areas of California, based on whether their orientation and activities engage with the land and the outdoors. In an ethnographic study in Trinity County, Geenberg (2014b) found that people who oriented to the land and outdoors showed a significantly smaller Euclidian distance between prenasal /ɪ/ and /ɛ/ than those with a town orientation, regardless of their family origins. In fact, descendants of dust bowl migrants were less likely to approach merger than others. This town and country orientation emerges in a variety of other variables in rural California (Podesva, D'Onofrio, et al. 2015, Podesva & Van Hofwegen 2016), in each case building on features that can be construed as associated with the south.

Phonological features also originate from substrate influence and take on indexicality in the native English of descendent immigrant communities. Quite different orders of indexicality have taken off from ethnic associations with (th/dh) stopping in different communities: gang affiliation in Chicano English (Mendoza-Denton 2008) and German farmer industriousness in Wisconsin (Rose 2006).

The Second Great Migration (1940–1970) brought tens of thousands of African Americans to Rochester, New York, where thriving industries supported a robust African American working-class community. As King (2018, 2020) has shown, this community adopted features of the Northern Cities Vowel Shift (Labov, Ash, & Boberg 2006), including the tensing and raising of /æ/. As elsewhere in the east (Boberg & Strassel 2000, Becker & Wong 2009, Dinkin 2011, Labov et al. 2016), younger speakers have been replacing the Northern Cities /æ/ pattern with a nasal pattern, by lowering non-prenasal occurrences. King has found that this process is led in Rochester's African American community by young professionals who are preparing to join the reverse migration to the urban south, where professional opportunities are giving rise to a growing community of African American professionals. These Mobile Black Professionals are retracting (æ) significantly more than the rest of the community, including the young Black Professionals who plan to remain in Rochester. This is a pattern similar to the one that Labov (1963) found in Martha's Vineyard, and it illustrates the role of variation in social change.

In a study of the role of stylistic practice in economic change in China, Zhang (2005) found that Beijing's young managers in the foreign financial sector, the new 'yuppies', were developing a kind of cosmopolitan Mandarin in keeping with their companies' global images. In so doing, they constructed personae quite distinct from those of their peers in the state-owned financial sector. This cosmopolitan style is the product of bricolage involving both local and nonlocal resources. In Beijing Mandarin, the tone of reduced syllables assimilates to the tone of the preceding syllable. Southern dialects, by contrast, retain the distinct tone of unstressed syllables. Beijing Yuppies, particularly the women, adopted the full tone of southern dialects, apparently for its indexical value in association with the global financial scene of Shanghai, Hong Kong, and Taiwan. Financial managers in the state-owned institutions, however, did not use this feature at all.

Meanwhile, the Yuppies toned down the use of local features that the state managers retained. Particularly interesting about these features is their conventional association with Beijing characterological figures. Zhang (2008:201) notes a well-known Chinese saying that lists three local stereotypes: 'Beijing Smooth Operator, Tianjin Talker, Baoding Henchman'. Rhotacization of finals is a widely recognized defining feature of

Beijing Mandarin and is commonly associated with the Beijing Smooth Operator, a well-known urban male characterological figure. Aspects of this local persona are not appropriate to the global market, and as part of their cosmopolitan style, the Yuppies—particularly the women—used far less rhotacization than the state managers.

Rhotacization is so deeply enregistered with Beijing dialect that people perceive an iconic link between smooth talkers and what they hear as the smooth and oily sound of rhotacization. One of the Yuppies in Zhang's study added a physiological explanation to the Beijingers' unique ability to produce this acoustic iconicity, saying:

> … Beijingers are naturally gifted with gab, and with heavy r-sounding, then [they] appear to be smooth. Have you heard anybody saying the Cantonese have 'oily accent, slippery tone?' That's because their tongues can't curl. (Zhang 2008:201)

This rhematization, or interpretation of an index as iconic (Irvine & Gal 2000, Gal 2013), is a common semiotic process in which speakers and hearers create ideological connections between linguistic features—or entire varieties—and selected qualities of their users.

In this case, rhotacization was already present in the dialect, available to be interpreted iconically. There are many other cases in which the process works the other way around, as phonetic resources acquire indexical value based on iconic associations. The variables discussed so far, typical of most work in variation, all index social qualities and stances that are directly or indirectly associated with the speaker's region, ethnicity, or place in the social order. It should not be surprising, then, that these variables tend to cooccur at the macrosocial level. I would argue that this is due to their partially intersecting indexicality, and that macro cooccurrences do not necessarily indicate coherence (Guy & Hinskens 2016) or covariation at the speaker level. This is no doubt behind the fact that women at the macro level lead in sound change, whose indexicality takes off from place, but lag in the use of nonstandard morphosyntactic variables, whose indexicality takes off from class. As we move closer to the interior end of the cline of interiority, this macrosocial pattern of cooccurrence will break down a bit. This is not because the variables that follow function any differently, but because they index states and stances that are shared across macrosocial categories.

5.3. ICONICITY. Since phonetic iconicity, or sound symbolism, conventionalizes resemblance to things in the natural world, it is not surprising that it appears above all in expressions of things more closely tied to nature, the body, the self, to personal qualities, and to affect. Iconicity is recruited into affective expression precisely because it seems natural—not specific to social groups or categories, but to what we share as humans. Iconicity is found in segments, prosody, and voice quality, and these three constitute a continuum of increasing interiority, including increasing embodiment. Just as iconicity invokes the natural, the notion of interiority is based in the commonly shared belief that we all have an 'inner self' (Strohminger et al. 2017) that is hidden from others and that might be revealed in our unguarded moments. And it relies on the convention that as variables are increasingly embodied, they are less voluntary, thus capable of accomplishing that revelation.

Probably the best-known iconic pattern in English is the association of high and low acoustic frequency with smallness and largeness, respectively. Originally studied by Sapir (1929) and named the FREQUENCY CODE by Ohala (1994), this association has its roots in the natural world as the size of an object or body determines the frequency of the sounds it emits. But the natural sound-size association moves into language via conventional associations, and while frequency codes are widespread across languages,

their indexical deployment differs significantly (see e.g. Diffloth 1994, Hamano 1994, Joseph 1994). In all cases, while acoustic frequency may initially be affected by the size of the vocal tract, speakers exaggerate the difference in the indexical construction of distinctiveness. A variety of associations with age (i.e. children vs. adults) and gender are clearly based on size,[6] and the acoustic frequency of both segments and fundamental frequency robustly indexes gender, and by extension sexuality, as well as class and urbanity/rurality.

The mechanics of the iconic, to say nothing of the indexical, associations are not always clear, as the frequency code can be synesthetic, visual, and proprioceptive. High vs. low frequency has been found to represent not only small vs. large size but also lightness vs. darkness (Jakobson & Waugh 1987), sharpness vs. roundness (Ramachandran & Hubbard 2001), even three-dimensionality of roundness (D'Onofrio 2014), and positive vs. negative affect (Silverstein 1994). There is clearly a constellation of meanings that do not necessarily emerge directly from size, but are more directly connected to affect. Casasanto and Dijkstra (2010) have shown that upward and downward body movement, like upward and downward intonation and high and low acoustic frequency, are associated with positive and negative affect, respectively.[7] But these in turn can be associated with lightness and heaviness, indicating a complex web of associations.

Affect has only recently (e.g. Eckert 2011, Podesva 2016, Pratt 2018) been considered in the study of variation, but it is intensely social. Macrosocial categories such as age, gender, class, and ethnicity structure norms concerning affective display (Besnier 1990). And in fact, by structuring day-to-day experience, these categories actually structure affect itself (e.g. Chaplin 2015, Piff & Moskowitz 2018). Thus some of the variables examined above can index affect indirectly—for example, some variants that index class can also index toughness, and in turn might be used to index anger. In the cases that follow, the situation is reversed and iconic variables that directly index affect or bodily states can indirectly index macrosocial facts. While Silverstein (2003) presents orders of indexicality as moving from demographic categories to associations with those categories, it is possible to see the process as starting anywhere. In the case of iconicity, I would say that orders of indexicality can start with the iconic association of sound and human qualities and move to categories of speakers based on the social associations with those qualities.

Iconic segments. Front and high vowels have higher-frequency formants than back and low vowels, giving high front vowels the overall highest-frequency resonance and back vowels the lowest. Sapir (1929) presented experimental subjects with nonsense words differing only in the quality of their stressed vowel and found that alternants with low and back vowels were perceived as denoting larger things than ones with high and particularly high front vowels. Based particularly on gender differences in palatalization and pharyngealization in Cairene Arabic, Haeri (1996) argued for the role of iconicity in women's lead in sound changes involving higher-frequency sounds. She noted the potential role of 'expressive postures' in this dynamic. Gordon and Heath (1998) followed up on this, suggesting that the fact that smallness is an important com-

[6] Gussenhoven (2016) has, I believe, overly naturalized the link between pitch (and voice quality) and gender.

[7] Experimental participants were better and faster at retrieving and telling positive memories when doing tasks involving upward motions (moving marbles from a lower to a higher shelf) and negative memories when making downward motions (moving marbles from a higher to a lower shelf).

ponent of ideologies of femininity may explain women's supposed lead in sound changes that involve vowel fronting. This prediction has not been pursued or established, but there is no question that acoustic frequency commonly indexes gender.

Acoustic frequency shows up in several measures of turbulence frequency for /s/ (see e.g. Stuart-Smith 2019). While there is an effect of vocal-tract size on the frequency of this turbulence, what the vocal tract produces is commonly augmented by fronting and backing the tongue tip and rounding and spreading the lips (see Levon et al. 2017 for a review). Front and back (s) have been shown to correlate with female and male gender (respectively) in English in the US (Flipsen et al. 1999, Podesva & Van Hofwegen 2016), Glasgow (Stuart-Smith 2007), and Johannesburg (Bekker 2007). Li (2017) has even found a similar gender difference among small children in Mandarin. The robustness of this gender association is evidenced by the fact that (s) fronting is a prominent resource for drag queens (Calder 2019). By extension, (s) fronting has long been a prominent gay stereotype (e.g. Sapir 1927), which has shown up in production (Munson et al. 2006, Podesva & Van Hofwegen 2016) and perception (Linville 1998, Munson et al. 2006, Campbell-Kibler 2011a, Pharao et al. 2014, Pharao & Maegaard 2017).

These gender and sexual correlations interact with higher/lower class status in Glasgow (Stuart-Smith 2007) and Johannesburg (Bekker 2007), and with urbanity/rurality in Johannesburg (Bekker 2007, Bekker & Levon 2017) and the US (Podesva & Van Hofwegen 2016). Bekker (2007) has made a connection between (s) fronting and the popular 'Kugel' persona of a young Jewish woman from the prestigious Northern Suburbs of Johannesburg. Stuart-Smith (2019) has even shown a change over time in the interaction between class and gender in the production of (s) in Glasgow, and Holmes-Elliott and Levon (2017) have shown that front/back variants occur in less/more threatening interactions, both clearly indicating the vitality of this variable. (s) is a fascinating variable, and its indexical study is quite recent and still quite preliminary. Fronting of (s) brings a percept of sharpness, which can be intensified with lip spreading and no doubt changes in tongue configuration. Calder's (2019) study of drag queens in South of Market in San Francisco emphasized a 'fierce femininity' that was indexed not simply with fronted /s/ but with greater acoustic intensity, which increased over the hours-long transformation from male to female as queens prepared for performances.

In his work on Wishram Salish, Silverstein (1994) found an association between front and back vowels and positive and negative affect. This association has proven to be robust as well. Geenberg (2014a) asked twelve women and men to talk to a pink plush pig, first telling the pig how cute and sweet she was, and then comforting the pig for hurting her knee. All participants, both male and female, used significantly higher f0 when they were telling the pig how cute she was than when they were comforting her for her booboo, and all speakers fronted multiple vowels in the cute and sweet interaction, and backed them in the 'poor baby you have a booboo' interaction. Nobody showed the reverse pattern for any vowel.

A similar association was found in the speech of 'Colette', a twelve-year-old girl in California, in two recorded conversations a few months apart (Eckert 2011). The first conversation was positive throughout, as Colette talked about her friends and activities and the things she enjoyed. The second conversation was triggered by Colette's extreme dissatisfaction with the current state of affairs in her life, as the neighborhood boys had excluded her from their football game, she had fought with her best friend, and she had too much homework. The entire second interaction involved negative experiences and judgments, bringing about a significant backing and raising of (a) and of the nucleus of (ay). In another study, experimental participants hearing the following dialogue ('Who are you working with?' 'Todd') judged the speaker to be more favorable toward

Todd when the speaker pronounced the name with a fronter vowel (D'Onofrio & Eckert 2019).

It is worth considering that the effect of vowel backing and fronting is as proprioceptive, hence embodied, as it is acoustic. Among other things, lip spreading and rounding associated with front and back vowels evoke smiling and frowning. Smiling decreases the length of the vocal tract, raising the acoustic frequency of segments, and thus one might expect to hear vowels fronting when the speaker smiles. Using a computer vision algorithm to detect smiling in face-to-face interaction, Podesva (2016) has shown that elements of the California Vowel Shift advance when speakers smile. This is articulatorily predictable for the components of the shift that involve fronting, such as the fronting of the high and mid back vowels (Podesva, Callier, Voigt, & Jurafsky 2015). But while fronting in this case occurs when speakers smile during the vowel, Podesva (2016) found that the lowering and retraction of the lax front vowels as well are accelerated when the speaker smiles during the phrase in which the vowel occurs—and when the speaker moves more. In other words, it is the affective associations with smiling that are affecting production rather than the articulatory properties. This raises interesting questions about differences in affective associations with older dialects, such as urban east coast dialects that commonly are stigmatized, and newer dialects, such as those on the west coast, that have not acquired stigma.

The backing of the tongue can also be seen as a drawing into the self. In her ethnography in an arts high school, Pratt (2019) focused on the embodiment of affective style in the social order. The technical theater (or 'tech') program was distinct from other arts programs in the school, with its focus on manual labor, constructing sets, and working with lighting and audio equipment. The tech students were known as handy, tough, and rowdy, adopting a 'badass' and reticent affective style, wearing black clothing and work boots, and carrying work knives, indicating their toughness and readiness for manual work. Compared with their peers in other disciplines, the tech students showed a highly significant backing of (a) and of (l), suggesting a generally retracted jaw setting.

As mentioned above, Labov touched on jaw setting in the Martha's Vineyard study, when he noted that in addition to centralizing the nucleus of (ay) and (aw), those hostile to mainland incursion produced more raised or constricted variants for at least fourteen other phonological features.

> We can reasonably assume that this 'close-mouthed' articulatory style is the object of social affect. … Particular linguistic variables would then be variously affected by the overall tendency towards a favored articulatory posture … (Labov 1963:307)

Jaw setting has come up in studies of the California Vowel Shift, which has shown a compression of the vowel space over the past few generations (D'Onofrio et al. 2019) through lowering and backing of the front vowels and fronting of the back vowels. This has been attributed to an open jaw setting, which is popularly associated with the Valley Girl and Surfer Dude figures (Pratt & D'Onofrio 2017). Podesva (2020) has found that even the fronting of the back vowels in California involves lowering, and argues that as part of a durative embodied practice, the open jaw setting works separately from, but in tandem with, fronting. The relation between articulatory setting and social practice should not be surprising, as it is part of a more general bodily hexis, the bodily experience of habitus or the internalization of one's place in society (Bourdieu 1984). And in the end, the centrality to cognition of the body, space, and movement (Barsalou 2008, Tversky 2019) calls for an embodied perspective on language.

5.4. Prosody and voice quality: the affective extreme. To the extent that iconicity is proprioceptive, it resonates in the body, hence is often taken as emerging directly

from the self. This effect is foregrounded when we move into prosody and voice quality. Additionally, both prosody and voice quality are continuous rather than intermittent resources. Where segmental variables are distributed throughout speech, voice pitch, amplitude, and quality can be sustained over larger constituents and even whole utterances. Thus one might say that they are suited to indexing more continuous affective and bodily states, and human qualities. But pitch contours have an important semantic and pragmatic function, leaving them less free than voice quality for indexical work. The extent of the rise on declarative sentences, for example, combines with contextual information to distinguish a rising declarative from a question. Jeong (2016) has shown that the greater the rise, the more likely the sentence will be interpreted as a question, but other things being equal, experimental participants are more likely to hear a rise as a question if the speaker is a woman. So while the intonational contour itself has semantic value, its indexical value is limited to the pitch excursion. Gobl and Ní Chasaide (2003:208) have suggested that voice quality marks subtle differences in affective states, while the width of pitch excursions can signal emotional strength. Following on this, Yanushevskaya, Gobl, and Ní Chasaide (2018) have found that while nonmodal voice quality works with f0 to signal affective states, voice quality is more critical than f0. I would argue that voice quality is at the very interior end of the cline, preceded by voice pitch.

Pitch and prosody. Fundamental frequency is the linguistic feature most clearly associated with the frequency code and naturally associated with body size, and in turn with age (at least children vs. adults) and with gender. While there is considerable overlap in body size, females overall speak with significantly higher fundamental frequency than males. As in the case of (s), the natural source of this difference is indexically augmented well before puberty, the developmental stage at which the size of boys' and girls' bodies begins to differ. Thus children are learning quite young to speak with gender-normative pitch.

It has often been assumed that the relation between gender and pitch extends to sexuality as well, and that gay men use higher f0 than straight men. This has not panned out in the literature (see e.g. Gaudio 1994). However, pitch and intonation do emerge among gay men, as among people more generally, as expressive devices. Podesva (e.g. 2006, 2007, 2011) examined the speech of gay professional men in different settings, and specifically the personae they took on in those situations. A young doctor used fairly narrow pitch contours with patients in the clinic. At a barbeque with friends, however, he took on a 'Gay Diva' persona, involving a dramatic use of pitch, with a significantly higher overall f0, f0 range, and slope (Podesva 2006). This involved greater and more durative use of falsetto as well (Podesva 2007).

Recent work using automatic body-movement detection has been finding that movement correlates with prosodic indicators of affect and engagement, as speakers move more with increases in pitch, pitch variability, and intensity (Voigt et al. 2014), a pattern that women exhibit more strongly than men. And Voigt et al. (2016) have shown, further, that speakers' mean pitch rises with increased sideways head tilt. The relation between f0 and positive affect is reflected in the finding that speakers use higher f0 in phrases during which they smile (Podesva, Callier, Voigt, & Hilton 2015).

Rhythm is an aspect of prosody that has received less attention. The lengthening of posttonic syllables is a common stylistic pattern that is heard nowadays on the media from drama to newscasters. In a study of speakers across California, Calder et al. (2013) examined the ratio of the duration of the posttonic vowel to the tonic vowel, controlling for a variety of phonetic factors that determine syllable length. They found that the ratio correlates inversely with age, suggesting that it is increasing over time, and with gender,

with women lengthening more than men. Preadolescent children, though, show no gender differences and a level of posttonic lengthening similar to the youngest women in the adult sample. This suggests either that the gender difference will disappear altogether, or that boys will pull back as they enter adulthood. It is possible that posttonic lengthening is becoming a fashion that is more generally rhythmic, and the increasingly noted schwa epenthesis ([no:ə]) may be part of this more general rhythmic trend. Posttonic lengthening has clear affective meaning and has been shown experimentally (D'Onofrio & Eckert 2019) to intensify negative affect. Whether it has negative polarity itself or whether it would also intensify positive affect remains to be seen.

VOICE QUALITY. Voice quality is the ultimate naturalized stylistic resource, linked to the body and the self like nothing else. The fact that everyone has a distinctive voice ties voice quality to the body and to our selves as distinctive. Thus voice quality is commonly associated not just with momentary affect, but with personal qualities. Popular evaluations of voice quality abound and are commonly confirmed by perception studies, and certainly research participants have no difficulty assigning character traits on the basis of voice quality (e.g. Addington 1968). In keeping with the naturalizing ideology associated with iconicity, researchers often seem to assume that the meaning of voice quality (aside from its phonological role in some languages) is universal. In fact, it may be that judgments and perceptions of voice qualities follow their use in the hegemonic population. But because there are not many voice-quality differences available, it stands to reason that any given voice quality will have multiple indexicalities. Some of these may emerge in stereotypic uses, and they are certainly productive resources in high performance. Harsh voice is commonly used to portray villains in anime (Teshigawara 2003, cited in Podesva & Callier 2015) and Chinese television dramas (Callier 2013). And at what one might call the opposite end of the voice-quality spectrum is the deeply essentialized Japanese 'sweet voice' (Starr 2015). Sweet voice, the voice heard in railway stations and airports in Japan, is used in anime to voice the mature feminine ideal. The essentialization of sweet voice emerges in the attempts of transgressive female characters in anime to fake the ideal female persona, as they are able to use the softening particles that go with the sweet-voice persona, but unable to produce sweet voice itself: 'The nonsweet voice of the spoiled-princess type reveals an ideology of linguistic authenticity in which speakers are able to manipulate their own use of grammatical features, but cannot control their voice quality' (Starr 2015:20).

Generalizations about the meaning of voice quality must be made with extreme caution. Although whispery phonation is commonly associated with female gender (e.g. Gussenhoven 2016), Podesva's (2013) study of voice-quality production in sociolinguistic interviews with whites and African Americans in Washington, DC, showed that white men stand out with low rates of whispery voice, while white and African American women and African American men use similar rates, significantly higher than the white men's. If one were to seek out the meaning of whispery voice, then, one might begin with the reasons why white men avoid it. This may lead to gender, but in nonobvious ways.

Podesva also finds discourse constraints in the use of nonmodal voice quality, as, for example, African American speakers used falsetto in stance-taking when negatively evaluating the stance object. Speakers also overwhelmingly used falsetto, breathy, whispery, and harsh voice in constructed dialogue, as a strategy for 'othering' the voice and for marking disagreement with the quoted content. The only nonmodal voice quality that did not turn up in this context is creaky voice, which was by far the most common nonmodal voice quality among these speakers in both racial groups, but with

women using far more creak than men. I would guess that creak did not occur as an othering strategy because it occurs more regularly than other nonmodal voice qualities, and because it is associated with low amplitude.

But creaky voice is rife with iconic potential. As a result of decreased subglottal pressure, creak commonly occurs with declination of pitch and amplitude at the end of intonational phrases. As a result, it can index low energy states—whether as a result of tiredness, weakness, or suffering—or it may occur with decreased amplitude to signal confidentiality, withdrawal, or distancing. It can also index relaxed states, comfort, sensuality, satiety. People use creak to show pleasure—appreciation for food, soft fabrics, comfortable beds. It can express cathexis even for more distantly desirable things such as articles of clothing, cars, or even jobs. Studies of creak in discourse have time and again found it used to index emotional distance (Mendoza-Denton 2011, D'Onofrio et al. 2013, Zimman 2017), and visual studies have found that creak correlates inversely with body movement (Podesva, Callier, Voigt, & Hilton 2015). Similarly, in her ethnography of an arts high school, Pratt (2018) found that creak correlates with bodily stillness and slow movement, constructing a 'chill' persona.

But creak has moved on to become a stylistic resource. Callier and Podesva (2015) have shown that creak is on the rise across California's Central Valley, both becoming more frequent and moving forward in the intonational phrase. This is a change in progress among both women and men, with women leading, as in most sound changes. It remains to be seen how this change will play out in the long run, as creak remains a marked voice quality. Yuasa (2010) has offered a gender-based explanation for young women's use of creak, suggesting that it is an attempt to appropriate male authority by lowering their pitch and to maintain a nonaggressive image through the lack of forcefulness of air flow. This, however, does not explain why young men are following along. It is generally believed that creak entered the general population from Hollywood by association with Valley Girls, from whom one expects shows of entitlement rather than feminine reticence.

6. Conclusion. Emphasizing the centrality of expressivity to language, Jakobson (1960:354–55) offered the following example of phonetic intensification:

> The difference between [big] and the emphatic prolongation of the vowel [bi:g] is a conventional, coded linguistic feature like the difference between the short and long vowel in such Czech pairs as [vi] 'you' and [vi:] 'knows,' but in the latter pair the differential information is phonemic and in the former emotive. … all such emotive cues easily undergo linguistic analysis.

The lengthening of the vowel in *big* iconically intensifies the denotation. One could accomplish the same denotation by saying 'John has a very big car'. But the iconic resource introduces performativity into the utterance and in the process inserts the speaker's affective engagement with the size of John's car: maybe a comment on its gas consumption, or on John's masculinity issues, or perhaps just an appreciation of big things. While any speaker of English will understand the effect of phonetic intensification on the denotation in this example, the markedness of phonetic intensification will also alert the listener to its expressive quality, and to the need to search common ground for its source. An important part of the common ground in this case is the speaker's stance toward John and/or vehicle size: different implicatures will emerge depending on such things as the speaker's relationship with John and whether the speaker is known to be an environmentalist, a socialist, or an admirer of big things. Finally, the social indexicality of the marked style itself will introduce additional associations. The lengthening device in *bi:g* is commonly associated with children's emphatic strategy and can

be used by adults to express childish associations of some sort. In invoking such associations, the speaker may be voicing themself as a childishly enthusiastic type, or they may be voicing John and the childishness of his desire for a big car. In this case, vowel lengthening alters the utterance's content and fills in the speaker stance that is essential to its interpretation.

My main point in this article is that social meaning is built into linguistic practice at every level of the linguistic system, and that sociolinguistic variation contributes a purely performative, subtle, speaker-indexical resource, ranging from social category membership to momentary affective states. The boundary between variation and the referential system is permeable in both directions. Not only can elements lose their semantic content as they take on increasing speaker indexicality, but the indexicality of variables can also leak into the content of an expression. These effects are generally ignored or passed over because linguists are focused on one side or the other of a disciplinary boundary. Yet such leakage is an essential functionality of language.

The focus on structure in linguistics has led to modularity, and to a series of dichotomies that have long allowed linguists to make language sit sufficiently still so as to allow them to study its structure: synchrony vs. diachrony, langue vs. parole, cognitive vs. social, denotative vs. connotative. But language does not sit still. Social indexicality permeates the linguistic system because language exists to articulate social practice, and social practice is change. This is not to say that we should not separate out elements of language for study, but in the end we should hope to reunite these elements in a broader theory of social practice.

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