### Research Article

# Perceptions of African American English by Students in Speech-Language Pathology Programs

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**Purpose:** Despite the increased awareness that all dialects are valid linguistic forms, perceptions of African American English (AAE) use are often negative in the general population. Students training for careers as speech-language pathologists (SLPs) are required to have coursework relating to cultural and linguistic diversity. However, little is known about the perceptions of AAE among students in SLP programs.
**Method:** Seventy-three students from 46 randomly selected university programs in the United States completed an online survey including explicit statements regarding the validity of AAE and a matched-guide task assessing participants' implicit perceptions of AAE. Participants were randomly assigned to one of four audio pairings that differed in terms of the dialect spoken and the formality of the conversational context. Participants rated the speaker on 11 attributes (e.g., literate/illiterate, rich/poor) using the Revised Speech Dialect Attitudinal Scale.

**Results:** Participants indicated positive opinions of statements on the validity of AAE. However, across three categories of personal attributes—sociointellectual, aesthetic, and dynamism—participants who heard the Mainstream American English recordings rated the speaker differently than recordings including AAE.
**Conclusions:** Students in SLP programs express positive opinions regarding AAE, and yet, they rate speakers who speak AAE lower in personal attributes. The results highlight the importance of expanding training for future SLPs to include not only explicit statements about the value of AAE but also activities addressing implicit perceptions of dialect use. We provide a brief discussion of how the current data can be implemented for such an activity. Lesson plans and materials are provided as supplemental materials.
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I t has long been recognized that all dialects are valid communication systems and that use of one dialect or another does not constitute evidence of a communication disorder (American Speech-Language-Hearing Association [ASHA], 2003; Oetting & McDonald, 2002; Seymour et al., 1998). However, negative attitudes toward the use of non–Mainstream American English (NMAE) dialects, such as African American English (AAE) are a persistent problem (Koch et al., 2001; Lippi-Green, 1997, 2012, among many others). Within the field of speech-language pathology, understanding and appreciating the validity of linguistic diversity is a critical component in the training of students

preparing to become speech-language pathologists (SLPs). First issued in 1983, and then renewed in 2003, the ASHA position statement affirms that all dialects are "legitimate rule-governed language system[s]" and that "no dialectal variety of American English is a disorder or a pathological form of speech or language." Central to the position statement is the need for SLPs to recognize "all American English dialects as rule-governed linguistic systems," and to understand "the rules and linguistic features of American English dialect(s) represented by their clientele." Beyond this basic recognition of the value of all linguistic varieties, there is a need to understand the position of dialects within society. In fact, the ASHA position statement goes on to highlight the importance of these types of social factors. "The speech-language-pathologist should also have an appreciation for the communities and cultures of speakers of AE [American English], as well as a thorough understanding of the social attitudes toward dialect use." Therefore, training for SLPs must address bias and negative social attitudes about the use of American dialects while increasing knowledge about the validity of linguistic varieties.

AAE is an umbrella term for the varieties of English primarily, but not exclusively, spoken by Black people across the United States (Holliday, 2018). Despite how AAE is sometimes presented in SLP textbooks (e.g., Bernthal et al., 2017), there is much temporal (Fisher, 2018), regional (Yaeger-Dror & Thomas, 2010), and social (Weldon, 2021; Wolfram, 2007) variation in AAE varieties. AAE varieties, like all language varieties, can be distinguished by all aspects of language—phonology, morphology, syntax, semantics, and pragmatics (Green, 2002). Many of these grammatical aspects differ from the varieties spoken by non-Black persons who live in the same regions. While sociolinguistic research has consistently demonstrated that AAE varieties are systematic and rule-governed systems, some grammatical features differ from varieties spoken by people who are not Black and are not easily interpreted by people who are not familiar with AAE. For example, many AAE varieties use existential "it," as in the sentence, "It's a lot of people in the room," which is not as common among non-AAE varieties. A lack of knowledge of the grammatical structures of AAE is one factor—along with larger societal anti-Black racism—that leads to a persistent prejudice toward AAE in the United States, where AAE varieties are often denigrated and considered to be somehow lesser than varieties considered more mainstream (Rickford & King, 2016, inter alia).

## Perceptions of AAE

Despite the linguistic validity and social value of dialectal variation, perceptions of use of AAE are persistently negative. Persistent anti-Black racism results in persistent bias against the use of AAE. Those who speak with a "standard" accent tend to be rated more favorably on traits related to competence, intelligence, and social status; meanwhile, those who speak with a "non-standard" accent tend to be rated less favorably among these same traits (Lippi-Green, 2012; Rodriguez et al., 2004; Ryan et al., 1984). A key study by Koch et al. (2001) examined college students' perceptions of different combinations of dialect uses. In the study, participants listened to one of four audio pairings made by the same African American man speaking in either formal or informal contexts. Participants heard the man speaking AAE in both contexts, Mainstream American English (MAE)[1] in both contexts or code-switching between conditions. Code-switching refers to the process of changing your dialect use across conversational contexts. They categorized the use of MAE in formal contexts and AAE in informal contexts as a "socially appropriate code-switch," while the reverse was categorized as a "socially inappropriate code-switch." Participants were then asked to rate the speaker on twelve different personal attributes using the Revised Speech Dialect Attitudinal Scale (SDAS). The results indicated that, among African American undergraduate students, when a speaker

used MAE, they rated him more favorably compared to when the same speaker used exclusively AAE. A similar pattern was found for when the speaker switched between using MAE in a formal context and AAE in an informal context compared to using AAE in a formal context and MAE in an informal context. These results indicate the pervasive nature of anti-Black racism and the reciprocal relationship between anti-Black racism and bias against the use of AAE. These students lacked training and background in the validity of social dialects, which has the potential to shift perceptions of nonmainstream varieties. This study builds from this notion and asks: Do speech-language pathology students who have received training regarding social dialect validity have different perceptions of dialectal speech?

## Required Student Education in Cultural and Linguistic Diversity

In order to provide culturally responsive services for culturally and linguistically diverse populations, it is essential that SLPs understand the value of language varieties and their own biases with regards to the use of different dialects (Perry, 2012). Understanding the social and cultural basis of language is addressed within the ASHA certification standards as well as the ASHA Code of Ethics. Standard IV-B states that applicants for certification of clinical competency must "have demonstrated knowledge of basic human communication and swallowing processes, including the appropriate biological, neurological, acoustic, psychological, developmental, and **linguistic and cultural bases** [emphasis added]." Additionally, the 2020 certification standards specifically reference the need for students to be knowledgeable about the 2003 ASHA Technical Report on American Dialects and the 2016 Code of Ethics. The current Code of Ethics states that "Individuals shall not discriminate in the delivery of professional services or in the conduct of research and scholarly activities on the basis of race, ethnicity, sex, gender identity/gender expression, sexual orientation, age, religion, national origin, disability, culture, language, or dialect" (ASHA, 2016). In 2017, ASHA issued specific guidance about the application of the Code of Ethics for cultural and linguistically diverse individuals. This Issues in Ethics statement highlights the importance of self-awareness about personal biases. "Professionals must enter into the relationship with awareness, knowledge, and skills about their own culture and cultural biases, strengths, and limitations" (ASHA, 2017). These regulations underscore the need for competent clinicians to have both linguistic knowledge about dialectal variation as well as an awareness of their own cultural biases.

Often times, however, training in the area of cultural and linguistic diversity centers on questions of assessment practices, and much of the conversation within the field to date has focused on distinguishing "dialect versus disorder" (Seymour et al., 1998). Textbooks and assessment manuals (e.g., Clinical Evaluation of Language Fundamentals–Fifth Edition) often provide students with a list of phonological and morphosyntactic features that are produced differently between MAE and AAE to address potential sources of

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[1]Also called Standard American English, General American English, or Standardized American English. We selected the term Mainstream American English for continuity with previous research in communication sciences and disorders.

assessment error. Perhaps not surprisingly, when asked about their assessment and intervention practices, SLPs more commonly report modifications to their assessment practices compared to intervention practices (Hendricks & Diehm, 2020). In contrast, there is less often a focus on broader issues of bias and anti-Black racism in training to ensure that students are prepared to ethically provide services for clients from diverse backgrounds. Additionally, while making overt changes in assessment scoring is a notable step toward not labeling natural AAE use as a disorder, the underlying bias could continue to affect how clinicians respond to speakers of NMAE varieties.

Biases can appear either explicitly or implicitly. Implicit bias is often studied through the use of computerized tasks that measure differences in reaction time for associations between either negative or positive attributes (Greenwald et al., 1998). Implicit biases have been widely documented using this methodology (see Fazio & Olsen, 2003, for a review) including for educational professionals (van den Bergh et al., 2010). Importantly, explicit biases and implicit biases may differ with more positive responses to explicit questions about bias than implicit questions (Dovidio et al., 1997).

A lack of appreciation of potential biases against the use of AAE can have wide ranging implications for clinical practice. Biases against students' use of AAE may lead to lower expectations for their communication abilities, whether the use occurs during an assessment or in other interaction. Significant research in education demonstrates that teachers' expectations are related to student outcomes (Charity Hudley & Mallinson, 2011; Reaser et al., 2017) and non-Black teachers have lower expectations for Black students than Black teachers have for Black students (Gershenson et al., 2016; McKown & Weinstein, 2002). Similarly, students preparing to become teachers also demonstrate negative opinions about the use of AAE (Champion et al., 2012; Newkirk-Turner et al., 2013; Godley & Reaser, 2018). These different expectations negatively impact the scholastic experience for Black students, ethnically diverse students, and European American students who speak nonmainstream varieties (e.g., Southern United States and Appalachian students). In particular, it is noted that many of the methods the U.S. educational system employs (e.g., standardized testing), both explicitly and implicitly, reinforce ideas of linguistic inferiority of nonmainstream varieties. The very nature of considering a variety to be "standard" presupposes that other varieties must be "non-standard," which can have far-reaching consequences for speakers, teachers, and SLPs. Thus, in order to consider methods to address bias, whether implicit or explicit, we must understand how pervasive the biases are in our field.

### Study Purpose

While cultural competence is a required competency (ASHA, 2003) and must be addressed during coursework in speech-language pathology training programs (ASHA, 2020), a national survey of Council on Academic Accreditation–accredited programs discovered an inconsistency in

how multicultural instruction was carried out (Stockman et al., 2004, 2008), and many SLPs report that they are not confident in working with clients from culturally and linguistically diverse backgrounds (Hendricks & Diehm, 2020). Naturally, given the demographic reality that practitioners are largely White and female, such a lack of confidence in working with a diverse (and increasingly diverse) clientele is concerning. In this study, we explore students' explicit knowledge about the validity of dialects and their implicit opinions about individuals who speak different dialects. Understanding the current state of student knowledge provides information about the extent to which current training programs are sufficient in decreasing biases and can also facilitate the implementation of more targeted training programs to address the needs to current students. We present one such training program in the discussion of the current study. This study asks two questions about the explicit and implicit perceptions of AAE among students training to become SLPs:

1.  How do students who are training to become SLPs respond to explicit statements about the linguistic validity of dialectal variation?

2.  How do students who are training to become SLPs respond to implicit value judgments about speakers who speak AAE with and without code-switching?

We hypothesized that required coursework and training in the area of cultural and linguistic diversity would yield positive responses to explicit statements about dialectal variation. However, given the persistent nature of societal biases against AAE, we hypothesized that implicit judgments about speakers who use AAE may remain negative despite the positive responses to explicit statements. The presence of implicit biases would indicate the need for more targeted and in-depth curricula to counter all biases.

## Method

All study procedures were approved by the University at Buffalo Institutional Review Board.[2]

### Participant Recruitment

An invitation for an online survey was initially sent to departmental electronic mailing lists for 21 randomly selected university programs in the United States. Universities were selected to include a geographically diverse sample with five universities selected from four geographical regions (Northeast, Midwest, West, and South) with the inclusion of the University at Buffalo. As the goal of the study was to survey undergraduate and graduate students preparing to become SLPs, only universities with both undergraduate and master's-level programs were included. Programs

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[2]We consulted with the Strengthening the Reporting of Observational Studies in Epidemiology guidelines (https://www.equator-network.org/wp-content/uploads/2015/10/STROBE_checklist_v4_cross-sectional.pdf) in preparing this article.

were randomly selected using a random number generator in Excel. Corresponding program information (number of students and contact information) was determined using the ASHA EdFinder website. For each university selected, an email invitation was sent to the listed contact with a request to forward the email to the departmental student electronic mailing lists. A reminder email was sent 9 days after the initial email.

A preliminary analysis of the first round of recruitment indicated that there were no participants attending universities from the Southern region. Therefore, a second round of recruitment was conducted and an additional 10 universities from the Southern region and five from each of the other regions were added, for a total of 46 programs. The selected universities enroll a total of over 10,000 undergraduate and graduate students in their departments. We were not able to confirm that the survey was forwarded to all of these students or that all students received the email, thus, this number provides a maximum number of students who were invited to participate.

Students who clicked on the study link were sent to an online survey designed and administered using PsyToolKit (Stoet, 2010, 2017). Following implied consent, participants were asked whether they were currently enrolled in an undergraduate or graduate program in speech-language pathology and those who responded no were excluded from the study. Participants who completed the survey were entered into a drawing for a $25 gift card.

### Survey Development

The online survey included three subsections: (a) dialect perception task, (b) demographic questions, (c) dialect belief statements. A matched-guise dialect perception task was developed based on Koch et al. (2001). A bidialectal speaker who is proficient in both MAE and AAE recorded monologues in formal and informal conversational contexts (formal: mock job interview, informal: a mock conversation with a friend about an upcoming job interview). Each

monologue was recorded in MAE and AAE. Scripts of each monologue are presented in Table 1.

Scripts for the audio recordings were written to be similar within formality contexts but different across dialect contexts. That is, the AAE and MAE formal conversations were similar in content, but different in dialect. Likewise, the AAE-informal and the AAE-formal were similar in dialect, but different in content. Scripts were written by a master's-level student in speech-language pathology who speaks both AAE and MAE natively. The AAE versions included commonly used features of AAE (e.g., Oetting & McDonald, 2002; Washington & Craig, 2002), including phonological features (e.g., use of /f/ in word final position; cf. AAE /tif/ and MAE /tiθ/, consonant cluster reductions, and metathesis), morphosyntactic features (invariant "be," multiple negation, leveled "was," reduced auxiliary "have," zero marked past tense, and perfective construction; remote past stressed "been"), and lexical features (e.g., fire; cf. MAE exciting). The audio samples were designed to maximize differences across dialect conditions. Thus, the frequency of AAE features may have been higher in the AAE samples than is typical, in particular for the formal condition. Prior to data collection, audio files were piloted with college-level students who are speakers of MAE and AAE dialects. These college-level volunteers were provided with the question: "how natural or authentic would you rate the speaker?," which they indicated on a scale of 1–7 (with 1 being *unnatural/inauthentic* and 7 being *natural and authentic*); follow-up open-ended questions were included: "What made you rank the previous question as you did?" and "Did anything stand out, in regards to pronunciation, phrasing, or grammar?" The students were also provided with a field to include any additional comments. An initial focus group, which included nine students who spoke AAE, suggested that the audio files were considered unnatural. The average rating on the 7-point scale was 4.0, with a large range of responses. For example, while some participants commented, "I feel like the speaker was speaking casually while talking to a friend so it was natural," other participants remarked, "It sounds like it was forced trying to sound

**Table 1.** Scripts for each audio condition.

| Register | MAE | AAE |
|---|---|---|
| Informal | Hey, how's it going?<br>I just heard that I have an interview with<br>the company that I told you about.<br>I applied like a little while ago, but I didn't even<br>   ask about what the um pay would be…<br>I'm gonna go tomorrow for an interview.<br>I'm definitely excited for the job, but I don't wanna<br>   have to drive anywhere too far all of the time. | Yo! Whats goo-?<br>I fount out I got a interview wit dat company I was tellin you bout.<br>I been had applied but I aint even aks dem bout the pay or nufin.<br>I'm bout ta go tomorrow for a interview.<br>I'm amped to do da job, but I know I'm not bout to be driving nowhere<br>   extra all da time. |
| Formal | Here's my resume, feel free to take a look.<br>I have lived in Buffalo for a long time.<br>I learned a lot from my previous job, but I<br>don't want to work a job that I'm not passionate<br>   about, and I know that this job will be exciting.<br>Where are the company's other locations?<br>I'm not going to have to go there, right? | Dis my resume, check it out.<br>I been in Buffalo for a minute now.<br>I learnt a lot from my other job, but I don't want no job dat I'm not finna<br>   be passionate about and I been had knew dat dis job would be fire.<br>Where the company got other locations at?<br>I aint never gon have to go dere though<br>right? |

'urban.'" Following this initial focus group, the scripts were edited and the speaker rehearsed the scripts in order to have a more naturalistic feel. The second focus group, which included five new speakers of AAE, suggested that the second set of recordings were more naturalistic. The average rating was 5.8 out of 7 and the comments reflected that the participants found the edited recordings more natural. Participants commented, "The slang words used in the recording are usually said by African Americans," and "As an African American in my 20s, many of the people I am around speak like this." We also conducted a post hoc analysis of the average pitch of the speaker in the two guises. In both of the AAE conditions, the average pitch was lower than the average pitch of the MAE guises. However, this difference in pitch mirrors that of Black women having a lower pitch than White women (Li et al., 2021). Thus, the stimuli fall within the range of naturalistic pitch that speakers might have heard.

Participants were randomly assigned to listen to the audio recordings in one of four pairings which differed in dialect and context: (a) AAE Informal–AAE Formal, (b) MAE Informal–MAE Formal, (c) AAE Informal–MAE Formal, and (d) MAE Informal–AAE Formal. Participants were randomly assigned to one of the four pairings by a random number via PsyToolKit (Stoet, 2010, 2017). After listening to the audio clips, participants were asked to rate the speaker on the Revised SDAS (Koch et al., 2001). The Revised SDAS asks participants to rate the speaker on 11 of the 12 attributes, including sociointellectual status: literate/illiterate, rich/poor, white collar/blue collar, and high social status/low social status; aesthetic quality: pleasing/displeasing, nice/awful, sweet/sour, and beautiful/ugly; dynamism: aggressive/unaggressive, active/passive, strong/weak.[3] The order of the attributes and whether the positive attribute appeared on the left or right of the screen was counterbalanced across participants.

Following the matched-guise dialect perception task, participants completed demographic questions and four questions probing their beliefs and perceptions of American dialects. Two of the dialect belief questions were modeled after the ASHA position statement and were intended as a reflection of student knowledge of the linguistic validity of dialectal variation. The other two questions asked students' opinions about the importance of speaking MAE and were included as pilot data and were not analyzed as a part of the current study although descriptive results are included in Table 2.

### Participants

Eighty-one surveys were completed. Eight participants were excluded because they were not students ($n = 5$) or because they selected the default response for all items, which suggested that they were not attentive to the task ($n = 3$). After these exclusions, the remaining sample consisted of 73 participants. Participants were almost exclusively female ($n = 71$, 97.3%) with only one male participant (1.4%).

One participant (1.4%) did not report gender information. The majority of the participants were from the Northeast ($n = 57$, 78.1%) while 12.3% ($n = 9$) were from the Midwest, 4.1% ($n = 3$) from the West, and 4.1% ($n = 3$) from the South. One participant (1.4%) did not provide regional information. Almost half of the participants ($n = 36$, 49.3%) were at the graduate level during the time they completed the survey, and 50.7% ($n = 37$) participants at the undergraduate level with participants at each grade level (first year: 11.0%, $n = 8$; sophomore: 8.2%, $n = 6$; junior: 13.7%, $n = 10$; senior: 17.8%, $n = 13$).

Similar to the national demographics of SLPs, participants were predominantly White ($n = 57$, 78.1%). Few participants identified with other racial groups: 4.1% ($n = 3$) were Asian, 6.8% ($n = 5$) were African American, 4.1% ($n = 3$) were two or more races, and 6.8% ($n = 5$) selected other or preferred not to indicate a race. In regard to ethnicity, only 6.8% of participants ($n = 5$) indicated that they were Hispanic or Latino. More than half of the participants ($n = 43$, 58.9%) selected English as their only language while 41.1% ($n = 30$) selected English and some other language (Spanish, Italian, French, Hindi, Esperanto, American Sign Language, Malayalam Gujarati, Ukrainian, Russian, Korean, Hebrew, and Japanese). Overwhelmingly, participants noted that they did not speak AAE ($n = 67$, 91.8%).

### Data Analysis

To address our first research question, we calculated the mean score of the ratings for the two questions pertaining to the participants' explicit opinions about use of NMAE dialects. To address our second research question, we examined participants' responses to the matched-guise dialect perception task in which participants rated personal attributes about the speaker from one of four audio conditions. Each attribute was combined into one of three categories: sociointellectual status, aesthetic quality, and dynamism. The following pairs of adjectives: literate/illiterate, rich/poor, white collar/blue collar, and high social status/low social status fall under the sociointellectual status category. Pleasing/displeasing, nice/awful, sweet/sour, and beautiful/ugly fall under the category of aesthetic quality. The remaining pairs of adjectives, aggressive/unaggressive, active/passive, and strong/weak, are included under the dynamism category.

## Results

Our first aim was to determine the extent to which students in speech-language pathology training programs agree with explicit statements regarding the validity of NMAE dialects. Table 2 presents the descriptive results for responses to the explicit statements split by Audio Group. Participants overall indicated that they agreed with the two belief statements that were modeled after the ASHA policy statement on social dialects. In response to the statement "No dialectal variety of American English is a disorder or a pathological form of speech or language," the overwhelming majority of participants ($n = 62$, 84.9%)

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[3]The loud/soft attribute was not included due to a programming error.

**Table 2.** Average responses to dialect opinion questions by group.

| To what extent do you agree with the following statement? | AAE Informal–AAE Formal $n$ = 23 | MAE Informal–MAE Formal $n$ = 11 | AAE Informal–MAE Formal $n$ = 19 | MAE Informal–AAE Formal $n$ = 20 |
|---|---|---|---|---|
| No dialectal variety of American English is a disorder or a pathological form of speech or language | 4.74 (0.86) | 4.00 (1.27) | 4.16 (1.50) | 4.35 (1.23) |
| All American English dialects are rule-governed linguistic systems. | 4.39 (0.89) | 4.00 (1.18) | 4.05 (1.22) | 4.00 (1.03) |
| It is important to learn to speak Mainstream American English in order to be successful. | 2.61 (1.20) | 3.27 (1.010) | 2.74 (1.28) | 3.05 (1.23) |
| Speech-language pathologists should work with students to teach them Mainstream American English | 2.30 (1.06) | 2.27 (0.79) | 2.16 (1.12) | 2.45 (1.10) |

indicated that they agreed with the statement. A small number of participants ($n$ = 8) indicated that they did not agree with the statement. A similar pattern emerged for the second dialect belief statement "All American English dialects are rule-governed linguistic systems," with over half of participants ($n$ = 39, 53.4%) strongly agreeing with the statement and an additional 11 participants (15.1%) responding that they somewhat agreed. Similar to the first question, few participants ($n$ = 5, 6.8%) indicated that they disagreed with the statement, but nearly a quarter of participants ($n$ = 18, 24.7%) indicated that they neither agreed nor disagreed with this statement. We also asked whether the participants who heard different audio pairings differed in their responses to these two opinion questions. For each of the dialect questions, a one-way analysis of variance (ANOVA) was conducted to test for differences across audio groups. There were no significant differences across audio groups for either dialect question: first question ("No dialectal variety of American English is a disorder…"), $F(3, 72) = 1.247$, $p = .300$; second question ("All American English dialects are rule-governed linguistic systems"), $F(3, 72) = .647$, $p = .588$.

Our second research question asked whether participants who heard a speaker using different dialects would rate the speaker differently in terms of personal attributes. Table 3 presents the descriptive statistics for each attribute as well as sociointellectual, aesthetic, and dynamism categories. Visual inspection of the distribution of the responses in each category by condition suggested a high level of individual variation, which can be seen in the pirate plots in Figures 1–3. Pirate plots are a visual representation of the overall mean, shape of the distribution, and the individual data points (Phillips, 2017). Statistical comparisons were conducted using a set of one-way ANOVAs. ANOVAs were used to examine whether participants who heard the speaker using different dialect pairings (i.e., Audio Groups) differed in their ratings of the speaker. Significant differences were revealed for each of the attribute categories: Sociointellectual, $F(3, 72) = 5.172$, $p = .003$; Aesthetic, $F(3, 72) = 3.164$, $p = .030$; and Dynamism, $F(3, 72) = 6.668$, $p = .001$.

Follow-up comparisons using Tukey's honestly significant difference correction for multiple comparisons indicated that these main effects were driven by significant differences between the MAE Informal–MAE Formal condition and

other conditions. First considering the sociointellectual category, the MAE Informal–MAE Formal condition was rated significantly more positive than the AAE Informal–AAE Formal condition ($p = .004$; $g = 1.193$)[4] and the MAE Informal–AAE Formal condition ($p = .004$, $g = 1.32$). There was not a significant difference between the AAE Informal–AAE Formal condition and both of the code-switch conditions and the effect sizes were small (AAE Informal–AAE Formal vs. AAE Informal–MAE Formal: $p = 0.600$ $g = .379$; AAE Informal–AAE Formal vs. MAE Informal–AAE Formal: $p = 1.00$, $g = .022$), and the difference between the AAE Informal–MAE Formal and the MAE Informal–AAE Formal condition also was not significant and had a small effect size ($p = .582$, $g = .443$). In the aesthetic category, the MAE Informal–MAE Formal condition was also rated higher than other conditions. The MAE Informal–MAE Formal condition was rated significantly higher than the MAE Informal–AAE Formal condition ($p = .038$, $g = 1.047$) while other follow-up comparisons were not statistically significant (MAE Informal–MAE Formal vs. AAE Informal–AAE Formal, $p = .359$, $g = .527$; MAE Informal–MAE Formal vs. AAE Informal–MAE Formal, $p = .893$, $g = .305$; AAE Informal–AAE Formal vs. AAE Informal–MAE Formal, $p = .701$, $g = .326$; AAE Informal–AAE Formal vs. MAE Informal–AAE Formal, $p = .509$, $g = .402$; Code-switch conditions, $p = 0.91$, $g = .888$). Effect sizes were small for these comparisons, with the exception of the AAE Informal–AAE Formal versus the MAE Informal–MAE Formal conditions, which was medium, and the two code-switch conditions, which was large. A slightly different pattern emerged in the dynamism category, in which MAE Informal–MAE Formal was rated significantly lower than other conditions. The MAE Informal–MAE Formal condition was rated lower than the AAE Informal–AAE Formal condition ($p = .001$, $g = 1.355$), as well as both the AAE Informal–MAE Formal condition ($p = .001$, $g = 1.314$) and the MAE Informal–AAE Formal condition ($p = .002$, $g = 1.45$). The effect sizes for these differences were considered large. There was not a significant difference between

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[4]Effect sizes were calculated using Hedges' $g$ for all comparisons due to differences in the sample sizes across conditions. Effect sizes of .2 were considered small, .5 were considered medium, and effect sizes > .8 were considered large.

**Table 3.** Average ratings on the Revised Speech Dialect Attitudinal Scale by Audio Condition.

| Attribute | AAE Informal–AAE Formal, n = 23 M (SD) | MAE Informal–MAE Formal, n = 11 M (SD) | AAE Informal–MAE Formal, n = 19 M (SD) | MAE Informal–AAE Formal, n = 20 M (SD) |
|---|---|---|---|---|
| **Sociointellectual** | **3.38 (0.96)** | **4.45 (0.74)** | **3.69 (0.60)** | **3.36 (0.86)** |
| Literate | 4.57 (1.65) | 5.09 (1.38) | 4.47 (1.02) | 3.85 (1.53) |
| Rich | 3.22 (1.00) | 4.18 (0.60) | 3.68 (0.75) | 3.30 (1.13) |
| White collar | 2.78 (1.24) | 4.36 (1.12) | 3.32 (1.29) | 3.30 (1.08) |
| High social status | 2.96 (1.43) | 4.18 (0.75) | 3.32 (0.95) | 3.00 (1.03) |
| **Aesthetic** | **4.00 (1.10)** | **4.57 (1.04)** | **4.31 (0.73)** | **3.60 (0.86)** |
| Pleasing | 3.78 (1.62) | 4.36 (1.57) | 4.11 (0.94) | 3.10 (1.37) |
| Nice | 4.43 (1.44) | 5.09 (1.22) | 4.68 (0.89) | 4.10 (1.02) |
| Sweet | 3.48 (1.20) | 4.82 (1.40) | 3.89 (1.05) | 3.45 (1.19) |
| Beautiful | 4.30 (1.18) | 4.00 (1.00) | 4.58 (0.96) | 3.75 (0.91) |
| **Dynamism** | **4.48 (0.74)** | **3.36 (0.99)** | **4.53 (0.83)** | **4.45 (0.58)** |
| Aggressive | 3.96 (1.61) | 2.82 (1.54) | 4.05 (1.27) | 4.75 (1.02) |
| Active | 4.39 (1.62) | 4.00 (1.10) | 4.58 (1.35) | 4.30 (1.49) |
| Strong | 5.09 (1.16) | 3.27 (1.01) | 4.95 (1.03) | 4.30 (1.13) |

any of the conditions that included AAE and the effect sizes were small. That is, AAE Informal–AAE Formal was not significantly different than either the AAE Informal–MAE Formal condition ($p = .997$, $g = .064$) or the MAE Informal–AAE Formal condition ($p = .999$, $g = .045$) and there was not a difference between the two code-switch conditions ($p = .990$, $g = .112$).

## Discussion

The current study sought to better understand how students preparing to become SLPs view the use of AAE, both in their explicit judgments about the validity of AAE

and their implicit opinions about speakers who use AAE. Overall, students largely agreed with two statements, molded after the ASHA position statement, recognizing the validity of dialectal variation. Despite these overall positive ratings, students who heard the AAE audio recordings rated the speaker lower in personal attributes. We will discuss some of the implications of these findings and then present a brief tutorial of how these findings can be used to support the future education of students in speech-language pathology programs on the topic of implicit bias and linguistic variation.

Current ASHA standards require that speech-language pathology educational programs recognize the "cultural/linguistic background of the individual(s) receiving services."

**Figure 1.** Pirate plot of sociointellectual category responses to Revised Speech Dialect Attitudinal Scale by Audio Group. Bolded lines show the group mean. AAE = African American English; MAE = Mainstream American English.
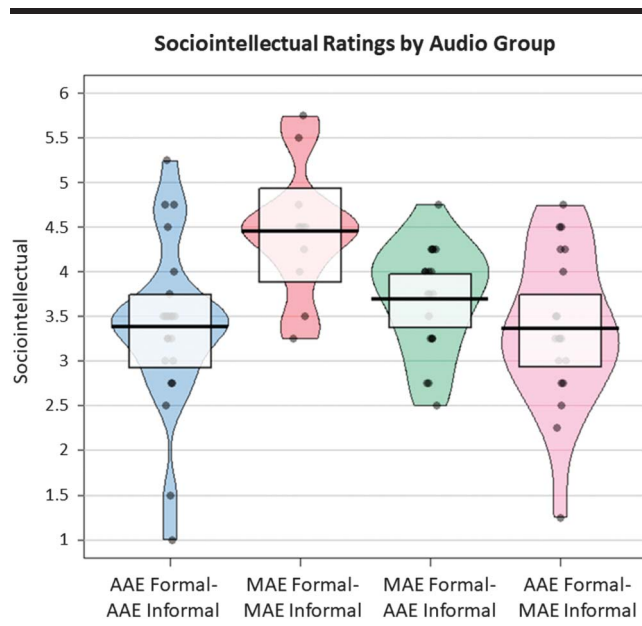
**Figure 2.** Pirate plot of aesthetic category responses to Revised Speech Dialect Attitudinal Scale by Audio Group. AAE = African American English; MAE = Mainstream American English.
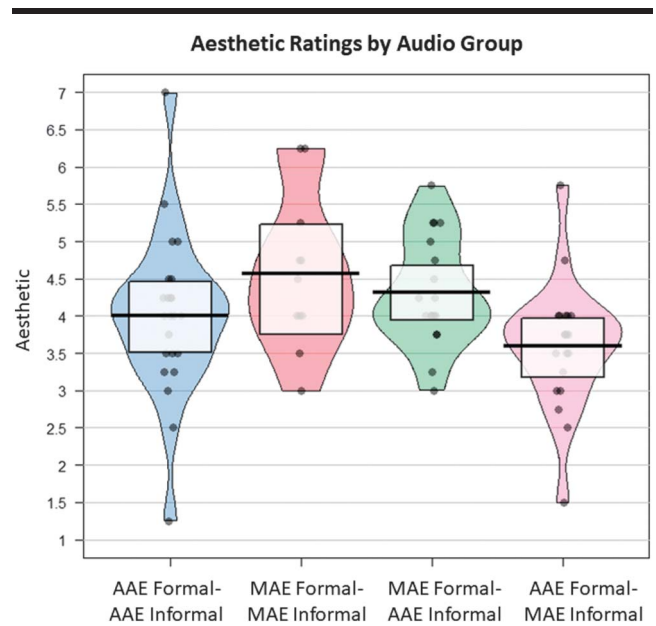
Figure 3. Pirate plot of dynamism category responses to Revised Speech Dialect Attitudinal Scale by Audio Group. AAE = African American English; MAE = Mainstream American English.
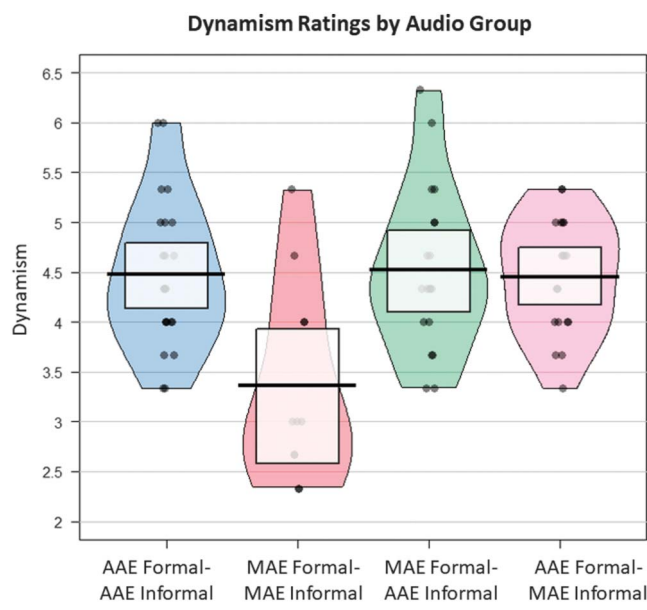


In this study, we found that, overall, students report that they agree with explicit statements about validity of linguistic varieties. This suggests that efforts to increase student knowledge in the area of cultural competence have been successful to some extent. Students appear to have a basic understanding of the fact that all dialects are systematic and rule-governed systems. At the same time, an analysis of the individual variation in scores reveals that some students maintain views that are contrary to the ASHA position statement. Because our study included students from different educational levels, we cannot determine whether these students have not yet had direct instruction in the area of cultural and linguistic diversity or whether they maintain these negative views despite having had instruction in the area. Thus, while the overall high level of agreement with the explicit position statements is positive news, the individual variation suggests that additional and perhaps different modes of instructions are necessary in the area of cultural humility within speech-language pathology training programs.

Although the ratings to the explicit statements about the validity of dialectal variation were overall fairly positive, the ratings of personal attributes were lower. Importantly, despite the fact that the groups did not differ in their explicit responses, participants who heard the speaker using different dialects did differ in their implicit judgments with participants who heard the speaker using only MAE rating her higher in personal attributes. While not all comparisons reached statistical significance, the large effect sizes suggested that when participants heard the speaker using AAE, whether it be in formal or informal contexts, they rate the speaker lower with regards to the sociointellectual category

and the aesthetic category. We interpret these findings to reveal that listeners exhibit a bias against the use of AAE in both the experimental contexts—both formal and informal contexts. However, the smaller effect sizes for the comparison between MAE Informal–MAE Formal and the AAE Informal–MAE Formal condition in contrast to the other comparisons suggest that AAE within formal contexts may be more heavily penalized by raters than AAE in informal contexts.

These results are in line with the previous study by Koch et al. (2001) in showing a bias against the use of AAE. Thus, bias against the use of AAE is not limited to other fields and carries over to students in speech-language pathology programs, despite the required training in cultural and linguistic diversity. Furthermore, the results of this study indicate that these biases are persistent and that negative perceptions of AAE have not resolved in the nearly 20 years since the previous study. We note that the current data were collected in fall 2019 and early spring 2020, and since that time, concern for the long-standing issue of racial equity in the field of speech pathology has increased. Ongoing research is needed to determine whether this increased attention will translate into reduced bias among students in speech-language pathology programs. As such, the results of this study may serve as a useful baseline for future research on perceptions of dialect among students in speech-language pathology programs.

While we have described the matched guise perception task as a measure of participants' implicit opinions about people who speak AAE, the task in the current study differs from common implicit bias tasks (e.g., Greenwald et al., 1998, also see publications at perception.org). In the current task, participants were asked to provide explicit judgments about the personal attributes of the speaker. While the task did not specifically name the dialects spoken, completing the task relied on listening and responding to dialectal differences. We might presume then that participants would monitor their responses for bias and prejudice, as much as one can be cognizant of one's own internal biases. Despite the more explicit method in this study compared to other implicit bias methods, there were still differences between the groups in terms of how they rated the speaker. This finding suggests that the participants are unaware of these biases, or worryingly, that participants perhaps do not recognize such ratings as problematic. Either suggestion highlights the need for training that centers on improving self-awareness and grounding their knowledge of nonmainstream dialects, such as AAE.

It is important to note that the audio samples in this study were designed to maximize the differences across dialect conditions. Thus, the AAE samples contained more AAE features than is typical, in particular within the formal audio sample, as many people who speak AAE use fewer AAE features within formal contexts. While the current study found differences in ratings of the speakers using these maximally different samples, it is unclear whether these differences would have been present if the samples had included fewer, or different, AAE features. Future research would benefit

from comparing ratings of samples with higher and lower frequency of AAE feature use. Importantly, this future research should modify the types of features used to determine the relative importance of phonological, syntactic, or lexical features to determine whether different types of features affect listener bias to differing degrees.

One unintended way in which the audio samples differed was the average pitch used by the speaker in the different dialect and formality conditions. Following data collection, we conducted a follow-up analysis of the average pitch produced by the speaker in each audio sample. Acoustic analyses indicated that the mean pitch was higher in the MAE samples compared to the AAE samples and that difference was similar across formal and informal conditions (MAE informal $M = 210$ Hz and MAE formal $M = 222$ Hz vs. AAE informal $M = 168$ Hz and AAE formal $M = 172$ Hz). Thus, in the current study, there is an unintentional overlap between dialect and pitch differences and it is possible that participants' responses reflect differences that were due to factors other than dialect features. Future research on this topic should consider either controlling for pitch differences or including it as a factor to be manipulated.

The difference in pitch is particularly interesting as this was not intentionally included as a difference across dialect conditions and therefore represents an unconscious change coinciding with studies that have examined differences in pitch between Black and White women (Li et al., 2021). Li et al. found that Black women produce an overall lower average fundamental frequency than did White women. Thus, we might extrapolate that our speaker adhered to societal norms for the expected pitch of the MAE guise (which would be more aligned with Whiteness) and also for the expected pitch of the AAE guise (which would be more aligned with Blackness). While not a goal of this study, the fact that our stimuli reflect the real-world differences between the voices of Black and White women underscores that ways of speaking associated with Blackness are sometimes judged more harshly.

Several methodological issues potentially limit our ability to interpret the current findings more broadly. First, although an effort was made to recruit a national sample, including a second wave of recruitment from states outside of the Northeast region, a majority of participants were from the Northeast ($n = 57$, 78.1%) and there were few participants from the Western and Southern regions. Students from different geographical regions may differ in the frequency of interactions with peers who speak AAE and therefore may have differing opinions about the use of AAE and also different perceptions and reactions to hearing it spoken (cf. Preston, 2010; Mitchell et al., 2017). Second, similar to other matched-guise study designs, the between group design was selected in order prevent comparisons between conditions. We recognize, though, that this type of study design complicates the interpretation of the results in that there may be differences in participants' pattern of responses that are due to factors other than the audio pairing that the participant heard. That is, participants may have utilized the Likert scales differently, leading to

differences across groups. Additional data would be needed to establish the stability of the measures across participants, time points, and conversational contexts. Finally, we note that the number of participants in each audio group was relatively low, with few participants in the MAE Informal–MAE Formal condition ($n = 11$) in particular. These smaller sample sizes likely affected our ability to detect significant effects in some comparisons despite medium to large effect sizes. Despite these limitations, the results document a disconnect between students' explicit opinions about the validity of linguistic variation and their implicit ratings of speakers who use AAE. In the next section, we discuss how the results of this study can be adapted into a teaching activity to improve students' awareness of bias and reduce their negative attitudes toward linguistic variation.

### Advancing Educational Practices

The results add to the growing number of calls for additional training for students in speech-language pathology programs to address their implicit bias against people who speak AAE (See also Horton-Ikard et al., 2009). In this section, we describe how the materials and results of this study can be used to create an educational activity to address this need. A lesson plan and materials are provided in Supplemental Material S1. This activity would be beneficial for students at an undergraduate or graduate level and can be modified to be implemented in small group settings (e.g., in a research lab or small seminar) or larger settings (e.g., an undergraduate introductory course or an orientation for a graduate school cohort). Given the mismatch between the explicit reports of the validity of linguistic variation and the implicit ratings of personal attributes for speakers of AAE, the first step of an educational activity is to draw students' attention to possible biases. We recommend having students listen to recordings of both MAE and AAE. First, students are asked to reflect on the words that they may use to describe the audio file and note whether these attributes have positive or negative connotations. Next students are asked to complete the Revised SDAS and explicitly compare their responses for each dialect. Following this reflection, students are provided with detailed information about phonological and grammatical structure of AAE. We believe that while increasing linguistic knowledge is not sufficient to address persistent societal anti-Black racism which leads to negative opinions about AAE, a deeper understanding of the complexity of AAE will help students to appreciate the value of the dialect and thus reduce their bias against people who speak the dialect. As self-awareness is critical to reducing bias against people who speak AAE and consequently to improving ethical clinical practice, we suggest a final stage of self-reflection following the learning activity. The results of this study indicate that explicitly telling students about the validity of all linguistic varieties is not sufficient for addressing the persistent bias against people who speak AAE. Lessons that include self-reflection on bias, such as the one provided along with this article, have

the potential to fill the gap between surface-level recognition of dialects as rule-governed systems and a deeper appreciation for linguistic variation.

## Author Contributions

## Acknowledgments

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