# Effect of Accent Perception on the Perception of Professionalism

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## Abstract

This study explores how people's perceptions of speakers' accents may be related to their perceptions of speakers' professional characteristics. Sociolinguistic research continues to highlight that the ways listeners perceive accents and the ways they perceive the people who use those accents are intertwined. In addition, accent discrimination is often an underlooked form of discrimination in various aspects of society, including in workplace situations – from interview success to upward mobility. The U.S. judicial system, in theory, condemns discrimination based on national origin, race, socioeconomic status, etc. but, in reality, provides leeway for employers to discriminate based on language and uphold beliefs in standard language ideology. In the U.S., English speakers tend to view non-native English speakers as less credible or believable than native English speakers, but few other studies have explored this relationship between accent perception and the perception of personal characteristics. Our study contributes to sociolinguistic research on accent perception by exploring how accentedness interacts with the perception of specific character traits prioritized in professional situations: professionalism, confidence, believability, knowledgeability, and level of experience.

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## 1 Introduction

Speech perception and the perception of speakers' character traits are deeply intertwined. Because accents carry social meanings, the ways listeners perceive how someone speaks carries over to the ways they perceive the speakers themselves. "Standard accent" is a perceived sense of prestige that is societally and systemically associated with certain accents (Morales, Scott, and Yorkston 2012), and research on accent perception reveals the assumptions listeners often make about non-standard accents. This association often stems from an association of accents with different levels of education, formality and socioeconomic status. Thus, some accents tend to be perceived as less prestigious, less educated, less formal and less correct (Morales, Scott, and Yorkston 2012) or less credible and less believable (Lev-Aria and Keysar 2010). Negative social meanings associated with certain accents and positive social meanings associated with others are not limited to accents from other countries; they are prevalent in perceptions of regional accents as well. Understanding these different social meanings and how they influence accent perception can aid in understanding the ways that listeners make assumptions about speakers based solely on how they speak.

This study examines the effects that accent perception can have on perceptions of the character and personality traits of the speakers who use those accents. This study specifically explores character traits that are often prioritized in workplace scenarios and their relationship to accent perception. By exploring the relationship between the perceptions of professionalism, confidence, believability, knowledgeability and level of experience and the perceptions of accents, this study examines the ways that accent perception interacts with these traits differently and how this interaction may change depending on the topic discussed and the purported expertise of the speaker. Although there is extensive sociolinguistic research on speech perception, perceptions of accents in professional and formal discourse and contexts are understudied. Therefore, this study investigates the effects that accent perception can have on perceptions of character traits often critical in professional scenarios, raising questions about the relationship between accent perception and accent discrimination and the ways that this relationship may reveal itself in people's lives.

## 2 Literature Review

Speakers of some accents tend to be perceived as less competent and of lower socio-intellectual status than others (Rakić et al. 2011). Specifically, listeners tend to associate more negative traits with speakers who use accents that are not standard in the context in which they are speaking (De Souza et al. 2016). For instance, American listeners are more likely to categorize non-Anglo accents as "foreign" instead of "American" than they are with Standard American English (SAE) accents. American listeners also tend to view Western European accents that are less stigmatized in the U.S., such as French and German accents, more positively than they view non-Anglosphere accents, such as Arabic, Farsi and Vietnamese (Dragojevic and Goatley-Soan 2020).

Negative social meanings are also associated with some regional accents. For example, German and New York accents used in the U.S. tend to be perceived as more "arrogant" than Midwest accents, and Southern accents tend to be perceived as "friendlier" and more "pleasant" in comparison to British, German and New York accents. Furthermore, English-speaking listeners in the U.S. tend to associate higher intelligence with a British accent and less intelligence with New York, Hispanic and Midwest accents as well as higher socioeconomic statuses with British, Southern and German accents and lower socioeconomic statuses with Hispanic and New York accents (P. Shah 2019).

Linguistic research has also explored the ways that accent perception can influence how listeners perceive speakers' personal character traits that are prioritized in workplaces. For example, when evaluating a Midwestern U.S. accent, French accent and Colombian accent on a hiring scale for a fictitious human resources position, U.S. participants tend to evaluate the Midwestern U.S. accent more positively than they evaluate the French accent. In this study, how easy it is for listeners to

understand an accent was not a driving force for how they rate the speakers on job suitability, highlighting that biases against certain accents are not direct reflections of levels of understandability to listeners (Deprez-Sims et al. 2010).

Similarly, German participants tend to view speakers with regional German accents — Saxon, Bavarian and Berlin — as less competent, less hirable and with lower socio-intellectual statuses than speakers using standard German accents (Rakić et al., 2011), highlighting that the perception of standard accents in comparison to non-standard accents can affect the perception of the individuals who use those accents. Research continues to draw attention to the ways that nonstandard accents tend to be perceived by listeners as disreputable, uneducated, informal and incorrect, and that speech perceived as non-native tends to also be perceived as less credible and less believable (Lev-Ari and Keysar 2010). Listeners even tend to remember less content when the content is spoken by someone with an accent perceived as a non-native accent as opposed to a native accent (Lev-Ari and Keysar 2012).

Although many studies have explored facets of the perception of accent, the relationships between purported expertise and accent perception as well as the topic discussed and accent perception are understudied. Furthermore, considering that the research discussed above has shown the ways that accent perception plays a major role in professional settings, this study aims to contribute to this research by specifically exploring the perceptions of five major characteristics that tend to be valued highly in workplaces.

## 3  Methodology

### 3.1  Speakers and Participants

Two speakers recorded themselves to create the audio that participants listened to during the experiment. One of the speakers is a bilingual native Spanish-speaker from Colombia who also speaks English and lives in Oregon, and the other speaker is a monolingual native English-speaker from Oregon. The monolingual speaker is a medical doctor, and the bilingual speaker is a professor in neuroscience. Both speakers are male, are in their forties, and live in and have accents that are common in Oregon. Since the study focuses on accent perception in the U.S., it was essential that the speakers both have accents common to the U.S.

Due to restrictions from the COVID-19 crisis, the two speakers used their own external microphones to record themselves reading aloud short paragraphs provided to them. They read aloud 16 paragraphs, each four sentences long. Eight of the paragraphs were on the topic of Mexican history, focusing on the differences between Mexican Independence Day and Cinco de Mayo, and the other eight paragraphs were on the topic of marine biology, with information gathered from studies reported by *Science Daily*.

256 participants were recruited through Prolific. In order to participate in the online study, each participant passed a demographic pre-screening process in which they clarified that they were native English-speakers, were living in the U.S., and did not have hearing difficulties.

### 3.2  Experiment

This study uses a matched guise test to present the recordings of the two speakers to participants. That is, the participants listened to two speakers and then were asked to rate the speakers in regards to personal characteristics. The participants used a Likert scale to rate the speakers they listened to. The aim of this type of experiment design is to reveal attitudes that listeners have toward the two accents. The matched guise test is common in sociolinguistic studies that aim to measure social attitudes toward speech, including attitudes involving gender stereotypes (Dennhag et al. 2019), vowel shifts in regional speech (Habasque 2021) and languages and accents (Loureiro-Rodriguez, 2013).

Participants recruited through Prolific took part in the experiment on the survey platform Qualtrics. Each participant listened to both the bilingual and monolingual speakers. Before listening to each speaker, the participant read a few sentences describing the background of the speaker they were about to listen to; this background information portrayed the speaker as either an expert or non-expert in the topic they were discussing. After listening to each speaker, participants were asked

to rate the speaker on how professional, confident, believable, knowledgeable and experienced they perceived the speaker to be. After listening to both speakers, participants answered language background and demographic questions about themselves. Finally, participants were asked four "memory test" questions about the content of what their speakers discussed.

## 3.3 Procedure

Although each participant listened to both speakers, the order of speakers, the combinations of speaker, expertise and topic and the specific paragraphs provided were randomized. For example, one participant may have listened to the bilingual speaker described as an expert and discussing marine biology, followed by the monolingual speaker described as an expert and discussing Mexican history, whereas another participant may have listened to the monolingual speaker described as a nonexpert discussing marine biology, followed by the bilingual speaker described as a nonexpert discussing Mexican history. There was a total of four possible biographies: an expert discussing marine biology, a non-expert discussing marine biology, an expert discussing Mexican history and a non-expert discussing Mexican history. Each piece of biographical information was two sentences. The four biographies were as follows:

Expert in marine biology
The speaker you are about to listen to has been a marine biologist for seven years. He studied oceanography during his undergraduate schooling and received his PhD in marine biology.
Non-expert in marine biology
The person you are about to listen to is a third-year undergraduate student. In his free time, he enjoys swimming in the ocean and learning about the animals that live there.
Expert in Mexican history
The speaker you are about to listen to is completing his Master's in Latin American Studies and has lived in Mexico for nine years.
Non-expert in Mexican history
The person you are about to listen to is a third-year undergraduate student who has lived in Oregon his entire life. In his free time, he enjoys reading books and learning about world history.

Incorporating this expertise variable allows us to study how accent perception may interact differently with different levels of expertise. Including two topics, marine biology and Mexican history, allows us to explore relationships between accent perception and the topic discussed. The marine biology topic acts as a "neutral" topic — one that does not carry as many cultural connotations — to compare the Mexican history topic with.

## 3.4 Likert Scale and Memory Test Questionnaires

A social perception questionnaire followed each speaker. Each questionnaire was a series of five questions that asked participants to rate the speaker they just listened to on five characteristics. The five questions were as follows:

How **confident** do you feel the speaker is?
How **believable** do you feel the speaker is?
How **professional** do you feel the speaker is?
How **knowledgeable** do you think the speaker is about the topic he discussed?
How **experienced** do you think the speaker is about the topic he discussed?

For each question, participants selected a number on a Likert scale from 1 to 9, with 1 being "not at all [characteristic]" and 9 being "very [characteristic]." The results of the Likert scale questions were used to explore the relationships between accent and the perception of the five characteristics.

Finally, after a demographic and language background survey, participants were presented with a "memory test" in which they were asked questions regarding the content of what their speakers discussed. Each participant was asked two questions pertaining to the first speaker and two questions pertaining to the second speaker. Each question provided three potential answers, with only one of them being correct. For example, some participants were asked the question, "According to your second speaker, what does Cinco de Mayo represent in Mexico?" The participants then selected an answer from three choices: Mexican Independence Day, the Battle of Puebla or a national holiday. This allows us to study relationships between accent and how much listeners remembered or

understood from the speaker as well as any relationships between the perception of the five characteristics mentioned earlier and how much listeners remembered or understood from each speaker.

## 4  Results

### 4.1  Overall Ratings

Data from the experiment were analyzed using RStudio and Excel. Participants gave both the bilingual and monolingual speakers similar, relatively high, ratings in professionalism, confidence, believability, knowledgeability and level of experience. However, closer observation of the differences in the average ratings across the five characteristics for the two speakers shows that, on average, participants tended to rate the monolingual speaker higher than the bilingual speaker in professionalism and confidence. These results for the overall ratings given to both speakers, regardless of the expert or nonexpert guise and topic discussed, are summarized in Figure 1 below:
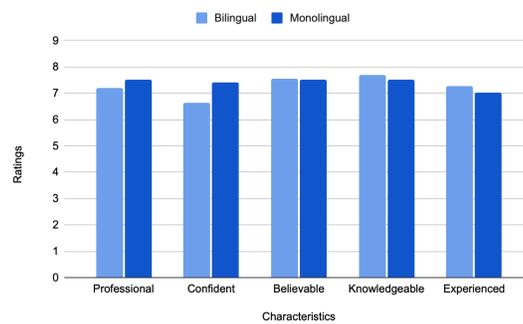


Figure 1: Average ratings for bilingual and monolingual speakers

The monolingual speaker received higher average professionalism and confidence ratings than the bilingual speaker did, while the differences in average believability, knowledgeability and experience ratings between the two speakers were minimal. This suggests that accent perception may have a stronger influence on perceptions of professionalism and confidence than on perceptions of believability, knowledgeability and level of experience.

### 4.2  Ratings by Expertise

On average, participants rated their speaker, regardless of accent or topic, higher in professionalism, confidence, believability, knowledgeability and experience if they first read background information describing the speaker as an expert rather than as a non-expert. In other words, participants tended to view experts more positively than non-experts in all five traits, as summarized in Figure 2 below:
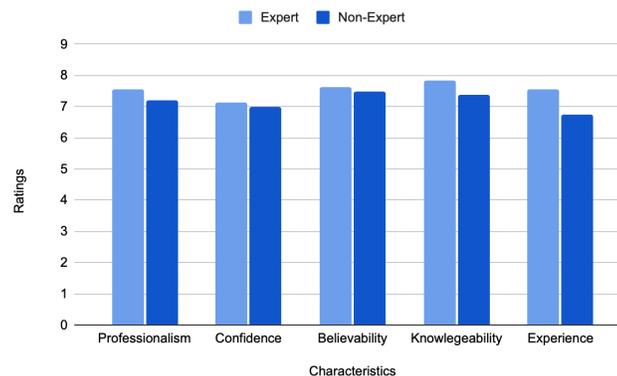
Figure 2: Average ratings for experts and non-experts

As in the case of the overall data presented in 5.1., when the data are analyzed separately for the monolingual and bilingual speakers, the monolingual speaker has average professionalism and confidence ratings that are higher than those of the bilingual speaker, regardless of expertise.

## 4.3  Ratings by Topics

When comparing the ratings for the speakers based on whether they discussed marine biology or Mexican history, the results are also similar to those of the overall ratings in 5.1. The average ratings for the two speakers separated by topic are summarized in Figure 3 and Figure 4 below:
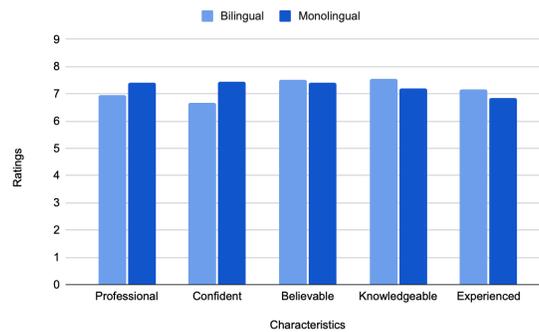


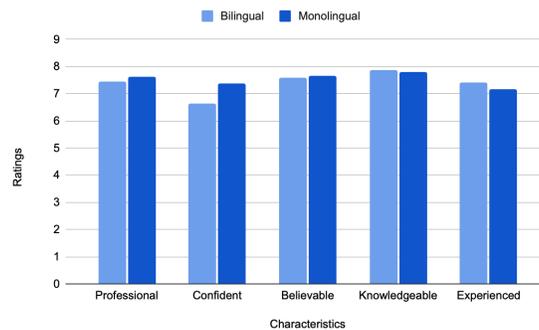Figure 3: Average ratings for Mexican history



Figure 4: Average ratings for marine biology

In general, these results reveal a trend similar to the trend presented in 5.1: participants gave the monolingual speaker higher average ratings in professionalism and confidence in comparison to the ratings they gave to the bilingual speaker, regardless of the topic discussed.  However, Figure 3 and Figure 4 also reveal a noticeably greater difference between the monolingual and bilingual speakers' average believability, knowledgeability and experience ratings when the speakers are discussing Mexican history compared to marine biology. Specifically, the bilingual speaker received higher average ratings in comparison to the monolingual speaker in those three categories when the topic discussed is Mexican history; the difference is less prominent when the speakers discussed marine biology. It is possible that listeners' perceptions of a speaker's believability, knowledgeability and experience are influenced not only by the speaker's accent but also by the combination of the speaker's accent and the topic discussed.

## 4.4  Ratings with Expertise and Topics

Although both the bilingual and monolingual speakers tended to receive higher average ratings when they were portrayed as experts rather than non-experts, the data reveal noticeable differences in average ratings when both topic and purported expertise are taken into account. In particular, the bilingual speaker received higher average ratings when discussing Mexican history with the non-expert guise. The average ratings for both speakers as marine biology experts, marine biology non-experts, Mexican history experts and Mexican history nonexperts are summarized in Figures 5, 6, 7 and 8 below, respectively:
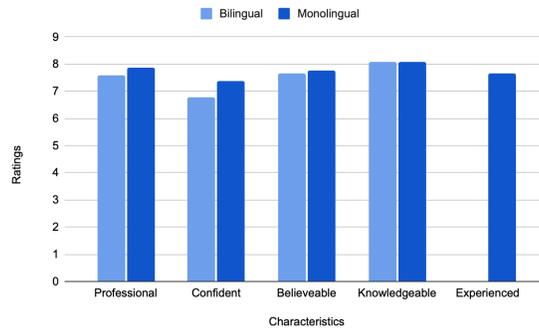


Figure 5: Average ratings for marine biology (expert guise)
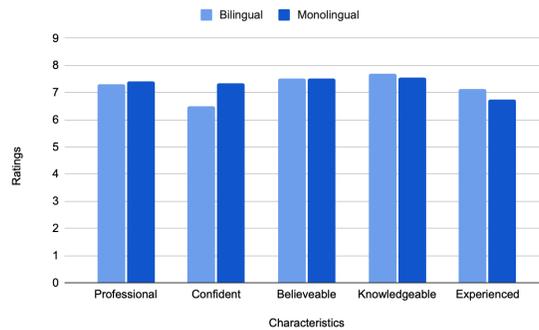


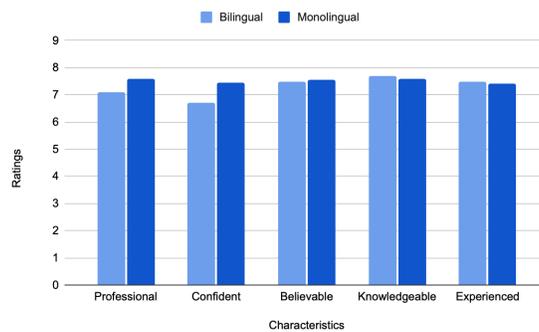Figure 6: Average ratings for marine biology (non-expert guise)



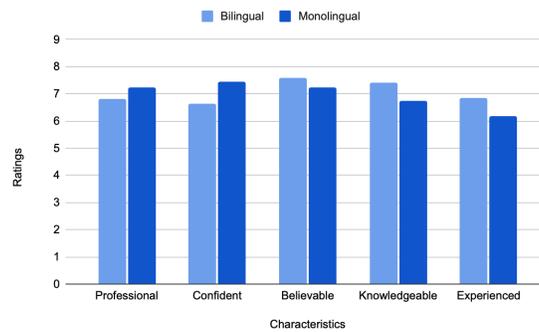Figure 7: Average ratings for Mexican history (expert guise)

Figure 8: Average ratings for Mexican history (non-expert guise)

Overall, Figures 5, 6, 7 and 8 present a trend that is consistent with the results presented so far: the monolingual speaker tended to receive higher average professionalism and confidence ratings in comparison to the bilingual speaker. In addition, the figures above further highlight that the expert guise tended to result in higher average ratings for both speakers as well, which was discussed in 4.2.

However, closer analysis of Figure 8 in particular shows that the bilingual speaker received significantly higher ratings in believability, knowledgeability and experience when portrayed as a non-expert discussing Mexican history in comparison to the monolingual speaker portrayed as a non-expert discussing Mexican history. That is, the differences between the average ratings for believability, knowledgeability and experience between the monolingual and bilingual speakers are most prominent when the speakers are portrayed as non-experts discussing Mexican history than with any other combination of expertise and topic. The differences in the average ratings for the three traits for the two speakers was not as prevalent for any other combination of expertise and topic, including when the speakers discussed Mexican history under the expert guise. These results suggest that the ways listeners perceive speakers' accent may also depend on the topic the speakers are discussing. In this case, one may hypothesize that speakers tended to find the bilingual speaker more believable, knowledgeable and experienced in Mexican history than the monolingual speaker was when the speakers were described as non-experts because they associated a "Spanish-speaking" accent with the history of a country that is largely Spanish-speaking and a non-expert guise with closer ties to Mexico.

## 4.5  Memory Test Results

Participants were generally very accurate on the memory test. However, listeners were more accurate on the memory test when they were asked about the content of what was discussed by the monolingual speaker than by the bilingual speaker. This consistent pattern is reflected in Figure 9 below:
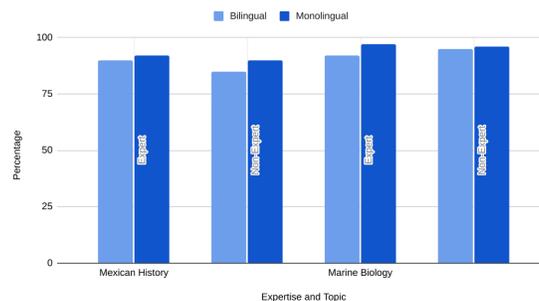


Figure 9: Percentage of correct and incorrect answers for memory test questions

The charts above show that participants tended to answer a higher percentage of questions correctly when the questions pertained to content discussed by the monolingual speaker rather than the bilingual speaker. In other words, given the same expert or non-expert guise and the same topic, listeners tended to remember content less accurately when spoken by the bilingual speaker as opposed to the monolingual speaker. Considering that all of the participants in this study live in the U.S. and the majority of the participants are monolingual English-speakers, it is possible that many of the participants' lack of experience with the bilingual speaker's accent affected their ability to remember the content from the bilingual speaker as well as from the monolingual speaker. Regardless, the results of the memory test reflect ways that speakers' accents may affect how much listeners remember or understand and how this may not have a direct relationship with perceptions of the characteristics of the speakers themselves.

## 5  Discussion

### 5.1  Limitations and Future Research

Since this study was designed and carried out during the COVID-19 pandemic, all aspects of the study were conducted independently by either the speakers or the participants. The virtual nature of the study meant that fewer factors could be controlled, such as the consistency in audio quality across the two speakers, which may have affected the ratings given to the speakers by participants. Similarly, we could not control for the locations in which the participants took the study or the quality of their speakers or headphones, which may have affected the how the participants rated the speakers. Therefore, it would be helpful to recreate the recordings and carry out the study again when it is safer to do so in a lab. Another limitation of the study is the lack of age restrictions for the participants. Considering that most of the study relies on listening to audio, future similar studies should take hearing loss due to age into account and incorporate a maximum age restriction in the screening process for participants.

Future studies may also aim to incorporate a larger sample size to more thoroughly observe trends in the ratings given to the speakers and in the relationships between the accent of the speaker and the ratings. Studies may also include more character traits for participants to rate the speakers on to better analyze the ways that certain traits are related to accent perception differently than other traits. For example, are assertiveness and confidence or competence and professionalism rated similarly for each speaker? Furthermore, this study includes two speakers, one for each type of accent studied; however, including more speakers for each accent type would help with clarifying whether the results are due to the perception of the speakers' accents or due to other factors related to the specific speakers. For instance, participants may have simply found the specific monolingual speaker's voice to be more confident than the specific bilingual speaker's voice, regardless of accent. Adding, for example, a talker who speaks Mandarin as a first language and a talker who speaks French as a first language to the study could allow researchers to see any differences in how listeners may rate speakers with certain accents more harshly or more generously than others when it comes to specific character traits.

Finally, this study does not delve into the ways that the language backgrounds of the participants may have interacted with the ratings they gave the speakers. However, the participants' own language backgrounds are also relevant to studying accent perception and its relationship to perceptions of speakers' personalities and character traits. Therefore, future studies may aim to study if, for example, participants who speak Spanish as a first language tended to rate the bilingual speaker differently than participants without Spanish as a native language did. This may also help clarify if the results of the memory test were more reflective of how much the participants remembered from what the speakers discuss or of how much the participants could understand from what the speaker discussed. If, for instance, both participants with Spanish as a first language and participants without Spanish as a first language still answer more of the memory test questions correctly for the monolingual speaker than for the bilingual speaker, this may suggest that these results have more to do with memory than with understandability.

## 5.2  Overall Implications

In general, participants rated the bilingual and monolingual speakers similarly; both speakers received high ratings in professionalism, confidence, believability, knowledgeability and experience, especially when the speakers were first described as experts, regardless of accent or topic. In other words, these results support the expected result that individuals who are understood to be experts tend to be viewed more positively in a professional setting than individuals who are understood to be non-experts are. However, this study also shows that the monolingual speaker tended to receive higher ratings than the bilingual speaker did in professionalism and confidence specifically. This raises questions about the ways that professionalism and confidence may be perceived differently from traits like believability, knowledgeability and experience in relation to accent perception. That is, how a listener's perception of a speaker's accent interacts with their perception of the speaker's professionalism and confidence may be different from how it interacts with the other three traits used in this study. For instance, whether or not a listener perceives a speaker to be believable as a result of how they perceive their accent may not directly influence how much the listener perceives the speaker to be professional as a result of how they perceive their accent.

Furthermore, the bilingual speaker tended to receive higher ratings in believability, knowledgeability and experience when specifically portrayed as a non-expert discussing Mexican history. The differences between the two speakers for the ratings of those three traits were greatest with the non-expert guise and the Mexican history topic as opposed to other combinations of expertise and topic. This sheds light on ways that preconceived assumptions listeners associate with certain accents may affect how they perceive the individual who use those accents. In this case, it is possible that the participants associated the bilingual speaker's accent with a country that has a large Spanish-speaking population. Thus, when the participants were presented with the topic of Mexican history, they may have associated the bilingual non-expert as more equipped than the monolingual non-expert to discuss the topic.

Finally, the study showed that although participants were quite accurate on the memory test, they were more accurate with content discussed by the monolingual speaker than the bilingual speaker. Even in situations where the participants rated the bilingual speaker higher than the monolingual speaker for some character traits, the participants still consistently answered more question correctly for the monolingual speaker than for the bilingual speaker. All of the participants spoke English as a first language and many were monolingual English-speakers; therefore, it is possible that many of the participants may not have had much exposure to the accent of the bilingual speaker and that the results of the memory test were more due to understandability than to memory. Regardless, the study still suggests that how much a listener remembers or understands from what a speaker is talking about may not directly correlate to how they listener views the speaker's character traits.

## 5.3  Relevance to Society

In formal settings, including job interviews, workplaces, classrooms and courtroom, traits such as professionalism, confidence, believability, knowledgeability and experience are prioritized and encouraged. The perception of these traits also often affects the treatments of individuals as well as decisions made, which can range from minor to life-altering effects. Accent perception can affect workplace success, job interviews and hiring processes (Deprez-Sims, et al., 2010) as well as upward mobility in the workplace and work dynamics (Akomolafe, 2013). Negative perceptions of certain accents can play a role in the legal field as well, such as in jury selection, where jurors can be dismissed based on their accents, and in court cases, where jurors' perceptions of witnesses' speech may influence their decisions (Rose, 2020). Considering that accent perception may influence perceptions of character traits that are prioritized in these settings, this study's results highlight the importance of acknowledging and challenging assumptions and other subjective factors that may influence the perceptions of these traits, especially in situations where unjust perceptions of a speaker can result in biased and harmful treatment and decisions.

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