THE COGNITIVE FOUNDATIONS OF LANGUAGE REGARD

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Abstract: This paper explores the cognitive foundations of language attitudes, metalinguistic beliefs about language, and language ideologies, all taken as examples of “language regard.” It first models input, processing, and response and then offers experimental evidence for the proposed model.

1. Introduction
Sociolinguists believe that groups and individuals produce language that varies on the basis of environmental factors, and that such variation encodes and reveals social identity. Weinreich, Labov, and Herzog (1968:99) point to this variability as an essential factor in language change. They refer to social factors in all five of the “problems” of variation and change: constraints, transition, embedding, evaluation, and actuation (101-102); this paper addresses evaluation under the label “language regard”:1

The theory of language change must establish empirically the subjective correlates of the several layers and variables in a heterogeneous structure. Such subjective correlates of evaluations cannot be deduced from the place of the variables within linguistic structure. Furthermore, the level of social awareness is a major property of linguistic change which must be determined directly. Subjective correlates of change are more categorical in nature than the changing pattern of behavior: their investigation deepens our understanding of the ways in which discrete categorization is imposed on the continuous process of change (186).

Weinreich et al. clearly state that “subjective correlates” are not automatic byproducts from the study of language production. They suggest, however, that these correlates are uniform, unlike production variability. This paper opposes that view and suggests that regard variability may be as great as production variability, seeking justification for that point of view by proposing a cognitive model of attention, processing, and outcome.

2. Cognition and language regard
2.1 Perception
Perception (Figure 1) begins with sensation (Sensing); the input is then processed by Discrimination and Classification, ultimately leading to Comprehension. The dotted line in Figure 1 shows the connection between Production and Comprehension, but the latter is not just a mirror image of the former, although they are clearly related (e.g., Liberman et al. 1967, Fowler 1986, Stevens 2002).
2.2 Production, perception, and regard
The “Language Regard” module of Figure 1 is divided between conscious and nonconscious modes, although the double-headed arrow suggests they may interact. Multiple lines from “Language Regard” show that it may influence all the steps of this outline, but this diagram is inadequate in its specificity about processing and the content and typology of regard.

Figure 2 is an attempt to add detail to the procedural flow. The basic outline of the triangle in Figure 2 is formed by a: language (broadly conceived), b: conscious responses, and c: nonconscious responses. This provides a broad outline of a “regard event.” Once an instance of a is noticed, the process begins and regard details emerge from associations between the noticed linguistic feature and beliefs about speakers and groups. Consider the following example:

A speaker of American English produces a monophthongal [a:] in “guide” (i.e., an instance of a).

Step 1: A hearer notices a (perhaps because their own pronunciation is diphthongal [aɪ]).
Step 2: The hearer classifies this as “American Southern.”
Step 3: The hearer retrieves beliefs about “American Southerners” from their “cultural belief system” and imbues fact a with them.

Through bc’, a hearer has a regard response (at b or c).
There is, however, the possibility of an $a$ being imbued so often with a certain belief that it may directly trigger it, with no necessary association with speaker group or type (see, for example, Irvine’s notion of “iconization” (2001:33)). For example, a speaker of American English produces a monophthongal [a:] in “guide.”

Step 1: A hearer notices it.
Step 2: The hearer classifies this as “ignorant,” since it has so often been imbued with this belief that an appeal to beliefs about Southerners is unnecessary.
Step 3: The hearer accesses beliefs about “ignorant language” and its users from the cultural belief system and imbues fact $a$ with them.

Through $bc’$, a hearer has a regard response (at $b$ or $c$).

Step 3 in such cases as this allows further enrichment and abstractness to the “cultural belief system.”

Perhaps the most essential part of this process is, in fact, the “cultural belief system,” and, in what follows, a cognitive outline of its content is proposed. A linguistic object (i.e., $a$) that may trigger regard, even before “notice,” occurs in specific “eliciting conditions” (Figure 3), one of the explanations for the variability in regard. Bassili and Brown (2005:553) suggest attitude objects are processed in a framework of the following factors:

A) the elicitation conditions it has been presented in,
B) the perceiver’s procedural capacities,
C) the perceiver’s pre-existing knowledge, and
D) the perceiver’s underlying conceptual structure
Evaluation itself arises in the “attitudinal cognitorium” (Rosenberg 1968), the network shown on the right-hand side of Figure 3. It is the “cultural belief system” of Figure 2. Figure 4 isolates the cognitorium to elaborate on some of the storage unit types that are present there. Some are strong (1), some weak (2); some connections are strong (3), some weak (4); some items are not connected at all (5), and the connections between others may be inhibited (6).

Once the cognitive factors of the cognitorium are activated, they determine the shape of the response, and both implicit and explicit ones are shown in Figure 5.
Figure 5 shows that the distinction between implicit and explicit is an oversimplification, one suggesting that a response results uniquely from one source or the other. Choices and connections in the cognitorium, however, are based on input from both automatic processes and working memory, although one type may be considerably “heavier” than the other. Figure 5 shows an activation in which the implicit procedure is strongest (thicker arrows), but the arrows could have been of opposite (or perhaps even of equal) thicknesses.

The remainder of this paper provides evidence for the variety of responses (including even contradictory ones) that can arise if this cognitive model of the storage and retrieval of regard facts is a plausible explanation. I depend largely on data collected over two decades in southeastern Michigan (US).

3. Evidence
What nonlinguists believe about regional speech offers a number of ways of approaching language regard. One approach uses respondent ratings of areas for “correct” and “pleasant” language. Figure 6 shows that raters for the southeastern part of the US state of Michigan put only themselves in the 8.00-8.99 range, believing local English to be most correct, and find most of the South, New Jersey, and New York City to be least correct. Alabama raters (Figure 7) believe something rather different. They still find bad English in the South (but only for the states west of Alabama), New Jersey, and New York, but they do not find themselves uniquely correct, as the Michigan raters did. In fact, they rate themselves and much of the country with a lackluster 5.00-5.99, and only Maryland and Washington D.C. make it into the 7.00-7.99 range, the highest score they give.
Figure 6. Michigan ratings for the 50 US states, New York City, and Washington DC for correctness (1=least correct, 10=most correct) (Preston 1996:312).

Figure 7. Alabama ratings for correctness as in Figure 6 (Preston 1996:312).
When asked about “pleasant” English, however, the Michigan respondents, who were so sure of their correctness, do not view their pleasantness as unique; four other (noncontiguous) states (Minnesota, Illinois, Colorado, and Washington) are given the same 7.00-7.99 rating; the states in the South, New Jersey, and New York City are rated at least one degree better than for correctness, and the range of scores is only 4.00-4.99 to 7.00-7.99, down one on both ends from correctness (3.00-3.99 to 8.00-8.99).
Figure 9 shows something entirely different for Alabama; in fact, the Alabama pleasantness score looks a lot like Michigan correctness; they find themselves just as pleasant (and uniquely so) as the Michiganders did for correctness; moreover, the overall range is the strongest yet: 2.00-2.99 (New Jersey pleasantness) to 8.00-8.99 (Alabama pleasantness).

This little demonstration, however, does not speak to variability within individuals. Respondents from different areas (Michigan and Alabama) have rated their own and other areas differently for two concepts (correctness and pleasantness). Can we ask the same respondents related questions about the same areas and produce different results?

The earliest work in perceptual dialectology asked for site rankings of only one concept: how different from or similar to the home area are surrounding ones (e.g., Daan 1970, Grootaers 1959, Rensink 1955, Sibata 1959, and Weijnen 1946). Figure 10 shows the results of Michigan respondents’ assessment of the degree of difference between local speech and the other states.

![Figure 10. Michigan mean score ranges for ratings of the 50 US states for degree of difference (1=not different, 2=slightly different, 3=very different, 4=unintelligibly different) (Preston 1996:312).](image)

The Michigan respondents’ differences in the ratings of correctness and pleasantness were expected since the constructs differ, but both those scales differ from a degree-of-difference task (shown in Figure 10). The concepts of “correctness” (i.e., prestige, standardness, competence) and “pleasantness” (i.e., solidarity, social attractiveness) are the two most frequent characteristics of speech that have been noticed in a great deal of social psychological research on attitudes to language (e.g., Ryan et al. 1982). Why does
the unique character of Michigan for correctness not influence the degree-of-difference task? Why are contiguous states called “no different” when in the “pleasantness” task noncontiguous ones were said to be equally pleasant?

A statistically oriented reader might suggest that the difference in scale (1 to 4 in the difference task as opposed to 1 to 10 for pleasantness and correctness) masks any similarities between the degree of difference and correctness or pleasantness results. There may be some effect of rating scale, but it cannot explain all the differences. Figure 10 shows that nearly all of the South (except for Louisiana, Mississippi, and Alabama) as well as the northeast (New England, New York, New Jersey, Maryland, and Delaware) are ranked “very different” from Michigan, but similar rankings are not given for these two large areas in either the correctness or pleasantness task (Figures 6 and 8, respectively). The difference task somehow managed to trigger other associations for these respondents.

Perceptual dialectology has also asked respondents to draw on a blank map outlines of the regions where different speech varieties exist and to label them, a task that would perhaps give the same results as the degree-of-difference task. Figures 11 and 12 illustrate two such maps, again from Michigan respondents.

![Figure 11. A hand-drawn map of US speech regions by a southeastern Michigan respondent.](image)

Figure 13 is a generalized map of US speech regions based on 147 individual maps collected from southeastern Michigan respondents.³
Figure 12. A hand-drawn map of US speech regions by a southeastern Michigan respondent.

Figure 13. Generalized speech regions of the US for southeastern Michigan respondents (Preston 1996:305).

This task results in areas that do not correspond to those given in Figures 6 (correctness), 8 (pleasantness), and 10 (degree of difference). The respondents identify Texas and California as separate regions (as seen in both individual responses of Figures 11 and 12), but neither is treated this way in the previous tasks. Area 1 (the South) is not only larger than the three states identified in the degree-of-difference task but also extends farther.
east. On the other hand, the “extended South” of Figure 10 is much larger than the hand-drawn map generalization of Figure 13.

These minor differences in task appear to allow respondents to retrieve different cultural meanings from their cognitoria. This is at odds with a great deal of work in the social psychology of language, in which the search for the “true” attitude would cause many analysts to reject some of the above findings as flawed and propose alternative methodologies, perhaps most vehemently those who try to uncover nonconscious or implicit attitudes (e.g., Payne and Gawronski 2010:3).

I believe, however, that these differences in tasks complement one another and illustrate the necessity of considering variability in regard. Imagine, for example, that the Michigan results shown so far were interpreted without reference to one another. Along the right-hand side of Figure 13 one may see the number and percent of respondents who outlined each speech region. For example, area #1, the US South, was identified by 94% of the respondents (138 of 147), considerably higher than any of the other areas rated. It’s similar to the degree-of-difference task (Figure 10) in which the South was identified as the area ranked most different. It’s also like Figures 6 and 8 in which the South fares badly with regard to both correctness and pleasantness. The South is, therefore, at least for these Michigan respondents, the most salient speech region in the US; one could argue that its considerable difference as well as its low-ranking scores for both status and solidarity are the major contributors to that salience. The first point was made most strongly by the Japanese dialectologist and sociolinguist Takesi Sibata: “It appears to be natural for forms which differ from those which one usually uses to attract one’s attention” (1971[1999]:372). But Figures 6 and 8 show that the South does not just “differ” from Michigan; it is less correct and less pleasant. These additional data suggest that the salience of the South (in Figures 10 and 13 is not due to some sort of neutral assessment of difference but primarily the result of evaluative dimensions. An even closer look at Figures 6 and 8 will also help in understanding why areas #2 (the local area) and #3 (an area focused on New York City) are also next in line for salience. Michigan is uniquely correct and among the few states rated as most pleasant; New York City and New Jersey are among the lowest rated for both correctness and pleasantness.

Taken together, these results indicate that the hand-drawn map technique, which asked respondents only to outline and label areas where English is spoken differently, is perhaps ultimately guided by correctness, the most significant factor that made the correct (i.e., local) and incorrect (i.e., New York City and the South) areas so salient. This connection is hardly unique to the US; studies in numerous sites around the world have shown that the folk mind is often considerably influenced by notions of a standard language. Consider this map of Polish regional varieties drawn by respondents from the Poznań (Wielkopolska) area (Figure 14). They clearly find a band of intensity along the southern border of the country that outstrips any other area of identification (including the home region). Perhaps not surprisingly, the stereotypes of these mountain area residents are not unlike stereotypes of the US South, and many are unflattering with regard to education and standard language use.
Figure 14. Intensity map of regional speech areas drawn by Poznań respondents (Bounds 2015)

The contrast between the correctness and pleasantness results for Michigan and Alabama (Figures 6 and 8 versus 7 and 9, respectively) suggests a further consideration. Michigan respondents seem particularly focused on the notion of correctness while those from Alabama are more prone to use pleasantness as a primary guide. Since the Michigan respondents ameliorate their harsh correctness ratings of the South when asked about the area’s pleasantness, is it possible that something even more distinctive lurks in the Michigan cognitorium? A modification of the matched guise technique was used in which the stimulus was not a voice sample but the area identifications provided in the local respondent draw-a-map task (i.e., a modified version of Figure 13). In the first step, a number of Michigan respondents were asked to write down any labels or descriptions that they thought of when they considered the speech of these various same regions. The most frequent labels were the following:

- slow — fast
- smart — dumb
- nasal — not nasal
- drawl — no drawl
- formal — casual
- polite — rude
- normal — abnormal
- twang — no twang
- educated — uneducated
- snobbish — down-to-earth
- friendly — unfriendly
- bad English — good English
Other Michigan respondents (N=85) were shown the same map and instructed to rate each of the regions in Figure 13 on a six-point scale for each of the twelve traits. Table 1 displays the results for only Region #1 (the South) and #2 (the local area, here called simply “North”).

Some of these attributes are associated with language correctness (e.g., *smart*, *educated*, and *good English*) and others with pleasantness (e.g., *friendly* and *down-to-earth*). If the results of Figures 6 and 8 hold, then the local area (“North”) will do better than the South for the attributes associated with both correctness and pleasantness. But Table 1 shows something slightly different. For standard attributes, the North is indeed better rated, but the South is ranked higher for friendliness, down-to-earth, casual, and polite, surely all characteristics of “friendliness” or solidarity. In short Michigan respondents found their home area (and a few others outside the South) best for both correctness and pleasantness, but when asked to rate particular attributes of varieties, some of which must be construed as subcomponents of “pleasantness,” they ranked the South better.

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<th>Means scores (ordered) South</th>
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Table 1. Ratings for the North (the local area) and the South for twelve traits by southeastern Michigan respondents on a one-to-six scale (Preston 1999:366)

If one takes the position that Michigan respondents have a single “true” attitude towards the North and the South with regard to pleasantness, then only one of the
research techniques illustrated so far was successful. But which one? I believe a better understanding admits that these several tasks have triggered alternatives from a great variety of attitudes and that the analyst should go about constructing the system of those variables rather than searching for the so-called true one.

Another technique was used to dig further into the Michigan notion of correctness, apparently an unshakable bulwark. Labov (1966:332-335) measured *linguistic insecurity* by asking respondents about both the correct pronunciation of a word and their own usage. When a respondent identified their own use as different from what they had identified as correct, the mismatch was counted as an indication of linguistic insecurity. The resulting scores were so bad that Labov called New Yorkers victims of “linguistic self-hatred” (344). Preston (2013) gave a similar test to young southeastern Michigan respondents with an unexpected outcome. The respondents found their own usage as incorrect (i.e., they were equally insecure) as the New Yorkers.

Labov, however, notes for New York a consistency of belief about the city and oneself: “We find that the negative attitude towards the city speech in general is directed by the respondent towards himself [sic] as well” (1966:345). New Yorkers are straightforward concerning correctness. Their cognitoria link personal performance and place. The Michigan respondents have a more complex system. On the one hand, they think very highly of local correctness; on the other, they are not so sure (i.e., are insecure) about their own position in it. If we had stopped our investigation into Michigan ideas about language with the perceptual tasks given above, we would have left out a part of the local cognitorium. The study of language regard will be more complete with recognition of the complexity of the beliefs that underlie the variable responses to stimuli and the need to devise approaches to study that will tease out that variety.

![Figure 15. Northern Cities Chain Shift vowels in black squares; a conservative US system in open squares (Peterson and Barney 1952); arrows point to differences between the two.](image-url)
But the Michigan regard for correctness is even more subtle; it reaches into the perception of phonetic variants. The southeastern, urban Michigan local vocalic system, similar to other urban areas around the US Great Lakes, is one known as the Northern Cities Chain Shift (NCCS), e.g. Labov et al. 2006. As Figure 15 shows, the NCCS involves 1) /æ/ raising, 2) /ɑ/ fronting and lowering, 3) /ɔ/ lowering and fronting, 4) /ɛ/ backing and lowering (along two tracks), 5) /ʌ/ backing, and 6) /ɪ/ lowering and backing.

Niedzielski (1999) presented forty-two NCCS speakers from the Detroit area of southeastern Michigan with three samples of the word “last.” One used a raised and fronted NCCS token of the /æ/ vowel, another was a more common US vowel token (see Figure 15 for both of these), and the last was a much lower and backer version, one near the vowel space of IPA /a/. The respondents heard the NCCS token first and were told it was pronounced by a Michigan speaker; then they were asked to match it with one of the three versions described just above. The three vowels are acoustically distinct, but not even one of the respondents paired the NCCS model with the NCCS choice. Thirty-eight of the respondents identified it with the more common US token, and four said that it was the same as the lowered and backer one (72).

Why would these hearers not classify the vowel correctly, especially since it reflected their own system? The Michigan puzzle is this: How can Michigan speakers be the most correct if our vowel system is different from the usual US standard? This cognitive dissonance is solved by their overwhelming high regard for Michigan language practices. They even appear to have recourse to a phonological system that reflects a conservative position for the vowels rather than the shifted one they actually use. In Niedzielski’s task they reference the other system, which they have access to through contact with speakers from other areas, older speakers and speakers in their area less advanced in the shift, as well as media exposure (Evans et al. 2006). Therefore, since they thought the speaker was from Michigan, they could not “hear” the NCCS version correctly; they identified it as the more common US version or even the exaggerated one.

4. A Michigan cognitorium
Having surveyed these several research approaches, I dare now to show you a (partial) cognitorium of language regard for the US South from the point of view of Michigan respondents. Figure 16 is a real-world instantiation of the empty nodes shown in Figure 4; it is derived from attitudes towards southern US English revealed by Michigan respondents in the studies cited above (and others not reported here, in particular valuable discoursal investigations of this same topic; see, for example, Preston 1994).

At first sight, this is a set of negative characteristics, but closer inspection will reveal such attributes as friendly, sympathetic, genuine, and so on, presumably ones exactly or very much like those attributes that Michigan respondents admitted to when then use the “silent matched-guise” described above (Table 1). But that’s the trick. We must align attitudinal responses with the variety of elicitation devices used and by so doing develop the fuller sort of cognitorium represented here, ones that will surely contain contradictions, a human condition we are all aware of.
Figure 16. A southeastern Michigan cognitorium of features associated with “South.”

5. Conclusions
Failing to complicate the picture of attitudes or evaluation will deter our abilities to link them to problems of variation and change, another complex cognitive area. These language regard data link one characterization of the evaluation problem to the social aspects of the embedding problem (Weinreich et al. 1968). Michigan speakers could surely not support a new vowel system (i.e., the NCCS), one that replaces a “correct” one when they are so focused on language correctness. Southeastern Michigan respondents obviously believe that the local variety is correct, but that conscious evaluation explains their creation of a nonproductive conservative system, one that allows them to hear their own and others’ vowels as that old standard. But that system is not conscious, and this strange dichotomy allows change from below the level of consciousness. If we did not have the evidence from these several sorts of Michigan regard studies, the account of the steps involved in the acquisition of the NCCS could not be given.

The study of the regard features respondents activate from their cognitoria can be best understood as part of a large collection of beliefs about people and language. One would at least want to consider the following factors that surround a language regard response, using a variety of approaches to account in part for the variation in responses.

A: Setting
1. Actual – home, laboratory, etc…
2. Context – contextualized vs. noncontextualized

B: Stimulus
3. Priming – primed vs. non-primed
4. Presentation – video, written stimulus, pictures, etc…
5. Size – global vs. specific
6. Status – stigmatized, prestige, neutral, etc…
7. Access – direct vs. indirect access to a linguistic stimulus
8. Authenticity – native vs. imitated
9. Naturalness – natural vs. (re)synthesized
10. Presence – an actual linguistic stimulus is provided or not provided

C: Respondents
11. Non-targeted vs. targeted

D: Response
12. Behavior – respondent activity or task (rate, read, observe, perform, etc…)
13. Mode – fixed (Likert scale, forced choice, etc…) vs. open-ended (discoursal, eye-tracking, etc…)
14. Timing – present vs. absent
15. Awareness – unaware (nonconscious) vs. aware (conscious)

(Preston and Niedzielski 2013)

It would take a team of hundreds of scholars to carry out all these stimulus manipulations even for a single small speech community or community of practice. This list of considerations to be taken in conjunction with data collection methods can help, I believe, in promoting a better understanding of the variety that exists in even a single respondent’s capacity for linking language use to the enormous set of beliefs and stereotypes they have embedded. Since that variability is sure to surface, any cognitive foundation for language regard that admits variability will be all the more accurate.

Notes

1. This label represents an attempt to unite folk concerns about language that are both evaluative and not evaluative (i.e., not “attitudinal,” e.g., Kruglanski and Stroebe 2005:327).

2. Noticing, as used here, can occur consciously or unconsciously, a definition that agrees with current social psychological thought, especially in studies that focus on implicit responses (e.g., Devine 1989, Fazio et al. 1995, Dovidio et al. 1997).

3. This map is based on a technique outlined in Preston and Howe (1987); more recent GIS mapping software is far superior; see, for example, Montgomery and Stoeckle 2013.

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