Media Influence on Implicit and Explicit Language Attitudes

by

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ABSTRACT

Sociolinguists often assume that media influences language attitudes, but that assumption has not been tested using a methodology that can attribute cause. This dissertation examines implicit and explicit attitudes about American Southern English (ASE) and the influence television has upon them. Adapting methodologies and constructs from sociolinguistics, social psychology, and communications studies, I test listener attitudes before and after exposure to stereotypically unintelligent and counterstereotypically intelligent representations of Southern-accented speakers in scripted fictional television. The first attitudes experiment tests implicit attitudes through an Implicit Association Test (IAT). This experiment also serves to test sociolinguistic use of the IAT with a more holistic accent as opposed to single linguistic features. The second attitudes experiment tests the effect of television exposure on explicit attitudes towards an ASE-accented research assistant (RA). The experiments also investigate the influence of listener knowledge of regional origin of actors (speaker information), listener perception of how closely television represents the world around them (perceived realism), listener exposure to the South, and listener identity. The hypothesis is that those who hear counterstereotypically intelligent Southern characters will rate a Southern-accented research assistant higher in intelligence than those who hear stereotypically unintelligent Southern characters. The same pattern will hold in the auditory-based IAT. Accents in both the implicit and explicit attitudes experiments are viewed holistically, including multiple features rather than focusing on the most salient features. To clarify results related to the speaker information and perceived realism variables, a separate experiment tests how successful listeners are at differentiating natives from performers of regionally accented American English.

Results indicate that televised representations of Southern accents affect explicit, but not implicit attitudes. Participants who heard intelligent Southern characters rated an ASE-accented RA higher in competence than those who heard unintelligent Southern characters. Several demographic variables influenced results regardless of the stereotypicality of the speakers that the listener heard in the television clips, including self-identified race and exposure to Southern

television. While implicit attitudes were not affected by television in this case, the IAT was successfully adapted for use with a holistic accent rather than a single feature and also captures associations between an L1 regional accent and a specific stereotype of that accent. I discuss these results in regard to language attitudes at large as well as their implications for an indirect language change model, the Associative-Propositional Evaluation (APE) model of attitudes, and cultivation theory. The dissertation argues that scripted television does influence language attitudes, but in more complex ways than a simple cause-and-effect relationship. While television can affect explicit attitudes towards individual speakers, implicit attitude shift is more difficult and may need more time and/or need a direct cause for a shift to occur. Regardless of media influence, language attitudes are affected by identity and demographic features listeners bring into the interaction with speakers.

CHAPTER 1

Introduction and Literature Review

1.1 General Introduction

The Stupid Southerner. The Aggressive New Yorker. The Clever Brit. The Ditsy Valley Girl. Language attitudes about groups of speakers are widespread within the United States and often well known enough to be stereotypes. One potential source of these widespread attitudes and stereotypes is media.[1] Yet linguistic inquiry largely addresses media in terms of its effect on language change and particularly standardization. Milroy and Milroy (1999), for instance, note that "although radio, film and television may not have had much influence on everyday speech, they are amongst the many influences that promote the consciousness of the standard and maintain its position" (31). Here, Milroy and Milroy frame media influence in terms of its effect on speech. Attitudes come in only tangentially if one considers promotion and maintenance of standard varieties of language an attitudinal issue. The advancement of linguistic and social stereotypes of non-standard dialects is not addressed. Stuart-Smith and Ota (2014) note this focus on media influence in terms of standardization, while also highlighting that studies that have actually looked at media's influence on standardization have not found convincing results even as researchers continue to advance the idea. How, then, should we explore the connection between language attitudes and media?

Some sociolinguists have suggested or implied that language attitudes are spread through media exposure based on the theory that seeing language variation in association with stereotypical, often negative, characteristics supports negative attitudes (e.g. Lippi-Green 2012). Pappas (2008), for instance, notes that popular knowledge of postalveolar /l/ and /n/, stigmatized regional variants in Modern Greek, had a "meteoric" rise due to the variants' appearance in popular television shows representing stereotypical speakers with those features. According to Pappas, "these uses of the stereotype in popular culture reflect attitudes that are common in the younger generation" (495). The implication is not just that these stereotypes spread to the

[1] I refer primarily here (and onwards) to media in the form of radio, television, and movies.

population as a whole through their use in media, but that the media, specifically television, played a key role in popular knowledge of this linguistic stereotype. Kristiansen (2014) presents evidence for an attitudinally based model of language change through media using language attitudes as a mediating factor.[2] This study will be discussed in more detail later, but, of particular note, the effect of language attitudes on language change is tested while the effect of media on language attitudes remains an assumption. Androutsopoulos (2014), in the introductory chapter of *Mediatization and Sociolinguistic Change*, notes that "the role of media in lexical innovation and change...is thus readily acknowledged, but excluded from analysis. The same holds true for the impact of mass media on language awareness and attitudes" (14).

The claim of media influence has not been tested using causal methodologies. Through this research project, I explore the assumption that representations of accented speakers on television affect explicit language attitudes towards an actual person with those linguistic characteristics as well as implicit attitudes towards the accent in question. Additionally, this research works towards building an interdisciplinary methodology to test media influence on language attitudes comparable to media influence research in other fields.

In the past, linguistic researchers have approached media studies from the standpoint of production rather than perception, focusing primarily on production of linguistic features in radio, television, and film. Less research deals with perception of regional and social accents, particularly in fictional media. When non-standard accents and dialects are part of media performances, they are generally there for a purpose, most commonly to characterize, to relate authenticity, and/or to extend the plot (Queen 2015). As a result, media accents and dialects can build on or extend stereotypes. For instance, one way to characterize a speaker as being unintelligent is to have that character speak with a non-standard dialect like American Southern English, a dialect whose speakers are stereotyped as being unintelligent. The use of accents and dialects in conjunction with stereotypical characteristics arguably reinforces these existing attitudes and ideologies.

This chapter provides background for several key areas. The first section addresses language attitudes from both an explicit and implicit standpoint, particularly focusing on their malleability. The Associative-Propositional Evaluation (APE) model (Gawronski &

[2] Stuart-Smith (2007) refers to this indirect influence a "traditional view." Moving forward, I will refer to either the attitudinal model of language change or as Kristiansen's model, since his test of it provides a clear relatively recent example of the model in action.

Bodenhausen 2011) is used to frame these attitudes from a cognitive perspective and to provide an explanation for a specific set of circumstances in which implicit attitudes are malleable. The second section turns to media influence in sociolinguistic research. After that, media influence in social psychology and communications is outlined as one potential avenue for changing both implicit and explicit attitudes. In this sphere, media appears to influence attitudes about different social variables, such as race and gender. These studies are used to frame, differentiate, and predict how media might influence and mold implicit and explicit language attitudes. These media studies show complex relationships between media consumption, attitudes, and a wide variety of mediating factors. Perceived realism, as one of those mediating factors, is highlighted and detailed as it relates to both media influence in general and to the linguistic concept of phonological calibration. Finally, I outline the research questions and goals of the experiments and the hypotheses produced in response to them.

1.2 Explicit and implicit language attitudes and the Associative Propositional Evaluation model

1.2.1 Explicit and implicit attitudes

Adults possess wide-ranging knowledge of social factors associated with different speech styles and dialects. For the most part, study of this knowledge has been measured through explicit means in which individuals express their attitudes through measures like semantic differential questionnaires (Garrett 2010). Extensive study has mapped various attitudinal patterns across dialects and languages. Speakers of standard dialects of English are ranked higher on status attributes (e.g. intelligence, wealth) and lower on solidarity attributes (e.g. amusingness, friendliness), while speakers of marked dialects rank higher in solidarity and/or lower in status (Lambert 1967; Edwards 1982; Sebastian & Ryan 1985; Luhman 1990; Giles, Henwood, Coupland, Harriman, & Coupland 1992; Preston 1999; Jarvella, Bang, Jakobsen, & Mees 2001; Heaton & Nygaard 2011). This pattern is not isolated to English (Cremona & Bates 1977; Demirci & Kleiner 1999; Jeon, Cukor-Avila, & Rector 2013).

Measures of explicit attitudes rely on the individual expressing conscious opinions about accents or speakers of accents. The individual has control over what they express in the measure. If an individual knows that their attitudes are being evaluated, they may revise them, particularly if the reported attitudes would frame the individual in a negative light (e.g. Garrett 2010). For

instance, an individual may view people from races not their own as unpleasant, but also know that (1) their reaction is based upon societal prejudice and/or (2) expressing that view could lead to the individual being categorized as racist. In the case of explicit measures of attitude, the individual has the agency to report attitudes different from what they actually believe. Campbell-Kibler (2013) summarizes this perspective well:

> It [explicit measure of attitudes] has the disadvantage, however, of collecting responses based on introspection and consciously offered opinion. Participants may not always be able to consciously consider the language forms of interest in order to provide their opinions of them, because they are not aware of the forms or hold a distorted view of how and when they are used. Even if individuals are aware of their linguistic attitudes and possess the language with which to report them, they may be reluctant to do so, particularly if the attitudes are socially charged. (308)

Over the past decade, the experimental spotlight has shifted to accommodate study of implicit language attitudes, those attitudes that might be categorized as unconscious or automatic. These studies are delving into the more deeply entrenched, automatic associations individuals have formed. While psychology experiments use a variety of implicit measures, sociolinguistic study has begun with a focus on the Implicit Association Test (IAT), a test which measures associations between two sets of categorical variables through reaction times (see Section 2.3.5 for more detail). Associations have been shown between dialects and positive or negative adjectives (Babel 2010, Pantos 2010, Redinger 2010), as well as between American geographic regions, specific phonological features, careers, and educatedness (Campbell-Kibler 2012, Campbell-Kibler 2013, Loudermilk 2015). While studies of explicit attitudes indicate other factors that can contribute to individual attitudes (e.g. region of origin (Preston 1996, 1999)), implicit language attitudes studies have tested the associations themselves rather than factors that might affect associations.

It should also be noted here that language attitudes "are not a singular, static phenomenon. Rather, they affect, and are affected by, numerous elements in a virtually endless recursive fashion" (Cargile, Giles, Ryan, & Bradac 1994; 215). Attitudes are not set traits of an individual; they shift. As we look at attitudes, we are looking at what might trigger these changes and, particularly, what might cause extreme changes in both the short and long term.

1.2.2 Malleability of implicit and explicit attitudes

Attitudinal research in psychology supports the idea that implicit and explicit attitudes are the result of different processes. Results of implicit and explicit measures oftentimes do not

correlate with each other. These differences are sometimes framed as differences in malleability: explicit attitudes are changeable with exposure to short-term stimuli while implicit attitudes remain stable (Gawronski & Strack 2004; Egloff & Schmukle 2002; Rydell & McConnell 2006 Experiment 1). I will not spend a great deal of time talking about malleability of explicit attitudes. Their changeability is addressed through the ability of individuals to control them and will further be demonstrated in Section 1.4, as the media-based studies discussed there are exclusively based upon explicit measures of attitude. These studies largely show that responses to explicit measures do shift in response to primes.

Research on implicit attitudes, however, provides more conflicting evidence in terms of stability of these attitudes. Egloff and Schmukle (2002) tested the validity and reliability of the IAT as a measure of an individual's self-perceived anxiety by testing participant associations between themselves (*self* versus *other*) and anxiety (*anxious* versus *calm*). In addition to the IAT itself, participants were told the test would be used as part of a job interview in which they needed to make a good impression. This instruction encouraged attempts to mask associations the participant might have between themselves and anxiety. In other words, they would try to control the outcome of the test by masking their self-perception that they are anxious. The results were unaffected by participant attempts to mask associations between self and anxiety; the association between self and anxiety was still reflected. This finding was taken as a sign of a lack of malleability in the implicit associations. It is difficult to say, however, if the participants were truly attempting to mask their anxiety since they were not told explicitly to do so. Perhaps the instruction alone was not enough to trigger attempts to control the IAT result.

Kim (2003) found that groups who were given a specific strategy and told to mask their implicit attitudes were successful at the task by slowing their negative association between a group and trait, in this case between Black and unpleasantness. They could not, however, change their lack of association between Black and the positive trait of pleasantness. In order to successfully mask the negative association, participants needed to be given a strategy; those who were not given a strategy did not differ significantly from those who were not given any instructions to mask their associations. These results indicate the potential for some minor controllability of automatic attitudes, but only if the strategy is employed and only for a specific part of the association. When no strategy is employed, as would likely occur in everyday interactions, automatic attitudes remained inflexible.

Not all research reflects this lack of malleability. Some evidence points to implicit attitudes being susceptible to change after a single exposure to stimuli (Wittenbrink, Judd, & Park 2001; Blair, Ma, & Lenton 2001; Blair 2002; Rydell & McConnell 2006 Experiment 5). Lowery, Curtis, and Sinclair (2001) demonstrate that implicit attitudes are susceptible to shifts depending on social context by showing differences in implicit evaluations depending upon the race of the experimenter. They also found reduced levels of automatic bias when they told the participants to avoid prejudiced responses. Similarly, Rydell and McConnell (2006) found that priming participants with negative pictures led to negative associations with a person in the IAT while priming participants with positive pictures led to positive associations. This experiment, though, tested associations with a fictional person introduced through the experiment rather than evaluating already existing attitudes about a group, which (as will become evident below) may be a key difference.

Foroni and Mayr (2005) showed that implicit associations about the pleasantness and unpleasantness of flowers and insects can be reversed if participants read different stories. Participants took an IAT after reading a counterstereotypical scenario in which flowers were poisonous and insects vital to maintaining food sources, then took the same IAT again after reading a stereotypical scenario where flowers were the food source maintainers and insects were poisonous. IATs taken after the counterstereotypical narrative shifted away from the expected/stereotypical associations to reflect the associations in the narrative.

Thus, the reality of attitude malleability is not as simple as one being malleable and the other not. It is much more complex and, as we will see, potentially explained through the Associative-Propositional Evaluation model.

1.2.3 The Associative-Propositional Evaluation (APE) model

Language attitudes studies have clearly mapped out how groups view other dialect groups evaluatively, but not the cognitive attitudinal processes behind them. For this dissertation, I draw on the Associative-Propositional Evaluation (APE) model (Gawronski & Bodenhausen 2006a, 2006b, 2007, 2011) to frame these attitudinal processes in order to better understand how media might influence them. The model has two main components connecting implicit and explicit attitudes to one another: associative and propositional processes. According to the APE model, all attitudes (implicit and explicit) are stored in memory as associations, which are activated by associative processes. Implicit and explicit attitudes are the result of independent processes

involving those associations that can both directly and indirectly influence each other. Implicit evaluations are the result of activation of one of many associations related to an attitude object. Activation of associations depends upon what the stimulus is and how it is presented (Gawronski & Bodenhausen 2011). For example, viewers have more positive attitudes towards Black faces when those faces are presented with the background of a basketball court or family barbeque than when they're presented with a prison or graffiti wall background (Wittenbrink, Judd, & Park 2001). Individuals display different implicit attitudes towards old and young faces of Black and White individuals if the individuals are tasked with categorizing them by age versus by race (Gawronski, Cunningham, LeBel, & Deutsch 2010). Implicit attitudes towards an individual can shift depending on instruction as well. Participants have more positive attitudes about Michael Jordan when they categorize him by his career as opposed to his race (Mitchell, Nosek, and Banaji 2003). Thus, the same attitude object (whether that object is an unfamiliar face or a well-known individual) has multiple associations that can be activated. The associative process depends upon the information that is presented and/or is salient in the moment.

Implicit attitudes capture activated associations and initiate a series of propositions that the individual can accept or reject. An individual's explicit evaluations result from a process validating these propositions based on the individual's determination of whether the proposition is logical based on their subjective knowledge and experience (a.k.a logical consistency) (Gawronski & Bodenhausen 2011). For example, in a task where participants must categorize weapons and hand tools, individuals primed with Black faces categorized tools as weapons more often than those primed with White faces (Payne 2001). According to the APE model, if an association between Black faces and weapons is activated, the proposition "This person is dangerous because what they are holding might be a weapon" could be activated. The individual then has control over whether they validate that proposition. The individual may recognize that the association is incorrect and/or subjective and not reflective of the person or object that activated the association. They may, therefore, not validate the proposition and instead find another proposition to validate in its stead. The individual cannot control the activation of the association, but can control the propositions they validate and express.

1.2.4 Malleability according to the APE model

According to the APE model, implicit attitudes are malleable under certain conditions. Specifically, they depend on (1) what associations are activated, (2) the experiences and

knowledge of the individual, and (3) the individual's dedication to logical consistency. In the case of Foroni and Mayr's (2005) study, they presented a narrative which created new associations (or at least activated different associations). Rydell and McConnell (2006) did the same with pictures. Gregg, Seibt, and Banaji (2006) found that both automatic (implicit) and controlled (explicit) preferences were malleable in attitude formation but, once created, controlled preferences remained malleable while automatic preferences became fixed. They conclude that automatic attitudes, once formed, become difficult to modify.[3] The attitudes may change over time, but those changes take just that: time, and often exposure to some event or object to modify these more ingrained attitudes. From an APE perspective, the creation of new attitudes leads to activation of new associations while the existing attitudes remain unmodified because alternate associations are not presented.

In this framework, the studies that found no change in implicit attitudes did nothing that would activate different or create new associations. Thus, APE predicts that if an individual is given an alternative association, their implicit attitudes will shift accordingly. The implicit evaluation is measuring a different activated association. Explicit evaluations remain the more easily malleable of the attitudes in APE. They are shifted by different sets of propositions being activated by associations and the willingness of individuals to validate them. If, for example, an individual has an association between Southern and unintelligent, but also knows that non-standard dialect speakers face prejudice and that prejudice and discrimination are bad, they will not validate the Southern-unintelligent proposition and will, instead, find an alternate proposition within their proposition set to validate in explicit measure. The Southern-unintelligent association still exists and will manifest in implicit evaluations; the individual, however, has agency in the process of validation and can exercise control over their explicit evaluations.

The substitution that occurs when an original proposition is not validated changes and/or strengthens the accepted proposition as the primary associated proposition. Importantly, negation through propositions (e.g. telling someone that Southerners are not dumb) is not an effective way to change existing associations. In fact, the negation may conversely strengthen the association it is trying to negate since the association must be activated in order to be negated (Wegner 1994).

[3] Gregg, Seibt, and Banaji (2006) also raise questions as to what studies actually define as malleability. It may refer to significant difference without actually changing directionality (i.e. the participant sees insects as more pleasant than before, but not necessarily fully positive). Others may consider only a full change in directionality (i.e. insects are seen as more pleasant than before AND are fully seen as positive). These factors should certainly be considered in evaluating findings.

Successful shift in associations depends upon creation of new associations (Gawronski & Bodenhausen 2011). Rather than telling an individual "Southern people are not dumb," a more effective strategy for changing associations, and thus implicit attitudes, would be to tell them "Southern people are smart." In other words, when trying to change attitudes, showing a counterexample creating a new association is more important than negating the existing association.

In sum, explicit attitudes have been shown to be malleable, at least with short-term priming, in attitudes studies within the fields of psychology and communications. Within sociolinguistics, malleability has been less explored experimentally. Implicit attitudes are malleable under certain circumstances. It is unclear whether those circumstances can be met with linguistic stimuli alone. Answering these questions will (1) answer theoretical questions about malleability of language attitudes, a particularly important question to answer if attitudes are assumed to mediate language change from media; (2) take steps towards understanding the role of media in maintenance of language attitudes and stereotyping; and (3) situate language attitudes studies more clearly within attitudinal studies in psychology and communications.

1.3 Media influence in sociolinguistics

The previous section established that both implicit and explicit attitudes are malleable if certain conditions are met. Short-term priming can change explicit attitudes by activating different associations or offering alternative propositions for validation, though it is unclear how permanent those changes are. Implicit attitudes change when associations with other traits are created or activated through different contexts or the presentation of alternate narratives (e.g. flowers are harmful, insects are helpful). The ability for narrative to potentially change attitudes leads to questions of how television media, as a dispenser of narratives, could contribute to attitude maintenance and shift.

Media-based studies within sociolinguistics have not focused on attitudinal activation. Instead, research tends to focus on language change and usage as well as reflection of societal linguistic norms. In this section, I briefly discuss how media has been used in sociolinguistic study of language change and link the study of attitudes to these studies of language change.

One fundamental factor in language change is social interaction. Traditionally, social interaction equates to an interaction, usually face-to-face, in which there are at least two people

involved who are able to respond to one another. Kristiansen (2014) refers to language in these types of interactions as *immediate language*. Media, at first glance, lacks the interactive element of immediate language; a viewer cannot speak to a character on television and receive a real-time response. Because of this, the role of media in day-to-day language use is often dismissed by linguists (Kristiansen 2014).

However, according to Parasocial Contact Theory, parasocial interaction, or interactions via media in which an individual is watching people or characters speak and act, can create responses similar to face-to-face interactions in viewers (Schiappa, Gregg, & Hewes 2005; Ortiz & Harwood 2007; Harwood & Vincze 2012). Not only can parasocial interaction elicit similar emotional responses as face-to-face interactions, parasocial contact can have the same effects as actual intergroup contact. Eyal and Cohen (2006) found that some viewers who have parasocial relationships with television characters experience the emotions of a real-life break-up when that television show goes off the air. Fujioka (1999) found that Japanese and White students had different stereotypes of African Americans based on different contact with African Americans on television. They suggest that media influences viewers' perception of groups and that this effect is particularly strong when contact with the group is limited outside of media.

If parasocial interactions can stimulate similar responses as real-world interactions, the same should also be true of language in media.[4] Thus, we also have *mediated language*, language involving speakers who are separated by time and/or space due to some form of technology that prevents live response from occurring (Kristiansen 2014). A key distinction here is the ability to respond live. Telephone conversations would fall into the realm of immediate language because of the ability of the participants to respond to each other in real time despite being spatially separate. Mediated language has been and continues to be a part of the American experience and a point of intergroup contact, particularly with the rapid saturation of television sets in personal homes (Bushman & Huesmann 2001) and the ease of access to media via the Internet.

When mediated language has been studied, its influence on language change has been mixed. Vocabulary can be reflected and spread through the media (Trudgill 1986, Rice &

[4] Media alone should not be claimed as the sole contributing factor in attitudes and behavior, both language and otherwise. As Bushman and Huesmann (2001) state, "The theme...is *not* that media violence is *the* cause of aggression and violence in our society, or even that it is the *most* important cause. The theme is that accumulating research evidence has revealed that media violence is *one* factor that contributes significantly to aggression and violence in our society" (223-4). Thus, any assertions as to the effect of media made here are to be taken as one factor among many that contribute to attitudinal and behavioral effects.

Woodsmall 1998, Charkova 2007, Tagliamonte & Roberts 2005). Phonological and morpho-syntactic changes prove more difficult to attribute to media. These features are more structurally based and, therefore, more deeply entrenched in the cognitive system. Consequently, some claim such features are not affected by television priming (Trudgill 2014, Chambers 1998).[5]

Social interaction alone is likely not the cause of language variation. Another important factor is what individuals bring to an interaction (Giles et al. 1992; Auer & Hinskens 2005; Babel 2010). Engagement with a television program, for example, can encourage uptake of linguistic forms not native to a speaker's dialect. TH-fronting and L-vocalization, features of Cockney English in London, began appearing in Glaswegian with acceleration in their uptake in the 1990s (Stuart-Smith, Price, Timmins, & Gunter 2013). The spread of these dialect features appears to be due to a combination of linguistic and social practices, which included contact with Londoners, manifestation of Glaswegian street style, and psychological engagement with *Eastenders*, a program that takes place in London. What's more, Stuart-Smith et al. (2013) determine that these changes are driven by individuals, indicating that a focus on individual differences among participants may be an important part of the analysis. Thus, language change in the form of dialect diffusion is influenced by sets of social practices, both linguistic and extra-linguistic, including psychological engagement with television programs.

While a direct relationship between language change and media appears tenuous for the time being, attitudes may serve as a mediating factor. Using Denmark and Norway as examples, Kristiansen (2014) proposes that mediated language leads to attitudinal effects, which can lead to changes in immediate language. Broadcast media has limited influence on immediate language, but significant influence on ideology. He notes:

> My argument is not that TV influenced people's speech directly, but that it did so indirectly by changing SLI [Standard Language Ideology] in a way that is less likely to have happened in the same way, or to the same extent, without TV...Thus, the media in general and TV in particular not only expose people to greater quantities of Copenhagen speech than before, and in that sense change the conditions for (at least passive) appropriation, they also make Copenhagen variation available in ways that might trigger the development of new representations and evaluations. (115)

[5] These assertions are based primarily upon Anglo-based research. Language change appears to occur in phonology and morpho-syntax in conjunction with media consumption in non-Anglo-based research, particularly in standardization of dialects in Denmark (Kristiansen 2014), Japan (Ota & Takano 2014), and Brazil (Naro 1981; Naro & Scherre 1996; Scherre & Naro 2014), though media is not the strongest predictor of change (i.e. education is stronger).

Due to the striking similarity in attitudinal patterns across the country, Kristiansen proposes a set of common sources at play, one of which is media. Media in Denmark represents primarily Copenhagen speech; the country has generally negative attitudes towards dialect diversity. Norwegian media, however, broadcasts a diverse representation of dialects; Norway is more accepting of dialect diversity in immediate language.[6]

Thus, the attitudinal model Kristiansen posits holds that mediated language affects language ideologies and these ideologies affect language change. Kristiansen finds evidence for the second part of this model dealing with language ideology affecting language change. So far, though, there is no experimental evidence for the first half purporting that mediated language affects language ideologies, nor are specific attitudes tested beyond positivity towards dialect diversity. Stuart-Smith (2007) looked at the effect of watching *Eastenders* on Glaswegian attitudes towards London English. She found no effects. The attitudinal object, however, was an abstract accent rather than a person who speaks with that accent.

Kristiansen's model focuses on general attitudes towards diversity rather than specific stereotypes cultivated by media. It focuses on exposure to a variety of dialects other than the standard rather than how those dialects are represented. With the focus of the model on language change, this leaves an open question of whether any representation of dialect diversity is positive or whether negatively stereotyped dialects will have negative effects.

1.4 Media influence in social psychology and communications

While sociolinguists have focused on media influence on language change, researchers in social psychology and communications have explored the varied ways the media can influence attitudes and behaviors. Media, particularly television, is a pervasive part of American lives. By 1985, 98% of homes in the US had a television set (Bushman & Huesmann 2001). More recently, online streaming services have increased accessibility. In 2016, 49% of consumers in the US paid for online streaming services. The number is even higher (60%) for younger generations (Westcott, Lippstreu, & Cutbill 2017). As of the third quarter of 2017, approximately 55 million Americans subscribe to Netflix, a little less than half of Netflix's total subscriber base (Molla 2018), while many television channels have their own streaming options (e.g. HBOGo) and others are implementing paid online streaming services for both shows airing on television

[6] It is unclear whether the relationship here is one of causality or reinforcement.

and original programming (e.g. CBS All Access). Free online video-sharing platforms offer access to clips from television shows and movies as well as programming from content creators exclusive to the platform, like YouTube, whose most popular channel has 54.1 million subscribers worldwide (McAlone 2017).[7]

This is all to say that Americans have the potential to be exposed to television with little effort on their part. For consumers, the ease of access to media also means ease of access to contact with social groups they might not otherwise be exposed to. This ease of access offers ease of parasocial intergroup contact, which can benefit individuals who might not interact with many outgroups otherwise. It also means that viewers are exposed to a multitude of negative representations of outgroups that could be potentially harmful if they reinforce stereotypes. Thus, with the accessibility of television and the ability of television to mediate intergroup contact, gauging influence the media might have on attitudes and behavior is of increasing importance. Influence[8] encompasses anything from changes in Likert scale attribute measures of self and others to differences in compassionate behavior towards a disabled individual to shifting level of suggested payment to a research assistant. These wide-ranging effects indicate the variety of different ways media might influence viewers' perceptions of themselves and others, particularly stigmatized social groups.

Media can affect attitudes towards race (Ford 1997; Dixon 2008), sex (Ward, Hansbrough, & Walker 2005; Pike & Jennings 2005), body image and self esteem (Agliata & Tantleff-Dunn 2004; Bell, Lawton, & Dittmar 2007; Anschutz, Engels, Van Leeuwe, & van Strien 2009; Martins & Harrison 2012; Mulgrew, Kostas, & Rendell 2013), and violence (Friedlander, Connolly, Pepler, & Craig 2013). Media viewing also correlates with aggression and sexual behavior (Huesmann, Moise-Titus, Podolski, & Eron 2003; Bartholow, Bushman, & Sestir 2006; L'Engle, Brown, & Kenneavy 2006; Willoughby, Adachi, & Good 2012). In a correlative study, Dixon (2008) found that participants who watched more crime news were more likely to assign high culpability to Black suspects than White suspects. Those who saw more crime stories with Black criminals were also more likely to judge a Black person as being violent. Disturbingly, a three-year longitudinal study found that adolescents who consume more

[7] That number has risen to 62 million as of May 2018.
[8] "Media effects" and "media influence" is often juxtaposed with "active audiences" in that "media effects" refers specifically to the media affecting a passive viewer rather than an audience actively engaging with the media they consume. I take the latter view in which the audience is engaging with media.

aggressive media perpetrate more dating violence, an effect that is mediated by more violence-tolerant attitudes in relation to dating taken up by long-term viewers of aggressive media (Friedlander et al. 2013). Finally, individuals who play violent video games show lower P300 amplitudes (indicated desensitization) when they see violent images than those who play non-violent games. Those with lower P300 amplitudes also showed more aggressive behavior; they would choose to sound a louder noise into the headphones of a competitor when the competitor lost.[9] These results held true even when baseline aggressiveness was accounted for, indicating that the result was not simply due to aggressive individuals being drawn to violent games (Bartholow, Bushman, & Sestir 2006).

The three studies detailed above represent several important findings. Bartholow et al. (2006) show that consumption of media can have effects that manifest cognitively and that those effects can also affect the way that consumers treat individuals (at least individuals they think exist but cannot see). The study by Friedlander et al. (2013) exemplifies the importance of mediating factors by showing that those who consumed more violent media were more likely to become perpetrators of dating violence if they had more tolerant attitudes towards dating violence overall. Without the attitudes' mediation, the relationship would not show up in the results. Dixon (2008) makes links to theory by attributing his findings to chronic stereotype activation, which is postulated to lead to frequently activated stereotypes being activated more automatically over time, and selective exposure, the idea that people attend to information that fits their preconceived notions and dismiss evidence that counters it. Dixon concludes that stereotype activation is most likely behind his result and that the chronic activation of stereotypes through the news leads to "increased accessibility of stereotypical constraints linking Blacks with violent crime" (121).

This chronic activation of stereotypes is a key component in cultivation theory, a robust theory that accounts for the relationship between media consumption and viewer attitudes. In short, the theory states that the more media a viewer consumes, the more their world-view will reflect what is seen in that media (Gerbner, Gross, Jackson-Beeck, Jeffries-Fox, & Signorielli 1978; Morgan & Shanahan 2010). Chronic activation of stereotypes via television strengthens

[9] No actual competitor existed. The participant played a game with a computer in which they were set-up to lose the first round and half the rest of the trials. They were told they were playing against another person and that whoever won the round got to choose the level of sound the loser heard through a set of headphones. Participants who had lower P300s sent higher levels of sounds to their supposed competitor than those with higher P300s.

associations with stereotypes and, thus, makes them more likely to be activated in contexts outside of media. Studies that examine cultivation theory find robust short-term results, like those found in Dixon's study. The theory itself, however, is framed as a long-term effect. The crux of cultivation theory is the long-term effect: that the short term priming that occurs is a mechanism to explain how media might affect viewers over weeks, months, or years. A viewer must consume media over an extended period of time, not just once, in order for the messages to become associated with groups, thus becoming automatically activated stereotypes, constructs, and/or schemas.

Thus, the theory seems to capture what is happening in many of the studies referenced above. Media consumers (especially consumers of televised media) are activating stereotypes or schemas over and over again, making those stereotypes more accessible and, thus, more easily activated when they encounter the attitudinal object both in media and outside of it. Due to the longitudinal implications of the theory and its reliance on correlations, however, it is difficult to show evidence for it definitively. Short-term priming experiments cannot be assumed to reflect long-term permanent changes in attitudes or behaviors, while longitudinal studies risk uncontrolled confounding factors (e.g. a control group watches television with the variable being controlled in the time between measures in a longitudinal experiment). Correlational data can account for effects to a degree, but, as we well know, definitive causation cannot be attributed using correlations alone. Thus, cultivation theory runs into the issue of being virtually impossible to prove. The argument for cultivation can be strengthened, however, with enough short-term evidence showing similar patterns across a variety of attitudes and behaviors and with models incorporating social variables like individual viewing habits, favorite television shows, and engagement with particular shows or characters,

Cultivation theory has been applied to visible characteristics (e.g. race, gender) and concepts (e.g. crime rates, likelihood of being a victim of a crime, likelihood of death). Presumably, it then would also pertain to linguistic factors. Hearing the same accent associated with the same character type over and over again would chronically activate a stereotype enough that that stereotype would activate when the accent is encountered outside of media.

1.5 Perceived realism in media influence and sociolinguistics

Cultivation theory on the surface risks framing the viewer as a passive participant in the media-viewing process. Viewers absorb what is put before them with no agency in the matter. Media controls them. Since the inception of cultivation theory, the idea of the passive viewer has become antiquated. Now, the viewer is considered an active participant in the media consumption process. Viewers bring their own expectations, viewing styles, and individual traits to media interactions, all of which can mediate what they take from media. Thus, when accounting for media consumption in attitudes, researchers must also account for what the viewer is bringing to the interaction and how the viewer experiences media.

Perceived realism is one of the more robust mediators found in media psychology research. Hall (2009) broadly defines perceived realism as "the way media content is seen by the audience to relate to the real world" (424). Studies vary in how they frame the concept; some focus on what the media is doing in relation to the real world while others focus on the viewers' subjective perception of the media's relation to the real world. As Hall points out, "Audience members' subjective perceptions of media realism are distinct from the objective relationship between a media portrayal and its subject" (424). When focusing on the interaction between media and viewer as this project frames it, the important consideration is the audience's subjective perception. While the objective measure of how media and reality align is important for other aspects of study, for the purposes of influence on audience attitude and behavior, it doesn't matter how well (or not) media representations match with reality if the audience member sees it as truly representative of the real world.

Broadly, this view of media realism could be framed in the same way as production and perception in linguistics. The objective relationship between media and subject is production. This relationship represents how reality is being produced on television (or whatever media one is looking at) and how that production matches up in terms of accuracy to the real world. The audience's subjective perception of media is the perception element. It signifies how the representation offered by the media is accepted (or not) and integrated (or not) into the viewer's own cognitive system. Here, objective accuracy means little. If the audience perceives a representation as accurate, that perception may inform the viewer's cognitive representations of whatever is being represented. Imagine a Southern character on a current television show. The Southern character has an antiquated accent that no longer exists in the South or may use a

variety of salient features that are not specific to any one locality within the region. Objectively, the production of the Southern accent is inaccurate. A viewer, though, may not have access to Southern speakers and, thus, may not recognize the inaccuracy. Subjectively, they may view this accent and characterization that goes along with it as accurate and integrate that belief into their cognitive representation of Southerners.

What happens, then, when viewers know content is fictional (that it is a scripted crime drama on television, for instance) but elements of the content might objectively be accurate (like the accent)? While perceived realism isn't a construct linguists typically refer to, phonological calibration captures a similar idea. Knowledge about a speaker can influence speech perception. In particular, phonological calibration based upon supposed (sometimes false) knowledge about a speaker can lead to perceptual differences in vowels (Niedzielski 1999; Strand 1999; Hay & Drager 2010; Hay, Drager, & Warren 2010). In her seminal study, Niedzielski (1999) had listeners pick which synthesized vowel matched the vowel from a speech sample. The listeners all heard the same speaker, but half of them were told the speaker was from Detroit, Michigan and the other half that the speaker was from Windsor, Ontario. Listeners who thought they were hearing a Canadian speaker perceived Canadian raising more than the listeners who thought they were hearing a Michigan speaker. Those who thought they were hearing a Michigan speaker also did not perceive vowels as being affected by the Northern Cities Shift, but rather labeled the vowels as the more standard variant. Niedzielski concluded that listeners "use social information to calibrate the phonological space of speakers" (84) and that "stereotypes about given language varieties do affect the way in which listeners calibrate the phonological space of speakers of those varieties" (84). This type of effect can shift vowel perception with as little as the presence of a stuffed toy animal that is associated with an area (kangaroos for Australia and kiwis or New Zealand in the case of Hay and Drager (2010)).

According to these findings, then, perception of an accent can be shifted by the introduction of additional social information. In Niedzielski (1999) in particular, giving the participant information about where the speaker was from (whether that information was true or not) influenced phonological calibration. This additional information gives the listener a fuller picture of the accented speaker. Again, this may not actually reflect factual information about the speaker, but rather information the listener thinks they know about the speaker. This, in turn, may influence how real or authentic the listener perceives the accent to be. I will refer to this

effect as *speaker information*, though I work towards a definition of a new construct I refer to as *perceived accent/dialect realism* through the dissertation.

1.6 Research questions and hypotheses

With this dissertation, I test how television exposure to stereotypical and counterstereotypical representations of accented speakers affects viewer language attitudes and how perceived realism and speaker information may contribute to models of linguistic media influence. Along the way, I make connections to theoretical concepts like the APE model and cultivation theory

The overall goals are both methodological and empirical. The methodological goal is to establish a foundation upon which to build an interdisciplinary methodology to test the effects of media on language attitudes. This method is meant to complement and augment research on language attitudes via media by experimentally testing assumptions about media and language attitudes. The empirical goal is to test the potential causal role of media in explicit and implicit language attitudes in order to evaluate the role of media in cultivating language attitudes, as well as how similar this process might be to other attitudes.

I also aim to further establish the IAT as a method to study implicit language attitudes by using it to test specific stereotypes associated with a bundled group of accent features. In order to clarify the role of speaker information, I begin by testing whether participants can discern native accented speakers from performers. If knowing an actor is a native speaker of an accent has an effect on language attitude shift, can listeners tell speakers are native speakers just from hearing them or do they need to be explicitly told? Thus, I ask the following research questions and make corresponding hypothesis:

> RQ1: Can listeners differentiate speakers using their native regional accent from speakers performing a non-native regional accent?
>
> H1: Listeners will be able to differentiate between native and non-native speakers of American regional accents they are familiar with, but not ones they do not have experience with.

RQ1 is a preliminary question that must be answered to make sense of the potential results in the implicit and explicit attitudes experiments. Thus, I address the relevant literature surrounding that question in Chapter 3, where the experiment is detailed.

The next research questions address the main focus of the dissertation: the influence media, specifically television, has on implicit and explicit language attitudes as well as mediating factors that may contribute to results. For implicit attitudes:

> RQ2: Is the IAT effective when multiple accent features are present with a specific accent stereotype? Specifically, can the IAT capture associations between a more holistic ASE accent and lack of intelligence?
>
> RQ3: How are implicit attitudes towards accents affected by short-term television media exposure?
>
> RQ4: Are implicit attitudes towards accents affected by perceived realism, speaker information, or other social variables the viewer brings into the media interaction after in short-term television media exposure?

According to the APE model, narratives can activate new or different associations that are reflected in implicit attitudes. Narratives from television shows could be enough to trigger a new association. In order to shift attitudes, we cannot simply negate previously held stereotypes, but rather must provide a counterstereotype framed positively. For instance, one could not just show that Southerners are not dumb, but must show instead that Southerners are smart. With that in mind, I make the following hypotheses:

> H2: The IAT will successfully capture associations between a multi-feature ASE accent and lack of intelligence.
>
> H3: Implicit measures of attitude will display stronger associations between a stereotyped accent and corresponding trait after short-term priming from scripted fictional television clips portraying a stereotype-supporting narrative compared to a counterstereotypical narrative.
>
> H4: Implicit attitudes will shift depending upon speaker information and perceived realism in regard to scripted fictional television clips. Receiving speaker information will facilitate attitudes shifts in the direction of stereotypical associations by priming those already existing associations in the listener. Those with higher perceived realism will be more likely to shift in response to the scripted fictional television they are exposed to, whether it is stereotypical or counterstereotypical.

Finally, the research questions for explicit attitudes are as follows:

RQ5: What role does television play in explicit language attitudes towards speakers of accents? Does exposure to stereotypical or counterstereotypical representations of accented speakers on television affect viewers' attitudes towards a speaker with the same accent in a face-to-face interaction?

RQ6: What role does knowledge that an actor is a native speaker of an accent play in explicit language attitudes? Do perceived realism, speaker information, or social variables the viewer brings into the interaction contribute to attitudes towards speakers met face-to-face?

Stereotypical representations and associations will activate already existing propositions. Counterstereotypical representations could give the viewer a reason to fail to validate a previously held stereotype-based proposition and instead validate a proposition to acknowledge the counterstereotype. I, therefore, hypothesize that:

H5: Viewers who are exposed to televised representation of a stereotyped accented speaker will more strongly exhibit attitudes reflecting those stereotypes towards an actual speaker they interact with who has that accent compared to viewers who are exposed to counterstereotypical accented speakers.

H6: Telling a media consumer that a speaker is a native speaker of an accent group will affect explicit attitudes towards an actual speaker with that accent. Those with higher perceived realism will be more likely to take up stereotypical or counterstereotypical attitudes in response to the scripted television clips they are exposed to.

1.7 Structure of dissertation

In Chapter 2, I present an overview of the methodology describing the linguistic attitudinal object, the experimental paradigm I adapted from social psychology, the specific experimental design I implemented, the stimuli and measures used in the experiments, and the methodological contribution of the dissertation.

Chapter 3 discusses a categorization experiment I conducted to clarify the implications of any speaker information findings in later chapters. This experiment is designed to establish

whether listeners can categorize speakers as natives or performers based on voice alone without being given information about the speaker. The results are discussed as they pertain to media data in which viewers may or may not know the origin of a speaker they are hearing.

Chapters 4 and 5 detail the Implicit Attitudes Experiment and Explicit Attitudes Experiment, respectively. I discuss the participants and specific procedure, then the results of the experiment, including effects of social variables. Comparisons are made both within and between groups.

The sixth chapter reviews the results of all the studies in combination. It discusses the empirical, theoretical, and practical implications of the findings. It also addresses places for methodological improvements and directions for future study. The chapter finishes by summarizing the main conclusions of the dissertation.

CHAPTER 2

Methodological Design and Contribution

2.1 Introduction

Linguists have struggled to integrate causal experimental study of media influence into sociolinguistic research in part because of the inherent difficulty of causal study of media influence across fields. The media influence studies that are able to represent causal relationships must account for numerous confounding factors as well as what measures are both sensitive to and appropriate for capturing constructs that are at times vaguely defined. As discussed in Chapter 1, studies that do incorporate causal elements show varying types and degrees of influence on both attitudes and behavior.

As with all media influence studies, accounting for confounding factors is a Herculean task. To create a study that is both "clean" of confounding variables and ecologically valid appears, at this point, impossible. Still, linguists should strive to examine, define, and detail media influence on language attitudes, particularly if we want to build models of language attitude formation, maintenance, and change, not to mention language attitudes' role in language change. This dissertation tests methodologies adapted from psychology and communications to provide a starting point for studying the influence of media on language attitudes and to motivate future research in that vein. I will address several factors that may confound results throughout the dissertation and propose how we might account for those factors in future studies using the foundation established here. Once this baseline is set, future studies can build upon and improve it to gain a fuller understanding of language attitudes in social cognition.

This dissertation reports on two experiments testing different aspects of the relationship between language attitudes and television media.[10] The methodologies link these experiments to experiments dealing with other attitudinal objects in social psychology, communications, and linguistics, making them novel within sociolinguistics. These links between fields allow for

[10] Three experiments total are reported, but one does not directly addressing language attitudes and television. It instead focuses on clarifying the influence of one potential confounding factor: the listener's ability to differentiate native regional accented speakers from performers.

comparisons between attitudes towards language and attitudes towards other social variables (e.g. race, gender) found in communications and social psychology research. The experiments in this dissertation have the dual goals of establishing an experimental baseline for media influence on language attitudes[11] and developing methodologies to study media influence on language attitudes in the future.

I have discussed background in language attitudes, media influence, perceived realism, and speaker information. I now turn to the methods as they pertain to the studies presented here. In this chapter, I first detail the selection of the attitudinal object (read: linguistic variety). I then discuss the experimental design of the implicit attitudes study and the explicit attitudes study and show the validity testing results necessary for the materials in the experiment. I detail the perceived realism manipulation and other demographic factors that may contribute to results.

2.2 Linguistic attitudinal object

To test the questions of media's effect on language attitudes established in Chapter 1, the studies for this dissertation evaluate attitudes towards American Southern English (ASE) accents. Rather than framing my attitudinal object as linguistic variables, I will refer to the linguistic variety or accent.[12] I am less interested in individual linguistic variables at this juncture and am instead reporting on attitudes towards a variety as a whole as it would likely be encountered "in the wild," whether that is in the form of immediate language or mediated language.

For the purposes of this dissertation, accent (phonological features) not dialect (phonological, morphosyntactic, lexical features) is used. The focus on phonology controls for potential confounding factors introduced by the use of morphological, syntactic, and/or lexical features. Using accents keeps all experimental stimuli, particularly the television scripts, as similar as possible. Future studies may (and should) incorporate other dialect features.

Thus, rather than reporting on one or more individual phonological variables, I approach the linguistic attitudinal object as a bundle of phonological features that combine to form ASE and index particular identities. ASE is still a broad categorization, however, with many sub-

[11] Influence here specifically refers to short-term effect with potential insight into long-term effects, to be discussed in Section 2.5

[12] Kristiansen (2014) asserts that linguists should be clear in discussions of variables versus varieties. Though he is speaking from a language change perspective, the distinction is pertinent here as well. Accents and dialects may remain stable (in that they continue to exist in the face of media standardization) while specific linguistic features shift. Individuals may use different types or degrees of variants and still be considered speakers of the same accent or dialect.

dialects within it. The focus on general ASE phonology rather than a specific local accent is purposeful. Many ASE-accented characters, particularly those played by non-Southern actors, use a variety of features without actually honing in on one specific accent (Heaton 2012). This approach to dialect representation in media is not an uncommon practice. Native American characters in media often speak what Meek (2006) refers to as *Hollywood Indian English*, "a composite of grammatical 'abnormalities' that marks the way Indians speak and differentiates their speech from Standard American English" (95). Hollywood Indian English includes grammatical and lexical features from multiple varieties of American Indian English. Children's cartoons use combinations of different features from national accents to give characters (typically villains) generic foreign accents (e.g. Slavic-accented gangsters in *The Adventures of Tin-Tin*) (Dobrow & Gidney 1998). Thus, I focus on Southern phonological features in general as these may better represent what a viewer will encounter on television, whether an actor is embodying a speaker from a specific area or not.

ASE was selected as the linguistic variety for several reasons. The variety is the most identified regional dialect of the United States (Preston 1999). Several specific stereotypes are associated with it (Reed 1986) as well as many social characteristics. Most notably for this particular set of experiments, Southern accents are rated high on solidarity (e.g. friendly, trustworthy) and low on status (e.g. smart, successful) (Preston 1999, Heaton & Nygaard 2011). Southern stereotypes are prominent in the media. Older television shows such as *The Beverly Hillbillies* and *The Dukes of Hazzard* rely on stereotypes of rebellion, the good ol' boy, and a general lack of intelligence to convey humor while more recent shows like *The Closer* and *Justified* continue to promote the Southern rebel stereotype, albeit less conspicuously. Southern accents in the media frequently appear with a connotation of unintelligence, over-politeness, friendliness, religiosity, and/or racism. Thus, as a salient dialect group with specific associations that media makers often utilize to characterize speakers, Southern accents serve as a good starting point for examining how media might affect treatment of accented speakers.

The phonology of ASE includes the Southern Vowel Shift (SVS), velar nasal (ING) fronting, and the PIN-PEN merger. In the SVS, seen in Figure 2.1 below, tense and lax front vowels reverse positions: /ɪ /, /ɛ/, and /æ/ shift forward and up; /i/ and /e/ shift back and down (Labov, Ash, & Boberg 2006). Back vowels are fronted. This fronting occurs across many US

dialects (Labov, Ash, & Boberg 2006), but is more advanced in the South in that fronting occurs in contexts that are otherwise dispreferred in other regional dialects (Fridland 2012).

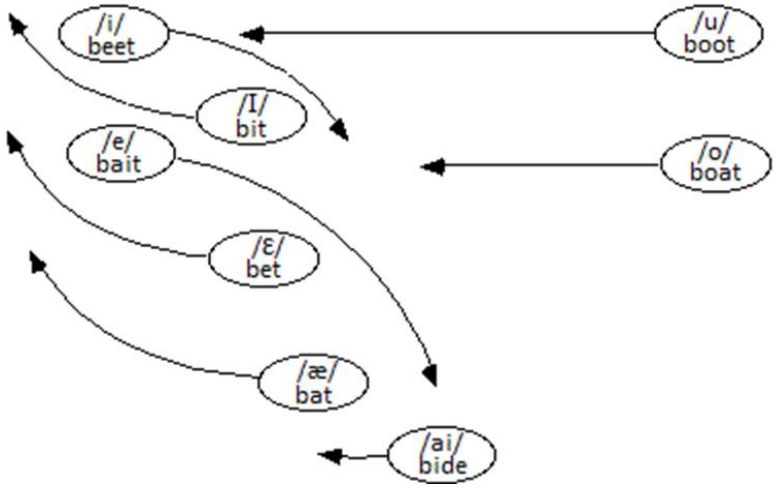

Figure 2.1: The Southern Vowel Shift (adapted from Labov 1996).

A weakened /ai/ glide[13] is a particularly salient feature of Southern varieties. Within the South, weakening can differ by phonological context. Many varieties will weaken the /ai/ glide when it occurs before voiced consonants ("bide") or open syllables ("buy"), but not before voiceless consonants ("bite"). Some varieties weaken in both voiced and voiceless contexts.

Velar nasal (ING) fronting, while not a vocalic feature, is recognized as one of the most salient features of Southern speech. Southerners are said to front their velar nasals even in formal situations (Labov 2001), though this assertion has not been definitively demonstrated through production studies. Velar nasal fronting correlates with socioeconomic status (Labov 1966; Shuy, Wolfram, & Riley 1967; Labov 2001), but additionally is linked to gender (Labov 1966) and less formal registers across dialects. While no production studies over the past three decades have confirmed the assertion that Southern varieties front their velar nasals more than other regional dialects, listeners tend to label speakers with fronted velar nasals as Southern (Campbell-Kibler 2008) and the association between the South and velar nasal fronting is strong (Houston 1985; Labov 2001).

[13] I refer to *weakening* rather than *monophthongization* because Southern /ai/ can be weak but still have glide. In other words, the /ai/ is not fully monophthongized, but is weak enough to be differentiated from the fully glided /ai/ of other dialects.

2.3 Experimental Design

Many studies of media influence depend on correlations as evidence of effects. While correlative studies are important in establishing links, they cannot show definitive causality. Some experimental studies have shown promising results in indicating causality of media influence. For example, girls show lower body satisfaction after viewing music videos with thin women (Bell, Lawton, & Dittmar 2007). Under the guise of a memory task, girls either watched music videos depicting thin female models, heard music soundtracks, or performed word learning tasks. They filled out measures evaluating body satisfaction and self-esteem before and after the videos. The girls who saw the music videos showed significantly less body image satisfaction after viewing. Self-esteem was initially predicted to moderate the effect of the videos with girls with higher self esteem being more resilient against the images. This was not the case. All girls were affected similarly regardless of self-esteem. This finding represents not only the influence of media on attitudes, but the speed with which media influence can take root. After just three music videos (approximately ten minutes total), the participants appeared to have unconsciously internalized the information presented to them. Thus, priming of attitudes occurs quickly, with as little as ten minutes of exposure.

Experimental design when measuring explicit attitudes must mask the true purpose of the study. Implicit attitudes measures need not be as surreptitious but, as they are newer to the field of sociolinguistics, they are in need of further study in relation to linguistic data. Potential mediating factors must also be considered in order to build the complex relationship between attitudes and media. Here, I discuss the media clip primes and the design of the explicit and implicit attitudes experiments.

2.3.1 Television media primes

The television media primes for this experiment were adapted from two aired television episodes and an unaired pilot.[14] The scenes were each two to three minutes long and had two to three characters. Each scene had one more intelligent character and one less intelligent character to prime the intelligence stereotype associated with Southerners. For these characters, less intelligence generally refers to intelligence in terms of book smarts or education; the characters are all smart in their own ways. These characters could not be irredeemably stupid so as to be one-dimensional. They also needed to come across as less intelligent regardless of what accent

[14] The unaired pilot has since been converted into an award-winning short film script.

they spoke with since in one condition the character would have a Midwestern or Western accent. Validity testing confirmed these standards (see Section 2.3.2 for details on validity testing).

Scripts. Scene 1 was adapted from an episode of the USA Network comedy *Psych*. The show follows Shawn, a man with photographic memory who serves as a police consultant by pretending to be psychic, and his best friend Gus, a pharmaceutical consultant who sets up their psychic investigation agency and helps with cases. While Shawn is highly adept at putting together clues to solve cases, he comes across as ditzy, not having the book smarts that Gus has about a seemingly endless array of topics from medicine to astronomy to spelling bees. For the stimuli, a scene from the episode "The Old and the Restless" (Ensler & Nigam 2008) was used in which Shawn and Gus are pretending to be doctors to gain access to a comatose patient with the ultimate goal of getting information about the patient from medical interns. Shawn does not understand the medical jargon the intern speaking to them uses and, thus, comes across as less intelligent in that regard, though he is smart enough to imitate a doctor to get the information in the first place.

Scene 2 was adapted from an unaired pilot episode of a comedy called *Royally Duped* (Khaw 2016). A queen is trying to marry off her bachelor son, Erik, who has been refusing marriage for years and would rather spend his time focusing on the kingdom and his own interests. He is intelligent and uses his intelligence to better the kingdom financially and diplomatically. Erik's cousin, Eli, relies on his good looks to get him places in life and has no interest in the finances and betterment of the kingdom through knowledge. The scene selected is one in which Erik and Eli are talking about Eli's upcoming marriage. Eli reveals that he is visiting Erik's family for Erik's engagement party, much to Erik's surprise as he had not known he was engaged. The scene highlights the differences in Erik and Eli's intelligence while also focusing on Eli's vanity and Erik's realization that his mother is behind his newly discovered engagement.

Scene 3 was adapted from Scifi Channel's *Stargate SG-1*. In the show, teams of four people go through a device called a stargate that leads to other planets. The team is composed of Jack O'Neill, a military leader; Samantha Carter, a scientist and military officer; Daniel Jackson, an archeologist and linguist; and Teal'c, a stoic alien the team encountered and recruited in the first episode of the show. While Jack is intelligent when it comes to military strategy and leading

his team, he is often portrayed as clueless when it comes to the scientific and cultural sides of exploration. The scene comes from the episode "Window of Opportunity" (DeLuise, Mallozzi, & Mullie 2000). The Stargate facility has been caught in a time loop after encountering an alien scientist working on an altar on a different planet. Jack and Teal'c are the only ones aware of the loops and remember events from one loop to the next. In the scene, Jack and Teal'c are trying to explain to Daniel what's happening to figure out a way to stop the time loops.

For each scene, names and references that might identify the show were changed or removed so as not to prime existing attitudes if the viewer had seen the show before. Previous experience with the shows might affect the perceptions of the clips. Thus, Shawn became Billy, Gus became Charlie, stargates become windows, etc. A question was included in the comprehension questions asking whether the participant recognized the show the clip was from. A few guessed correctly, but none with enough confidence to be of concern.[15]

Recordings. The clips were recorded in a sound booth at University of Michigan using Audacity. An omnidirectional microphone was set up in the middle of the room at the level of a chair. The actors sat around it approximately the same distance apart and acted out the scripts.

Actors were recruited through emails to local theatre companies and paid $20 per hour for their services. Two of the actors auditioned with Southern accents.[16] They recorded Scenes 1 and 2 in one session. The third scene was added after the first recording session, so three of the actors came in for an additional session. Recording took less than half an hour per scene.

The experimental conditions call for two versions of each scene, one in which the less intelligent character has a Southern accent and the more intelligent character has a Midwestern accent and one in which the more intelligent character has a Southern accent and the less intelligent character a Midwestern accent. The actors recorded at least two takes of the scene in which the Southern-accented actor played the less intelligent character. Multiple takes were used so that any errors could be corrected and edited into a final cut of the scene and so that the native Southern researcher could suggest improvements between takes. After the scene was recorded satisfactorily, the actors switched roles so that the Southern-accented actor was playing the more intelligent role and the recording process was repeated.

[15] Answers were categorized as guesses if they had a question mark after them, as in "maybe from a show like Psych?"

[16] While these actors were not native Southerners, they tested as Southern, had formal accent training, and received feedback from a native Southerner during recording. Using non-native Southerners also replicates the use of non-Southern actors to play Southern characters that often occurs in television and movies.

The actors received the scripts in advance so they could rehearse on their own. Each session began with time for the actors to rehearse together in the sound booth without the researcher present. Once they were comfortable, the researcher entered the sound booth and sat in the room with the actors while they recorded the clips to (1) keep volume in check and (2) ensure Southern accent features were coming through in the actors who were intended to be speaking with Southern accents.

Only audio was recorded for these scenes. Visuals were not included to avoid visual confounding factors (though future studies should begin incorporating visual data for ecological validity).

2.3.2 Media prime validity testing

Ten undergraduate students recruited from university classes tested whether the materials were valid representations of the accents and concepts they were intended to represent. They received $15 for their participation. All validity testing referred to in this chapter was performed by these ten testers.

In order for the condition manipulation to be successful, the television clips had to have (1) a discernibly less intelligent character, (2) a discernibly more intelligent character, (3) a character with an ASE accent, and (4) at least one character with a non-ASE accent.

To test the content of the scripts, validity testers were asked to read the scripts for each of the clips. After each script, they filled out a questionnaire rating each character from the script on eight attributes, then noting which of the attributes was most appropriate for the character and least appropriate for the character. The latter questions were to evaluate what traits were most salient in the characters. They also listened to selections from each of the clips and noted (1) if the speakers in the clips had different accents from one another and (2) if so, what regional accents were represented.

Scene 1 had the characters Billy, Charlie, and Student. Scene 2 featured Erik and Eli. Scene 3 featured Jacob and Neil with Dante speaking a few lines as well. Billy, Eli, and Neil represented the less intelligent characters.

Results of the ratings portion of the pilot test are below. Ratings were made based only on reading the scripts to ensure each of the less intelligent characters read as less intelligent regardless of accent. The three less intelligent characters all averaged at 3 or below in ratings of competence and intelligence. The other characters were all rated at 6 or above on competence

and intelligence with the exception of Charlie, who was perhaps seen as less of an expert compared to the medical student who also spoke in the selected clip.

	Competent	**Intelligent**	**Reliable**	**Agreeable**	**Cheerful**	**Kind**	**Friendly**
Less intelligent characters							
Billy	2.1	2.4	3.5	3.3	4.9	4.3	4.6
Eli	2.5	2.6	2.5	2.7	4.4	3	4.2
Neil	3	2.6	3.5	3.6	3.5	5	4.1
More intelligent characters							
Charlie	5.5	5	5.3	4.9	3.9	4.3	4
Student	6.2	6.4	6	5.4	4.3	4.8	4.7
Erik	6.7	6.5	5.5	3.8	2.8	4.2	3.5
Jacob	6.2	6.5	5.5	3.6	3.3	4.2	4.1
Dante	6	6.2	5.3	3.8	2.9	4	3.7

Table 2.1: Average ratings (on a scale with 1 being the negative and 7 being the positive..e.g. Unkind-kind, incompetent-competent) of each of the characters.

Participants were also asked to name which adjective seemed most and least appropriate for each character in free response format. There were a wide variety of answers (see Table 2.2 below). Importantly, lack of intelligence or competence was often listed as most appropriate and/or intelligence as least appropriate for the less intelligent characters. Competence and intelligence were often listed as most appropriate for the more intelligent characters.

	Most appropriate	**Least appropriate**
Billy	unintelligent (50%)	unkind, intelligent, reliable, uncheerful (20% each)
Charlie	agreeable (40%)	cheerful (40%)
Student	intelligent (50%)	incompetent (30%)
Eli	cheerful (40%)	intelligent (40%)
Erik	competent (40%)	cheerful (50%)
Jacob	intelligent (70%)	cheerful (40%)
Dante	intelligent (40%)	agreeable, unintelligent, kind, cheerful (20% each)
Neil	incompetent (40%)	intelligent, competent (30% each)

Table 2.2: Most and least appropriate traits for each character.

These two different measures of intelligence of the characters within the scripts verify that each clip has one more and one less intelligent character and that intelligence is a stand-out trait within the clips. The adjective rating measure shows a clear pattern in which the intended less intelligent character is perceived as less intelligent and the intended more intelligent character is perceived as more intelligent. The free-write listing of traits indicates that intelligence of the characters tended to a primary salient feature of the characters within the clips.

To test the voices of the actors in the television clips, each participant listened to 20 seconds of the recording of the scene with the actors. Participants noted whether they heard different accents and, if so, what they were. For the manipulation to work, the Southern characters must reliably be identified as Southern and the non-Southern characters reliably identified as any region other than Southern. The question was asked as a free response question rather than multiple choice to ensure that region was the salient social variable associated with the accents.

One participant listed the same information word-for-word for all the characters within a scene. I did not include that participant in this part of the analysis for that reason.

All Southern-accented characters across scenes and conditions were reliably rated as Southern. The non-Southern characters were not rated as Southern. Thus, the Southern-accented

actors were interpreted as Southern and the non-Southern-accented actors were judged as not Southern.

2.3.3 Implicit experimental design

The experiment was a pretest-prime-distracter-posttest design. The pretest and posttest were both IATs measuring associations between Southern or Midwestern accents and Dumb or Smart words. The prime was the television clips described above. The distracter was comprehension questions about the primes. Two conditions were created. In Condition A, participants heard the television clips that had the less intelligent character played with a Southern accent (stereotypical condition). In Condition B, participants heard the clips with the more intelligent Southern-accented character (counterstereotypical condition).

The researcher set up the experiment and read the participant a scripted[17] overview of the experiment's instructions. The participant was told they were participating in a media study looking at differences in perception and comprehension when media was presented in audio only, visual only, and audio-visual form. All participants were told they were in the audio only condition to explain the lack of visual stimuli in the recordings. This disguised experimental purpose was the same as the one given to the participants in the explicit attitudes study (see Section 2.3.5). While implicit measures are supposedly less affected by the participant knowing the purpose of the experiment, many participants were in the same classes as participants in the explicit study, and I did not want to risk the experimental purpose being revealed to a participant if they were friends with another participant who participated before them. For the pre- and posttests, participants were simply told they were performing a categorization task involving words and voices.

The categorization task was, in fact, the Implicit Association Test (IAT). While the design of the explicit attitudes experiment is the more novel addition to linguistic research, it was this measure that was under investigation in the implicit experiment. The IAT is a relatively new addition to sociolinguistic research, only having appeared within the last decade. I describe the IAT here, then detail sociolinguistic research that utilizes the IAT in Chapter 4.

The IAT is a robust indicator of implicit attitudes that tests associations between concepts and evaluations (positive/negative, pleasant/unpleasant) or stereotypes (smart/dumb, friendly/aggressive). Developed by Greenwald, McGhee, and Schwartz (1998), it has been used

[17] A script was used here to ensure each participant received the same information in the same order.

consistently in social and cognitive psychology studies since its inception and, more recently, by sociolinguists. The IAT can vary in its implementation, but follows the same general structure. It is split into five (or seven if you consider Blocks 3b and 5b different from Blocks 3a and 5a) consecutive blocks.

Take, for example, the IAT testing the association between race and weapons. Blocks 1, 2, and 4 are training. Blocks 3 and 5 are the test blocks. In Block 1, the label "Black American" appears on one side of the screen and "White American" on the other. Faces appear on the center of the screen below the labels and the participant must press a predetermined button on the same side of the keyboard as the label that matches the face. In Block 2, the labels are replaced with "harmless object" and "weapon" and the same procedure is run with pictures of weapons and harmless objects (e.g. guns, maces; Coke bottles, ice cream cones). Block 3 is the first test block. The labels change to "Black American or harmless object" on one side and "White American or weapon" is on the other side. The participant sees pictures of all the stimuli they've encountered so far (white and black faces and pictures of weapons and harmless objects). If the picture is either a Black face or a harmless object, participants press the button on the corresponding side; if the picture is either a White face or a weapon, participants press the button on the other side. Block 4 changes the side of the screen for one of the sets of labels. In other words, it repeats Block 2 but with the labels on opposite sides of the screen from where they were before. The second test block, Block 5, tests the reverse associations. One side of the screen reads "Black American or weapon" and the other "White American or harmless object." The results of the test are based on reaction times. If participants associate Black faces with weapons, they will respond faster to the congruent/stereotypical block (in this case, Block 5, an image of a Black face or a weapon when those two labels are paired ("Black American or weapon")) compared to the incongruent/counterstereotypical block (in this case, Block 3, the unexpected association ("Black American or harmless object")).

The implicit methodology allows for testing of pre- and posttest results as well as results between conditions. Both of these results are important in determining the malleability (or not) of implicit attitudes. My version of the IAT also incorporates multiple accent features, allowing for the conceptualization of accents as bundles rather than as a single feature at a time, which more closely reflects real-world experience with accents. This will be further discussed in Chapter 4.

2.3.4 Implicit attitudes materials

The pretest and posttest were IATs testing associations between regional accents (Southern and Midwestern) and stereotype-specific adjectives (Dumb and Smart). The prime was the television clips described in Section 2.3.1. The distracter was comprehension questions about the primes described in below. Validity testing of the implicit materials is also discussed here as the validity testing was an integral part of the selection of certain materials for the instrument.

Adjectives and voices were randomized within each block. Half the participants heard the congruent/stereotypical block as Block 3; the other half heard it as Block 5. The counterbalancing was to ensure that any effects found were not order effects (i.e. the practice/conditioning in Blocks 2 and 3 making Blocks 4 and 5 difficult).

Blocks are visualized below in Figure 2.2.

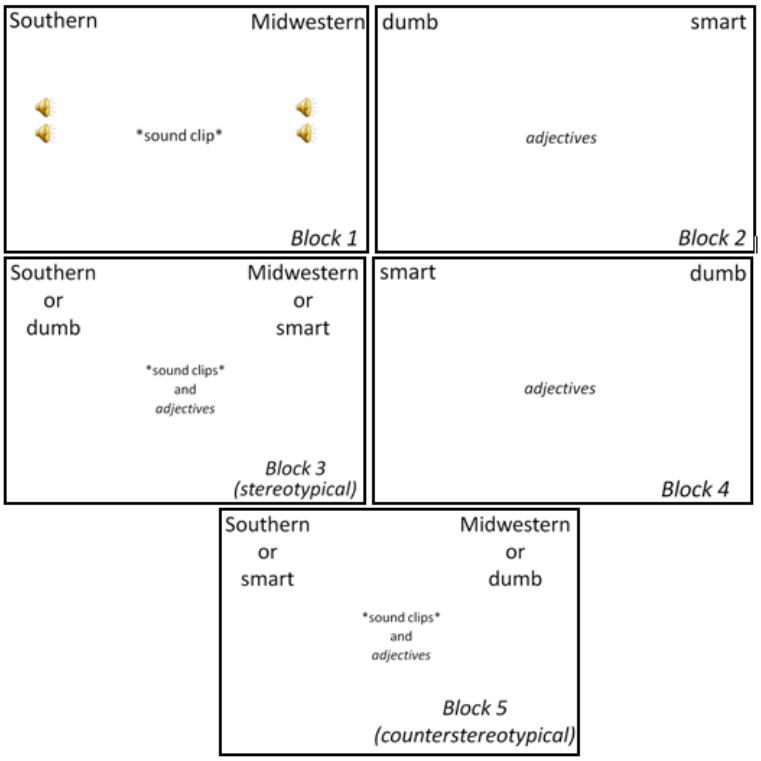

Figure 2.2: Visual representation of the IAT.

IAT audio stimuli. Three phrases were used as the audio stimuli in the IAT. These phrases were selected through validity testing of eight sentences created by the experimenter to highlight different aspects of the Southern Vowel Shift and (ING) fronting. The sentences were all five to six syllables long with a pronoun or determiner in the first syllable and a Southern accent feature in the second syllable and at least the last syllable.

The eight sentences were read by four speakers, two from the Midwest and two from the South. The Midwesterners were from southern Michigan. The Southerners were from Alabama and Texas. All the speakers were white males in their 20s and 30s. Validity testers listened to each sentence and identified whether the speaker was from the South or the Midwest. They also indicated how confident they were in their answers on a scale of 1 (not at all) to 7 (very). Sentences with the highest correct identification and confidence ratings were selected. Those sentences were *it's raining outside, the three hollow trees fell,* and *we're meeting the duke*. For each sentence three of the speakers were identified with 100% accuracy and one with 90% (meaning one person misidentified the speaker).

An initial pilot test of the IAT showed that five to six syllables was too long a stimuli for a test like the IAT. The sentences were broken down into two to three syllable phrases. Three phrases from the two sentences with the highest correct identification and confidence ratings were selected. The phrases were *it's raining, outside,* and *trees fell*. Each phrase had one to two Southern accent features focusing particularly on /ai/ glide weakening, velar nasal fronting, /ei/ backing and lowering, and /ɛ/ fronting and raising. Note that the vowel in *trees* could also be affected by the SVS by backing and lowering. Perceptually this did not seem to occur, thus it is not included in the accent features described.

	/ai/ glide weakening	Velar nasal fronting	/ei/ backing and lowering	/ɛ/ fronting and raising
It's raining		x	x	
Outside	x			
Trees fell				x

Table 2.3: Phonological features in each of the IAT audio stimuli.

Each phrase was between 0.5 and 0.75 seconds long. The phrases were edited in Audacity to have 0.05 seconds of silence at the beginning of the clip. This silence was to ensure consistency between clips so as to not throw off the reaction time-based results of the test.

IAT adjectives. Ten adjectives, five associated with *smart* and five associated with *dumb*, were used as the visual stimuli. Adjectives were selected through validity testing. Each validity tester was given a sheet of paper split into halves. The top half instructed "List as many synonyms for intelligence or words associated with intelligence as you can think of." The bottom

half instructed "List as many antonyms for intelligence or as many words associated with a lack of intelligence as you can think of." Participant responses were entered into an Excel spreadsheet and alphabetized for tallying. The five most frequent synonyms and five most frequent antonyms were used in the IAT.

For synonyms, participants produced between three and eleven words with an average of 7.4. For antonyms, they produced between two and nine words with an average of 5.9. The most common antonyms were *stupid* (9), *dumb* (8), *slow* (5), *idiotic* and *incompetent* (4), *dim (*or *dim-witted), foolish,* and *uneducated* (3), and *dopey, dull,* and *moronic* (2). *Dumb* was already being used as the category label and was therefore discarded. *Slow* was discarded to avoid a confounding association with the stereotype that Southerners talk slow. Thus, *stupid, idiotic, incompetent, foolish,* and *dim* were selected.

The most common synonyms were *smart* (or *smarts*) (10), *clever* and *wise* (5), and *brainy, competent,* and *genius* (4). *Smart* was already being used as the category label and was therefore discarded. *Competent* was discarded so as to not cause confusion with *incompetent.* Because intelligence was the trait of interest, it was included. Thus, the adjectives selected were *clever, wise, brainy, genius,* and *intelligent.*

Distracter task. After each television clip, the participant was asked several questions about the clips. Questions included what might happen next and what the participant thought of the characters (for full instrument, see Appendix A). The participants were told these questions were the primary measure for the experiment. In reality, they were developed to (1) mask the true purpose of the explicit study, (2) give further insight into the quantitative results through additional qualitative data in future analyses, and (3) to include a place to administer the perceived realism measure. As the focus of this dissertation is primarily quantitative and methodological, these responses are not included in the analysis of the dissertation.

Perceived realism measure. General and specific perceived realism have been absent from sociolinguistic research on media up to this point. Their inclusion adds potential moderating and mediating factors[18] to consider in sociolinguistic media influence as well as what type of knowledge might affect linguistic social cognition.

[18] The general perceived realism responses serve more in a moderator capacity as general perceived realism is something the participant brings to the media interaction that may affect the strength of the relationship between variables and outcomes. The specific perceived realism responses were direct reactions to the presented clips and

Seven total questions assessed perceived realism measuring both general and specific realism. Five of those gauged General Perceived Realism of the participant towards television as a whole. Participants rated the following statements from Rubin (1983) on a scale of 1 (not at all) to 7 (definitely): "Television presents things as they really are in life"; "If I see something on television, I can't be sure it is really that way"; "Television lets me see how other people live"; "Television does not show life as it really is"; "Television lets me see what happens in other places as if I were really there." Two of the questions were structured negatively such that 1 (rather than 7) would be a positive answer. This negation was included to ensure participants were paying attention to the questions. This measure appeared after the distracter questions for the final clip immediately preceding the posttest.

Specific Perceived Realism was measured through two questions adapted from Green (2004) (which itself adapts the measure from Elliott, Rudd, and Good (1983)): "The dialogue is realistic/believable" and "People in this clip are like people you might know." The same 1 to 7 scale was used. These questions were asked after each clip mixed in with the comprehension questions. Each participant, then, was assigned one general perceived realism score (low, mid, or high) and six specific realism scores (two for each clip).

2.3.5 Explicit attitudes experimental design

The explicit attitudes experimental design was more complex than the implicit in large part due to the necessary masking of the experimental purpose and the incorporation of a face-to-face interaction with an ASE-accented speaker, which was vital in evaluating attitudes towards a specific person rather than an ASE accent in general. The experiment was a pretest-prime-distracter-stimuli-posttest design. The pretest, or baseline, rated six speakers of three regional American accents on ten adjectives using a 7-point Likert scale. The prime was the television clips described above. The distracter was comprehension questions about the primes. The test stimuli was a debriefing read by a Southern-accented RA. The posttest, or evaluation, was a 7-point Likert scale semantic differential rating of the RA set within a larger evaluation of the experiment. Two conditions were created. In Condition A, participants heard the television clips that had the less intelligent character played with a Southern accent (stereotypical condition). In

represent more of a mediating influence as it may explain how or why a relationship between variables and outcomes occurs.

Condition B, participants heard the clips with the more intelligent Southern-accented character (counterstereotypical condition).

Masking the study's purpose was vital to the explicit attitudes results due to the susceptibility of these measures to change if the participant was conscious of what was being measured. The key design feature of the experiment, then, was the masking of the stimuli. I based this design feature on a set of successful psychology experiments looking at effects of the race of an experimenter on participant behavior (McConnell & Leibold 2001). Participants in McConnell and Leibold's study interacted with a White experimenter whose shift was supposedly ending three quarters of the way through the experiment. When the White experimenter left, a Black experimenter replaced her. Interactions between the participant and both experimenters were recorded on video and analyzed in addition to both implicit and explicit attitudes measures. McConnell and Leibold discuss a multitude of results, but most importantly for the present study, they found that the White experimenter received more positive behavior than the Black experimenter while successfully masking the purpose of the study.

In my experiment, the researcher set up the experiment and read the participant a scripted[19] overview of the experiment's instructions. The participant was told they were participating in a media study looking at differences in perception and comprehension when media was presented in audio only, visual only, and audio-visual form. All participants were told they were in the audio only condition to explain the lack of visual stimuli in the recordings. They were told they would complete all the parts of the experiment, then receive more information about the experiment before being asked to fill out an evaluation of the experiment under the guise of the experiment being new to the lab and the lab wanting feedback about what was successful and what needed improvement. As in McConnell and Leibold's protocol, the researcher explained that she had to step out for a meeting. She explained further that if she had not returned by the time the participant finished the experiment, a research assistant (who was reading at a separate table in the room) would debrief them on the purpose of the study and set up the evaluation. The RA was, in fact, a native Southern-accented male hired as a compatriot in the study.

As in the implicit design, the experiment had two conditions. Again, only difference between the conditions was the television audio clips. The experiment began with the baseline in

[19] A script was used here to ensure each participant received the same information in the same order.

which the participant rated speakers with different American regional accents on semantic differential rating scales of traits associated with status and solidarity. Participants were told they were rating actors they might hear in the clips in the interest of rating the voices in a neutral context. The prime was three television audio clips discussed in detail in Section 2.3.1. Each clip had a more and a less intelligent character. The experimental conditions varied by the accent of the characters. The less intelligent character had an ASE accent in the stereotypical condition; the more intelligent character has an ASE accent in the counterstereotypical condition. Comprehension and perception questions after each clip serve as the distracter task. The distraction component as included to (1) elicit qualitative feedback that may clarify quantitative patterns and (2) serve as the decoy measure of the experiment to mask the true purpose of the study. These questions were mostly open-ended and had no right or wrong answer. The set of distracter questions also included the perceived realism measure discussed in Section 2.3.4. Following the last set of distracter questions, the participant was told they were finished with the experiment. They exited the experimental area and were met by the ASE-accented RA. The interaction with the Southern-accented RA provided the exposure stimuli for the critical posttest portion of the experiment. This interaction came in the form of a scripted debriefing explaining more about the supposed purpose of the experiment. The RA then set up an evaluation of the experiment on the computer. Among many other questions, the evaluation contained another semantic differential rating, this time focusing on the RA, as the posttest measure. The RA texted the researcher once the participant began the evaluation. The experimenter returned to the room and paid the participant once the evaluation was finished. See Figure 2.3 below for visual representations of the participant and researcher views of the experiment.

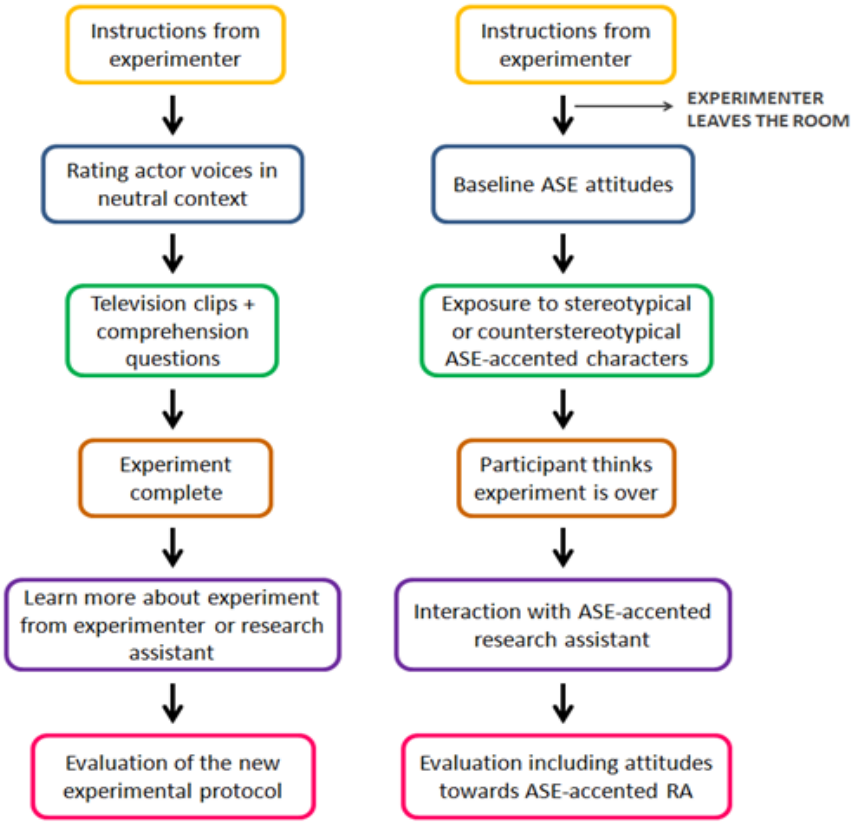

Figure 2.3: View of the experiment from the perspective of the participant (left) and researcher (right).

This methodology allows for both the comparison of attitudes before and after stimuli and the comparison of posttest data between conditions. These results test short-term effects of exposure to linguistics stereotypes (and counterstereotypes) on television.

2.3.6 Explicit attitudes materials

The television audio clips, distracter questions, and perceived realism measure were the same as those described in sections 2.3.1 and 2.3.4.

Attitudes baseline stimuli. The first six sentences of the Rainbow Passage were used for the baseline. The Rainbow Passage was selected as the baseline because it captures features across a multitude of accents. Six white male speakers in their 20s and 30s read the selected passage. Two speakers spoke with Midwestern/Northern accents, two with Southern accents, and two with Western accents. The first six sentences (transcribed below) result in a 20-30 second recording.

> When the sunlight strikes raindrops in the air, they act as a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but

no one ever finds it. When people look for something beyond their reach, their friends say they're looking for the pot of gold at the end of the rainbow.

Speakers were recorded in a sound booth at the University of Michigan using an omnidirectional microphone and Audacity. All four of the actors who performed the media clips were heard in the baseline. The two Southern speakers were the actors who put on ASE accents in the clips. They were actually from the Midwest. Participants were told they were rating the speakers they may hear in the television clips in a neutral context.

Attitudes baseline measure. The baseline was measured using a 7-point semantic differential scale. The six speakers were rated on ten adjective pairs. A 7-point Likert scale was selected to give more chance for variability due to the potential for a small effect. Previous research has shown that 7-point Likert scales are comparable to 5-point Likert scales (Dawes 2008, Preston, & Colman 2000) and that 7-point scales are favored in terms of participant usability (Preston & Colman 2000). McConnell and Leibold (2001) also use a 7-point scale in the semantic differential scales in their experiment.

The adjective pairs were selected from previous studies of language attitudes (Giles et al. 1992; Preston 1999; Heaton & Nygaard 2011).[20] Five adjectives that group with status and relate to intelligence and five filler adjectives that group with solidarity were selected (Heaton & Nygaard 2011). The intelligence adjective pairs were *incompetent-competent, not educated-educated, dumb-smart, unimportant-important,* and *unreliable-reliable*. Solidarity adjective pairs were *not sociable-sociable, dislike-like, gloomy-cheerful, dishonest-honest,* and *untrustworthy-trustworthy*.

Evaluation stimuli. The RA debriefing passage was formulated to include a variety of Southern features. The RA was a white male graduate student from Alabama working on his doctoral degree. He was paid $20/hour for his work. The passage itself took approximately two to three minutes to read. The RA read from a script to ensure each participant got the same information and linguistic input. The full text of the passage can be found in Appendix B.

Evaluation measure. The evaluation was populated mostly with filler questions to distract the participant from the true purpose of the experiment. These questions included rating the

[20] Adjectives were selected from previously existing lists rather than brainstormed specifically for the groups in question via focus groups (as in Campbell-Kibler, Preston). With the focus on broad effects of television/media focusing specifically on the unintelligence stereotype of ASE speakers, it would not have been prudent to find attitudes specific to the sample at hand. Instead, the focus is on broad effects that could appear in any group across the country.

sound quality, rating the acting in the clips, and rating the environment of the experiment. Several questions asked the participant free response questions or asked for elaborate further on an answer. The participant was also asked to rate the researcher who gave them instructions before the experiment and the researcher who explained the experiment to them after it was finished.[21] The full evaluation text can be found in Appendix C.

The latter rating of the RA is what was truly of interest for the results. Eight adjective pairs were rated, again on a 7-point scale, with four pairs dealing with intelligence and four pairs serving as fillers. Decisions to not include certain pairs were determined by how feasible it was that the trait would matter for a researcher or research assistant. For instance, it would be reasonable to ask whether a researcher comes across as intelligent and trustworthy, but not to ask about the researcher's importance and general sociability.

For the intelligence adjectives, *dumb-smart, unreliable-reliable,* and *incompetent-competent* were carried over from the baseline. *Unintelligent-intelligent* was added. *Not educated-educated* and *unimportant-important* were eliminated as they seemed odd to include in a rating of an RA hired by the lab. For the filler adjectives, *untrustworthy-trustworthy* and *gloomy-cheerful* were carried over from the baseline. *Unfriendly-friendly* and *rude-cordial* were added. *Not sociable-sociable, dislike-like,* and *dishonest-honest* were eliminated.

2.3.7 Validity testing of explicit attitudes materials

Baseline speakers. Participants had to circle what region each of the baseline speakers was from. They were given a list of potential regions to choose from. Speakers were consistently interpreted as being from the intended region, though the South was occasionally confounded with the Southwest and the North/Great Lakes with the Northwest, as described below.

RA script. Pilot testers for the RA debriefing each heard a section of the RA reading the script. They identified the region of origin of the speaker; how sure they were of their identification; how accented the speaker was; how likely it was the speaker was from a rural area, a suburban area, and an urban area; whether the speaker was lower, working, middle, or upper class; and whether the speaker was blue or white collar. Ratings were all made on a scale of 1 (not at all) to 7 (extremely).

[21] The question included the stipulation that if the same experimenter introduced and debriefed the participant, they were to rate the experimenter specifically on the debriefing portion of the experiment. Due to the set-up of the experiment, such a situation would never occur, but this stipulation was included to mask the purpose of the experiment.

The RA was rated as Southern by nine out of the ten pilot testers (one rated him as Southwestern) with an average confidence rating of 5.6 out of 7. His accentedness averaged 5.7. Seven out of ten judged him as middle class and three as working; six said he was likely a white collar worker and four blue collar. Rurality of the RA proved difficult for raters to judge. Average rating of chances the speaker was rural were 4.6, urban were 3.5, and suburban 4. Keep in mind 4 is the middle point of the scale that would be considered neutral. Thus, the RA is discernibly Southern and comes across as middle class while white/blue collar status was more ambiguous. The RA is slightly favored as being from a rural area, but all the ratings of rurality/urbanness fell within +/- 0.6 of the neutral rating. The RA, then, may sound rural, but not as assuredly so as he sounded Southern with its confidence rate of 5.6.

2.4 Speaker information variable

In addition to the linguistic stereotype, the effect of the presence or absence of information about the actors in the television audio clips was measured. Some participants were told where the speakers are from. The Southern-accented speakers were said to be from South Carolina, Georgia, or Tennessee; the non-Southern-accented speakers were said to be from California, Nevada, or Utah. In fact, all of the speakers were from the Midwest.

This manipulation serves as a test for future investigation of phonological calibration and the creation of a new construct I refer to as linguistic perceived accent/dialect realism. The test will reveal whether any existing effects can be influenced by knowledge that a speaker is supposedly a native of the region their accent is from. Phonological calibration occurs regardless of where the speaker is actually from (Niedzielski 1999). Rubin (1992) finds that participants heard different accents with different faces even if they hear the same recording. These studies show the overriding effect assumed knowledge about a speaker can have on perception. Both Niedzielski and Rubin use native speakers, though those dialects are then perceived as different due to speaker information and phonological calibration. In this dissertation, the speaker is not a native speaker. Phonological calibration and speaker information will have to override any information the listener has that might indicate a speaker might actually be a speaker of a less stigmatized variety than the one they are speaking. It is a similar concept with a slightly different set-up.

2.5 Demographic information

In addition to participants' perceived media realism, several other individual demographic factors may come into play in the results. Before beginning the study, participants filled out a demographic form. The form was associated with the data using a number to protect the participant's identity.

All answers were self-identified (fill-in-the-blank) rather than selections from a pre-determined list with the exception of year in school and whether they were a native speaker of English. Self-identification was employed to avoid any unintentional prejudice in provided selections as well as to allow participants to present their own identity rather than pick what might be closest to them. As individual differences are a key part of media influence, fully capturing the participants' self-identity is a vital part of the methodological process as the basis through which people interact with the world.

The demographic form included gender, ethnicity, place of birth, places participant had lived, places they had spent significant time, regional identity, native English speaker, other languages spoken, year of school, major, favorite television genres, and favorite television shows. Two factors were of particular importance: place-based questions (Southern experience) and favorite television shows (Southern television).

Place-based questions (birth, have lived, significant time, regional identity): Significant time was defined as one month or more and/or repeated vacation spots (e.g. going to Florida for one week every year). These questions were combined into a *Southern Experience* factor. People from the South have different perceptions of ASE particularly compared to speakers from Michigan (Preston 1999). If a person has spent any significant time in the South, their perceptions might be different than those whose contact with the South has been primarily parasocial.

Southern television: The question about favorite television shows was used to determine if participants received extensive parasocial exposure to Southern characters via television. Several methods could have been selected to capture this factor. I chose self-identified free-listed programs rather than selections from a list (1) to not limit the participant to shows I was familiar with (I am, for instance, not familiar with many of the original programs on Hulu and Amazon Prime), (2) to avoid fatigue of having to go down a long list of television shows, and (3) to facilitate listing the first shows that came to mind, presumably those that are most salient in the

moment. Listing the television shows captures what is on the participant's mind in the moment and, thus, what might be cognitively activated as they head into the study. Southern television is also a key factor for evaluating the effect of long-term or particularly engaged exposure to a program. As such, it can be indicative of effects of cultivation. If cultivation is in play, participants should display attitudes that reflect the shows they watch, like, and/or relate to. From the *favorite shows* question, a *yes* or *no* was assigned for Southern television. A *yes* meant one or more of the shows listed had at least one main character that was Southern.

2.6 Summary and contribution

This dissertation adapts several methodologies, some already present in sociolinguistic research, others not. These methodologies have the potential to help us better determine causal effects in sociolinguistic media research as well as other determining factors that we as linguists should be aware of not only for media influence and language attitudes research, but for social cognition at large.

The Explicit Attitudes Experiment tests a methodology to determine whether there is a causal (rather than correlative) relationship between television representations of accented speakers and stereotypical attitudes towards actual speakers of that variety. The method is dependent upon successful (harmless) masking of the true purpose of the study. Thus, this experiment provides one way to keep the participants naive to the experimental purpose while still working towards attributing a causal relationship between attitudes and media.

The Implicit Attitudes Experiment is also focused on the relationship between television and attitudes towards an accent, but has the additional aim of further evaluating the IAT as a sociolinguistic instrument. Using the experimental design in this dissertation begins an exploration of the malleability of implicit attitudes in sociolinguistics. This exploration already exists in the field of social psychology. It also tests the IAT using bundles of features (a more realistic expectation for how a person would encounter an accent in the real world) and a specific linguistic stereotype. As implicit attitudes take longer to change, they could be indicative of longer term effects and, thus, cultivation theory.

The speaker information, perceived realism, and demographic variables address a few of many potential factors that may interact with the relationship between language attitudes and television. General and Specific Perceived Realism work in a similar way to demographic factors

that were incorporated into the study. Individuals bring different experiences to the media they consume. Those experiences affect how they view media and what they may take from it. As sociolinguistic media influence studies move forward, linguists must be able to account for these experiences in their models.

Overall, these methodological choices work not only towards more fully investigating language attitudes and factors that might form or maintain them, but also towards setting language attitudes within the broader framework of attitudinal study in social psychology and communications.

CHAPTER 3

Categorization of Accents as Native or Imitated

Listeners are not blank slates when they come into experiments like the ones detailed in Chapters 4 and 5. Before the attitudes experiments, then, it is necessary to establish how reliably listeners can distinguish between natives and performers of accents, particularly in the analysis of the Speaker Information variable.[22] As a reminder, the Speaker Information variable refers to whether participants were told where the actors were from before each of the audio television clips. If no speaker information was given, the listeners would presumably rely on their own intuitions of speaker nativeness, which is why the question of how well these intuitions serve listeners is important in the context of this dissertation.

When a listener receives speaker information, their ability to successfully identify a performed accent might override the provided knowledge about a speaker's origin, thus potentially diminishing phonological calibration.[23] It may be, however, that the given information overrides the ability to identify performed accents, even if the information given is false (e.g. an incorrect but confident assertion made by a fellow viewer). Those who did not receive speaker information may be able to tell that actors are performing accents, which may lower their perceived realism.[24]

If a listener cannot successfully identify a performed accent, the information given about the speaker would be the only way participants could tell where the speaker was from. Those with no speaker information would be left blind. The listener's perceived realism would remain unaffected. Thus, we must know whether participants can categorize native speakers and

[22] Note that when I reference speakers here, I refer to the people who recorded stimuli used in perception experiments. Their voices are being judged in the perception experiments. When I reference participants, I refer to an experiment taker making judgments about a speaker. In the Speaker Information variable, the speakers are actors in the television audio clips.

[23] Recall that phonological calibration is when a listener hears an accent because they believe a speaker belongs to a particular group. The group knowledge calibrates them to hear phonological signals that are not necessarily present in the signal. In Niedzielski's (1999) case, listeners who thought speakers were from Ontario perceived vowels as more Canadian than those who thought the speakers were from Michigan, even though the listeners were hearing the same speech sample.

[24] Recall from Chapter 1 that perceived realism is how reflective of the real world the audience finds media content. Perceived realism, then, is how much an audience member perceives media to be real.

performers in order to fully understand potential effects of speaker information and perceived realism and to draw informed conclusions from results in Chapters 4 and 5.

3.1 Background

Research on identifying regional accents is much more common than research on whether speakers are natives or imitators of an accent. Listeners can generally categorize regional speakers of their language at an above-chance level (Preston 1993, Van Bezooijen & Gooskens 1999, Van Bezooijen & Ytsma 1999, Clopper & Pisoni 2004a). How far above chance remains questionable, with some studies that show only moderate success at categorization with indications of struggles on the part of the participant (Williams, Garrett, & Coupland 1999), though often the result depends upon study design. Clopper and Pisoni (2004a), for example, used a thorough design that measured production of acoustic features in speech samples of regional accents before testing perception. They found that listeners correctly selected speakers from six regional dialects at a level only slightly above chance. Listeners were more adept at identifying speakers from three broad regional categories: South, New England, and North. Listeners also did well at categorizing speakers from the North Midland,[25] though that may be because many of the listeners were from that region and, thus, were either familiar with it or were actual speakers of the dialect (and, as such, aware of the nuances of the accent). The authors suggest that the sentences in the task had more perceptual cues for the most identifiable regions. For instance, categorization of New England speakers was better for a sentence with r-lessness than a sentence without. R-lessness is perceived as one of the more common and salient features of the New England dialect.

With categorization success falling only slightly above chance, Clopper and Pisoni conclude that, overall, categorizing is difficult for naive listeners. Listeners can do it to a degree, but do not do as well with specific regions compared to broader categorizations. I would also hypothesize that the broad regions successfully categorized all have a degree of enregisterment. As Johnstone (2011) succinctly states, enregisterment is "the process by which sets of linguistic forms become ideologically linked with social identities" (657). New England and the South in particular seem to be more enregistered than other regional dialects, though the Northern Cities

[25] The North Midland region included the northern halves of Ohio, Indiana, and Illinois as well as parts of Iowa, South Dakota, Nebraska, and Kansas.

Shift seems to be heading that way as well (Campbell-Kibler 2013). These regions are imitated (often in media) and have several associated stereotypes that indicate a degree of enregisterment. These enregistered cues may make it easier to identify speakers from a region, though the cues may not necessarily always capture authentic speakers and instead be based on particularly salient or stereotyped features as they appear in media and general imitations.

Identifying accents involves more than perceptual cues in the speech signal, though. Ability to discern accents is influenced by variables the listener brings to the interaction as well. Of particular importance is experience in the form of residential history. Clopper and Pisoni (2004b) found that participants who had lived in three or more states (referred to as "army brats" by the authors) performed better on the six-region categorization task than those who had only lived in one state (referred to as "homebodies" by the authors). The army brats' increased exposure to different accents improved their ability to differentiate between the perceptual cues needed to categorize accents. They could make clearer differentiations between regional accents compared to the homebodies. All listeners were better at recognizing accented speakers from the region they had lived in or were currently living in, though army brats were better not only at categorization overall, but also at categorizing speakers from regions in which they had lived. The listeners with more experience, then, were aware of the specific features of their region to successfully recognize speakers with those accents.

Clopper and Pisoni's study highlights two main points of importance to consider for the present study. First, while listeners are not particularly adept at categorizing regional accents, listeners with more exposure to different accent regions are better at categorizing regional accents overall regardless of exposure to specific regions. Second, the more experience a listener has with a specific accent region, the more adept they are at differentiating that region from other regions. In particular, listeners in Clopper and Pisoni's studies use perceptual cues acquired through experience to identify three broad regional accents (New England, South, and North) as well as region where they currently live (North Midland).

These cues, however, may not necessarily signal an authentic accent. A speaker could imitate an accent and be categorized as a speaker of that accent while (1) using features in a way that does not match actual speakers' usage and (2) portraying linguistic and social stereotypes

associated with the accent. Linguistic stereotypes[26] do, of course, sometimes have a basis in the reality of the accent. Many times in media, though, those linguistic stereotypes are accompanied by social stereotypes (through character actions and content of speech) that can essentialize or simplify speakers of the accent. Use of stereotypes with accent features may distort a listener's conception of a speaker of that accent, particularly if those cues are used in conjunction with other social variables that can build upon and reinforce stereotypes regardless of their veracity. Thus, using perceptual, potentially enregistered, cues to identify a regional accent may still lead to incorrect judgments of authenticity versus imitation (i.e. the listener may not be able to differentiate between a native and an imitated accent), which can lead to cognitive representations of an accent group that do not match that accent group. This, in turn, can lead to the building of negative stereotypes that Lippi-Green (2012) frames as the media solidifying negative stereotypes of non-standard accented speakers. The question is whether listeners can identify when a speaker is using their native accent or imitating a non-native one.

3.1.1 Identification of imitated accents

Very little research on identifying native versus imitated or performed[27] accents has taken place in the United States. Most studies investigate voice disguise within the field of forensic linguistics. Tate (1979) is the only available linguistic study on imitation in the US. She asked whether Floridians could correctly distinguish native and imitating speakers of the Southern dialect used in North Central Florida. The study was preliminary with results from only ten listeners reported. No follow-up study appears. Listeners heard speech samples from a mix of native speakers of a North Central Florida dialect (which is characterized as Southern), untrained speakers of General American[28] imitating Southern speech, and actors who are native General American speakers imitating Southern speech. The General American speakers were also recorded speaking General American. The listeners could discern Southern from General American dialects. More importantly, the listeners could tell the native from imitating speakers two thirds of the time, and showed no difference between trained and untrained speakers. The

[26] In referring to linguistic stereotypes, I refer to the most salient linguistic features of a dialect that are generally well above level of consciousness for listeners

[27] Many studies refer to dialects as *imitated* rather than *performed*. These studies examine dialects outside of media and/or in a forensic context. I will use the terminology each paper uses to describe their results. Thus, for the purposes of this chapter, *imitated* and *performed* will refer to the same action: a speaker attempting to speak a dialect not native to them. *Performed* simply adds an additional connotation of characterization and a media context.

[28] This term is how Tate characterizes the accent.

actors were categorized as native Southern speakers more often than the untrained speakers, but not to a significant degree.

Thus, according to this preliminary study, listeners from a dialect area can distinguish native from imitated dialects two thirds of the time with no significant difference between judgments of nativeness of trained actors and untrained speakers. No production study accompanied the perception study, so there is no way to tell what acoustic cues might be leading to this difference in imitation judgments. Since the listeners were native speakers of the dialect in question, the listeners would be familiar with the nuances of the accent and, thus, be more adept at identifying when a speaker is imitating the accent rather than using it natively.

Zetterholm (2007) also tested production and perception of imitated accents focusing this time on impersonation in Sweden. The study used two professional and one amateur impersonator. The professionals and amateurs used different features and the amateur did not acoustically fully capture the impersonation. Despite this, all three impersonators were judged to have successfully impersonated the target. Thus, global features may be enough to successfully impersonate a person, even if deeper acoustic analysis reveals differences. Impersonation is much more precise than imitation in that impersonation is meant to fully embody an individual. Imitation allows more leeway for success as it does not necessarily have to exactly match the target. Zetterholm's findings indicate that, perceptually, there is no difference between trained and untrained speakers in accent imitation.

Other studies in Europe have shown some success in identifying native versus imitated dialects. Moosmuller (2010) found that Viennese listeners could successfully identify whether a sentence was spoken by a non-native imitating a Viennese accent based on the use of a single phonological feature of the accent. While the study is framed as identifying native speakers, the study itself is focused on the lower class Viennese accent, specifically the dark lateral variant. All the speakers used in the study were non-native speakers of the Viennese dialect. Moosmuller was interested in what the actors did with the dark lateral variant to imitate the Viennese accent and whether any of the imitations would be perceived as authentic (native). Thus, the true focus was on how much accurate use of dark /l/ affected imitation judgments and how accurate an imitation is, rather than how well people discern native from imitated. Sentences that followed phonetic constraints correctly were more often judged as native. Those with errors (dark /l/ where clear /l/ should be, in particular) were not judged native as often. Non-native Viennese

listeners did not correctly identify native usage of dark /l/ as often as Viennese listeners (though it is unclear whether the Viennese listeners were also speakers of the Viennese dialect).

In addition, the actors producing the sentences differed from expected variation. While Viennese speakers usually overgeneralized clear /l/ and used it in contexts dark /l/ could be used (thus avoiding a stigmatized feature), the actors putting on the Viennese accent overgeneralized in the opposite direction; they used dark /l/ in contexts where clear /l/ would be used.[29] Moosmuller concludes that listeners can be fooled by imitated accents for individual utterances, but not whole samples. Listeners will eventually notice inconsistencies and inaccuracies of an imitator's performance. It is not clear, however, where the threshold lies in terms of how much of a speech sample listeners need before they will recognize imitation.

Listeners could also successfully identify native Viennese accents, but showed no evidence of knowledge of the social nuances of dark /l/'s use. For instance, women tend to avoid dark /l/ in the Viennese dialect. However, women were readily judged as native speakers in this study when they used dark /l/. Moosmuller concludes that listeners are aware of the phonetics/phonology of the dialect (like hyperdialectism), but not all stereotypes (e.g. who would use the dialect). This conclusion is problematic as the dialect, not the speakers themselves, is not the object of judgment. If a listener is told to judge whether an accent is being imitated, they may dismiss other pertinent social information about the accent. Still, this study provides promising evidence that imitation can be judged by listeners somewhat successfully (though, like Clopper and Pisoni's regional categorization findings, perhaps not impressively successfully).

Neuhauser and Simpson (2007) found that German listeners could identify an imitated L2 accent in the form of Germans imitating foreigners speaking German (i.e. Germans imitating L2 accents), but could not identify French and Americans speaking German with an authentic L2 accent. Listeners also had to identify the accent the speakers were using. They did better at that task. Thus, listeners could correctly say what was being imitated but not whether the person speaking was a native or an imitator. The authors believed this had to do with linguistic stereotypes and variability. The relative ease with which imitated accents were identified could be due to the presence of stereotypical features in the imitated accent, making it easier to identify even without following detailed linguistic norms of native speakers. Authentic accented

[29] This pattern seems to be reflected in the United States as well. R-less-ness is declining in Southern dialects (Thomas 2007), yet tends to one of the more relied upon features in media representations of Southern speakers (Shuttlesworth 2007).

speakers, though, show a great deal of variability from one speaker to the next, making it more difficult to pinpoint authenticity.

Neuhauser and Simpson's results may appear to contrast with Clopper and Pisoni's findings that listeners can struggle to categorize accents. Neuhauser and Simpson, however, were looking at accents associated with countries (France, Germany, USA), which differ from each other far more than US regional accents (in that French is from a different language family and, though German and English are in the same language family, they are not mutually intelligible). Categorizations in this case may be easier because there are broad perceptual cues to listen for that indicate accents from different languages or L2 accents. Individual judgments of the speaker, however, will be more challenging because it is difficult to differentiate broad perceptual cues and individual differences.

3.1.2 The present study

The present experiment determines level of difficulty US listeners experience when differentiating speakers using their native regional accents from speakers imitating a non-native accent. Rather than focusing on one accent feature (like Moosmuller's focus on the dark lateral variant), I use combinations of features to test categorization of a more holistic accent. Thus, I ask:

> RQ1: Can listeners differentiate speakers using their native regional accent from speakers performing a non-native regional accent?

The studies discussed above show that listeners can identify accents and native versus imitated accent features to a degree, but not necessarily carry that ability over to correct identification of a native versus imitated speaker. Thus, I hypothesize that US listeners will not be able to discern natives from imitators of regional accents unless they have had exposure to that region.

> H1: Listeners will be able to differentiate between native and non-native speakers of American regional accents they are familiar with, but not ones they do not have experience with. Specifically, Northern listeners will not be able to differentiate between native and non-native speakers of Southern accents.

3.2 Methods

Participants took part in a categorization experiment. Each participant heard sentences spoken in three American regional accents (Southern, Northeastern, and Northern[30]) by either a native or an imitator. After each sentence, they categorized the speaker as Native or Performer. The Southern categorization is the primary focus in this chapter as it directly relates to the attitudes experiments detailed in the chapters that follow.

3.2.1 Materials

Three white male speakers in their 20s and early 30s from three accent groups (South, Northeast, and North) were selected. These regions were selected in light of Clopper and Pisoni's (2004a) findings that South, New England, and North are the most broadly identifiable regions. In their study, South and New England clustered as most dissimilar from other regions, which indicates that they would be the most easily perceptually identifiable regions. The North was selected not only because it is the other broadly identifiable region in Clopper and Pisoni's study, but also because it is the region in which the study took place. Most of the participants were either from this region or have experience with the region.

Speakers were either taken from the Speech Accent Archive (Weinberger 2015) or recruited and recorded in a sound booth reading the "Please Call Stella" passage (see Appendix D).[31] The passage was designed to elicit regional differences in English speakers. Speakers recruited for the imitated accent sentences first recorded the passage in their own accent then listened to two examples of the dialect they were to imitate from the Speech Accent Archive until they were comfortable recording an imitation of a non-native accent. They could repeat the recording as many times as they wished, though most only chose to hear each passage once or twice and no speaker listened to a recording more than three times. The speaker then recorded the passage. Usually the passage only needed to be recorded once. If the speaker felt uncomfortable or if there were disfluencies that could not be easily edited out, additional recordings were made.

[30] I use the term "Northern" here because that is the characterization of this region used by Preston and by Clopper and Pisoni. The term may be interchangeable with what many would characterize as Midwestern.

[31] With one exception, none of the speakers had accent imitation experience. Speakers who had received accent imitation training (e.g. actors) were not targeted in speaker recruitment. Recall that Tate (1979) found no differences in ability of listeners to distinguish between trained versus untrained speakers imitating a Southern accent. Zetterholm (2007) also found no perceptual difference between trained and untrained impersonators.

Three, six- to seven-word phrases were selected from the passage as stimuli. Each sentence was selected to include features that would reflect the Southern, Northern, and Northeastern regions. The selected phrases were "five thick slabs of blue cheese," "we also need a small plastic snake," and "and a big toy frog for the kids." Thus, 27 phrases were spoken by native-accented speakers (three speakers x three accent groups x three sentences) and 27 phrases by speakers imitating a non-native accent for a total of 54 sentences. All of the sentences were heard and categorized by each of the participants.

3.2.2 Participants

Participants were recruited from a list of undergraduate students who had expressed interest in participating in the implicit and explicit attitudes experiments.[32] Each participant received an email explaining the experiment with a link to the experiment at the end of the email. They received a $10 Amazon gift card via email for their participation at the completion of the experiment. Sixty-two participants completed the experiment of the 67 who started it. Sixty-three percent of participants identified as female and 61% as White or Caucasian. Additionally, 63% were from Michigan and 81% said they identified with the Midwest or a specific Midwestern state.

No participants were from the South or identified with the South. Real world and mediated interactions with the South were measured with the same questions as the attitudes experiments (see Section 2.5). Ninety percent had no Southern experience, and six participants noted exposure to the South, predominantly through family members or yearly vacations. Only 23% of participants identified shows with Southern characters as their favorites. Most who did identified *The Walking Dead* and *House of Cards*, though *30 Rock* and *Archer* also made multiple appearances.[33]

3.2.3 Procedure

The experiment was run online using Qualtrics. Participants were asked to categorize each speaker they heard as a Native or a Performer. The region the speaker was supposed to be

[32] The categorization experiment took place after the attitudes experiments. Running the categorization experiment after the attitudes experiments allowed me to test from the pool of participants who took part in the study (and thus measure ability of those who were potentially in the study) without priming potential participants about the focus on ASE in the attitudes experiments.

[33] Again, note that just because the participant did not list a show with a primary Southern character does not mean that the participant does not watch shows with Southern characters. Many crime procedurals, for instance, have one-off characters with Southern accents. By asking their favorite shows in open-ended form, I focused on shows that the participant presumably consumes frequently or in high quantities and that they pay attention to, thus capturing a degree of the construct of engagement.

from appeared above the sound file. This was so that categorization would not be confounded with potential inability to distinguish American regional accents. Participants filled out the demographic information form first. They then completed the test portion categorizing the 54 phrases. The phrases were randomized to counteract order effects. There was no timed component, and each phrase could be repeated as many times as the participant desired.

Following the experiment, the participants were directed to an independent Google form where they could enter necessary information to receive compensation while remaining anonymous. The experiment took an average of 20 minutes to complete in its entirety (including filling out demographic information) with a minimum of 6.5 minutes. Several participants appear to have begun the experiment then took a break, so maximum duration is difficult to determine.

3.3 Results

The results were analyzed as a signal detection study. Signal detection breaks binary categorizations into four results: hits (native categorized as native), correct rejection (performer categorized as performer), false alarm (performer categorized as native), and miss (native categorized as performer). Due to an error, the third sentence for the Southern performers was excluded from the analysis.[34]

An ANOVA revealed no significant differences between sentences in terms of correct categorization ($F=0.268$, $p=0.766$). Speakers for Sentence 1 ("five thick slabs of blue cheese") were successfully identified as natives or performers 56.65% of the time, Sentence 2 ("we also need a small plastic snake") 54.19% of the time, and Sentence 3 ("and a big toy frog for the kids") 58.03% of the time. Thus, no sentence was more difficult to categorize than the others.

A d' score was calculated for each participant by subtracting false alarms from hits and multiplying it by a Z score. The Z score was calculated in R (R Core Team 2013) using qnorm function of the average proportion of hits. This d' score determines how successful listeners were at judging native speakers as native speakers. The central score of zero indicates that hits and false alarms are equal. Thus, scores close to zero indicate that participants are equally likely to get the answer right or wrong when categorizing native speakers.

[34]An error in labeling resulted in a different phrase ("and maybe a snack for her brother Bob") playing for the third sentence of the Southern performers.

One-sample t-tests were performed on the d' scores. Significant p-values indicate that listeners can discern native speakers from performers. Tests were performed on all the results as well as for each accent region. Results for the Southern speakers were not significant ($t=1.416$, $p=0.162$). Participants' scores were not significantly higher than 0, indicating no difference between hits and false alarms. Thus, listeners had difficulty differentiating natives from performers and instead characterized both as natives. Results for Northeastern speakers ($t=4.647$, $p<0.001$) and Northern speakers ($t=6.141$, $p<0.001$) were significant, however. Participants had scores significantly higher than 0, indicating that they were adept at discerning hits from false alarms. They could tell that a native speaker was a native speaker and that a performer was not.

Figure 3.1 below visualizes the proportion of correct and incorrect responses participants gave for natives and performers of each region. For the NE, North, and South natives, the pink bar (on the left of each grouping) indicates proportion of correct categorizations as native (a hit) out of all the times the native speakers from that region was categorized. The blue bar (on the right of each grouping) indicates an incorrect categorization as a performer (a miss). For the performers from each region, then, the pink bars show proportion of correct categorization as performers (correct rejection) and the blue bars the proportion of incorrect categorizations of performers as natives (false alarms). Performers had closer proportions of incorrect to correct responses than natives across all regions. For Southern performers, the incorrect proportion is actually higher than the proportion of correct answers. That the proportion of incorrect answers is higher for performers may indicate a tendency for participants to categorize a speaker as a native when they are unsure, though it could just be that participants are worse at identifying performers or the performers were particularly adept at imitating regional accents.

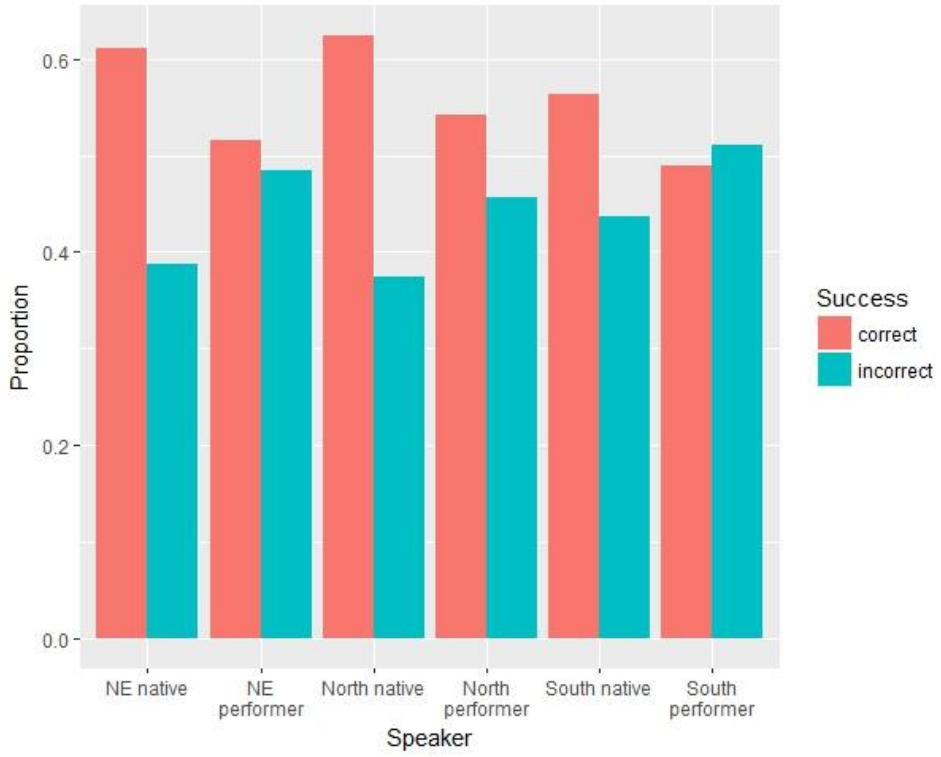

Figure 3.1: Proportion of correct and incorrect categorizations for each region and native status.

In order to further investigate this pattern, I performed a test to determine response bias. Response bias analyses test for a tendency to prefer one response over another. The response bias is calculated by multiplying the sum of the z-transformed hits and false alarms by -0.5 to get a c-score.[35] The false alarm rate is higher than the hit rate if the c-value is negative. This result would indicate that participants favor categorizing a speaker as native. The response bias results indicate that "Native" was the preferred answer, though the c-score was closer to zero for the performers from each region and was actually positive for Southern performers.

In Figure 3.2, each of the four potential outcomes in signal detection is broken down by region. Each bar indicates the proportion of answers for that region for that outcome. Misses had the lowest proportion overall, which may support the idea that participants favored categorizing a speaker as a native. Still, the South has a noticeably higher proportion of misses and also clearly has a higher proportion of false alarms compared to the Northeast and North. For hits and correct rejections, participants were most successful at categorizing Northern natives. Thus, the correct

[35] c=-0.5[z(hits)+z(falsealarms)]

categorizations were higher for the Northern speakers, then the Northeastern speakers, while listeners struggled more with Southern speakers.

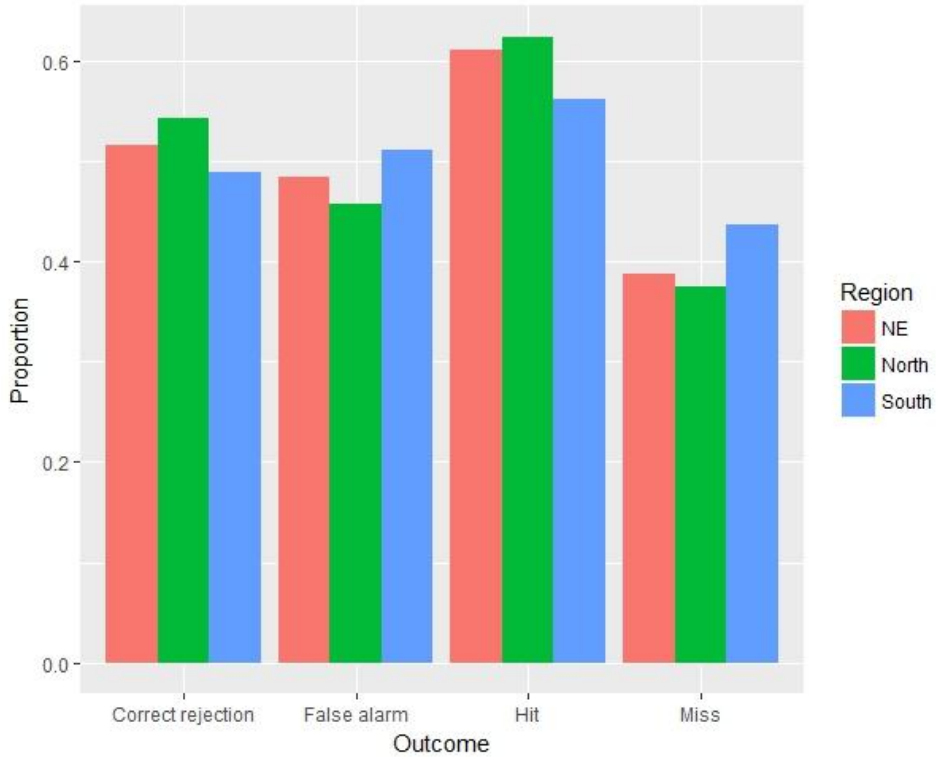

Figure 3.2: Proportion of each signal detection outcome by region.

Linear regressions were run on the data to test the effect of social variables on the results. None had a significant effect. Surprisingly, this included Southern experience and Southern television exposure.

3.4 Discussion

Listeners could differentiate native from performed accents, but only for regions they were more likely to be familiar with. Thus, H1 is confirmed. Listeners successfully differentiated native and performed Northern and Northeastern accents, but not Southern accents. I will move forward with the implications for the experiments in Chapters 4 and 5 focusing primarily on the result for Southern speakers, as Southern accents are the focus of the rest of the dissertation.

Thinking broadly about language attitudes research and media influence, these findings have a couple of significant potential implications. First, viewers may be more accepting of imitations involving linguistic stereotypes in media when they are unfamiliar with the accent. A viewer may dismiss a stereotyped accent in a familiar accent as being funny or wrong. For an

unfamiliar accent, though, that representation may be added to their cognitive representation of that accent. So, in terms of this study, Michigan viewers who hear an extremely stereotyped Midwestern accent may laugh at (or perhaps take offense to) the stereotypicality of the accent. That specific accent may be added to the cognitive representation of that accent, but it will be countered by the various other representations of the accent they have encountered. When the same Michigan viewer hears an extremely stereotyped Southern accent, however, they may not have the same cognitive resources to reflect more variety within their representation of a Southern accent. This representation then becomes one of their primary representations of the accent.[36] Stereotyped accents in and of themselves are not necessarily problematic. When they become associated with negative social stereotypes, then issues may arise.

The categorization experiment also provides evidence for the difficulty listeners may have determining nativeness of accented speakers from regions the listeners are unfamiliar with. Like Tate (1979), this experiment found that listeners can categorize natives and performers of their own native region and, similar to Clopper and Pisoni (2004b), that listeners can more easily identify regions they have more experience with (though Clopper and Pisoni's study focused on identification of regional origin rather than nativeness). This experiment, then, shows how successful identification of ASE nativeness is for listeners who are not from the South and with a focus on an accent as a whole rather specific features.

This experiment has multiple implications for imitation research, including forensic linguistic research. The primary focus of the experiment in the context of this dissertation, however, is to determine what abilities listeners brought into the attitudes experiments in Chapters 4 and 5. I turn to those implications now. The ability to distinguish native from performer affects the interpretation of any results involving the Speaker Information and Perceived Realism variables. Listeners who received speaker information were told the ASE-accented speakers were actually from the South. In fact, none of the actors were from the South. This ability, then, could jeopardize the speaker information variable and, in turn lower perceived realism since the listener may know they were being lied to. Perceived realism could also be affected if listeners without speaker information could tell the ASE-accented speakers were not

[36] This analysis draws heavily from ideas within exemplar theory. I do not intend to champion that particular theory and do not have enough evidence in this particular experiment to authoritatively connect my results to it. It does provide a potential interpretation of the meaning the Categorization experiment has for language attitudes though.

from the South. Their knowledge or suspicion that the actors were imitating an accent could lower perceived realism.

As it turns out, listeners could not differentiate natives from performers of an ASE accent. Because listeners could not distinguish Southern natives from performers, any attitude shifts after television audio exposure in the attitudes experiments cannot be attributed to identifying the mediated speakers as performers of the ASE accent. Thus, it leaves open the possibility that perceived realism and speaker information might affect the listener. Listeners' perceived realism would not be lowered due to identifying a performed accent. Any trends or significance pertaining to speaker information should not be due to a general ability to tell whether the Southern actors were performing the accent. Phonological calibration may occur in those who receive speaker information without having to override or compete with existing ability to determine accent nativeness. If attitudes do not shift, the methodology may not fully capture the intended constructs or, in the most pessimistic interpretation, the null results indicate that there are no effects to be seen. Since the methodology used in this dissertation is new, the former conclusion should be drawn over the latter.

In addition, speaker information may be more important for accents listeners have less experience with because it is their only reliable source of information. In cases where individuals can identify nativeness, it remains unclear whether phonological calibration would override actual knowledge in uptake of attitudes from media like it does in sound perception. Future iterations of this study should further examine this phenomenon to determine exactly what effect phonological calibration and ability to discern accents have on attitudes (particularly through the lens of media). In that vein, each participant's ability to identify performed accents should be measured and used as an individual variable in analysis as well.

Thus, if listeners have experience with a group, they are more able to differentiate natives from imitators at above chance level, though still not flawlessly. When they have less experience with a group, they are less able to differentiate native speakers from performers. Importantly, the groups that listeners do not have experience with may be more affected by parasocial intergroup contact, which makes the attitudinal shifts seen in Chapter 5 (explicit attitudes experiment) significant from a practical/applied perspective as well.

It is particularly interesting that listeners were able to discern Northeastern native accents, but not Southern, despite both (1) not being the native region for most listeners and (2)

being highly enregistered accents. I attribute this difference to experience. Participants in this study, students at University of Michigan, are more likely to encounter Northeasterners than Southerners based on student demographics.[37] At University of Michigan, the number of undergraduates from the state of New York alone is higher than the number of students from the entirety of the South.[38] New Jersey is also represented well enough to be worthy of note (University of Michigan 2017). These Midwesterners, then, may have a clearer idea of Northeastern accents.

While experience is the most likely explanation, the stimuli could also have played a role in categorization effects. For now, I am not completely sure how, though. Enregisterment has come up several times already. I do not, however, believe categorization effects in this case are reliant on the presence of enregistered features. In that case, the assumption would be that the stimuli had more enregistered features of Northeastern accents compared with Southern accents. None of the stimuli had r-less-ness.[39] Enregistered features may help in the overall differentiation between regions, but not necessarily in the differentiation between native and performed accent. In fact, enregistered features may damage ability to identify nativeness. Cognitive representations and cues for features that have been enregistered may include less nuance, particularly in the case of an accent listeners already lack experience in.

Implicit attitudes studies show that listeners are aware of features that characterize regions. Campbell-Kibler (2013) found that Ohioans were aware of Southern features in an IAT and attributes that awareness in part to Southern accents being enregistered. She notes, though, that "they [Ohioans] show much less awareness of the Inland North regional dialect which is only partially enregistered in the area" (Campbell-Kibler 2013, 307). Yet this awareness does not appear to transfer to identifiability. Clopper and Pisoni (2004a) found that listeners have some difficulty identifying regionally accented speakers from sound clips alone. Taking identification a step further, the results of this chapter's experiment indicate that participants struggle to identify native iterations of an accent compared to performances when they're unfamiliar with the accent. While Campbell-Kibler's participants were less aware of regional dialects aside from

[37] At least seven of the participants also had significant experience with the Northeast (e.g. lived or vacationed there).
[38] And a generous definition of the South at that, including several states on the outskirts that are ambiguously Southern (e.g. Oklahoma, Missouri). Florida was not included in the calculation. Even if it had been, it would not have put the total at or above that of New York.
[39] R-less-ness could signal either the Northeast or the South but was found to be a particularly salient acoustic cue for the Northeast by Clopper and Pisoni (2004a).

the heavily enregistered South, participants in the present study were able to identify Northern and Northeastern native accents better than Southern, though the tasks in Campbell-Kibler's study and here, where participants were given the region of the speaker to avoid identification confounding categorization, were clearly different. Thus, participants may be aware of enregistered features, but that ability does not appear to help identification of native speakers unless listeners are already familiar with the accent.

I also considered how many speakers from each accent were taken from the Speech Accent Archive (see Appendix E for list of speakers and recording source). Perhaps those speakers had been selected for the Archive because their accents were so clearly representative of nativeness. All three native speakers from the Northeast were taken from the Archive. Two of the three Southern natives were as well. Speakers were ranked by how successfully listeners categorized them (see Appendix F). The Southern Archive speakers came in third and fourteenth. The Northeastern Archive speakers came in fourth, sixth, and twelfth. Thus, experience seems to be the most likely explanation for the difficulty in categorizing Southern speakers, though acoustic analysis of the stimuli may provide more definitive answers.

3.5 Summary

The categorization experiment asked participants to identify whether a speaker was using their native regional accent or imitating a non-native regional accent with a particular focus on ASE accents. Listeners could differentiate Northern and Northeastern native speakers from performers, but not Southern. This experiment serves to clarify results and eliminate a possible confounding variable in the coming chapters. It also establishes that nativeness of ASE accents is difficult to discern outside of the South and expands the role of experience in general accent identification to include identification of accent nativeness.

CHAPTER 4

Implicit Attitudes Experiment

4.1 Background

As noted in Chapter 1, according to the APE model, implicit attitudes are the result of automatic responses based on the immediate activation of cognitive representations. A person may not be aware they have an implicit attitude or bias. If they are aware of their bias, implicit measures are designed such that the participant cannot hide those biases (i.e. the biases will show up in the test even if the participant is trying to hide them).

One popular method of measuring implicit attitudes is the IAT. The IAT measures reaction times as a means to evaluate associations between two sets of binary concepts, evaluations, or stereotypes. The test shows robust results linking concepts of race, gender, sexual orientation, and other social categories to evaluations and stereotypes that supposedly reveal underlying biases in the test taker.[40] Implicit attitudes are framed as being resistant to change. Some social psychology literature, however, appears to reveal that attitudes are malleable under certain conditions. Of particular interest, counterstereotypical narratives can shift IAT results away from expected stereotypical associations (see section 1.2.2 for more detail).

Implicit attitudes are comparatively new to the study of sociolinguistics. Some early uses of the IAT in sociolinguistic study used it as a supplement to show evaluative attitudes towards particular groups. Babel (2010), for example, used an IAT to supplement a study testing phonetic accommodation to Australian English by New Zealand speakers. Those who accommodated more to Australian English tended to have more positive implicit associations with Australia. Her stimuli representing Australia and New Zealand, however, were pictures of maps, people, and images associated with the countries, not sound samples. Thus, the IAT, while supplementing a sociolinguistic study, did not utilize audio clips as stimuli for the test. Associations were with Australia and New Zealand rather than Australian English and New Zealand English.

[40] Recall from Chapter 2 that evaluations refer to associations that capture valence (e.g. positive/negative, good/bad, pleasant/unpleasant). Stereotypes refer to traits that may describe the concept without explicit reference to valence (e.g. smart/dumb, amusing/boring, friendly/aggressive).

Redinger (2010) tested associations between positive and negative attributes and written representations of Luxembourgish and French. Participants were five Luxembourgish students. They were faster to categorize positive attributes when those attributes were linked with Luxembourgish as opposed to French. These findings indicate preliminary evidence that Luxembourgish students view written representations of Luxembourgish more positively than French. With a sample size of only five, however, the results can only be preliminary. The results are also kept as raw reaction times without the usual data transformations performed in studies using the IAT. D-scores, the means by which IAT results are usually analyzed, were not calculated.

Babel and Redinger importantly linked the IAT to sociolinguistic study, but do so using visual rather than aural representations. Pantos (2010)[41] adapted the IAT to include audio rather than visual stimuli. His study measured evaluative attitudes towards US and Korean-accented English. His stimuli for US and Korean English were audio clips of eight, three- to eight-syllable words and phrases taken from a recorded passage. The evaluative adjectives were words with positive or negative valence. US English was consistently associated with more positive evaluations than Korean English, even when Korean-accented speakers were rated more positively in explicit attitudes measures.

Pantos' innovative use of audio pivotally established the IAT as a measure of implicit language attitudes and opened the IAT to use by sociolinguists interested in implicit attitudes towards phonological variation. His use of multiple phrases with a variety of features allowed for measurement of attitudes towards the holistic accents, though it is left unclear exactly what accent features might be present in the data and whether the features consistently appeared within the same position within the stimuli. His use of US-accented English against Korean-accented English shows that the IAT is sensitive enough to capture these associations with an L2 accent. Whether the IAT is sensitive enough to do the same with a stigmatized L1 English accent remains unknown. Pantos' IAT also shows the effectiveness of the IAT at a general evaluative level, but does not address whether implicit measures are sensitive enough to capture specific linguistic stereotypes – or, vice versa, whether specific linguistic stereotypes are salient at an

[41] Several publications by Pantos follow the 2010 publication of his dissertation. Each of these appears to be describing the results found in the dissertation (Pantos and Perkins (2013), Pantos (2014), and Pantos (2015) all use the same stimuli and the experiments have the same number of participants). I will, therefore, reference the 2010 dissertation as the primary source for these results as I discuss them.

implicit level. The test of evaluative attitudes towards foreign accents worked for the purposes of his study, but leaves open the possibility that a sociolinguistic IAT may not be sensitive enough to capture (1) more specific stereotypes associated with accent groups and (2) differences between more closely related accents, like regional variation.

Two studies begin to address these issues, though neither addresses both of them within the same experiment using a holistic accent. These studies focus primarily on testing associations between single ASE features, geographic region, careers, and education. Campbell-Kibler (2012) showed associations between linguistic features and social meanings beyond positive and negative associations. Her iteration of the IAT tested salient features of ASE (namely velar nasal fronting and /ai/ glide weakening) and geographic regions and professions. Her first experiment established a relationship between the dialect, geographic region, and occupation using written variations of ASE and written names of regions and professions. ASE variants were associated with the South and with blue-collar jobs. In her second experiment, she used recorded speech rather than written words to represent ASE variants. The ASE variants were, again, more associated with the South. These results show not only that auditory stimuli can be used in the IAT to represent linguistic variables, but also that the IAT can pick up on implicit associations between salient ASE dialect features and social meaning in the form of expected professions.

Loudermilk (2015) took a single feature and linked it to a specific stereotype. In his investigation, participants completed IATs testing associations between (ING) and education.[42] His stimuli for (ING) were audio recordings of eight words that had an [ɪŋ] ending and their eight [ɪn] counterparts. For education, eight written adjectives synonymous with intelligence/education were used alongside eight synonyms for unintelligence/lack of education. The result shows strong associations between [ɪn] and uneducatedness. He split his results into a high IAT and low IAT group at the median score of 0.675.[43] The average score for the high group was 0.83. The average score for the low group was 0.4.

So, Campbell-Kibler and Loudermilk both test specific stereotypes associated with specific ASE features. These associations are important to establish moving forward, particularly in advancing sociolinguistic use of the IAT. The focus on singular features, however, may fail to

[42] Loudermilk pilot-tested IATs associating intelligence/education, gender, and socio-economic status with (ING) to determine which showed the strongest association with the linguistic variable. Education showed the strongest association and, thus, was used for the experiment.
[43] The reason for this split was for another part of the experiment that is not pertinent to the discussion here.

capture implicit attitudes towards accents as a whole in a comparable way to explicit attitude measure of holistic attitudes towards accents or accented speakers. The use of the most salient features, while excellent for establishing the IAT works by increasing the likelihood of features being recognized as regional variants, also means the more subtle phonological cues of ASE that a listener may encounter in a real-world interaction remain untested. By incorporating more than one feature into the IAT (as Pantos does in his studies), I test general attitudes towards an L1 accent rather than attitudes towards a specific feature that may appear in multiple accents or speech styles. Thus, I ask:

> RQ2: Is the IAT effective when multiple accent features are present with a specific accent stereotype? Specifically, can the IAT capture associations between a more holistic ASE accent and lack of intelligence?

Previous research in psychology has resulted in contradicting evidence as to the malleability of implicit attitudes. According to the APE model, listeners' implicit attitudes (in the form of associations) will shift if a new or different association can be activated. Studies that show implicit attitudes to be malleable may be doing so by activating new or different associations through changing a preceding narrative to activate counterstereotypical associations. Recall Foroni and Mayr's study from Section 1.2.2. Flowers are usually associated with pleasantness and insects with unpleasantness, but a narrative in which flowers are poisonous and insects help preserve food sources shifts participants' implicit attitudes away from stereotypical associations that appear in an IAT taken before reading the counterstereotypical narrative.

Television can serve as a purveyor of narratives. If television presents a narrative that activates an alternative association or creates a new one, then, will that narrative be accepted by the viewer? Thus, I also ask:

> RQ3: How are implicit attitudes towards accents affected by short-term television media exposure?
>
> RQ4: Are implicit attitudes towards accents affected by perceived realism, speaker information, or other social variables the viewer brings into the media interaction after in short-term television media exposure?

The goals of using the IAT were twofold. First, the IAT is used differently here than in previous iterations. Campbell-Kibler established that the IAT can successfully be used with audio in place of visual stimuli and showed that salient individual dialect features are associated

with the region they originate from as well as with certain careers. She used single words with velar nasal fronting, one of the most salient of Southern features (though one that is also associated heavily with different levels of formality as well). Meanwhile, Loudermilk (2015) showed that the IAT captures associations between salient individual dialect features and specific linguistic stereotypes (in this case, the uneducated [ɪn] user, a feature heavily associated with ASE accents), but tested it with only one feature, again a feature which is associated with formality as well as with Southernness. Pantos does test multiple accent features, but does so using an L2 accent and evaluative rather than stereotypical traits.

These prior studies establish that (1) the IAT can be used productively in sociolinguistics and (2) the IAT shows associations between features and accent regions. I extend these studies by examining accent-specific stereotypes and their associations with L1 accented speakers. I also include more than velar nasal fronting to get a more general idea of how the IAT works with different accent features and determine whether it works only for the most salient features.

Thus, I pose the following hypotheses:

> H2: The IAT will successfully capture associations between a multi-feature ASE accent in the form of short spoken phrases and lack of intelligence in the form of adjectival synonyms for *dumb*.
>
> H3: Listeners will have stronger associations between a multi-feature ASE accent and unintelligence after short-term priming from scripted fictional television clips portraying a stereotype-supporting narrative with unintelligent ASE-accented characters compared to a counterstereotypical narrative with intelligent ASE-accented characters.
>
> H4: Implicit attitudes towards ASE accents will shift depending upon speaker information and perceived realism in regard to scripted fictional television clips. Receiving speaker information will facilitate implicit associations to shift in the direction of the stereotypical association between ASE accents and unintelligence by priming those already existing associations in the listener. Listeners with higher perceived realism will be more likely to shift in response to the scripted fictional television clips they are exposed to, regardless of whether those clips are stereotypical or counterstereotypical.

4.2 Methods

The experiment is a pretest-prime-distracter-posttest design. For more on the experimental design and materials, see Sections 2.3.3 and 2.3.4.

4.2.1 Participants

Participants were 40 students at the University of Michigan (38 undergraduate and 2 graduate). They were recruited by email, flyers, and class announcements. Each participant received $15 for completing the experiment. The only requirements were that they be native speakers of American English and be older than age 18. The native speaker of American English requirement was because non-native American English speakers may have less experience with American regional dialects and, thus, may introduce a confounding factor. Twenty-nine participants identified as Midwestern. Of the remaining eleven, the majority identified as Northeastern. None identified as Southern.

4.2.2 Procedure

The experiment took place in a lab at the University of Michigan using Superlab 4.5. The lab was an open room with computers situated on tables along the walls. In order to give the participant privacy, a 5-panel screen was set up around the computer.

The participants took an IAT testing associations between speaker regionality and intelligence (see Table 4.1).

Block	**Function**	**Items assigned to left key response**	**Items assigned to right key response**
1	Practice	Southern audio	Midwestern audio
2	Practice	Dumb words	Smart words
3	Test (stereotypical)	Southern audio + Dumb words	Midwestern audio + Smart words
4	Practice	Smart words	Dumb words
5	Test (counterstereotypical)	Southern audio + Smart words	Midwestern audio + Dumb words

Table 4.1: Blocks for the IAT. Note that for half the participants, Block 3 was the stereotypical test block and for the other half the stereotypical test block was Block 5.

Participants were asked to read and sign a consent form and complete a demographic form. They then sat behind the screen in front of a computer. The experimenter explained what the participant would be doing (see Appendix G for a transcript of experimenter directions). The IAT was characterized as a categorization task. Thus, the participant was told they would be completing a categorization task, listening to and answering questions about several television clips, then completing another categorization task. They were also given pen and paper and told they could use it if they wished to take notes about the television clips. If the participant had no questions, they were allowed to begin.

All instructions (including those given by the experimenter) appeared on the computer screen. Before Block 1, the audio phrases used in the IAT were played along with their associated labels (audio with *Midwestern* and *Southern*). This introduction was given so the participant would have familiarity with the stimuli and not spend significant time early in the experiment figuring out whether an unfamiliar speaker was Southern or Midwestern. The point of the study, after all, was not to see whether listeners could differentiate Midwestern from Southern, but rather whether they associated Southern and Midwestern with intelligence. Before Block 2, the participants saw what adjectives were associated with the labels *smart* and *dumb*. This, again, was given so the participant knew what to expect from each category and did not have to spend the first part of the block processing meanings of new words. Following the experiment, the experimenter asked the participants how it went (many commented on the difficulty of the IAT) and if they had any other questions. They were then paid and could leave.

The trials within each block were randomized. The media clips were also randomized. The experiment took between 30 and 40 minutes. Each IAT took approximately ten minutes to complete. The rest of the time depended upon length of instruction reading time and length of answers to the open-ended comprehension questions.

4.3 Results

4.3.1 Success of the IAT as a measure of implicit attitudes

The IAT did successfully capture associations between the multi-feature ASE accent and lack of intelligence in comparison to intelligence associations with Midwestern accents. Figure 4.1 shows the reaction times for the test blocks of the IATs separated into pre- and posttest. A visual analysis of the patterns indicates support for predictions. The stereotypical block had

faster reaction times than the counterstereotypical block. These faster block reactions indicate that participants categorize stimuli more quickly when Southern and Dumb are on one side of the screen and Midwestern and Smart on the other side, offering support for associations between those concepts. Thus, an initial look at the data shows participants more easily associate the multi-accented Southern accent with Dumb than they do Midwestern accents.

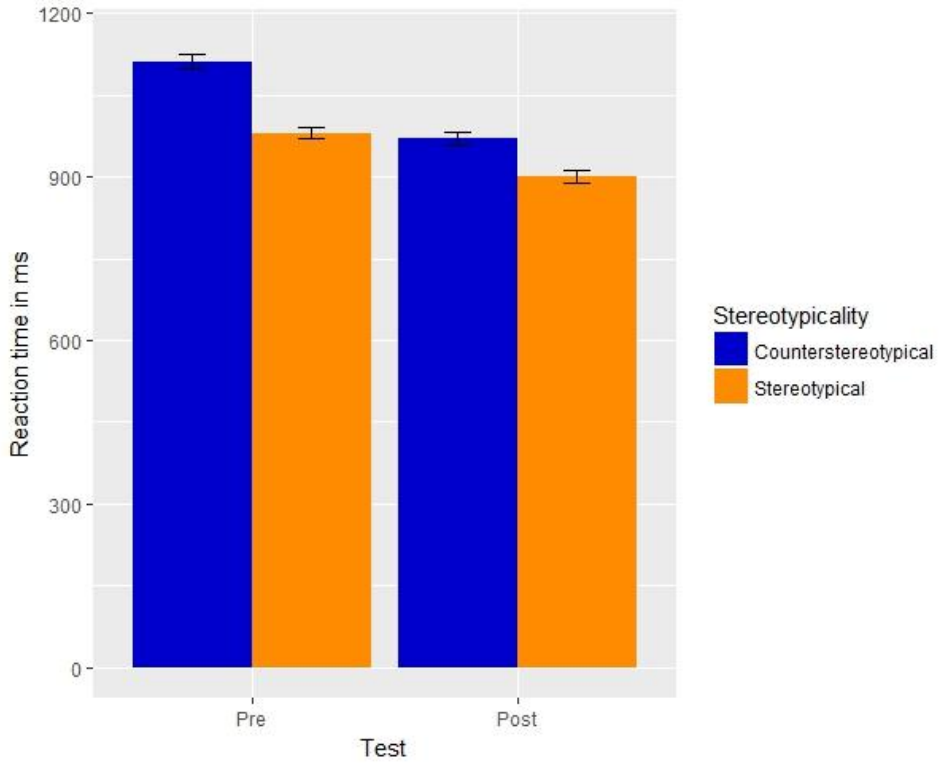

Figure 4.1: Pre- and post-test reaction times by stereotypical and counterstereotypical test block.

Greenwald, Nosek, and Banaji (2003) stipulated several data transformations when analyzing IAT output. These stipulations were applied to the data. Any reaction times below 300 ms were discarded; out of 6680 trials, only 22, or 0.33%, were discarded for this reason. Any participant who had more than 10% of their responses above 10,000 ms were also discarded (there were none). When a participant mis-categorized a stimulus, 600 ms were added to the reaction time for that trial.

IAT reaction time outputs were converted into D-scores based on the means and pooled variances of the reaction times in the stereotypical and counterstereotypical blocks (see Greenwald et al. 1998; Greenwald et al. 2003; and for linguistic uses Campbell-Kibler 2012). D-scores were calculated using the IAT package in R (Martin 2016). The output is a score between -2 and 2 that indicates an effect size for each individual participant. Effect sizes can be low (at

least 0.15), moderate (between 0.35 and 0.5), and high (above 0.5). These effect sizes indicate the strength of the difference between the stereotypical and counterstereotypical blocks for each participant. Higher effect sizes indicate more difference between the blocks. A positive score indicates the associations are as hypothesized (in this case, Southern accents are associated with dumb adjectives and Midwestern with smart); a negative score indicates the opposite. For each participant's D-scores, see Appendix H.

Statistical analyses were performed using R. One-sample t-tests evaluated whether the predicted effects were present by testing whether D-scores were above 0.15. Looking at all the IATs together (both pretest and posttest), the D-score average was 0.23, significantly higher than 0.15 ($t=2.435$, $p=0.017$), indicating a low effect in the predicted direction.

Both pre- and posttest scores were above the 0.15 threshold for low effect size. The pretest D-scores averaged 0.288, significantly above the low effect size threshold ($t=2.634$, $p=0.012$). The score did not reach the moderate effect size threshold of 0.35 ($t=-1.192$, $p=0.24$). Thus, the first IAT shows that participants associate Southern accents with Dumb more so than Midwestern accents and the effect size indicating the difference between the stereotypical and counterstereotypical blocks was significantly above low and approaching moderate. Posttest D-scores averaged 0.175, above the 0.15 low effect size cut-off, but not significantly so ($t=0.622$, $p=0.538$). Overall, then, participants' implicit associations reflect stereotypical attitudes towards Southern accents by crossing the threshold the reach low effect size. These associations are stronger in the pretest than the posttest, as demonstrated by the pretest's statistical significance.

Thus, H2 is supported. The IAT does successfully capture associations between a multi-feature ASE accent and lack of intelligence.

Of note are the reaction times in Block 1, the block in which participants categorized the voices only. These reaction times are noticeably higher than the other blocks as well as the results of the first IAT experiments in Greenwald et al. (1998) that utilized visual stimuli. In Block 1 of the pretest, participants took an average of 1191.39 ms to categorize Midwestern speakers and 1068.24 ms to categorize Southern speakers (see Figure 4.2). In the posttest, those averages drop to 928.40 and 866.22, respectively. An ANOVA evaluating test (pre or post) and speaker origin (Midwestern or Southern) produced significant effects, but no interactions. Follow-up t-tests revealed that in the pretest, Southern speakers were categorized significantly faster than Midwesterners ($t=3.973$, $p<0.001$). In the posttest the difference was again significant

in the same direction but to a lesser degree (t=2.892, p=0.004). Thus, participants always categorized the Southern speakers faster than the Midwestern speakers. They also seem to get better at the task in the posttest, perhaps because of the additional exposure to ASE and Midwestern accents in the media clips.

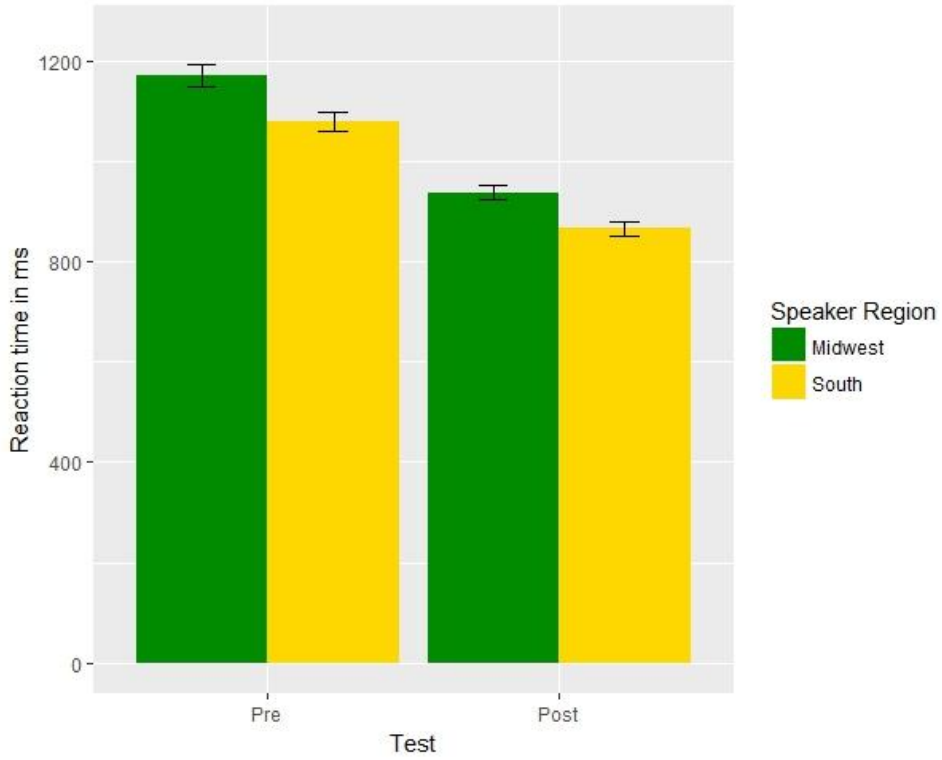

Figure 4.2: Participant reaction times categorizing audio of speakers as Midwestern or Southern in Block 1.

The longer Block 1 reaction times are likely due to the length of the stimuli. Rather than a single image or single spoken word, a multi-syllable phrase must be heard and parsed. As this occurs across all of the conditions, comparisons are still valid within this experiment. The delayed reaction times are worth noting for future studies that might integrate phrases and feature bundles as stimuli.

4.3.2 Malleability of the IAT

To test malleability of the IAT and answer RQ3, a pre-post regression was run. This regression answers the question of whether condition affects the posttest IAT accounting for the pretest IAT. A change score regression was also run. The change score was calculated by subtracting the pretest D-score from the posttest D-score. Positive numbers indicate the second (posttest) IAT was higher while negative numbers indicate the first (pretest) IAT was higher. The change score regression, then, addresses the question of whether the media clips were shifting

participants' attitudes rather than a between-subjects examination of condition effects. For individual change scores, see Appendix H.

The linear regression was run using the {lm} function in R to analyze effects of condition, speaker information, and demographic variables. This section will cover the condition changes within that regression and the next will cover speaker information and demographic effects. The regression had the posttest IAT D-score as the dependent variable. Variables included condition and speaker information (as the main variables of interest in the experiment) as well as gender, Southern television exposure, and perceived realism as potentially influential variables. Demographic variables were selected for the analysis by graphing the variables by condition and looking for patterns that indicated potential differences. Results of the regression are in Table 4.2.

	Estimate	Std. Error	t value	p-value
Pretest IAT	0.33607	0.11679	2.877	0.00698 **
Condition (B)	-0.03074	0.07358	-0.418	0.67882
Speaker Information (Yes)	-0.02277	0.07791	-0.292	0.77187
Gender (Male)	0.13373	0.08562	1.562	0.12787
Southern Television (Yes)	-0.13987	0.08975	-1.558	0.12868
Perceived Realism (Mid)	0.10956	0.07531	1.455	0.15520

Table 4.2: Linear regression results for the posttest IAT.

Only pretest rating is significant (t=2.877, p=0.007). The pretest has significantly higher, and thus significantly more stereotypical, associations compared to the posttest IAT. Neither condition (t=-0.418, p=0.68) nor speaker information (t=-0.292, p=0.78) were significant (see Figures 4.3 and 4.4).

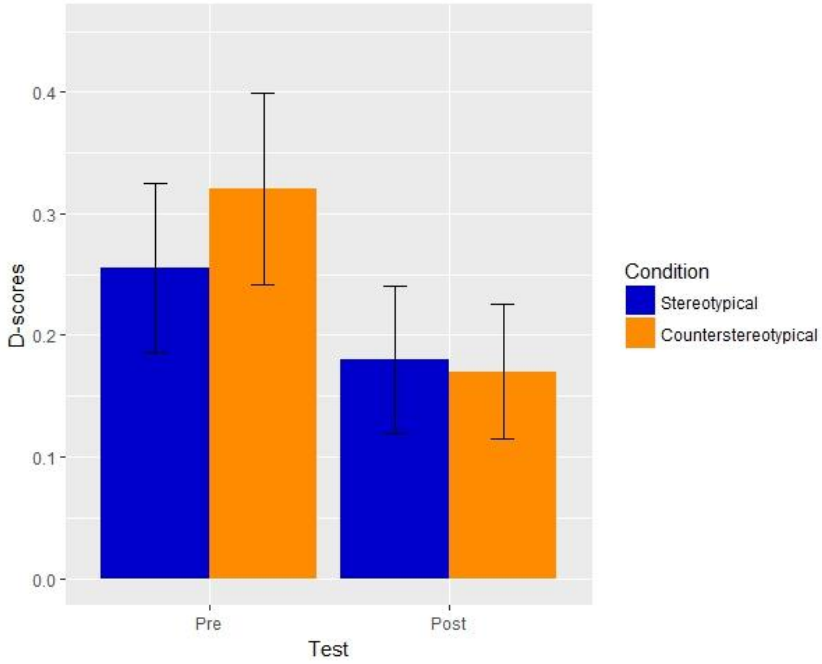

Figure 4.3: D-scores in the pre- and posttest IATs by condition.

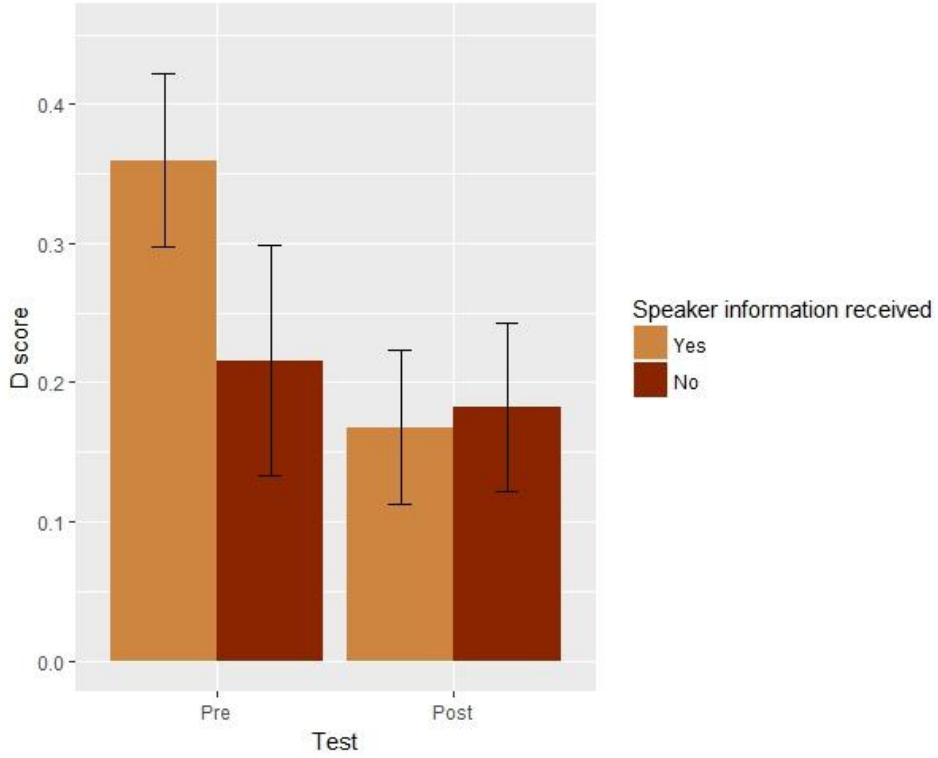

Figure 4.4: D-scores in the pre and posttest IATs organized by whether the participant received speaker information.

The lack of significant results in the posttest between conditions indicates that there will likely be no difference in the change score regression examining whether there is within-subject change

in IAT scores. The change score regression was run using the same covariates as the pre-post regression, but replacing posttest D-score with difference between IATs as the dependent variable. Pretest was not included as a covariate as the change score already accounts for it. Unsurprisingly, a change score regression showed no significant differences in any of the covariates, including condition and speaker information (see Table 4.3).

	Estimate	Std. Error	t value	p-value
Condition (B)	0.07808	0.10133	0.771	0.446
Speaker Information (Yes)	0.12703	0.10495	1.210	0.234
Gender (Male)	-0.05640	0.11717	-0.481	0.633
Southern Television (Yes)	0.11257	0.12422	0.906	0.371
Perceived Realism (Mid)	-0.12040	0.10435	-1.154	0.257

Table 4.3: Linear regression results for the IAT change scores.

4.3.3 Demographic variables

RQ4 asked not only about speaker information, but also perceived realism and other demographic variables. Because Condition and Speaker Information were not significant, a separate linear regression was run testing only the demographic variables and pretest, excluding Condition and Speaker Information (see Table 4.4).[44] Of those covariates, again, only pretest score was significant (t=2.936, p=0.006). Southern television exposure and gender, though, trended towards significance. Those with Southern television exposure trended towards having less stereotypical associations than those who did not in the posttest (t=-1.739, p=0.091) and males trended towards having more stereotypical associations than females (t=1.694, p=0.099). Change score regressions showed no significant results.

[44] This modeling was suggested by the Consulting for Statistics, Computing, & Analytics Research program. The R code was lm(posttest~pretest+gender+southern_tv+pr).

	Estimate	Std. Error	t value	p-value
Pretest IAT	0.32292	0.10998	2.936	0.00584 **
Gender (Male)	0.13956	0.08240	1.694	0.09921 .
Southern Television (Yes)	-0.14680	0.08441	-1.739	0.09081 .
Perceived Realism (Mid)	0.11021	0.07299	1.510	0.14003

Table 4.4: Linear regression results for the posttest IAT with demographic variables only.

For Southern television exposure, those with Southern television exposure trended towards having less stereotypical associations in the posttest than those who did not have Southern television exposure. As Figure 4.5 illustrates, participants have similar D-scores in the pretest. In the posttest, those without Southern television exposure have stronger stereotypical associations than those with it, regardless of media exposure. Figure 4.5 also shows that those with Southern television exposure show slightly more change in the pretest to posttest (0.2 compared to 0.08), though these patterns are not significant.

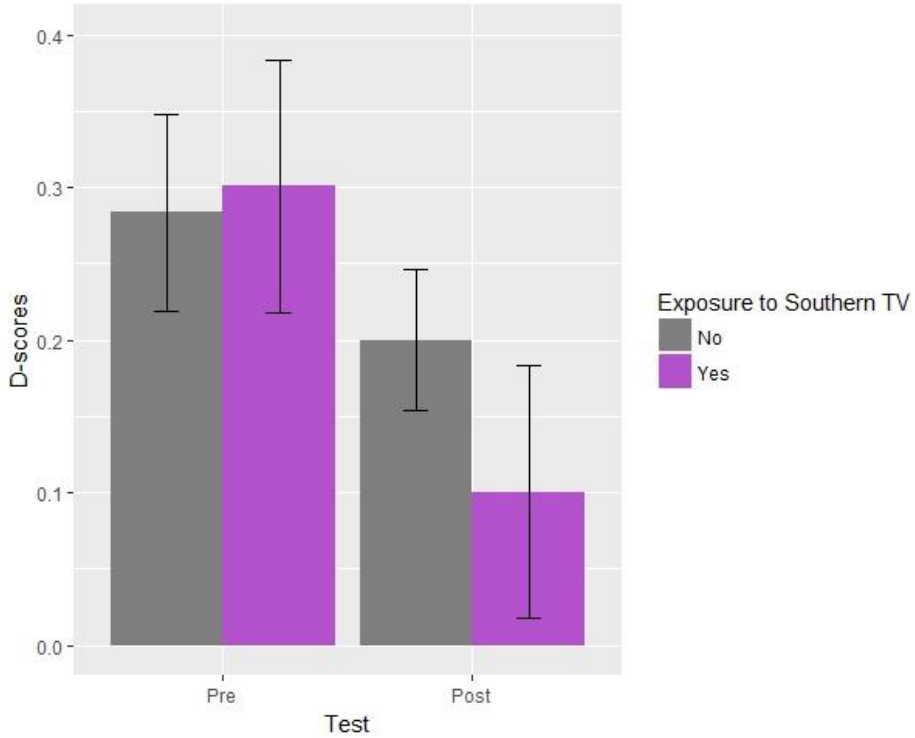

Figure 4.5: D-scores in the pre- and posttest IATs organized by participant exposure to Southern television.

For gender, all participants self-identified as “male” or “female.” Males trended towards having more stereotypical associations in the posttest than females (t=1.694, p=0.099). As Figure 4.6 illustrates, that same pattern holds in the pretest as well. Males also show slightly less change between the pre- and posttest compared to females, though these patterns are not significant.

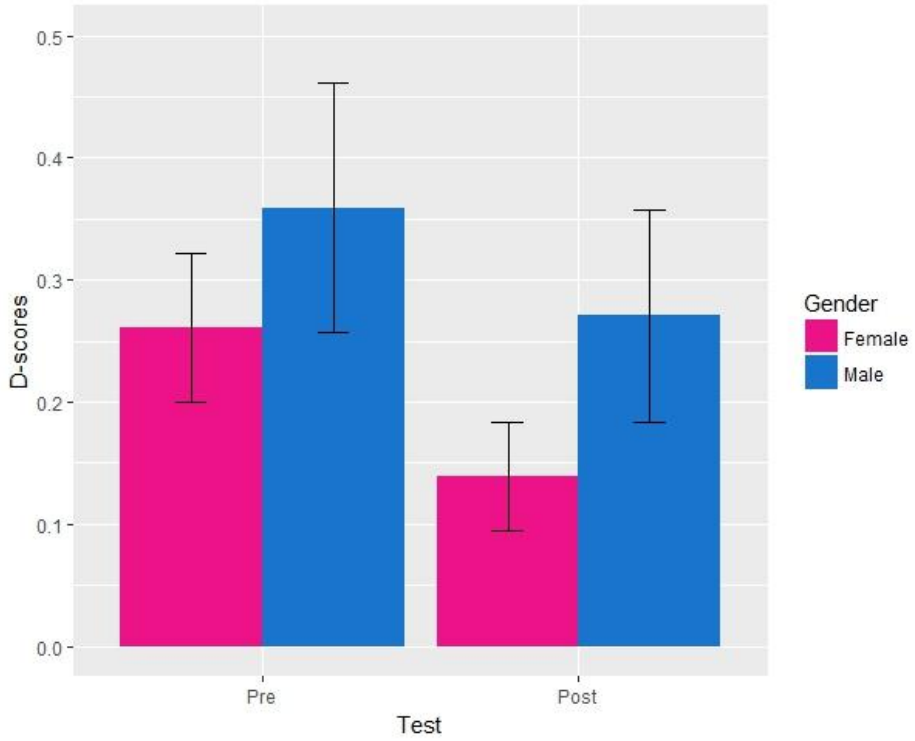

Figure 4.6: D-scores in the pre and posttest IATs organized by participant self-identified gender.

4.3.4 Individual analysis

Because of the potential for individual differences in effects, I compared participants looking for patterns that stood out from the norms of the data. Figure 4.7 presents the D-scores for each of the participants both pre- and posttest. Potential patterns of interest ended up being:

- Negative D-scores, particularly those with negative scores for both IATs
- D-scores that were comparatively stable from pre to posttest (of which there were only three: Participants 24, 28, and 31)
- Participants with higher D-scores (or D-scores closer to zero) in the posttest than pretest (most participants’ D-scores went down from pretest to posttest)
- Participants whose scores changed from negative to positive or positive to negative
- Particularly large shift (as seen in Participant 23, for instance)
- Participants with exposure to Southern television and/or general Southern experience

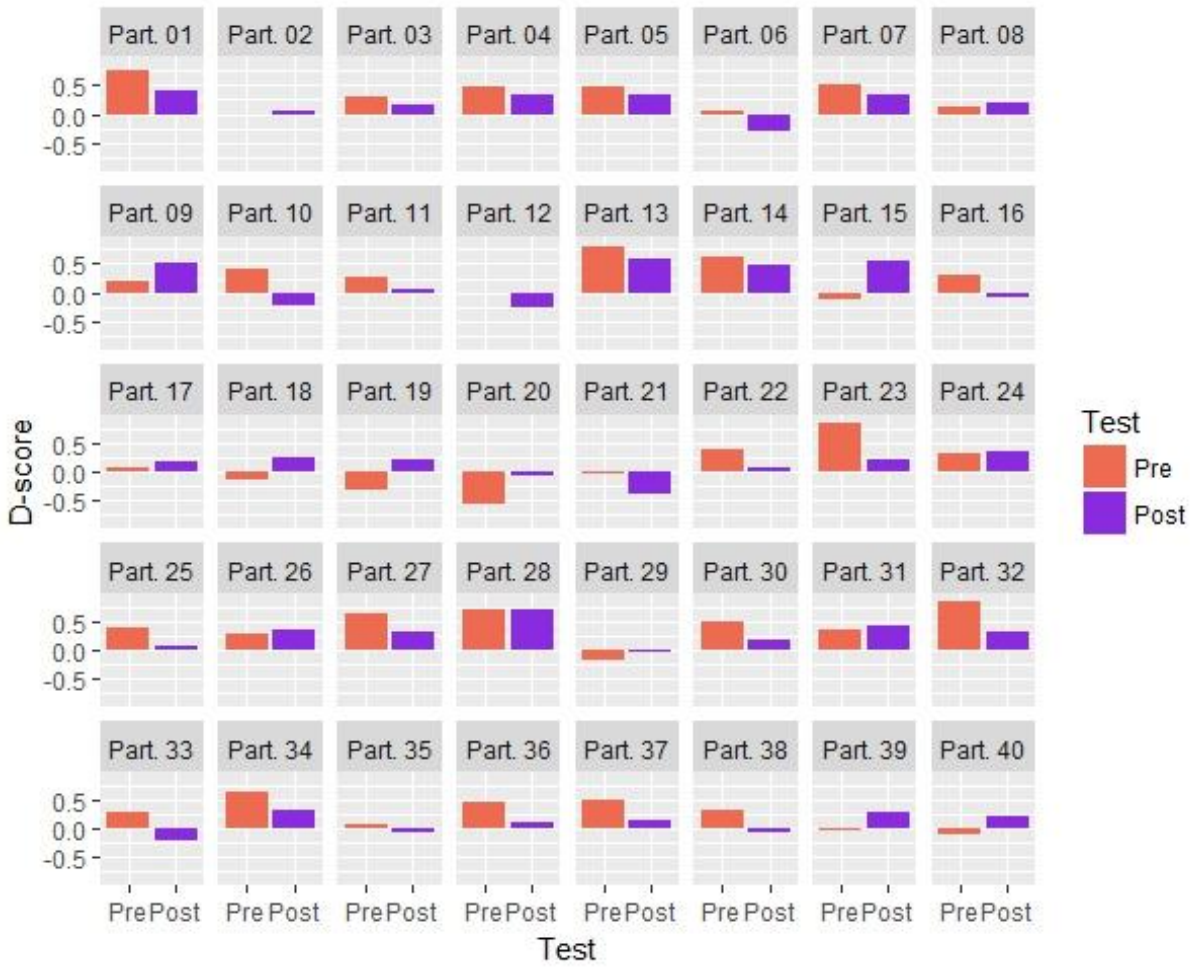

Figure 4.7: Individual participant D-scores organized from lowest pretest to highest.

I compared these participants looking for similarities in their demographic data. No variables stood out as potential causes for these patterns. Even in groups with as few as four participants, there were differences in every demographic category. Condition, Speaker Information, and whether the stereotypical block was Block 3 or Block 5 also provided no explanation for the sometimes radical shifts in D-score.

The only potential patterns came in looking at the pre- and posttest scores without any other governing variables. This pattern matches the general findings in the previous section in which only pretest was significant in the regressions. With one exception, all of the D-scores above 0.6 occur in the pretest; all of those participants' posttest D-scores drop substantially. Of the eight participants above 0.6 in the pretest, one stays approximately the same in the posttest (0.69 to 0.71), one drops 0.13 from 0.63 to 0.50, and all the others drop between 0.23 and 0.62. These participants have more room to drop, but it may be that a particular set of people show

practice effects in the IAT. No demographic feature collected seems to unite those who had particularly high pretest scores. The eight highest IAT pretest participants self-identified as White, but with the majority of the participants doing so, this isn't much of a pattern to build on.

The pretest had a wider range of D-scores than the posttest. To further explore potential effects of pretest on change score, I took the absolute value of the change scores in order to evaluate the degree of the change rather than direction of the change. A change from -0.7 to -0.1 should be counted as the same as a change from 0.7 to 0.1 for the purposes of this particular comparison. The average change for participants whose pretest fell in the moderate to high effect size range (above +/-0.35) was 0.324. Participants with a pretest between 0 and +/-0.35 had an average change of 0.261. In other words, those with pretest IATs in the moderate or higher effect size range lowered their posttest score by 0.324 while those with lower pretest scores changed by 0.261. Thus, those with higher pretests show slightly more change than those with lower pretest scores, though the difference isn't necessarily large enough to mean anything.

If the difference is meaningful, it could simply be that those with higher pretest scores have more room to change. Alternatively, those with higher pretest scores, and thus stronger stereotypical associations between accents and intelligence, may be particularly affected by hearing accented speakers regardless of whether the speakers match their stereotypical associations or not. Or perhaps those participants are particularly affected by experience or practice with the test itself. The higher D-score in the pretest could also be a manifestation of difficulty with the test. Having done the IAT once, they then had an easier time with the posttest IAT (though previous IAT research does not indicate this should be the case).

Another very preliminary pattern emerged in looking at the participants whose D-scores changed the most regardless of whether that change was negative (posttest was lower than the pretest) or positive (pretest was higher than the posttest). Three participants (Participants 10, 23, and 32) had pretest scores 0.5 or more higher than their posttest scores in the positive direction. This indicates that in the pretest they held stereotypical associations between accent and intelligence and in the posttest those associations were closer to counterstereotypical. In fact, one of these participants fully shifted from stereotypical to counterstereotypical associations. All of these participants were in the counterstereotypical condition, meaning they heard the television clips with the intelligent Southern characters. Two participants (Participants 15 and 19) had pretest scores 0.5 or more higher than their posttest scores in the negative direction. This

indicates that in the pretest they held counterstereotypical associations between accent and intelligence and in the posttest those associations were closer to stereotypical. In this case, both participants shifted from negative to positive D-scores, indicating a full shift in association. Those participants were both in the stereotypical condition in which they heard stereotypically unintelligent Southern characters. Thus, those with the biggest changes were in conditions that could facilitate these shifts and could, thus, indicate an effect.

While potentially promising, this pattern is weak and does not hold beyond those with the highest change scores. In each case, the next highest differences (-0.48 and 0.49) were in the opposite condition. Of the 15 participants who had positive change scores (moving them closer to stereotypical association), seven were in the stereotypical condition, the condition that you would expect to facilitate such a change. Of the 25 people who had negative change scores (moving them closer to counterstereotypical associations), 12 were in the counterstereotypical condition. Thus the pattern matching direction of change with experimental condition dissipates, beyond the most extreme changes.

So, the individual analysis reveals no particular patterns in within-subject variability. This variability raises questions about the test-retest reliability of the IAT, particularly since the two IATs were taken within an hour of one another. These questions will be explored further in the next section.

4.4 Discussion

The Implicit Attitudes Experiment indicates that the expected associations are made between bundled accent features and accent-specific stereotypes. These implicit attitudes do not appear to be malleable, though the pretest did tend to have higher response times and effect sizes across all blocks and conditions. In general, this finding suggests that people associate Southern accents with lack of intelligence and/or Midwestern accents with being smart.

There are three main points to take from this experiment to be discussed in this section. First, as stated above, the IAT works for multiple features and specific linguistic stereotypes, though the effect appears to be somewhat diminished compared to previous sociolinguistic studies that utilize the IAT. Second, implicit language attitudes were not malleable in this case. That does not mean they are not malleable at all, but rather that this particular method may not

have captured it. Third, the IAT provides insight into an as of yet unexplored piece of language attitudes research, but should be used carefully due to potential reliability issues.

While the IAT was successfully implemented in this experiment, the effect sizes it produced were smaller than those seen in other sociolinguistic studies. The stereotypical associations remain in the low effect size range. It is important to note, however, that associations in the sociolinguistic IAT vary considerably. Table 4.5 details sociolinguistic IAT results and situates the results of this study within that literature.

Linguistic feature	**Evaluation/Stereotype**	**IAT D-score**	**Source**
IN'-ING (spoken)	Education	0.83	Loudermilk 2015 (high IAT group)
IN'-ING (written)	Profession	0.44	Campbell-Kibler 2012
IN'-ING (spoken)	Education	0.4	Loudermilk 2015 (low IAT group)
IN'-ING (written)	State	0.38	Campbell-Kibler 2012
Korean accent-US accent (spoken, unknown features)	Pleasantness	0.33	Pantos 2010
IN'-ING (spoken)	State	0.3	Campbell-Kibler 2012
ASE (spoken, 4 features)	**Intelligence (pretest)**	**0.29**	**Heaton 2018**
ASE (spoken, 4 features)	**Intelligence (posttest)**	**0.18**	**Heaton 2018**

Table 4.5: D-scores for sociolinguistic IATs using audio stimuli and/or ASE.

This weaker association may be due to the inclusion of multiple features in an L1 non-standard accent. Most of these studies focus on one linguistic feature at a time. While this method allows for linguists to pinpoint exactly what feature is associated with what stereotype or evaluation, the participant knows exactly what they are listening for. When a person encounters a speaker, they do not necessarily have this expectation. They must listen for combinations of features. The cognitive load is, thus, higher, which may result in weaker associations since accents are, in fact, difficult to place (Clopper & Pisoni 2004a). While this experiment has short stimuli in relation to what one might encounter in day-to-day speaking interactions, it still includes enough features to raise the cognitive load. Participants know they are listening for

particular features, but they are not always the most salient features of ASE and they occur in random order. The combination of multiple features and the inclusion of less salient features may result in stereotypical associations that aren't as strong as other IATs find.

The result of Block 1 is interesting in itself. Participants were slower to identify the Midwestern-accented speakers. As the vast majority of the participants were from the Midwest and/or identified as Midwestern, it would make sense for them to identify Midwestern accents more quickly, as per Clopper and Pisoni's (2004b) findings on exposure and experience discussed in Chapter 3. However, it may be the case that because the Midwestern accent is unmarked to them, they are, in fact, slower at rapid identification of it. The less familiar and, therefore, marked Southern accent may be more easily identified then not only because it is different, but also because of the strong stereotypes associated with the region and accent and potentially enregisterment of the accent.

With those results in mind, then, RQ2 is answered and H2 is confirmed. This opens up RQ3 dealing with the potential malleability of the IAT. In general, implicit attitudes are seen as stable. Foroni and Mayr, however, showed that participants who read a dystopian narrative in which flowers are poisonous and insects helpful can weaken stereotypical associations. The present experiment did not find the same results. Overall, media exposure to counterstereotypical associations did not facilitate shifts in implicit attitudes. Thus, H3 was not supported.

This lack of significance does not necessarily mean the effect does not exist. It simply means it was not captured with the present methodology. Perhaps the clips did not provide enough exposure to shift attitudes. Exposure was approximately ten minutes, which reflects exposure in psychology studies. Language attitudes may require more time, though.

Similarly, television does serve as a way to communicate narratives, but perhaps not as strongly or obviously as the narrative in Foroni and Mayr's study. The message may not have been explicit enough to cause a shift. Foroni and Mayr postulated that their narrative was effective because it provides a cause for the shift towards counterstereotypical associations. The event that caused the dystopian future resulted in the reversal of pleasantness for flowers and insects. The narratives presented in the television clips did not provide any reason why the ASE-accented character was intelligent. This lack of cause could have contributed to a failure to create a new association. Future studies should implement a narrative with more direct focus on accents and/or intelligence to see if that focus can trigger a shift. Media clips could be longer to allow for

a cause in the reversal of stereotypical associations. Alternatively, a cause for the counterstereotype could be integrated into the short description of the television clip participants read before each clip plays, though this may lead to questions of whether a shift is caused by the written narrative or the actual aural representation of the speaker.

A final explanation for the lack of malleability may be that language attitudes are cognitively different than the attitudes tested in the studies that found malleability. Our cognitive representations of flowers and insects would likely differ from those of Southern and Midwestern accents. Further research on this question should focus on (1) clarifying the narrative presented to the listener and (2) investigating potential cognitive differences between accents/dialects and other concepts tested in IATs.

Most demographic variables did not affect results, meaning H4 was not supported. Interestingly, Southern television exposure trended towards significance, though it did not reach a fully significant effect. In other words, participants with exposure to Southern television trended towards having less stereotypical associations after media exposure. This result is somewhat puzzling since it does not interact with stereotypicality of media exposure. One would expect that those with Southern television exposure would be more exposed to stereotypes of Southern speakers and, therefore, have stronger associations that are more easily activated when presented with the stereotypical Southern characters in this experiment. It seems, though, that regardless of condition, prior exposure to ASE in media lowers stereotypical associations. It may be, then, that more exposure to Southern television means consumption of a broader range of ASE-accented speakers that could counter stereotypes.

There is also a potential effect based on the object being rated. Perhaps listeners' pretest results are based on associations with a disembodied accent that is stereotyped. Hearing an actual speaker in the form of the characters in the clips highlights that the speaker is not a disembodied voice, but an individual. This may shift the association from a disembodied voice to a more concrete person. Associations with the accented speaker, then, may be more forgiving than associations with a voice. If this is the case, watching Southern television may activate associations with accented speakers more often. That prior exposure then would lead to faster activation and/or responses weakening stereotypical associations to a greater degree. This hypothesis is, of course, very preliminary. The results of this experiment cannot provide any

more in-depth analysis of this potential effect. The results of the explicit attitudes study will shed more light on this theory.

Gender also trended towards significance with self-identified males showing stronger stereotypical associations compared to females. This finding may be a reflection of attitudes in general. Even in children, boys seem more susceptible to uptake of stereotypes and/or failure to accept counterstereotypes (Pike & Jennings 2005). The trending pattern in this chapter indicates the pattern seems to hold for language attitudes as well.

Despite these nascent patterns, the individual analysis reveals potential problems with the use of the IAT. Implicit attitudes are generally expected to remain stable. Yet the individual analysis here reveals a great deal of variation within the same individual, a finding that is even more concerning considering the tests were taken within about 20 minutes of each other. Only three participants out of 40 maintained similar results from pre to posttest. Yet there were no identifiable patterns in the data to indicate what might be the cause of such variation.

This variability raises questions about the IAT's test-retest reliability. The issue of reliability is not new to the IAT or implicit measures at large. Blanton and Jaccard (2015) highlight several potential issues with the use of the IAT, particularly in media research. Most pertinent for this experiment, implicit measures as a whole are particularly susceptible to random error. This error can come in the form of nonsystematic error that causes random noise in the data (a sound startles the participant for a trial, the participant is distracted by their mental to-do list as a stimulus appears) or transitory error that affects every trial of an entire test (e.g. mood). Random error is a part of any experiment, but can be particularly detrimental to implicit studies that are reliant upon reaction times (Blanton & Jaccard 2015). It is easier to avoid or control for in laboratory settings, but could be problematic for platforms like Mechanical Turk where the experimenter cannot know the environment the participant is in. In linguistic studies where listening to short sound bites is a vital methodological component, these distractions could be even more detrimental.

This random error can lead to variation over repeated administration. Blanton and Jaccard note that test-retest correlation is lower than preferable for the IAT. The goal is generally to have a correlation of 0.7 between tests. Eleven studies using multiple iterations of the IAT found correlations to be between 0.31 and 0.85 with an average of 0.55. The correlation between the pre and posttest IAT in the present study was 0.43, lower than the 0.7 goal.

Looking beyond the IAT, implicit measures lack convergent validity; different implicit tests do not necessarily show comparable results, which may mean each implicit measure is evaluating a different aspect of implicit attitudes. One measure may only be capturing a small piece of a larger construct (Blanton & Jaccard 2015). Sociolinguists, then, should work towards adapting other implicit attitudes measures for linguistic use.

One final challenge Blanton and Jaccard issue is to not assume implicit and explicit attitudes are completely separate entities. Explicit attitudes should be measured alongside implicit attitudes and included in statistical models. Unfortunately, I could not do this for this set of studies. A key component to the Explicit Attitudes Study was that its purpose remain hidden from participants, which the inclusion of a pre- and posttest IAT could not guarantee. This integration of attitudes is one of the primary goals of this research moving forward though.

None of these challenges are to say sociolinguists should not be using the IAT or implicit measures in studies. Every methodology has drawbacks. Blanton and Jaccard note that the issue with many of the concerns they point out is that the issues are not being acknowledged and accounted for in research. The test-retest reliability of the IAT is not at issue so long as researchers are not assuming high correlations between iterations of the test. Lack of convergent validity is also not a problem so long as researchers acknowledge that different implicit measures may be reflecting different constructs. I note these challenges here to highlight the complexity and nuance within implicit attitudes research so that sociolinguists can integrate those ideas into methodology building moving forward.

Before closing the discussion, I want to highlight the choice to equate implicit associations and implicit attitudes. Throughout the chapter, I equate the IAT, a measure of implicit associations, with a measure implicit attitudes. Associations, however, can exist due to classical conditioning effects without necessarily reflecting a fully-fledged attitude. A viewer may see a particular character type speak with a certain accent enough times that they expect that accent and character type to be paired, but that does not necessarily reflect their own attitudes. While I understand this differentiation is valuable in many contexts, in the case of the IAT with associations being made between groups of people (whether grouped by race, gender, or accent group) and traits, separation of a conditioned response and actual bias is difficult. The listener may well know the associations are a conditioned response and, thus, not valid and they may not act on them because they know consciously that these associations are not valid. The response,

however, still shows some form of link between the groups and concepts. In a similar vein, both associations and implicit attitudes are characterized as links made between groups and traits that the perceiver has little to no control over. As noted in the criticisms of the IAT, the IAT does not necessarily reflect results of other implicit tests. Thus, it is important to highlight that the associations measured in the IAT may be a subset within a larger construct of an individual's implicit attitudes. For the purposes of this study, I interpret implicit associations in the IAT as reflecting these implicit attitudes. That is not to say, however, that these implicit associations are a complete reflection of an individual's implicit attitudes but rather the piece captured by the IAT.

Implicit measures of language attitudes are an important next step in theorizing and cognitively mapping language attitudes. As with any measure, though, they must be used with thoughtfulness and care. An important first step is to integrate more and varied implicit measures into sociolinguistic research. These instruments may measure different constructs, which can reveal different aspects of implicit attitudes that may be beyond the scope of the IAT. Constructs being measured with implicit instruments must be defined so that conclusions are not too broad for the scope of the project. We should also be working towards integrating implicit and explicit measures into the same experiments so that explicit attitudes can be accounted for in implicit models. Many of the critiques presented here only apply in certain circumstances. It may be that an experiment or a theoretical paradigm accounts for some of the challenges presented. So long as researchers are thinking about these challenges and accounting for them in their methods and models, implicit measures can be used effectively. With these precautions in place, implicit measures can successfully open new avenues to study language attitudes.

4.5 Summary

The IAT can capture associations between a multi-feature ASE accent and the specific linguistic stereotype that ASE accents indicate lack of intelligence. These associations were not as strong as previous iterations of the IAT in sociolinguistic research, potentially because the inclusion of multiple phonological features and inclusion of less salient ASE features raised the cognitive load for the listener. Despite evidence that narratives can shift IAT results away from stereotypical associations, television clips representing counterstereotypical ASE speakers did not shift implicit attitudes. Three explanations are posited: the narrative was not explicit enough

about the counterstereotypical nature of the representation, the narrative did not provide a cause for the shift away from the stereotype, and/or language is cognitively different than other attitudes that are malleable. Finally, the IAT (and implicit measures in general) provides a new way to explore language attitudes, but should be used with caution due to critiques dealing with test-retest reliability, random error, and convergent validity. Sociolinguists should supplement the IAT with additional implicit measures and include explicit measure in future models of implicit language attitudes (and language attitudes at large).

CHAPTER 5

Explicit Attitudes Experiment

5.1 Background

In Chapter 4, the IAT was shown to reflect associations between ASE accents and lack of intelligence. These associations capture the relationship between an abstract accent and a stereotype. In following with the APE model, the associations activated by an accent will also activate propositions that the listener can accept or reject. An accepted proposition manifests in the form of the listener's explicit attitudes.

This chapter shifts attention from implicit to explicit attitudes. While the implicit study measures attitudes towards an accent itself, the explicit study explores attitudes about an actual person who speaks with an ASE accent. Thus, the Explicit Attitudes Experiment described in this chapter tests whether television can prime propositions (manifested as explicit attitudes) about accented speakers, not accents themselves, and how these propositions affect attitudes towards an ASE-accented speaker with whom the listener has interacted. This differentiation is particularly important in light of the possibility that abstract accents and accented speakers may be rated differently, as noted in Chapter 4. The Explicit Attitudes Experiment more clearly differentiates ratings of accents compared to accented speaker and can more authoritatively speak to this proposal.

Media has been shown to influence viewers' attitudes towards a number of social groups (see Section 1.4 for a more detailed review of these findings). Many of these studies, however, are correlative, so a causal relationship cannot be reliably determined. Within sociolinguistics, there seems to be an underlying assumption that media influences language attitudes (detailed in Section 1.3). This assumption has yet to be established through experimental means. Stuart-Smith (2007) did test the relationship between viewing of *Eastenders* and attitudes towards London English, but found that watching the show did not "promote positive attitudes towards a London accent" (146). Her study, though, focused on attitudes towards an abstract accent rather than actual speakers of that accent. This subtle difference may be vital in capturing attitudinal

effects, as there may be separate associations for abstract accents and accented speakers. This separation would lead to differences in activated propositions.

In this chapter, I investigate the interplay between televised representations of accented speakers and attitudes towards accented speakers.

> RQ5: What role does television play in explicit language attitudes towards speakers of accents? Does exposure to stereotypical or counterstereotypical representations of accented speakers on television affect viewers' attitudes towards a speaker with the same accent in a face-to-face interaction?

As in Chapter 4, I also explore the role of speaker information, perceived realism and other social variables on attitudes.

> RQ6: What role does knowledge that an actor is a native speaker of an accent play in explicit language attitudes? Do perceived realism, speaker information, or social variables the viewer brings into the interaction contribute to attitudes towards speakers met face-to-face?

Previous attitudes research shows strong evidence of the ASE-unintelligent link (e.g. Preston 1996, Heaton & Nygaard 2011). The results in Chapter 4 confirm that link in implicit attitude form. Thus, I hypothesize:

> H5: Listeners who are exposed to television audio clips with stereotypically unintelligent ASE-accented speakers will more strongly exhibit attitudes reflecting that stereotype towards an actual ASE-accented speaker they interact with post-exposure compared to listeners who are exposed to counterstereotypically intelligent ASE-accented speakers.
>
> H6: Giving listeners speaker information about speakers in television audio clips will affect explicit attitudes about intelligence towards an actual speaker with that accent. Listeners with higher perceived realism will be more likely to take up stereotypical or counterstereotypical attitudes in response to the stereotypicality of the television audio clips they are exposed to.

5.2 Methods

The details of the methodology can be found in Section 2.3 with the specifics of the experimental design in Section 2.3.5.

5.2.1 Participants

Participants were 20 undergraduates at the University of Michigan. They were recruited by email, flyers, and class announcements. Each participant received $15 for completing the experiment. Like the Implicit Attitudes Experiment, the only requirements were that they be native speakers of American English older than age 18. Fourteen participants were from the Midwest. Only one identified as Southern.

5.2.2 Procedure

Like the Implicit Attitudes Experiment, the experiment took place in a lab at the University of Michigan using Superlab 4.5. Again, the lab was an open room with computers situated on tables along the walls with a 5-panel screen set up around the computer to ensure participant privacy, a particularly important assurance during the evaluation portion of the experiment. The screen created a pseudo-room in which the participant could complete the experiment without feeling as if the experimenter or RA were looking over their shoulder.

As with the implicit experiment, participants came into the lab and were asked to read and sign a consent form and complete a demographic form. The participant was then seated at the computer behind the screen. The experimenter orally read the instructions to the participant (see Appendix I for instructions script) and were also given pen and paper so they could take notes about the television clips if they wished. The oral instructions included a note that the experimenter giving the instructions would be leaving for a meeting in a few minutes and that if she had not returned then the RA would give the debriefing and set up the evaluation. If the participant did not have any questions, they were instructed to put on headphones and begin the experiment.

All oral instructions also appeared on the computer before each part of the experiment. The baseline attitudes test was explained as a rating of the voices of actors they may hear in the clips so that the researcher could get a sense of what the actors' voices elicit in a neutral context. The six baseline voices were randomized.

Before the three clips, the participant was again reminded that they are in the audio only condition. Hard copies of the scripts were provided.[45] The participants were told the clips were recreated by community theater actors to avoid confounding factors like background music. The

[45]Scripts were provided to ensure participants did not have difficulty comprehending what was said, which could confound ratings. The scripts could be eliminated in future studies in order to increase ecological validity.

clips were randomized. Following each clip, the open-ended distracter questions were posed along with the two Specific Perceived Realism questions. These questions always appeared in the same order. After all the clips and questions, the five General Perceived Realism questions were posed. A note on the screen then told the participant they had completed the experiment. They were debriefed by the RA, who then set up the evaluation. The evaluation questions were all presented in a set order. The two questions rating the experimenter and RA had ten randomized semantic differential ratings within them. As soon as the participant sat down to fill out the evaluation, the RA texted the experimenter that she could return to the room. When the participant completed the evaluation, the experimenter asked them how it went and if they had any other questions, then thanked them for their participation and paid them.

The entire experiment took anywhere from 35 minutes to a little over an hour to complete depending on level of detail the participant included in the open-ended distracter questions.

5.3 Results

Results were analyzed primarily using linear regressions in R. I first analyzed the baseline results to see if the status-solidarity difference between Southern and non-Southern accents appeared. Then, I analyzed the full dataset for condition differences as well as speaker information and demographic effects.

5.3.1 Baseline results

Before addressing the main questions of the experiment, I analyzed participant attitudes towards the six regional baseline voices. This analysis was meant to confirm that the voices were eliciting status-solidarity patterns. Patterns of status and solidarity within language attitudes are consistent enough that looking for expected patterns can serve as a manipulation check. The Southern voices should be higher in solidarity and lower in status compared to the Northern and Western voices. Differences between the Northern and Western voices were not expected, though it is possible the Northern voices could receive higher ratings on both status and solidarity adjectives as most of the participants were from Michigan.

Averages from the two speakers for each region were calculated to create a composite regional score for South, North, and West. *Important, reliable, honest,* and *trustworthy* all had one outlier each. All of these outliers were in ratings of the Northern speakers. One participant rated the Northern speakers higher on importance, and the other participants rated the Northern

speakers lower on reliability, honesty, and trustworthiness. These outliers fell just outside the acceptability range. I did not remove them from the data since they did not cause any shifts in statistical assumptions.

I ran ANOVAs and corresponding Tukey HSD tests for composite status and solidarity ratings as well as each adjective across the three regions. The composite status variable was created for each participant by averaging ratings of competence, educatedness, importance, reliability, and smartness. Likewise, the composite solidarity variable was created by averaging ratings of cheerfulness, honesty, likability, sociability, and trustworthiness. The ANOVA results were significant for both status ($F=-6.256$, $p=0.002$) and solidarity ($F=38.58$, $p<0.001$). Tukey HSD tests were run on the adjectives with significant results in the ANOVAs. For the composite status measure, the South was significantly lower than the North ($p=0.002$) and trended towards significance in comparison to the West ($p=0.07$). The North and West were not significantly different ($p=0.40$). The composite solidarity ratings showed the South was rated significantly higher than the North ($p<0.001$) and West ($p<0.001$) while the North and West did not differ from one another ($p=0.46$).

I also ran ANOVAS on each of the individual adjectives. Validity testing showed overall similar patterns across status adjectives and solidarity adjectives, but with minor differences that indicate different aspects of status and solidarity are being captured by each adjective. Evaluating each adjective will allow for a deeper analysis of the status and solidarity constructs. Using multiple comparisons with the same hypothesis, however, requires statistical accommodation. I applied a Bonferroni correction by dividing the alpha level, or level of significance, by the number of comparisons. In this case, I divided 0.05 by 5 to get 0.01. Thus, for the individual adjective ANOVAs to reach the same level of significance as the composite measures, the p-values need to be 0.01 or lower. The ANOVA results showed significant differences in cheerfulness ($F=34.39$, $p<0.001$), educatedness ($F=6.636$, $p=0.003$), likability ($F=25.11$, $p<0.001$), smartness ($F=6.513$, $p=0.003$), and sociability ($F=25.47$, $p<0.001$). There were no significant differences in competence ($F=1.493$, $p=0.233$), honesty ($F=1.801$, $p=0.174$), importance ($F=0.812$, $p=0.449$), reliability ($F=0.078$, $p=0.925$), and trustworthiness ($F=0.207$, $p=0.813$).

Tukey HSD tests were run on the adjectives with significant results in the ANOVAs. Again, using multiple comparisons with the same hypothesis required statistical accommodation. The Bonferroni correction was applied and 0.05 was divided by 5. Thus, once again, for the Tukey tests to reach the same level of significance as the composite measures, the p-values needed to be 0.01 or lower.

For Status adjectives, the South was significantly less educated (p=0.004) and less smart (p=0.003) than the North. The West just missed being rated significantly higher than the South in education (p=0.015) and was not significantly different from the South in smartness (p=0.03). There were no statistically significant differences between the North and West (see Figure 5.1 below).

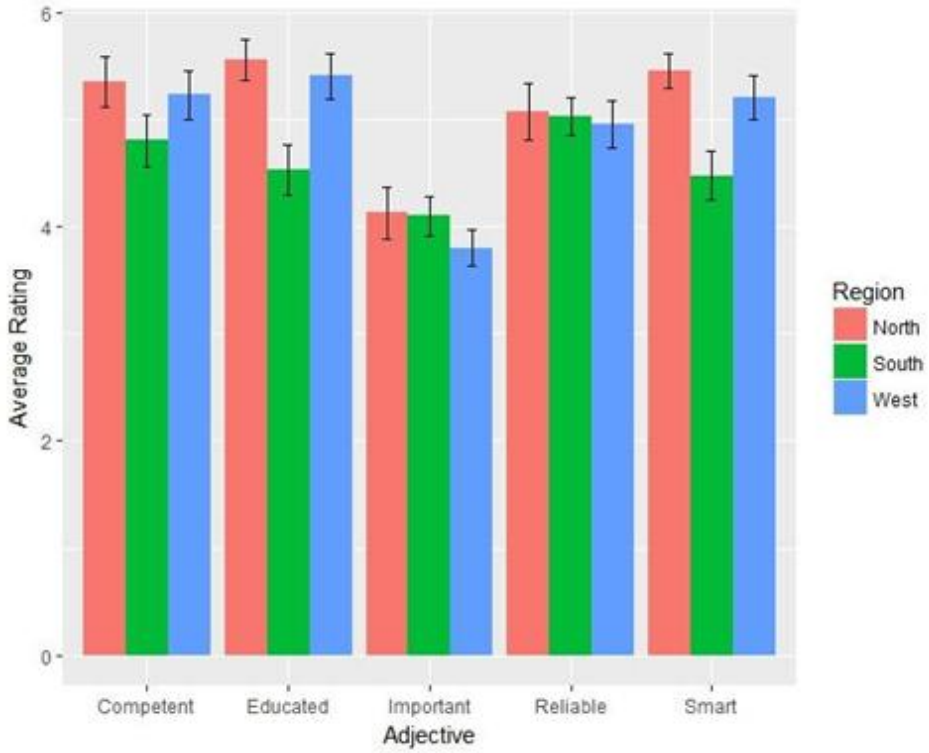

Figure 5.1: Average ratings for status adjectives of regional speakers on a scale of 1 to 7.

For Solidarity adjectives, the South was significantly more cheerful, likeable, and sociable (all p<0.001). There were no differences between the North and West (see Figure 5.2).

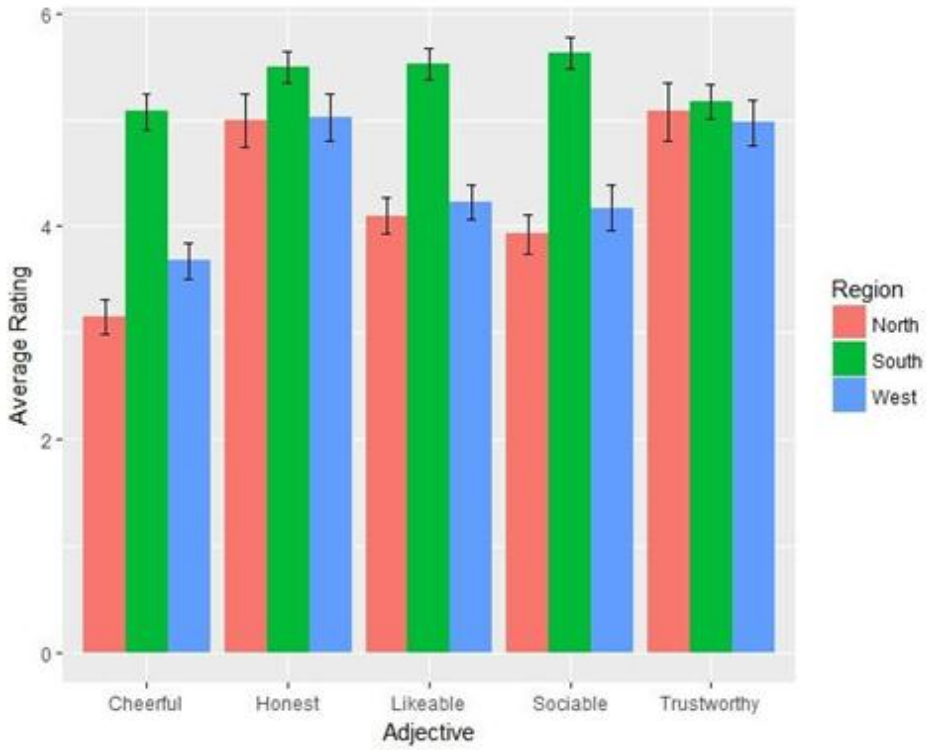

Figure 5.2: Average ratings for solidarity adjectives of regional speakers on a scale of 1 to 7.

In sum, the South was rated significantly higher in solidarity and lower in status than the North and West. Specifically, the South was rated lower than the North and West on cheerfulness, likeability, and sociability. The North and West were rated significantly higher than the South on status adjectives *educated* and *smart*. Thus, the hypothesized pattern does hold, though it seems the positive association with solidarity traits may be stronger than the negative association with status traits.

In addition to the baseline analysis, a visual analysis of the data indicated that the baseline adjective ratings for the ASE-accented voices were consistently lower than the evaluation adjective ratings of the ASE-accented RA. This pattern held across all five adjectives that carried over from baseline to evaluation (*cheerful, competent, reliable, smart, trustworthy*). A repeated-measures ANOVA was run testing the interaction of test (baseline or evaluation) and adjective on ratings. Tests came out as significant ($F=30.55$, $p<0.001$). As a whole, the baseline averaged 1.25 points lower than the evaluation. There was also an interaction between test and adjective ($F=2.841$, $p=0.23$). Due to this interaction, I ran follow-up paired t-tests. To account for multiple comparisons, p-values needed to be lower than 0.01 to reach significance. The baseline rating was significantly lower than the evaluation for cheerfulness ($t=-2.839$, $p=0.008$),

competence (t=-4.313, p<0.001), reliability (t=-4.222, p<0.001), smartness (t=-6.574, p<0.001), and trustworthiness (t=-3.457, p=0.001). Thus, the baseline voices were always lower than the evaluation ratings for the RA (see Figure 5.3 below).

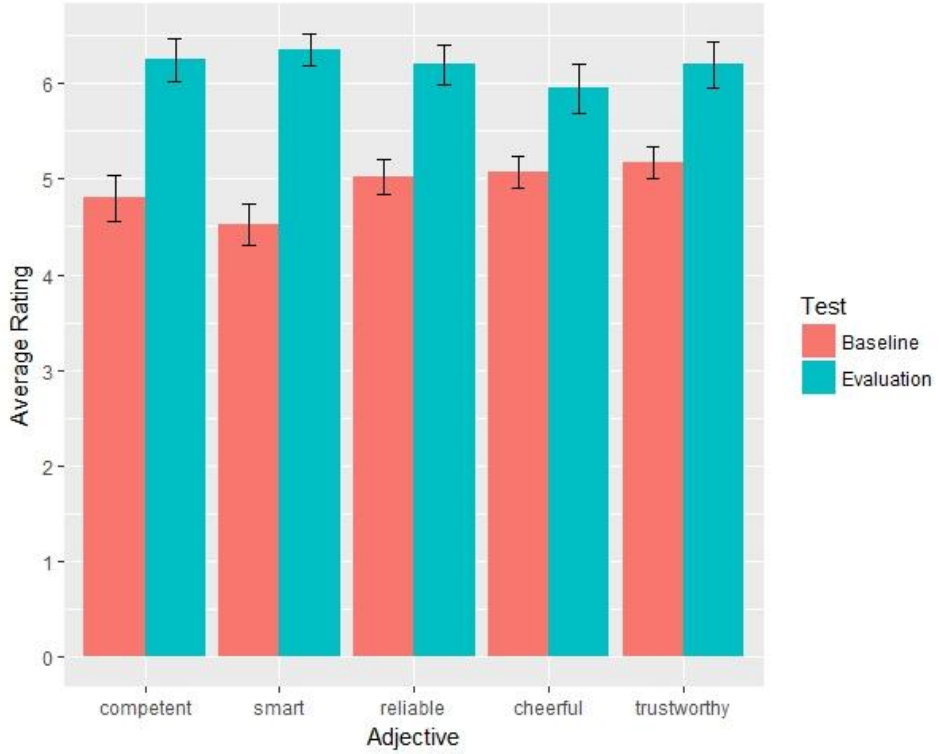

Figure 5.3: Average baseline and evaluation ratings for individual adjectives.

5.3.2 Condition effects

Having confirmed that the baseline reflects language attitudes as expected, we now turn to the main questions of the experiment: how does television influence language attitudes?

The hypothesis can be tested in multiple ways. I performed several analyses to be thorough. The first set of analyses were in the form of linear models evaluating differences in the evaluation rating and treating the baseline as a covariate. As in Chapter 4, the pre-post regression was most appropriate. Like the pretest IAT in Chapter 4, the baseline is treated as a trait of the participant coming into the test that should be accounted for in the regression. This regression answers the question of whether condition affects evaluation ratings accounting for the baseline rating. I also ran regressions using a change score to explore the potential of media to change participants' attitudes. This score was calculated for each participant by subtracting the baseline rating from the evaluation rating.

Several covariates could have been included in the regression, including baseline rating, condition, speaker information, and the participants' gender, race, Southern television exposure, and perceived realism. Linear regressions were run on the evaluation ratings for composite status and solidarity testing the interaction between baseline and condition first. The baseline-condition interaction was included to check randomization of the sample. If one condition had a sample that had higher ratings than the other, that would need to be accounted for in the models as an explanatory factor for any significant results obtained. The baseline-condition interaction was not significant (see Tables 5.1 and 5.2) and was, therefore, excluded from further analysis.

	Estimate	Std. Error	t value	p-value
Baseline	-0.1865	0.389	-0.490	0.63111
Condition (B)	-0.6960	2.4065	-0.289	0.77612
Baseline*Condition (B)	0.1677	0.4927	0.340	0.73804

Table 5.1: Linear regression results for the status rating testing the interaction between baseline and condition.

	Estimate	Std. Error	t value	p-value
Baseline	-0.0380	0.5048	-0.075	0.9409
Condition (B)	-1.1726	3.2689	-0.359	0.7245
Baseline*Condition (B)	0.1810	.06321	0.286	0.7782

Table 5.2: Linear regression results for the solidarity rating testing the interaction between baseline and condition.

Visualizations of race and Southern television by condition showed potential patterns of interest. They were, therefore, included in the model. Thus, the linear regression model included condition and speaker information and their interaction (as the primary independent variables of interest), the baseline rating (to account for existing attitudes), and race and Southern television exposure (due to effects seen across multiple models).[46] I first tested the composite status and solidarity ratings using this linear regression. Due to multiple comparisons, the usual 0.05

[46] The R code for this was lm(evaluation~baseline+condition*speakerinfo+white_not+southern_tv)

significance level must be divided by two to account for the split of the data into status and solidarity. Thus, p-values must be 0.025 or lower to reach significance. The full results are in Tables 5.3 and 5.4.

	Estimate	Std. Error	t value	p-value
Condition (B)	1.0992	0.4474	2.457	0.02768 .
Speaker Information (Yes)	0.7022	0.4262	1.648	0.12168
Race (White)	-0.8193	0.2927	-2.799	0.01421 *
Southern Television (Yes)	-1.1653	0.3207	-3.634	0.00271 **
Condition*Speaker Information	-1.3017	0.6267	-2.077	0.05670

Table 5.3: Linear regression results for the composite status rating.

Those in the counterstereotypical condition trended towards rating the RA higher in status, but the effect just misses statistical significance (t=2.457, p=0.028). This pattern will be examined further later in this section. Race and Southern television both reach significance. Those who self-identify as White rated the RA lower than those who did not; those with Southern television experience rated the RA lower than those without. Due to consistent race and Southern television exposure effects, those results will be discussed in Section 5.3.3 and 5.3.4 respectively.

	Estimate	Std. Error	t value	p-value
Condition (B)	0.08866	0.49641	0.179	0.8608
Speaker Information (Yes)	0.03025	0.47290	0.064	0.9499
Race (White)	-0.81092	0.32479	-2.497	0.0256 .
Southern Television (Yes)	-0.48109	0.35579	-1.352	0.1978
Condition*Speaker Information	-0.32269	0.69539	-0.464	0.6498

Table 5.4: Linear regression results for the composite solidarity rating.

None of the solidarity variables were statistically significant. The only variable that nears significance is race, which just misses significance (t=-2.497, p=0.0256).

In order to more deeply explore the status and potential solidarity effects, linear regressions were run in R for each of the five individual adjectives with the same covariates. Due to multiple comparisons, the usual 0.05 significance level must be divided by five to account for the five adjective comparisons. Thus, to reach significance, p-values must be 0.01 or lower. The significant results split into what I consider condition effects (stereotypicality condition and speaker information) and demographic effects (self-identified race and Southern television exposure). In this section, I will report the condition effects by adjective. Sections 5.3.3 and 5.3.4 will focus upon the demographic effects.

Condition had a significant effect on competence (see Table 5.3). Those who saw the counterstereotypical television clips rated the RA as more competent than those who saw the stereotypical clips (t=3.461, p=0.004). Smartness just missed significance (t=2.587, p=0.02). This finding supports H5, though not as robustly as might be expected based on the strength of the assumption that language attitudes are influenced by media. Ratings of adjectives in the stereotypical condition remain comparatively consistent across all five adjectives (see Figure 5.4). This stability indicates that the significant difference is due to fluctuations in ratings in the counterstereotypical condition. I'm not sure why this would occur except that perhaps hearing the counterstereotypical ASE-accented characters opens up the option for the ASE-accented RA to be rated according to their skills rather than their accent. This explanation does not account for the uniformity of the stereotypical condition ratings, though, which I would have expected to show the same patterns of status and solidarity as the baseline. Further analysis in the form of change score regressions may be more revealing.

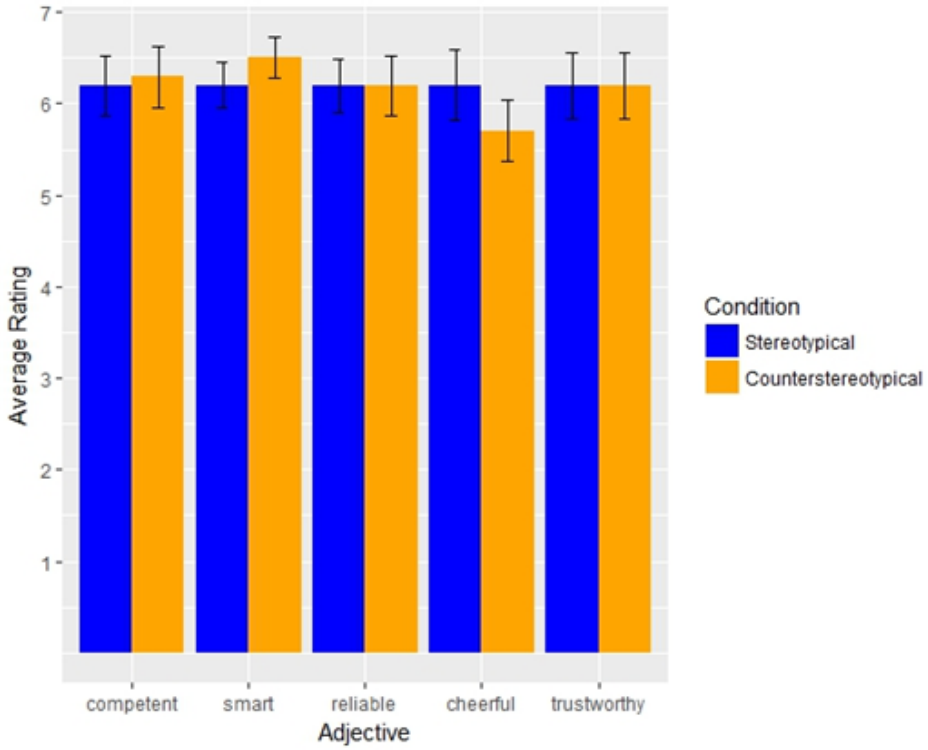

Figure 5.4: Average evaluation ratings for each adjective by condition.

	Estimate	Std. Error	t value	p-value
Cheerful	-0.21006	0.83447	-0.252	0.805
Competent	1.502727	0.434127	3.461	0.00421 **
Reliable	0.8651	0.6373	1.358	0.19770
Smart	1.0489	0.4055	2.587	0.02257 .
Trustworthy	0.7941	0.5194	1.529	0.15027

Table 5.5: Linear regression results for condition by adjective.

Speaker information[47] just missed significance in ratings of competence. Those who received speaker information trended towards rating the RA higher than those who did not (t=2.785, p=0.015). What is more interesting here is that there is a significant interaction with condition (see Figure 5.5 below). Listeners rated the RA as more competent when they heard

[47] Recall that the speaker information variable refers to whether the participant was given information about where the actors in the clips were from. The participant was always told the Southern-accented actor was from a Southern state and the non-Southern-accented actor from a Western state. In fact, all the actors were from the Midwest.

stereotypically unintelligent Southern characters and received information about where the actors in the television clips were from compared to those who heard the counterstereotypically intelligent Southern characters (t=-3.239, p=0.007). Those who received information about actor background and heard the stereotypical clips rated the RA 6.6 on competence. Those without speaker information in the counterstereotypical and stereotypical condition rated the RA 6.4 and 6.2 respectively on competence. Those who did not receive speaker information who heard the stereotypical clips rated the RA 5.8. No other adjectives showed significant interactions between Condition and Speaker Information.

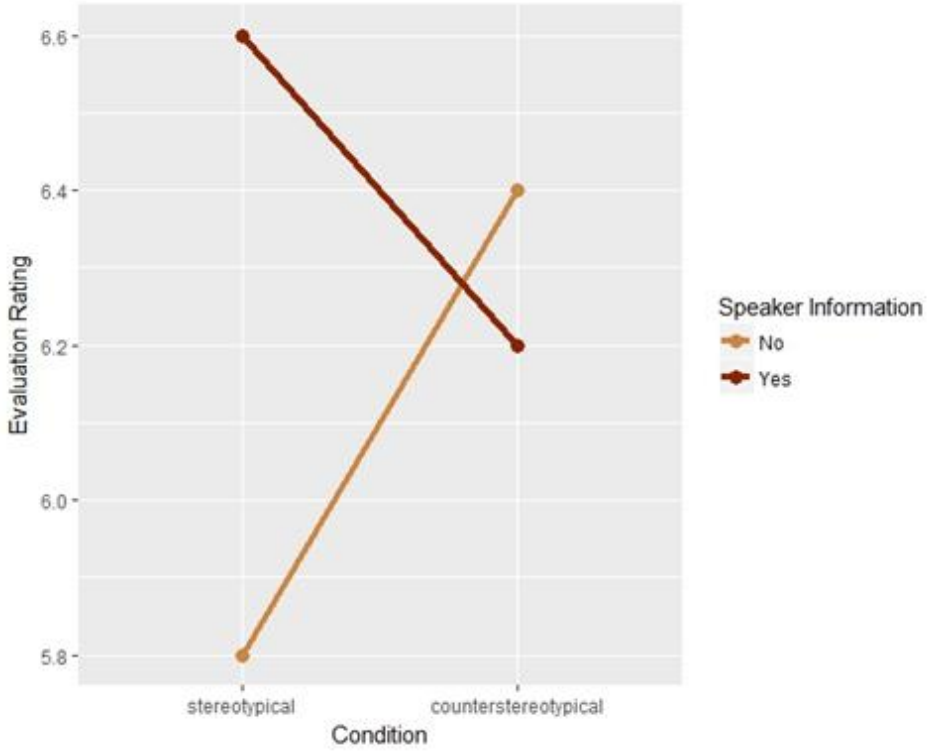

Figure 5.5: Interaction between condition and speaker information for competence ratings in the evaluation of the RA.

This large difference between those who did and did not receive speaker information in the stereotypical condition may reflect patterns found in research on automatic and controlled components of stereotypes and prejudice. Devine (1989) discusses a model which differentiates high- and low-prejudice individuals in terms of their reactions and their knowledge of cultural stereotypes. Devine asserts that low-prejudice individuals are able to control their reactions due to knowledge of cultural stereotypes and their own rejection of those stereotypes; they recognized the stereotype is being activated and, thus, controlled the manifestation of it in their attitudes. In the present study, the presentation of speaker information may in actuality be

priming participants' cultural knowledge of regionally-based stereotypes. When the participants in the stereotypical condition heard the unintelligent Southerner, they may have been more aware of the stereotype and have had more control over their reactions due to that awareness. Those in the counterstereotypical condition may have been primed in the same way, but they did not hear a reinforcement of the stereotype and, thus, did not work to counteract it.

Another potential explanation of the difference may be that listeners who heard counterstereotypical representations were less affected by speaker information. Stereotypical representations, though, leave room for influence. In the stereotypical condition, the unintelligence stereotype may be reinforced by knowledge that an actor is actually from the South. Listeners who heard this reinforced stereotype may be even more impressed by the ASE-accented RA holding a position that requires intelligence. The high competence rating may then be an overcompensation of sorts rewarding the ASE-accented RA for going against the stereotype.

The pre-post regression shows television media influence on viewers' attitudes about the competence of an accented RA when the baseline score is framed as a trait of the viewer. The question of individual change remains: does television media shift individual viewers' ratings of an accented speaker? Change score regressions were run using the same models as the pre-post regressions. The model included condition, speaker information, and their interaction, plus race and Southern television.

No results reached full significance in the change score regression. Competence and reliability came closest, but are still well out of significance range accounting for multiple comparisons (See Table 5.6).

	Estimate	Std. Error	t value	p-value
Cheerful	-0.06807	0.77590	-0.088	0.93134
Competent	1.5450	0.8418	1.835	0.08780 .
Reliable	1.3878	0.7290	1.904	0.07770 .
Smart	0.9202	0.9429	0.976	0.34568
Trustworthy	0.7786	0.5343	1.457	0.16710

Table 5.6: Change score regression results for condition by adjective.

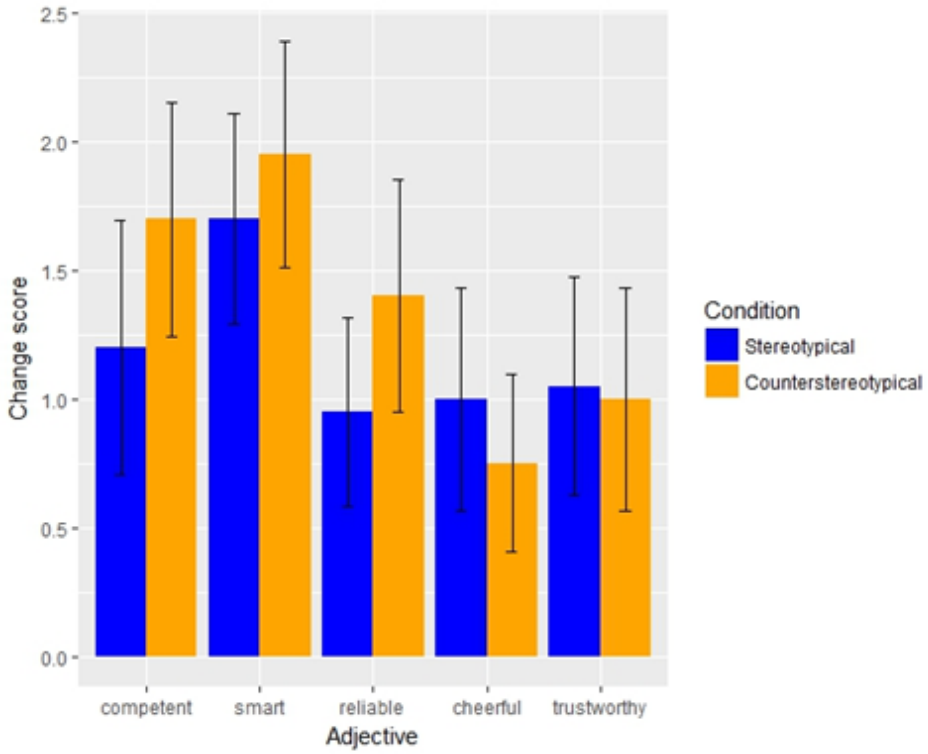

Figure 5.6: Change score by adjective and condition.

Despite this lack of significance, Figure 5.6 reveals an interesting pattern. Solidarity traits (cheerfulness and trustworthiness) show more change in the stereotypical condition while status traits (competence, smartness, and reliability) show more change in the counterstereotypical condition. In Figure 5.6, the blue bars representing the change scores in the stereotypical condition are higher than the orange counterstereotypical condition bars for *cheerful* and *trustworthy*. The orange counterstereotypical bars exceed the blue stereotypical bars for the status traits *competent, smart,* and *reliable*. This pattern may serve as a very preliminary indication that stereotypically unintelligent representations of ASE-accented speakers activate solidarity stereotypes whereas the counterstereotypically intelligent representations activate status stereotypes. As these results were not statistically significant, I hesitate to draw any further conclusions than noting the pattern at this juncture. It may, however, be worth further investigation in future studies.

5.3.3 Demographic variable: Self-identified race

The first of the two demographic variables that showed consistent significance across models was race. Self-identified race was split into those who self-identified as White and those who did not. The division into White versus Not White is not an elegant way to deal with race.

For the purposes of this analysis, it was a prudent place to start for several reasons. The use of self-identification led to multiple groups with only one or two participants. This was not unexpected, but with the statistical model used, the degrees of freedom were too low for this particular experiment to include all of the categories. There was an almost even split between those who did and those who did not identify as White. A preliminary exploration of the data revealed that the binary split captured a key division within my participants that is deserving of further study on its own. Since race was not the primary focus of the experiment, it made sense to evaluate the patterns in the data. I do acknowledge, however, that framing race in this way loses much of the nuance of the construct. Future study focusing on self-identified race of participants in language attitudes should utilize a statistical model that will accommodate a multitude of racial identifications.

For all adjectives, those who did not identify as White rated the RA higher compared to those who identified as White regardless of condition (see Figure 5.7). This difference was significant for competence ($t=-3.313$, $p=0.006$) and trustworthiness ($t=-4.048$, $p=0.001$). The significant adjectives also capture both status (competence) and solidarity (trustworthiness) traits. Thus, it seems those who do not identify as White are more positive towards the ASE-accented RA than those who do regardless of what is being rated or media condition.

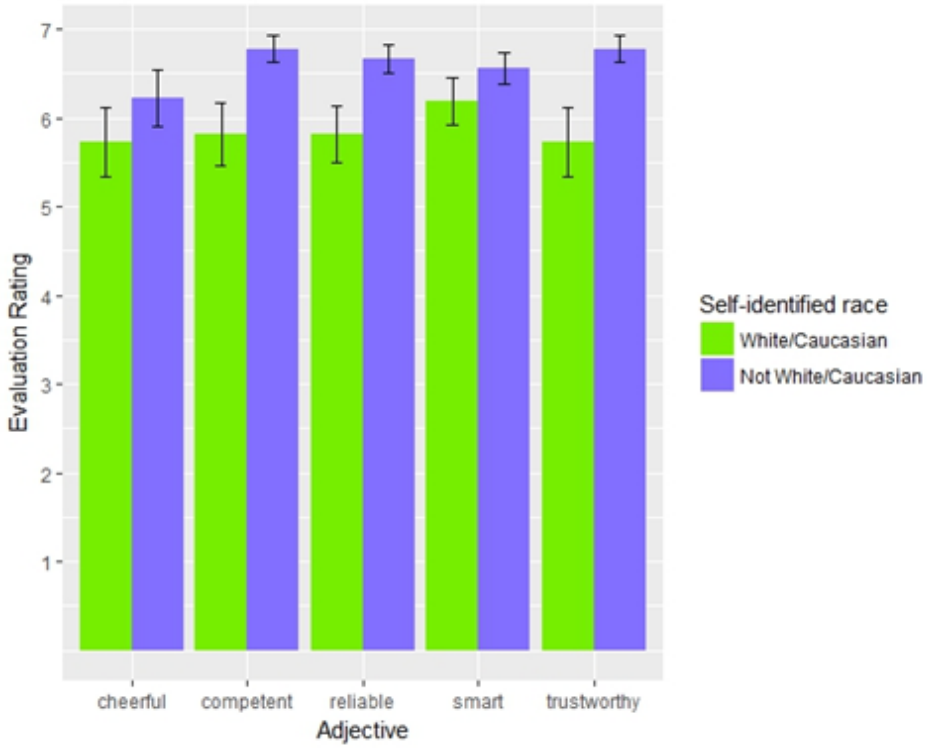

Figure 5.7: Average evaluation ratings by adjective for those who did and did not self-identify as White.

	Estimate	Std. Error	t value	p-value
Cheerful	-1.14310	0.65324	-1.750	0.104
Competent	-1.046268	0.315807	-3.313	0.00561**
Reliable	-1.0276	0.4561	-2.253	0.04218
Smart	-0.4056	0.2787	-1.456	0.16924
Trustworthy	-1.6123	0.3983	-4.048	0.00138 **

Table 5.7: Linear regression results for self-identified race with those who did not identify as White as the comparison group.

The change score regression further clarifies the race effect. For all adjectives except *smart*, those who did not identify as White had significantly more change than those who did (see Table 5.8 below). The non-White participants (the right of the two graphs in Figure 5.8) had both lower baseline and higher evaluation ratings than the White participants (the left of the two graphs in Figure 5.8).

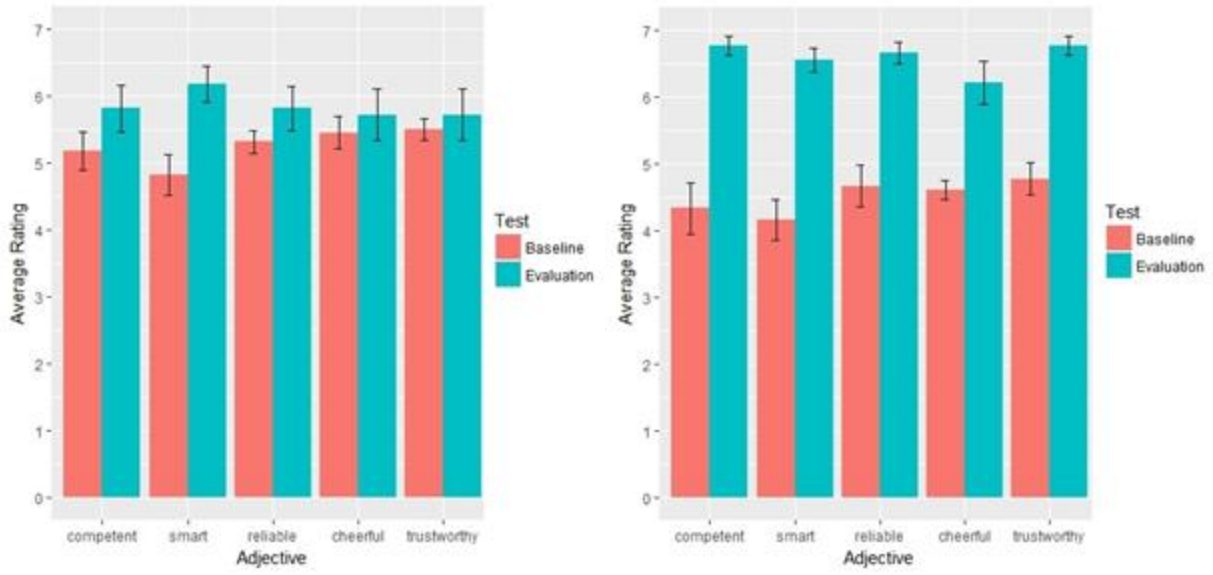

Figure 5.8: Average ratings by adjective and test for those who did (left) and did not (right) self-identify as White.

	Estimate	Std. Error	t value	p-value
Cheerful	-1.36555	0.50765	-2.690	0.01760 .
Competent	-1.9160	0.5508	-3.479	0.00369 **
Reliable	-1.6303	0.4769	-3.418	0.00416 **
Smart	-1.0861	0.6169	-1.761	0.10013
Trustworthy	-1.8929	0.3496	-5.415	9.11e-05 ***

Table 5.8: Change score regression results for change scores for self-identified race with those who did not identify as White as the comparison group.

Taken together, these regressions show a robust effect of self-identified race on language attitude shift. Reasons for this finding will be discussed further in Section 5.4.

5.3.4. Demographic variable: Southern television

The second significant demographic variable was Southern television. Southern television indicates whether a person lists a favorite television show with a main or recurring Southern character. Listeners who did not have exposure to Southern television gave significantly higher evaluation ratings for competence (t=-4.497, p=0.001), smartness (t=-3.790, p=0.002), and trustworthiness (t=-3.823, p=0.002) compared to those who did have Southern television exposure (see Figure 5.9 and Table 5.9). As with race, models testing interactions between Southern television and condition showed no significant results and the significant

adjectives also spanned both status and solidarity traits. Thus, exposure to Southern television seems to lead to lower evaluations of the ASE-accented RA regardless of what is being rated or media condition.

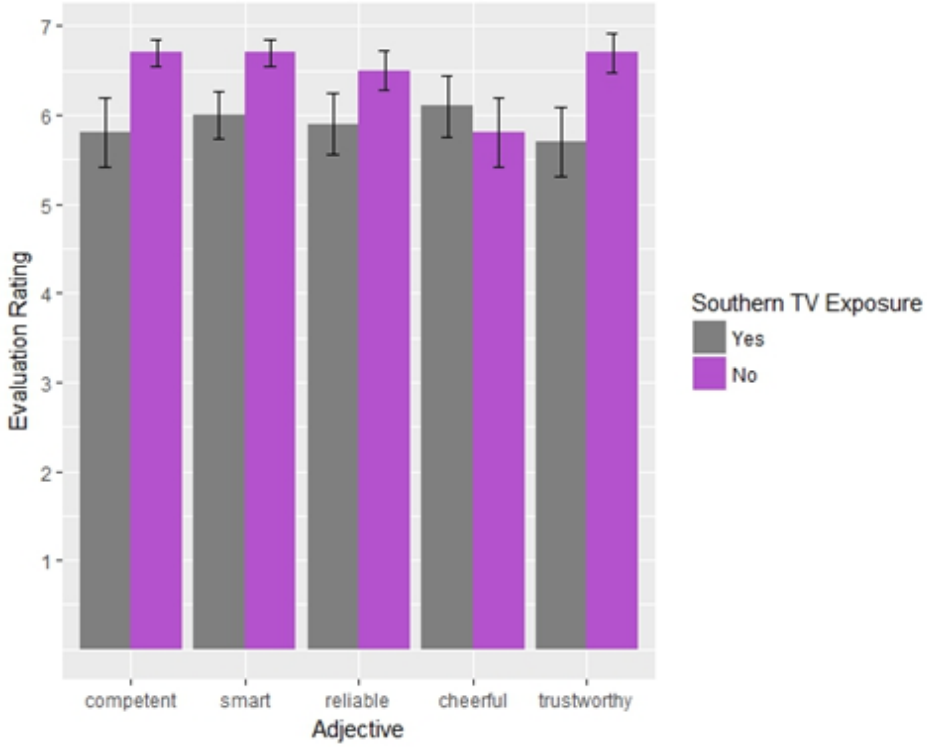

Figure 5.9: Average ratings by adjective and test for those who did and did not have favorite television shows with Southern characters.

	Estimate	Std. Error	t value	p-value
Cheerful	0.18517	0.58421	0.317	0.756
Competent	-1.500492	0.333639	-4.497	0.00060***
Reliable	-0.9205	0.4367	-2.108	0.05504
Smart	-1.1380	0.3002	-3.790	0.00225 **
Trustworthy	-1.4267	0.3732	-3.823	0.00211 **

Table 5.9: Linear regression results for Southern television with those who did not watch Southern television as the comparison group.

In this case, the change score regression does not add much clarity. Only trustworthiness showed a significant shift (see Figure 5.10 and Table 5.10 below). Listeners without exposure to Southern television changed from baseline to evaluation significantly more than those with exposure (t=-3.824, p=0.002). The change is primarily due to the higher evaluation score. As

seen in Figure 5.12, the ratings for trustworthiness are comparable in the baseline for those with (on the left) and without (on the right) exposure to Southern television. The rating in the Southern television exposure group ticks up approximately half a point in the evaluation while it jumps almost a full point in the group without Southern exposure. Thus, it seems Southern television exposure leads to lower evaluations regardless of adjective and condition and less shifting of trustworthiness scores towards an actual ASE-accented speaker. Potential reasons for this pattern are discussed in Section 5.4.

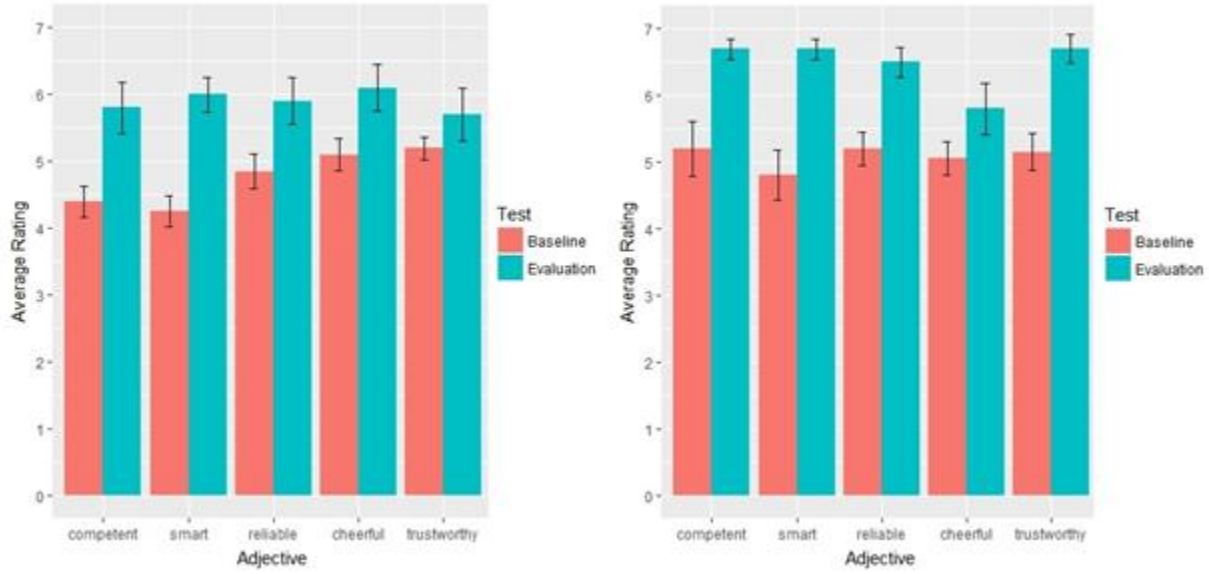

Figure 5.10: Average ratings by adjective and test for those who did (left) and did not (right) have favorite television shows with Southern characters.

	Estimate	Std. Error	t value	p-value
Cheerful	0.11345	0.55611	0.204	0.84129
Competent	-0.7416	0.6034	-1.229	0.23929
Reliable	-0.8130	0.5225	-1.556	0.14199
Smart	-0.5336	0.6758	-0.790	0.44293
Trustworthy	-1.4643	0.3829	-3.824	0.00186 **

Table 5.10: Change score regression results for Southern television with those who did not watch Southern television as the comparison group.

5.4 Discussion

In this experiment, participants rated an ASE-accented speaker they interacted with after hearing unintelligent (stereotypical) or intelligent (counterstereotypical) ASE-accented speakers in television clips. The experiment tested whether television media can prime or shift language attitudes and, more broadly, whether television primes and/or creates alternate propositions for a listener to accept about a speaker. It also evaluated the potential effect of information about a speaker and perceived realism on language attitudes.

Results show multiple patterns. H5 is supported. Counterstereotypical representations of ASE-accented speakers trigger higher evaluations for the ASE-accented RA in competence. H6 receives partial support. If a listener hears stereotypically unintelligent ASE-accented characters and is given no information about the regional origin of the actor playing the character, they rate the RA as less competent on average. In the same stereotypically unintelligent condition, those who do receive speaker origin information rate the RA high on competence. The two demographic effects in self-identified race and Southern television exposure represent robust findings that indicate not only influence in this specific study, but also the potential to play a role across language attitudes research.

5.4.1 Condition effects

Media exposure affected ratings of competence in hypothesized directions. Interestingly, there were not significant differences in the change between baseline and evaluation, indicating that while condition did influence evaluation ratings, they did not influence them enough to trigger significant change within participants.

While these results support the claim that media influences language attitudes, they do not necessarily reflect the strong effects that might be expected from such a widely held assumption, particularly in the change score regression. The visualization of the change scores (see Figure 5.6) may provide a hint to the reason there were not strong condition effects in the change score regression. While participants in the counterstereotypical condition showed more change in all three of the status adjectives, those in the stereotypical condition showed greater change in the two solidarity adjectives. In other words, if someone heard intelligent Southerners, their ratings of status shifted more; if they heard unintelligent Southerners, their ratings of solidarity shifted more. This pattern may indicate that stereotypically portrayed ASE accents

trigger solidarity associations more so than status associations. The IAT results indicated an association with lack of intelligence, but that does not mean there is not also an association with solidarity adjectives (an association that may be even stronger than the status/intelligence association). Perhaps focusing on those adjectives would provide stronger associations than those found with intelligence.

It may also be that the new methodology could be improved to better capture attitude shifts in individuals. There are two key places this improvement can happen: the explicit measure and the priming television clips. First, the early participants in the experiment showed ceiling effects in their evaluation ratings of the RA. The RA was given the highest rating on the 7-point semantic differential scale for every adjective. Because of this effect, the first several participants were dropped from analysis and an instruction was added emphasizing the importance of honest ratings where the highest rating indicated excellence and a more middle rating (e.g. 5) indicated a good score. Once this instruction was added, participants started giving more varied (though still high) scores. Even with the shift down into the 5 to 6 range, smaller shifts in attitude may not be fully captured when a scale is seven points. Studies in psychology show that a 1 to 7 scale is favored in terms of participant usability and comparability to other studies and, as seen in the baseline analysis, fully captures language attitudes differences between accent groups. Still, a more sensitive measure less prone to ceiling effects may be necessary moving forward as the semantic differential scale may not have fully captured the explicit attitude change within individuals. It may be prudent to explore other explicit attitudes measures in the future. It is also notable that, in most cases, evaluation average ratings were above the middle score of 4. When the ASE-accented RA is being rated lower on competence, for example, that usually means he was rated in the 5-6 range rather than the 6-7 range. Thus, the RA is not being judged as incompetent, just less competent.

Another option to counter ceiling effects would be to incorporate a mistake on the part of the RA. This strategy is utilized within psychology research. For instance, Coyne, Archer, and Eslea (2004) measured the effects of direct and indirect aggression in media using participant ratings towards a research confederate. The research confederate was told to act arrogant and demeaning towards the group of participants (all middle school students) as he took up a short but difficult puzzle test that was supposedly part of the experiment. He made comments about other groups doing better on the test, saying the data from the present group is useless. After the

confederate leaves the room, groups of participants watch either a media clip with direct aggression, indirect aggression, or a control non-aggressive clip. Participants were later told the confederate was up for a raise and asked several questions about how much money the confederate should get and if the confederate should be rehired the next year. Students in both aggression conditions gave the confederate lower evaluative ratings overall than those in the no-aggression condition. Those in the no-aggression condition also recommended more money for a raise (£25.85 out of a possible 100) compared to those in the direct and indirect aggression conditions, who recommended £14.71 and £7.33 respectively. This study shows not only the influence of aggressive media, but also lower ratings overall of an individual who exhibits a negative trait. On a 5-point Likert scale, the mean ratings for the confederate were 2.51, 1.78, and 1.75 for the no-aggression, direct aggression, and indirect aggression groups. These ratings are well below the rating ceiling of 5. The inclusion of a negative attribute that affects the participants, then, led to low ratings. The effect of the negative interaction was so strong that it influenced ratings that were thought to have a direct effect on how much money the confederate would get and how likely he was to be rehired. Thus, incorporation of a mistake or negative attribute should counter ceiling effects that appeared in the present experiment. A mistake made by an ASE-accented RA when a participant is primed with the unintelligence stereotype may be punished more harshly in ratings than by those primed with the intelligence counterstereotype, particularly if the mistake costs the participant time.

I would also like to highlight here the lower overall ratings in the baseline compared to the evaluation. In Chapter 4, I proposed one of the reasons for the difference in pre and post IAT score differences may be that the posttest score has an association with accented speakers rather than an abstract accent. Participants had been exposed to characters reflecting that ASE accents reach beyond abstract voices and belong to people with varying backgrounds/situations. I also highlighted this as a potential reason behind the lack of significant results in previous studies of media influence on attitudes. The result in this chapter provides stronger support for this proposal. Participants had to be instructed to give stricter ratings when they were rating an actual accented speaker compared to the abstract voices they heard in the baseline. Though they were told the speakers in the baseline were actors they would be hearing later in the experiment, the content of the baseline passage did not reflect nuances of different characters and situations. These implications will be discussed more in Chapter 6.

As was potentially the case in the implicit study, the television clips may not have provided a strong enough short-term prime. More explicit references to intelligence may be necessary, though finding those clips in television scripts may prove difficult (or perhaps not with the prevalence of the stereotype). Perhaps sustained consumption of these linguistic stereotypes would lead to a different outcome. The patterns in the Southern television variable may support this explanation and additionally support a third explanation: that other variables (e.g. speaker information, perceived realism, demographic variables) mediate uptake of language attitudes.

5.4.2 Speaker information

The analysis found that speaker information interacted with condition in evaluations of the RA's competence, but otherwise had no effect on attitudes. In the results section, I proposed that this pattern may occur as a reaction against and rejection of regional stereotypes or as sort of reward or overcompensation for the ASE-accented RA not falling into the unintelligent Southerner stereotype. Those that rated the RA highest heard stereotypical media clips that were reinforced by speaker information confirming the actors were from the South. This reinforcement either primes or strengthens the stereotype. Without speaker information, the stereotypical clips triggered lower ratings of competence (though still by no means judgments of incompetence, falling at 5.8 out of 7). For those in the counterstereotypical condition, speaker information was not as important because they were already primed with ASE-accented characters in intelligent positions.

Further exploration of this effect is needed. If either explanation is true, it means speaker information may influence reactions to accented individuals if stereotypical media representations of that accent are consumed. There are limits to the result, though. None of the other adjectives showed this pattern and sample size must be considered. Each of the four groups had only five participants. Wide-reaching conclusions cannot be drawn from such a small sample. The pattern does, however, indicate a potential direction to look to in the future as sociolinguists further explore the role of speaker information.

The speaker information hypothesis relied primarily upon the assumption that perceived realism would shift with exposure to speaker information. If a participant knew a speaker's region of origin, participants would report higher perceived realism and, thus, strengthen the associations between accent and traits (or create new associations in the case of the

counterstereotypical condition). Listeners' perceived realism scores, however, were unaffected by speaker information.

Perceived realism deserves further attention. The measure in this dissertation relies upon an overall sense of perceived realism of television. Though the measure was given after fictional television clips which could have primed answers dealing with that genre, there is no guarantee that is the case. The measure could be applied to televised news, reality television shows, scripted fictional television, etc. Future iterations of this kind of study should focus on more specific perceived realism. These measures would more accurately evaluate perceived realism of what the viewer just saw. While two questions were included in this experiment, a much more in-depth measure should be used to fill out the analysis more and more fully capture specific perceived realism. Perhaps a person generally does not perceive television as real except for a particular genre or television show (particularly in the era of fake news). Engagement with a television show would also influence this; more engagement with a show may lead to higher perceived realism. Engagement may have effects of its own and deserves attention as well. Unfortunately, the scope of this dissertation could not include engagement as a variable outside of the favorite television show question in the demographic questionnaire. As this variable was one of the demographic variables with the strongest effects, engagement may prove a fruitful path in future investigations of language attitudes in media.

5.4.3. Demographic variables

Extensive demographic information was collected about the participants. Most did not show evidence of influencing results. Regional identity and non-mediated exposure to Southern accents could not be meaningfully analyzed since participants almost uniformly identified as Midwestern without exposure to the South.

Two demographic variables, self-identified race and watching Southern television, did show the influence of factors the listener brings to interactions. These patterns appeared regardless of condition. Racial self-identity had a significant effect on several adjective ratings. Not only did those who do not self-identify as White have lower baseline scores for the Southern speakers, they had higher evaluation scores. This pattern led to significant differences in change scores compared to their White self-identifying peers.

I propose that additional stereotypes might have been at play. Another strong stereotype associated with ASE accents is that of the racist Southerner. Despite not being actively primed,

these associations may have been triggered, activating additional propositions that the accent is racist. In the baseline, the accent remained abstract without a person attached to it, so those who do not identify as White may not have been inclined to rate the accent high on any of the adjectives. After having a positive interaction with an ASE-accented speaker in the form of the RA, though, they may have overcorrected to an extreme, rewarding the RA for not fitting the racist stereotype. I've already discussed the theory that listeners are more forgiving when they are rating a speaker rather than an abstract accent. This effect may be exaggerated in this case because of the potential association with racism in those who are most at risk of being affected by racism.

The other significant demographic effect (dealing with Southern television) points to potential cultivation effects. Recall that cultivation theory posits that viewers' world views shift to reflect what they see in the media they consume. In my study, those who identify shows with Southern characters as their favorite show rate the RA lower on several traits and show less change from baseline to evaluation in trustworthiness of the RA. Thus, those who do not have favorite Southern television shows change more in their ratings of trustworthiness.

At first glance, this finding is unexpected. With the unintelligence stereotype often appearing in television media, why would trustworthiness and not any of the status adjectives be in flux here? A closer look at the shows listed by the participants revealed that most were consuming television that did not solely reflect the unintelligence stereotype. In fact, many of the shows featured Southern characters who are outright smart (e.g. Ainsley in *The West Wing*) or featured a multitude of Southern characters with more nuanced characteristics (e.g. *The Walking Dead*). None of the shows had characters playing the unintelligent stereotype regularly. Several of them, however, feature Southern characters who are untrustworthy (e.g Frank in *House of Cards*). It may be that consuming this television in which Southerners are smart but potentially untrustworthy cultivates the idea that Southerners cannot be trusted. Thus, those who consume that television in my study would be slower to rate the Southern RA as trustworthy after such a short interaction. This wariness towards the Southern RA could be due to long-term engagement with and consumption of television that propagates the idea that ASE speakers are untrustworthy alongside existing stereotypes of the unintelligent Southerner leading to the lower ratings of competence and smartness.

These demographic results indicate the importance of features and identities a participant brings into an experiment. Further data collection and analysis focusing on these effects is necessary before a more definitive conclusion is reached. In the case of Southern television, those who consumed Southern television tended to have lower posttest ratings than those who did not. Even without significance, this pattern brings into question why trustworthiness would be singled out when many of the Southern characters are also smart. It could be that trustworthiness (or lack thereof) is the most prominent feature attached to the character and, thus, shifts in the intelligence ratings go unchanged. Perhaps the intelligence stereotypes are stronger and, thus, harder to change even with shifts in other variables. Future experiments should take a deeper look at the influence of these variables.

5.5 Summary

This experiment tests the theory that television influences viewers' attitudes towards accented speakers. Using a methodology modified from social psychology and communications, I tested attitudes towards an actual ASE-accented speaker following a baseline attitudes test and exposure to either stereotypically unintelligent or counterstereotypically intelligent ASE-accented characters in television shows. Results showed support of theories proposing media influence on language attitudes, at least in the form of television media. Preliminary evidence also supports the idea that speaker information could play a role in language attitudes, though a larger sample size is needed to make more definitive statements about that role. The most robust results highlighted the influence of variables individuals bring to the interaction, though. Self-identified race may produce a different perspective on accent variation leading to robust differences in attitudes. Cultivation effects may influence specific traits, particularly trustworthiness in this case.

This experiment also highlighted several ways in which the methodology could be changed to better capture the ideas and constructs at play. Future experiments should explore different explicit measures and a wider focus including not just intelligence stereotypes, but also ones involving solidarity. These methodological challenges make the trending effects found in change score all the more promising for future research. Now that a foundation has been set, it can be built upon to better capture the constructs involved in language attitudes and their shifting. Thus, these results indicate support for H5, and parts of H6, though on a more complex

level (speaker info was an interaction, demographic info wasn't dependent on condition). The trends are promising for future research, particularly if the proposed improvements to the methodology (to be discussed in Chapter 6) are implemented.

CHAPTER 6

Discussion and Conclusions

This dissertation proposed six research questions to explore the influence of representations of accented speakers in scripted fictional television on language attitudes of the viewer. The two main questions (RQ3 and RQ5) asked whether implicit and explicit attitudes towards ASE accents and speakers are affected by short-term television exposure in the form of audio from three adapted television clips. Two additional questions (RQ4 and RQ6) explored variables that may affect influence of fictional television on attitudes. The remaining two questions established integral information for answering and interpreting the main and secondary research questions: Does the implicit measure effectively capture what it is meant to (RQ2) and can listeners differentiate between native and imitated regional accents (RQ1)? Answering these six questions explores the complex ways television media, attitudes (both implicit and explicit), and social cognition work together, as well as the cognitive mechanisms behind attitudes, which can help build theories and models of language attitude uptake, maintenance, and change. The questions raise real-world implications for treatment of accented speakers. Several of the questions also have empirical and theoretical implications on their own beyond the other questions.

This final chapter synthesizes the results of each of the experiments and reports on their implications together and separately. First, I discuss empirical contributions. Then, I discuss theoretical implications for language attitudes, interactions between language attitudes and communications theories (specifically cultivation theory and perceived realism), the attitudinal model of media-influenced language change Kristiansen builds from, and the APE model. After that, I discuss the practical/applied contributions of the experimental results. Finally, I discuss methodological improvements and future directions for a research program using these experiments as a foundation. I close with a brief overview of the dissertation's conclusions.

6.1 Empirical contribution

6.1.1 Influence of scripted television on accents

Television media influence on attitudes was the true focus on the dissertation. Linguists tend to assume that media influences language attitudes, though most of the research on media in linguistics deals with language change. This dissertation shows that media in the form of scripted television can influence language attitudes, though the degree of that influence varies by attitude type (explicit or implicit) and the influence is not as robust as expected based on the strength of the assumption of influence. Influence comes primarily in explicit attitudes, which shifted the way listeners rated an actual speaker of an accent. Priming intelligence stereotypes about ASE speakers led to lower ratings of an actual ASE-accented speaker in one intelligence-related trait, at least in the short term.

Media's influence on language attitudes does not occur in isolation; listeners bring their own experiences and identities to the interaction with media. Self-identified race, for instance, had a robust effect in the explicit attitudes study, which I proposed was due to a combination of associations between ASE accents and racism in the baseline and overcompensation for a positive interaction with an ASE-accented speaker in the evaluation. Listeners are also not passive in the viewing process, but instead actively engage with material. Perceived realism can play a role here. The perceived realism measure in this study quantified the degree to which viewers believe television depicts the real world. A viewer with high perceived realism will be more affected by what they see on television because they perceive it to be more reflective of the real world compared to someone with low perceived realism (Hall 2009). I applied these concepts of perceived realism and engagement through the Southern television variable, a general perceived realism measure, and the speaker information variable. The speaker information variable began to touch on what I consider perceived accent/dialect realism, or how authentic a listener perceives an accent to be.

Neither perceived realism nor speaker information were consistently significant. Speaker information did have an interaction with competence in explicit attitudes. This finding may indicate that speaker information influences propositional processes, but not associative ones. The presentation of speaker information may well prime regional origin in the minds of the listener. Those propositions relating to regional origin are more likely to be activated and selected by the listener. In this case, the same associations may exist — between ASE accents

and unintelligence, for instance — but a different set of propositions would be primed based on the given information. Because there were so few participants in each of the groups for speaker information, further study is needed to test what may be happening here.

Several demographic variables affected results regardless of condition. Exposure to Southern television affected results in both the implicit and explicit experiments. The Southern television variable captures a degree of listener engagement. If a listener lists a TV show with a Southern character as their favorite, they (1) have likely watched the show attentively, (2) likely relate to the show in some way, and (3) think of that show easily, indicating it is salient and primed cognitively. The effects of Southern television patterned similarly in implicit and explicit attitudes. Implicit attitudes were more stereotypical (ASE accents were associated with unintelligence) in the posttest IAT regardless of condition for those with Southern television exposure. The ASE-accented RA was rated lower in competence and trustworthiness by those with Southern television exposure. Thus, engagement with Southern television has a robust effect on attitudes of status across both attitude types.

The anomaly within the data was the lower trustworthiness rating towards the RA for those with Southern television exposure. I hypothesized in Chapter 5 that this finding is a reflection of the specific shows listeners are engaging with. Many of the listed shows have more nuanced representations of Southern speakers. Some even feature outright intelligent Southern speakers. Many of these intelligent Southern speakers use their intelligence for less than trustworthy purposes though. The most prominent example is the duplicitous Frank Underwood in *House of Cards*. My working theory is that listeners who engage with Southern television still present the pervasive Southern-unintelligent links that continue to persist in media. Those representations are still activated when a character is intelligent. As discussed in Chapter 1, according to APE theory, the negation of a proposition activates the association intended to be negated, which ends up strengthening the association (Wegner 1994). Even when Southern characters are intelligent, there is often some kind of comment made about it in the show highlighting that the character is not dumb.[48] The fact that several of these Southern characters are also untrustworthy, though, creates a new association that is also being primed or activated

[48] This assertion is made from my own experience watching television shows with Southern characters for research, not based upon extensive analysis. An analysis of how intelligent Southern characters are framed discursively would add to this analysis in the future.

when ASE accents are heard. Thus, listeners with Southern television exposure may be reflecting both the pervasive old unintelligent stereotype and the newer untrustworthy association.

This Southern television variable had a robust effect on the results regardless of condition. The demographic effects exemplify the complexity of the attitudinal process. Individuals bring a multitude of traits into a televison interaction and an attitudinal evaluation. In order to accurately model attitudes results and, thus, cognitive representations of accents, language attitudes researchers should consider demographic variables, especially engagement with television and other medai featuring the accent groups being studied. It may be prudent for language attitudes researchers to include a question gauging engagement with media in their participants so they can account for media representations of the social groups they are evaluating attitudes towards.

Implicit attitudes were not influenced by media despite the presentation of the alternative association in the counterstereotypical condition. This is not to say that listeners implicit attitudes could not be shifted by media, though. Foroni and Mayr (2005) proposed that their successful shift of implicit attitudes could have been due to providing a cause for such a shift to occur. Perhaps the same is true of accented speakers; listeners need a reason for their implicit attitudes to shift. This explanation would fit within the broader scheme of implicit and explicit attitudes. Implicit attitudes take longer to shift (see Rydell & McConnell 2006). That longer period to induce malleability could be because listeners' cognitive representations are shifting slowly as they are presented with a cause to shift within a narrative. Causes for shifts are not always immediately evident. Over time, though, the cause may build support until eventually enough evidence is supplied to shift implicit attitudes.

Recall the APE model that posited that implicit attitudes are activated in the form of associative processes, leading to activation of propositions that the listener either accepts or rejects as explicit attitudes. While this dissertation cannot speak to implicit and explicit attitudes within the same individual, it can posit patterns to look for in future studies that do. Listeners do have associations between ASE accents and lack of intelligence. Television representations either supported those associations and gave the listener no alternate propositions or presented a counternarrative that gave the listener different propositions (that an ASE-accented speaker could be intelligent). When stereotypical associations were triggered by the clips, propositions

dealing with the unintelligence of ASE speakers were not rejected leading to lower ratings of the ASE-accented speaker.

What this means for sociolinguists is that scripted fictional television appears to affect explicit language attitudes, at least in the short term. Long-term effects are unclear, though with the effects of Southern television, cultivation theory may come into play. Of the most immediate import for sociolinguists are (1) the implications for indirect effects of media on language change, which will be discussed in Section 6.2 and (2) the practical implications of media's influence on attitudes, which will be discussed in Section 6.3.

6.1.2 Manifestation of implicit and explicit attitudes

The experiments had several implications not related to television media influence. Looking generally at implicit and explicit attitudes, listeners reflect patterns found in previous research. ASE-accented features and speakers are associated with lack of intelligence in the pretest IAT and baseline explicit measures. For the explicit measure, this finding was a manipulation check; it appears that nothing has shifted in the public consciousness enough to change perceptions that Southerners are low in status and high in solidarity. While these general patterns held as expected, it seems that listeners have stronger explicit attitudes about solidarity than status when they first encounter an ASE accent. Solidarity adjectives had stronger significance effects in the baseline attitudes of the explicit experiment (see Section 5.3.1). That these patterns appear in the baseline means they are not being influenced by media primes or priming that place is important (as might occur with the presentation of speaker information). When listeners hear Southern accents, the attitudes triggered may be about solidarity with status as a secondary association. Optimistically, it is also possible that negative status associations with ASE accents are weakening. I am unaware of studies that have found stronger associations with status or with solidarity in the past or if researchers only look at these categories in juxtaposition to one another (i.e. one is high, the other is low). This makes it difficult to say whether there is actual change in explicit attitudes of status and solidarity towards ASE accents or if solidarity traits have always been the stronger association. The status associations certainly still exist strongly enough to see shifts demonstrated in this dissertation. Perhaps, though, even stronger effects would exist if solidarity associations were tested.

The implicit attitudes pretest served not only as a pretest but also as an overall evaluation of the IAT's ability to capture associations between a multi-feature ASE accent and specific

stereotypes associated with that accent. Earlier work has shown that the IAT is sensitive enough to capture associations between single features and evaluative traits, single features and stereotypical traits, and, in one case, multi-feature L2 accent and evaluative traits. An L1 accent is more similar to what would be considered standard and, as noted in Chapter 3, listeners struggle to categorize L1 accents by region. Stereotype-specific traits may not be linked closely enough to accent features to be captured with the IAT. Neither of these sensitivity concerns ended up coming to fruition. Listeners' implicit attitudes about regional accents were picked up by the IAT. The associations were weaker, though. I attribute these weaker associations not necessarily to weaker stereotypes (the weaker associations are indicated by lower D-scores, which indicate the degree to which stereotypical associations are held), but to split attention. Listeners have to split their focus from one accent feature and listen for multiple features.

IATs for accents and accent features differ from other IATs due to the difficulty of capturing attitudes towards a holistic accent. A picture can indicate gender or race but not an accent, at least not from a holistic perspective. Tests of single features are excellent for evaluating associations between those features and traits, but if linguists wants to look at implicit attitudes towards Southern accents as a whole, the task is more difficult. Accents are made up of combinations of features. Previous sociolinguistic IAT studies also test the most salient ASE features that will have the strongest indexical connections to region and stereotypes. This is not to criticize those studies. They are vital to sociolinguistic investigation of implicit language attitudes. I only mean to say that we should also be looking at ways to implicitly measure attitudes towards holistic accents including less salient linguistic features.

Listeners do not necessarily have weaker associations with holistic accents. Instead, I believe that singular features of previous studies have stronger indexical connections to the traits they're being associated with by nature of being a single feature. Associations with the multi-feature accent are more spread out. It would make sense that those salient, single features would have strong indexical connections to specific traits (region especially but also education in the case of ING fronting), especially for non-Southerners whose cognitive representations of Southern speakers may be built not on experience with speakers but on stereotypical representations of speakers in media. The multi-feature IAT highlights that combinations of features make up accents, not single features alone, so these bundles of features can be connected to multiple associations and not necessarily strongly to region, especially for people not from

that region. For example, listeners know (ING) fronting is a Southern feature if that is what they're listening for specifically, but couched in another phrase with other features, it has the potential to index other identities as well.

The attitudinal difference in explicit attitudes towards accented speakers notably does not cross the intelligent/unintelligent line. That is to say, the rating stays above the neutral middle rating so that even when the accented speaker is judged as less competent, they are not being judged as incompetent. In fact, no listener rated the speaker below 4 on any of the intelligence traits. This was not the case in the baseline ratings for the explicit attitudes. Averages stayed above the midpoint rating, but multiple individual ratings were below the neutral 4. Attitudes towards the accented RA are only negative when compared to speakers from other regions, at least in this case where the RA has a neutral or positive interaction with the participant (the practical implications of which I will discuss in Section 6.3).

This pattern of above-neutral ratings of the speaker highlights another finding of the attitudes portion of the experiments. In both the implicit and explicit experiments, the results after the television primes (and the interaction with an accented speaker in the explicit experiment) were what I characterize as more lenient: the explicit ratings of the accented speaker were higher than the ratings of the baseline speakers and the implicit posttest showed lower stereotypical associations than the pretest. Both of these shifts coincide with exposure to television clips that could trigger associations with an accented speaker as opposed to a disembodied accent. The clips build an idea that accents are not isolated but rather attached to a person that listeners are making judgments about. The explicit study goes further to shift from accent to accented speaker by introducing the actual accented speaker as the attitudinal object for the posttest. I tried to control for this (somewhat unknowingly) in the explicit baseline by telling participants the voices they heard were actors. There was little in the baseline to actually link the voices to concrete speakers, though. The context of the baseline reading passage was the neutral Rainbow Passage and there was nothing aside from the short note to trigger a shift away from thinking about a disembodied accent.

I propose that the social implications of rating an accented speaker rather than a disembodied accent shift the results of the attitude studies. I would not go so far at this juncture as to say there are different cognitive representations (or somewhat differentiated cognitive representations) for accents versus accented speakers, though this could be a hypothesis in a

more cognitively focused experiment. The evaluation measure in particular (but also potentially the IAT posttest) was affected by specifically rating a speaker with whom the participant had recently had a positive experience. It is likely more difficult to rate a person low compared to a disembodied voice. There is not enough evidence in this dissertation to go beyond a proposal about ratings of accent versus accented speakers. Further research should investigate this pattern. It may add another facet to language attitudes research differentiating accents and accented speakers.

6.1.3 Categorization

Listeners could not differentiate natives from performers of unfamiliar regional accents in the categorization study. This indicates that the performed accents in the studies did not affect results. The categorization results were meant to clarify speaker information and perceived realism results in particular. Speaker information was largely not a factor in the analyses. In combination with the categorization result, this finding seems to indicate that speaker information has no effect on attitudes. If listeners had been able to differentiate natives from imitators of ASE, the lack of significance in speaker information could have been attributed to this ability overriding the information they were given and stopping phonological calibration from occurring.

I am not ready to fully dismiss speaker information, despite the categorization results. There was a significant interaction in competence ratings of the ASE-accented RA. In this case, the categorization experiment results could support speaker information as the driving force behind that difference, or at least they cannot deny it as a potential force at play. Without the ability to differentiate native from performer, the speaker information is all the listener has to go on, assuming the listener does not have a false sense of confidence in their ability to determine nativeness or a reason to dismiss the information presented to them. For this study, the participant had no reason to question the information given to them. There was no reason for them to suspect they were being lied to. Thus, I am tentatively concluding that participant confidence in the information given to them was not compromised and speaker information could be at play in the results.

As noted in Chapter 3, the categorization experiment had many implications outside of its implications for the implicit and explicit studies. When it comes to unfamiliar accents, even (or perhaps especially) highly enregistered ones, listeners cannot determine authenticity from a short

phrase or sentence. This result relates directly to Clopper and Pisoni (2004a, 2004b), who found that listeners with more experience with different regional accents were better at categorizing accents by region. Tate (1979) found preliminary evidence that North Central Florida listeners could differentiate native from performed accents from their home region. Tate's listeners were very familiar with the Southern accent they were categorizing as native speakers of that accent. In the case of this dissertation, listeners were not familiar with the Southern accents they were categorizing. This lack of familiarity is reflected in their struggles to identify nativeness only in the Southern speakers. They do much better with accented speakers from their home region and a nearby region they are more likely to encounter at the university. Thus, listeners may have what might be described as more detailed or accurate representations of accents in their home region or regions they're more exposed to whereas they do not have the same intuitions as native regional speakers for other regional accents.

It should be noted that the length of the stimuli was short. Moosmuller (2010) concluded that listeners making nativeness judgments could be fooled for individual utterances, but that whole samples would be more difficult. The implication here is that a speaker can successfully imitate a native regionally accented speaker for a short period of time but will eventually slip up and make a mistake that will give them away as an imitator. It may be that the phrases in the categorization experiment were short enough that listeners could not identify performers of the unfamiliar Southern accent, but could identify performed accents in the longer television clips presented in the attitudes experiments. The question remains, though, what the threshold is that will "give away" a performer. Would the three-minute clips still be too short to reveal an unfamiliar accent? And what features would give the speaker away as a non-native?

It is also unclear how my findings work with Neuhauser and Simpson's (2007) proposal that it is difficult to identify native speakers because of the wide variation within authentic accented speakers. Performers have a limited repertoire they can learn and implement, usually based on salient features of accents. Accented speakers in their native accent have more "acceptable" variation and idiolects. What, then, would constitute a mistake on the part of an imitator that would give them away as a non-native speaker if a native speaker is allowed more leeway in usable variation? Is it not how much variation is used but rather how that variation is used (e.g. dark /l/ occurring in unfavored environments in Moosmuller's Viennese study)?

Further investigation should explore these effects and how they may play into media representations and potentially perceived accent/dialect realism.

6.2 Theoretical contribution

Three seemingly disparate interdisciplinary theories work together to explain media influence in language attitudes. From psychology, the APE model frames attitudes as associative and propositional processes that are linked to one another but also separate. From communications, cultivation theory posits that the media consumed by viewers shapes viewers' perception of the non-mediated world. From linguistics, a model of language change built upon by Tore Kristiansen proposes that media influences language attitudes which, in turn, influence language change. Each of these has its own implications for the study as well as connections to one another.

Gawronski & Bodenhausen (2011) synthesize several predictions APE makes for implicit and explicit attitude change. Implicit attitude shift depends on the activated association, the individual's experience, and individual's dedication to logical consistency. Counterstereotypical narratives may present a cause for the shift to occur that can support logical consistency. Explicit attitudes change when different propositions are validated. New or different propositions can be offered externally as well. An outside party could tell someone that ASE-accented individuals are smart in order to shift explicit attitudes of that person. The offered alternative proposition cannot be a simple negation of the old proposition, though. That activates the old proposition, which strengthens it further.

These predictions seem to play out in the results of my experiments. The IAT results reflect an association linking ASE accents with unintelligence. This association then activates related propositions (e.g. "ASE-accented speakers are dumb"). The baseline explicit attitudes reflect a validation of these propositions in that Southern voices were rated lower on status adjectives. The media primes, however, present an alternative proposition in the counterstereotypical condition. This alternative proposition (that an ASE-accented speaker can be smart) appears to be validated as the listeners who heard the clips with intelligent ASE-accented characters rated the RA higher in status adjectives in the evaluation compared to those who heard unintelligent ASE-accented characters. The media primes were not, however, strong enough to activate a different association or to challenge the individual's experience or logical consistency and, thus, shift implicit attitudes. The posttest IAT remained unchanged by

condition. It is possible that the media primes were not strong enough to create new associations. Similarly, it takes time for an individual to build enough experiences to override already existing experiences and challenge logical consistency. Because the implicit and explicit studies are separate here, it is difficult to say with full confidence that the APE model is supported. However, the findings do seem to match predictions, so the APE model garners modest support through this set of studies.

Engagement with Southern television may also provide support for the APE model. Assuming viewers accept what they are watching as true (which is, admittedly, a large assumption — see Stuart Hall's work on preferred and oppositional readings), consumption of and engagement with television with Southern characters could present different propositions the viewer could validate as true of ASE-accented speakers. The repeated acceptance of different propositions could then create new associations and, thus, shift implicit attitudes. For the most part, listeners with Southern television exposure followed expected patterns. They showed more stereotypical views of ASE-accented speakers. The trustworthiness finding, however, does not match expectations. It does, however, reflect television that the viewers were engaging with: programs with less trustworthy ASE-accented speakers. It is possible that the repeated presentation of untrustworthy Southerners led to the repeated validation of a new proposition (again, assuming these presentations are accepted as true by the viewer). Implicit attitudes tested here were only in regard to intelligence, so it is not possible to speak to whether the trustworthiness proposition has been taken up as an association/implicit attitude. This is certainly an area to investigate in the future, though.

The Southern television results largely following expected patterns brings up cultivation theory. Cultivation theory, like parts of the APE model, proposes the uptake of repeated propositions as true. Rather than focusing on individual attitudes differentiating implicit and explicit, though, cultivation theory deals with longitudinal shifts in world view expressed explicitly by media viewers. The longitudinal nature of the theory makes it difficult to empirically test; most supportive findings are based on short-term exposure to control for confounding variables. The stereotype-consistent findings in the Southern television variable do match up with predictions the theory makes. Those who watch more Southerners on television are more likely to encounter stereotypes about Southerners, especially one as pervasive as the unintelligence stereotype. The repeated engagement with this stereotype then leads to acceptance

of it as true. Correlation is not out of the picture as an explanatory factor here. It could be that people with more stereotypical views of Southerners engage more with Southern television. The pretest results do not reflect this, though. The significant findings were all in the posttest accounting for the pretest as a covariate. If stereotypical views were driving Southern television viewing, the pretest/baseline should have captured that. Thus, cultivation theory seems a plausible explanation, particularly taken together with the APE model.

The final theory builds from Kristiansen's (2014) exploration of the proposal that media influences language change by influencing attitudes. Kristiansen tests the relationship between attitudes and language change, but does not test media influence on attitudes empirically. The results in this dissertation support the latter as-of-yet untested piece of the model. Television can influence attitudes, so the language change Kristiansen reports could be influenced tangentially by media through attitude shift. The relationship between television and attitudes is there; how strong it is remains unclear. Kristiansen's theory differs from the exploration of accent here in that his model focuses more on general attitudes towards dialect diversity rather than specific stereotypes. The question was left open whether any representation of diversity is good or if negatively stereotyped dialects have negative effects on media consumers. The latter appears to be supported in the experiments discussed here. It is possible that viewers who see dialect diversity, even portrayed negatively, will be more open to dialect diversity. Their attitudes towards the speakers of those dialects, though, may not be as accepting, which may lead to repercussions for negatively portrayed accented speakers. General viewer attitudes may be more accepting, but their treatment of accented speakers of non-standard varieties may not reflect that acceptance, which could lead to external consequences for those speakers as well as internal consequences for the speaker, such as linguistic insecurity. The role of media, specifically scripted fictional television, then, could be a piece within more complicated models of sociolinguistic factors involved in language change.

In terms of theory, then, APE is one potential mechanism that explains how cultivation theory works. Cultivation, in turn, is one explanation of how media influences attitudes in Kristiansen's model. The condition effects and Southern television variable offer support for these theories.

6.3 Applied/Practical contribution

As noted in regard to the attitudinal model of media's role in language change, the experiments discussed here indicate that representation alone does not necessarily have positive effects on attitudes towards accented speakers. Stereotypical representations of accented speakers can result in lower ratings of Southern-accented speakers in a real-life evaluation. Thus, these mediated representations affect results of evaluations that may well have real consequences for the speakers being evaluated.

Sociolinguistic research has long established the effects of accent-based discrimination in housing (Purnell, Idsardi, & Baugh 1999), jobs (Lippi-Green 2012), education (Rubin 1992, Lippi-Green 2012) and the justice system (Rickford & King 2016). In previous sections, I highlighted that listeners have above-neutral ratings of the ASE-accented speaker. Status ratings in particular are lower when compared to speakers of other regional varieties, but not necessarily overtly negative on their own. Even without overtly negative attitudes, however, these findings could have implications for prejudice and discrimination based on accent. If, for instance, an ASE-accented speaker is interviewing for a job outside (or even within) the South, they may be perceived as less competent than their competitor. Note that they are not perceived as incompetent, but the perception of less competence would nonetheless put them at a disadvantage. The issue is not the polarity of the attitude but rather the attitude relative to other speakers.

As evidenced through numerous language attitudes studies, this pattern of non-standard speakers being negatively evaluated based on their speech is not anything that hasn't been seen before, though that the speaker is not seen as outright incompetent but rather less competent is potentially more optimistic than past attitudes experiments imply. The influence of television, however, adds new facets to potential accent-based prejudice and discrimination. Television may serve as a maintainer of these attitudes or as a source for those who have no other exposure to the accent groups represented. The representations of accented speakers on television may have very real consequences for speakers of those accents not only through the advancement of stereotypes that contribute to linguistic discrimination established in housing, jobs, education, and the justice system, but also in the uptake of attitudes by the speakers and treatment of those speakers that can lead to linguistic insecurity.

On a more positive note, the fact that counterstereotypically intelligent television clips led to higher competence ratings of the RA indicates that television could be a way to address and counter this discrimination. More and varied representations of Southern (and non-standard accent speakers of all varieties) would provide more nuanced representations of non-standard speakers that could promote counterstereotypes (or at least curb stereotypes). There is already evidence that varied inputs can shift attitudes and/or actions. For instance, video games with prosocial behavior promote prosocial attitudes and behavior in several age groups (Gentile, Anderson, Yukawa, Ihori, Saleem, Ming, & Sakamoto 2009) and songs that promote gender equality positively shift attitudes towards women (Greitemeyer, Hollingdale, & Traut-Mattausch 2015). Representations of stigmatized accents would need to go beyond simply telling viewers a negation of the stereotype, though. Otherwise, stereotypical associations may be strengthened, as noted earlier, since the stereotype would have to be activated to be negated. Thus, it is important to present characters with stigmatized accents who have multifacted identities. Over time, those multifacted characters may present enough cause for viewers to accept the alternative association. Television, and media at large, can also serve as a place to encourage intergroup contact. Parasocial contact (discussed in Chapter 1) can offer the same benefits as face-to-face intergroup contact. Multifaceted and nuanced characters with stigmatized accents can broaden the representations viewers have of those accents through parasocial contact.

Media literacy programs can also help counter negative media influence. Intervention videos, for example, can keep girls from taking up negative body satisfaction after seeing thin models (Halliwell, Easun, & Harcourt 2011). Media literacy teaching critical evaluation of media leads to a better understanding of media violence (as unrealistic) and advertisements for smoking and unhealthy foods (Bickham & Slaby 2012). Both of these programs deal with very concrete ideas. Body image, violence, smoking, and food are all objects that can be seen. Accent poses a challenge in that it is not seen and is linked to other attributes that then lead to stereotyping and potentially negative outcomes. Still, media literacy programs are a potential source linguists could turn to address the advancement of linguistic stereotypes in media.

6.4 Methodological improvement and future studies

The methodology utilized here sets up a fruitful path for linguists interested in exploring media influence on attitudes. The experiments performed in this dissertation not only produced

results of empirical and theoretical importance, but also point to directions for methodological improvement and future study.

Perhaps most importantly, implicit and explicit attitudes should be incorporated into the same experiment. Chapter 4 shows the first part of the APE model; Chapter 5 shows the second. These clarify what it takes to (1) shift associations and (2) motivate selection of different propositions. For methodological reasons, I could not include implicit and explicit measures in the same experiment. Having them together would have confounded results because even if people did not outright guess the purpose of the study, they might have been unconsciously primed.[49] Now that they have been established separately, a key next step is to work on combining them within the same study without priming the purpose of the study. This combination will allow for more definitive assertions about the APE model. It will also allow for the inclusion of explicit attitudes as a covariate in statistical models of implicit attitudes data. As noted in Chapter 4, implicit measures are particularly susceptible to random error. Including factors like explicit attitudes can help build more accurate models as well as acknowledge the linked-but-still-separate status of implicit and explicit attitudes. In that vein, another beneficial individual variable to include would be an individual's ability to differentiate natives from performers of accents. The categorization experiment successfully demonstrated that Michigan-based listeners struggled to categorize natives and performers of Southern accents. As an individual variable, this would be even more informative. Because people's abilities do not always match what they think they are able to do, another interesting variable would be a measure of confidence in their answer. This variable would supplement actual ability to differentiate native from performed accents with perception of ability to make such a differentiation.

Speaker information and perceived realism deserve further attention. Speaker information in a basic sense served as a pilot test for one of many potential influencing factors to look at in future studies. While it was not consistently significant, it did show some promise in trends and, in one case, a significant interaction. In the context of these experiments, it is difficult to differentiate speaker information from simple priming of region as a salient indexical category.

[49] An unexpected issue with priming was that I was doing this experiment in a linguistics department. That alone would tip off participants more than a psychology department (with many different subfields) would. I was able to avoid it to a degree by framing the study as discourse- and perception-focused, but disguising an explicit language attitudes study taking place in a linguistics department did pose a challenge.

My goal for speaker information is to adapt it with the idea of phonological calibration and to use that as the basis for a perceived accent/dialect realism construct. As noted in 6.1.1, perceived accent/dialect realism is a measure of how true-to-life a listener believes an accent to be. It does not have to reflect the actual authenticity of the accent, but rather how authentic the listener thinks it is. Previous research on phonological calibration shows the perception (or priming) of a speaker being from a certain place shifts the sounds a listener reports hearing. It would be interesting to investigate this effect more deeply and see if that effect can occur organically through a listener guessing with confidence how authentic a mediated accent is, then seeing if that perceived accent/dialect realism affects uptake of attitudes. My guess would be that higher perceived accent/dialect realism would lead to more uptake of stereotypes, but that remains an untested hypothesis.

Perceived realism also deserves further attention. The measure used here was general perceived realism. With the individual variability found in the implicit study and the role individual experiences played in results a specific measure for what is seen would more accurately reflect the listeners' experience. This specific measure can pinpoint the nuances in experience and realism – which may reflect differences by character and genre – compared to a general measure of perceived realism encompassing all media, which could conceivably include scripted, reality, and news programs. These nuances are particularly important in evaluating how real a listener perceives different pieces of media to be (e.g. one specific clip, character, show). For example, a science-fiction show may depict time travel that the viewer deems unrealistic, but the relationships in the show may be very reflective of reality to the same viewer. Similarly, engagement could be explored further. Listing favorite television shows was effective, but captures just one aspect of engagement. It could potentially be combined with the specific perceived realism measure.

Different measures should be explored both for implicit and explicit attitudes. For implicit attitudes, exploration of several measures would benefit linguistic understanding of implicit language attitudes. As Blanton and Jaccard (2015) note, convergent validity is low for implicit measures, which may indicate they are measuring different constructs. Incorporating these potentially different constructs would develop models of implicit language attitudes with more detail. In order to implement this improvement, more implicit measures would need to be adapted for sociolinguistic use. With that in mind, it may take more time to achieve this

particular goal. In the meantime, the IAT can be further honed for sociolinguistic use with both singular features and multi-feature accents. A practice round of the IAT would ensure the pre- to posttest difference found in Chapter 4 was not due to unfamiliarity with the test in the pretest.

For explicit attitudes, the ceiling effect in the evaluation was especially problematic. A different (or perhaps a supplementary) measure could counter that effect. Another way to counter the ceiling effect would be to add in a mistake or some kind of negative trait on the part of the research assistant. A mistake that makes the RA seem incompetent may be punished more harshly by those who have seen stereotypical clips. A behavioral element could also be incorporated. Rydell and McConnell (2006) had participants seat themselves in a rolling chair near a seat where an individual they had been trained to have positive or negative attitudes towards would supposedly sit. Participants moved the chair differently depending on implicit and explicit attitudes toward the individual who would be sitting with them.[50]

Finally, more and different media clips should be utilized. The clips in this experiment provided approximately ten minutes of exposure to scripted fictional television. While this amount of time has been effective in psychology research, perhaps more is needed for accent, particularly to trigger implicit attitude change. To fully engage with implicit attitude shift, studies like these should utilize clips that somehow show a cause for the attitude shift. These clips could also explore different genres (e.g. news stories).

In terms of future directions, studies like this should also be performed in other regions. Performing this particular study in the South would provide a needed contrast to the Midwestern-based results. Next steps should also expand to different regional accents and eventually approach different social accents based on race, gender, sexual orientation, etc. These social identities often have visual cues associated with them that regional accents don't necessarily have. For instance, a visually-based IAT can evaluate attitudes towards race and gender with pictures of faces, but the same is not true of regional accents. It is unclear if this difference would have an effect on results or not, but it is a variable to consider. Social identities should lead into the investigation of intersectional identities using this framework. In these experiments, a white male RA may be given more leniency when it comes to accent. In other words, his accent may

[50] Including all the modifications I am proposing here (implicit and explicit measures, controlling for categorization on an individual level as well as confidence in their categorization, practice with the IAT, a behavioral element) would create a study that would take far too long for a participant to complete. It would be difficult to account for participant fatigue.

play less of a role than his appearance as a white male, at least when the participant has a positive interaction with him. Would the same be true of, for instance, a Black woman?

Based on the strong associations with solidarity found in the baseline results in Chapter 5, solidarity should be used as a comparison as well as (or perhaps instead of) intelligence. This may be difficult with Southern stereotypes because the intelligence association is one way; there are stereotypes about unintelligent ASE speakers, but not necessarily intelligent ones. The solidarity equivalent to the unintelligent Southerner is the friendly Southerner. Solidarity, however, can go both ways in that there are Southern stereotypes based on both friendliness and unfriendliness. Reed (1986) highlights several unfriendly Southerner stereotypes, most prominently the hillbilly stereotype. The solidarity association came through clearly in the present set of experiments, however, so perhaps this would not be an issue.

Several notable findings from the experiments deserve further attention. The disembodied accent/accented speaker differentiation has implications for language attitudes research at large. The demographic effects based on self-identified race and gender should also be explored further. Self-identified race especially should be approached from a less binary perspective than it was in this particular set of experiments. It remains unclear whether phonological calibration would override actual knowledge in uptake of attitudes from media like it does in sound perception. Future iterations of this study should further examine this phenomenon to determine exactly what effect phonological calibration and ability to discern accents have on attitudes (particularly through the lens of media).

Finally, to add more linguistic analysis, future studies should look at whether particular features are identifiable as imitated. This question not only addresses categorization and authenticity research, but also delves into language processing. Are particular features more helpful to listeners as they make imitation judgments? When, if ever, does a listener correctly associate native or imitated dialect features with the nativeness of the speaker? What makes this connection? And why were the listeners in Moosmuller's and Neuhauser and Simpson's studies unable to make it?

The ultimate goal of studies like these is to use actual television clips as stimuli/primes. For now, it is too early to do so. The foundation is still being set and actual television clips would introduce too many confounding variables. Once patterns are established with audio clips, however, it will be important to expand to include audio-visual as well. It will increase the

ecological validity of the study since viewers usually watch television with audio and visual. In that regard, it may prove helpful to actually perform the study that served as a cover for the explicit attitudes study (investigating perceptual and comprehension differences when listeners/viewers just hear audio, just see visual, or hear audio and see visual clips together). There is also the effect of paralinguistic features to consider. Ray & Zahn (1999) found that paralinguistic features had a greater effect than linguistic features on attitudes comparing Standard American English to New Zealand English. Phenomena like the McGurk Effect also show the difference visual information can make in perception. The eventual inclusion of these factors will help further determine the intricacies of attitude activation and how propositions get selected. For now, though, the goal is to further develop studies empirically and causally testing media's influence on language attitudes so sociolinguists can continue to build more complex and inclusive models of language attitudes.

6.5 Conclusion

This dissertation has combined language attitudes research with attitudes research in social psychology and communications focusing specifically on the influence of media on attitude uptake and shift. It has shown that a set of assumptions about the influence of linguistic representations in media on attitudes are correct, but perhaps too simplistic. The interactions between accent, attitudes, media, and social cognition are much more complex than a simple cause-and-effect relationship; viewer traits and primed information also affect attitude shift. In addition, the results indicate a methodological distinction should be made between attitudes towards accents and accented speakers as these may differ in the mind of the viewer/listener.

There is little research on media influence on language attitudes and even less focusing on attitudes towards actual accented speakers rather than generalized accents. This dissertation begins to address this disparity by engaging with interdisciplinary theories and methodologies to advance sociolinguistic understanding of language attitudes and social cognition. There are many exciting directions to take research on media influence on language attitudes maintenance and change. I hope future research will continue to link disciplines to advance methodologies and build language attitudes theories, explore the complex relationship between media and language attitudes, and investigate how media representations of accent might affect viewers' attitudes and behavior towards actual accented speakers.

APPENDICES

Appendix A

Distracter Questions

What do you think happens next?

What did you think about the characters? What stood out about each?

What did you like or dislike? What would you change?

What kind of show do you see this scene being a part of?

Would you watch this show? Did it draw you in or interest you? Why or why not?

Did you recognize the clip?

Any other thoughts?

Appendix B

Research Assistant Script

Hayley had to step out for her meeting like I think she mentioned she might have to at the beginning of the study, so I'm gonna be the one to debrief you. The purpose of the study was to see how lack of visual stimuli might affect how people view and interpret a tv show. As a linguistics lab, we're interested in how language/speech works with other techniques to show characterization and plot. We know language and dialogue are used for these purposes, but no studies have really worked to pull these apart and analyze how dialogue alone might affect the viewer. There's a similar issue in media effects research where researchers look at how ideas about race and sex and other visually identifiable traits might stem from media, but nothing to do with what's being said or how information and characterization are presented through language. This experiment is an exploratory one to see what people might pick up on differently when they have just audio, just visual, or both audio and visual. We're hoping to use this as a pilot study to see whether this is a viable direction to go in and, if it is, where fruitful first directions to look might be.

Appendix C

Explicit Attitudes Experiment Evaluation

Rate the sound quality.

Terrible	1	2	3	4	5	6	7	Excellent

Rate the quality of acting in Clip 1.

Terrible	1	2	3	4	5	6	7	Excellent

Rate the quality of acting in Clip 2.

Terrible	1	2	3	4	5	6	7	Excellent

Rate the experimental set-up (computer location, privacy, comfort).

Terrible	1	2	3	4	5	6	7	Excellent

Rate the environment of the lab.

Terrible	1	2	3	4	5	6	7	Excellent

Could anything be improved? _____

_____

Did the initial instructions fully prepare you for the experiment?

Yes

No

If no, what could be improved? _____

_____

_____

Rate the researcher who gave opening instructions.

Incompetent	1	2	3	4	5	6	7	Competent
Unfriendly	1	2	3	4	5	6	7	Friendly
Unintelligent	1	2	3	4	5	6	7	Intelligent
Untrustworthy	1	2	3	4	5	6	7	Trustworthy

Rude	1	2	3	4	5	6	7	Cordial
Dumb	1	2	3	4	5	6	7	Smart
Unreliable	1	2	3	4	5	6	7	Reliable
Gloomy	1	2	3	4	5	6	7	Cheerful

Did the researcher's explanation after the tasks fully inform you of the experiment?

Yes

No

If no, how could the debriefing be improved?

Rate the RA who gave debriefed you (if different from RA giving instructions).

Incompetent	1	2	3	4	5	6	7	Competent
Unfriendly	1	2	3	4	5	6	7	Friendly
Unintelligent	1	2	3	4	5	6	7	Intelligent
Untrustworthy	1	2	3	4	5	6	7	Trustworthy
Rude	1	2	3	4	5	6	7	Cordial
Dumb	1	2	3	4	5	6	7	Smart
Unreliable	1	2	3	4	5	6	7	Reliable
Gloomy	1	2	3	4	5	6	7	Cheerful

Any additional comments?_____

_____

_____

Appendix D

"Please Call Stella" Passage

Please call Stella. Ask her to bring these things with her from the store: Six spoons of fresh snow peas, five thick slabs of blue cheese, and maybe a snack for her brother Bob. We also need a small plastic snake and a big toy frog for the kids. She can scoop these things into three red bags, and we will go meet her Wednesday at the train station.

Appendix E

Speakers for categorization task, pseudonyms used for anonymity, organized by region and nativeness

Speaker	Source	Accent, performed or native	Percentage of successful categorizations by participants
1 Samuel	SAA16	South, native	69.40
2 Todd	SAA135	South, native	44.81
3 Dorian	Recorded	South, native	54.64
4 Bart	Recorded	South, imitator	44.26
5 Ken	Recorded	South, imitator	43.17
6 Martin	Recorded	South, imitator	57.38
7 Hugo	SAA 118	North, native	67.76
8 Scott	Recorded	North, native	74.32
9 Gordon	Recorded	North, native	45.36
10 Ed	Recorded	North, imitator	51.37
11 Patrick	Recorded	North, imitator	69.95
12 Neil	Recorded	North, imitator	41.53
13 Julian	SAA 103	Northeast, native	47.54
14 Kellan	SAA 251	Northeast, native	67.21
15 Mark	SAA 442	Northeast, native	68.85
16 Tyler	Recorded	Northeast, imitator	49.73
17 Bob	Recorded	Northeast, imitator	60.11
18 Jack	Recorded	Northeast, imitator	44.81

Appendix F

Speakers for categorization task organized by successful categorization by participants

Speaker	Source	Accent, performed or native	Percentage of successful categorizations by participants
8 Scott	Recorded	North, native	74.32
11 Patrick	Recorded	North, imitator	69.95
1 Samuel	SAA 16	South, native	69.40
15 Mark	SAA 442	Northeast, native	68.85
7 Hugo	SAA 118	North, native	67.76
14 Kellan	SAA 251	Northeast, native	67.21
17 Bob	Recorded	Northeast, imitator	60.11
6 Martin	Recorded	South, imitator	57.38
3 Dorian	Recorded	South, native	54.64
10 Ed	Recorded	North, imitator	51.37
16 Tyler	Recorded	Northeast, imitator	49.73
13 Julian	SAA 103	Northeast, native	47.54
9 Gordon	Recorded	North, native	45.36
2 Todd	SAA 135	South, native	44.81
18 Jack	Recorded	Northeast, imitator	44.81
4 Bart	Recorded	South, imitator	44.26
5 Ken	Recorded	South, imitator	43.17
12 Neil	Recorded	North, imitator	41.53

Appendix G

Implicit Attitudes Pre-Experiment Instructions Script

You're going to be doing an accent and word categorization task, listening to some media clips, then doing another accent and word categorization task. This experiment is looking at the ways different modes of input affect our experiences with television and what we take from it. We're looking at what differences there may be between people who just hear audio input, people who just see visual input, and people who both hear audio and see visual input. You're going to be in the audio only condition.

The media cips are recreated by community theatre actors as closely as possible to the source material. After each clip, you'll be asked a few free response questions. These are just giving your perceptions of the clips. There are no right or wrong answers. After all three clips, you'll answer five quick questions about your own attitudes about television. We aren't asking for any sensitive information, but just in case, all your responses are anonymous.

For the categorization task, you'll see adjectives or hear voices and have to categorize them as belonging to a certain category as quickly as you can. The categories will appear on either side of the computer screen. If the word or voice belongs to the category on the left, you'll press the D key. If it belongs to the category on the right side of the screen, you'll press the K key. All of the instructions will appear on the screen before the task.

As a heads up, there may be some overlap with the voices when you respond particularly quickly.

Do you have any questions?

Appendix H

D-score results and change score for each participant

Participant	Pretest IAT D-score	Posttest IAT D-score	Change score (Posttest-Pretest)
1	0.75567	0.4032	-0.3525
2	-0.0175	0.05523	0.07274
3	0.30613	0.1687	-0.1374
4	0.46645	0.33525	-0.1312
5	0.48618	0.32794	-0.1583
6	0.05023	-0.3107	-0.3609
7	0.52569	0.31993	-0.2058
8	0.13971	0.19266	0.05296
9	0.21451	0.51602	0.30151
10	0.41875	-0.2263	-0.6451
11	0.27773	0.05287	-0.2249
12	-0.0018	-0.2645	-0.2627
13	0.80753	0.57042	-0.2371
14	0.63162	0.49712	-0.1345
15	-0.099	0.56269	0.66169
16	0.29694	-0.0878	-0.3848
17	0.06772	0.17955	0.11183
18	-0.1339	0.23221	0.36606
19	-0.3137	0.21044	0.52413
20	-0.563	-0.0718	0.49116
21	-0.0463	-0.385	-0.3387
22	0.39014	0.0721	-0.318

23	0.84464	0.21796	-0.6267
24	0.3287	0.36325	0.03454
25	0.37673	0.0647	-0.312
26	0.27404	0.36418	0.09014
27	0.64351	0.32704	-0.3165
28	0.69386	0.70799	0.01414
29	-0.1585	-0.0428	0.11569
30	0.50913	0.19194	-0.3172
31	0.34726	0.41857	0.0713
32	0.84398	0.32039	-0.5236
33	0.27574	-0.2034	-0.4791
34	0.65355	0.31976	-0.3338
35	0.06613	-0.0711	-0.1373
36	0.44683	0.09883	-0.348
37	0.49706	0.13449	-0.3626
38	0.32159	-0.0606	-0.3822
39	-0.0332	0.2962	0.32938
40	-0.0825	0.20854	0.29102

Appendix I

Explicit Attitudes Pre-Experiment Instructions Script

In this experiment, we're looking at how different modes of input affect perceptions of media. You've been assigned to a condition where you hear audio only of television clips.

First, you're going to give us some impressions of actors based on their voices.

Then you'll listen to three clips from television shows recreated by theater actors. They're recreating the clips as exactly as possible. Everything should be as it was in the original clip, just without things like background music.

After each clip, you'll answer several free response questions about the clips. These will just be about your perceptions. There will be no right or wrong answers. We're not asking for any sensitive information, but your answers will all be anonymous. Once you finish the three clips and their associated questions, you'll be done with the experiment. You can come out from the work station and I'll tell you more about the study.

This is a new methodology for the lab. After I give you a little more information about the study, I'll ask that you fill out a quick evaluation. Including the evaluation, the study should take around 45 minutes.

Be as open as possible with the ratings in the evaluation. It's important for us to know where we can improve. The scale is 1 to 7. Seven is considered exceptional. Five is good.

I have to step out for a meeting, so if I'm not back by the time you finish, the other research assistant will give you the feedback and set up the evaluation.

Do you have any questions?

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