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## **Attitudes towards a non-standard variety of English in Aruba**

### **Abstract**

This study contributes to the field of language attitudes by examining the attitudes of Arubans towards two language varieties of English, namely, American English (standard) and Aruban accented English (non-standard) through a verbal guise test. 40 Arubans listened to four speakers of American English (two male, two female) and four speakers of Aruban accented English (two male two female) and rated them in terms of status, social attractiveness and vocal attractiveness. Furthermore, the interaction between the gender of the speakers and the accent was also studied. Results of this study revealed that Arubans rated both American and Aruban speakers similarly on all dimensions with a slight preference for the American English accent. The relation between the gender of the speaker and the accent had no significant difference. These findings provide new perspectives on World Englishes with new insights about the attitudes of Arubans towards standard and non-standard varieties of English.

### **Introduction**

Aruba is one of the four countries that constitute the Kingdom of the Netherlands. Dutch has been its official language until 2003 when Papiamentu attained an official status as well. Most Arubans are multilingual and speak a minimum of four languages including Dutch, Papiamentu, Spanish and English (Leuverink, 2011). These four languages appear throughout different sectors on the island including education, government and the media. English specifically has had a great impact on the island due to its omnipresence in the tourism,

internet and entertainment sectors. As English and Spanish have become exceedingly popular in news outlets such as newspapers, radio shows and television show programs, Spanish and English words are often used interchangeably with Papiamentu. Despite the presence of other languages, Papiamentu is still the majority language and the island's lingua franca (Pereira, 2018). The education system on Aruba is modeled after the system in the Netherlands and for the most part is funded by the government. Education is given in both Dutch and Papiamentu. However, considering the island's ethnically diverse history, English and Spanish are also taught as L2 from as early as 5<sup>th</sup> grade (Nuffic, 2015). The compulsory presence of both English and Spanish alongside Dutch and Papiamentu in primary education is also a factor that contributes to the relative ease in the Aruban's use of these languages (Pereira, 2018). Additionally, all four languages are very much prevalent in public authorities. The language of public road signs, commercial shop signs, advertising billboards and public signs on government buildings include Papiamentu, Dutch, Spanish and English. Due to the presence of these languages, code mixing<sup>1</sup> and codeswitching<sup>2</sup> have become a large part of the linguistic practice of the average Aruban speaker (Pereira, 2018). The average Aruban speaker uses these four languages interchangeably on a daily basis. These phenomena are also often associated with a healthy multilingual environment. It can improve an individuals' overall communication skills, as well as provide an advantage on the understandings of different cultures (Pereira, 2018).

Given the multilingual nature of the Aruban society, I want to examine the attitudes of Arubans towards variations of English spoken on the island. No prior research in the field of language attitudes has been done on the attitudes of Arubans. Thus, this study is exploratory in nature. One would expect a multilingual society to be relatively positive towards non-standard

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<sup>1</sup> Codemixing refers to the mixing of two or more languages in speech.

<sup>2</sup> Codeswitching is the practice of changing between languages when speaking.

accents (Dewaele & James, 2015). An example of such a non-standard accent is Aruban accented English (AaE). It is considered a non-standard variety of English as it does not fall in the inner circle of the “Three circle model of World Englishes” as defined by Kachru (1985). The accent consists of Papiamentu phonological features in combination with features of American English. Many studies have been conducted to examine whether accents affect listeners’ attitudes towards speakers (Bernaisch & Koch, 2016; Cavallaro & Chin, 2009; Chan, 2016; Carrie, 2016; Eisenclas & Tsurutani, 2011; Dragojevic & Giles, 2016; Heaton & Nygaard, 2011) and copious amount of evidence has been found by studies on intercultural encounters that a listener judges a speaker more by non-content than content features of the message. Thus, how a speaker says something communicates a stronger impression than what the speaker is actually saying. A factor that influences how a speaker says something is accent, which is considered to be a strong non-content cue for a listener’s judgement (Giles, Wilson & Conway, 1982, as cited in Eisenclas & Tsurutani, 2011).

Besides accent, other factors such as age, ethnicity and gender can also have an effect on the attitudes people have about others. People also evaluate individuals differently due to the gender of the speaker and or listener as there tends to be a difference in the language use between men and women (Eckert 1989, 2000, as cited in Maegaard, 2005). Little research has been done on whether the interaction between gender and accent have an effect on a listener’s attitude. Thus, the purpose of this study is to investigate the attitudes of Arubans towards male and female speakers of American English (AmE) with an American English accent and male and female speakers with an Aruban accented English (AaE). The remainder of the introduction is structured as follows. In section 1.1, previous literature on language attitudes is discussed. Section 1.2 discusses gender as a factor for language attitude. Section 1.3 addresses additional cues that have an effect on the perceptions of accents as well. Lastly, considering the recent history on language attitude studies, relevant research questions are formulated.

## **1.1 Previous studies on language attitudes**

The reason why some languages or variations of languages elicit certain stereotypes of superiority or inferiority is only one aspect of the theoretical research on language attitudes (Serrarens, 2017). Language cues such as accents are often used to make assumptions about a speaker's social group. These assumptions are then converted into stereotypical traits that are associated with those groups and in turn attributed to them once again. In short, language attitudes can be seen as a reflection of the stereotypes people have about different language groups. First encounters often result in forming certain impressions about each other, even if the information on the individual is very limited. Listening to how a person sounds like is enough to attribute certain personality traits of the speaker which can be summarized in two main personality traits, the first one being trust/likeability/warmth and the second one being emphasizing/strength/dominance (Baus, McAleer, Marcoux, Belin & Costa, 2019). These language-based stereotypes can be categorized into two dimensions: status and solidarity (Dragojevic & Giles, 2016). When evaluating an individual on first impressions, these two traits seem to be very relevant irrespective of other information of the speaker, such as the speech content. (Baus et. al., 2019). Moreover, it seems that there is an evaluation pattern that occurs across cultures where individuals are conforming to the same standards when judging based on these dimensions. This being that a standard variety of a language often receives high ratings for status and competence but in turn receives fairly low ratings for social attractiveness or solidarity (Ladegaard, 1998). Previous studies have found characteristics such as intelligent, assertive, competent, successful, honest, friendly, sociable, pleasant, attractive, educated to vary significantly depending on a certain accent (Edwards 1982; Giles et al., 1992; Lambert, 1967; Preston 1999; Sebastian & Ryan, 1985, as cited in Heaton & Nygaard 2011).

Expanding on the literature mentioned above, one of the findings that have been the most consistent amongst language attitude studies is that a high social status alongside competence is often attributed to the standard variety of a language. This standard variety is the variation of the language that is considered to be the language that is spoken in schools, media and by educated members of society (Edwards, 1982 as cited by Serrarens, 2017). A substantial amount of studies on language attitudes reveal that in most cases a speaker's accent influences the hearer's opinion to some degree (Carrie, 2017; Dalton-Puffer, Kaltenboeck & Smit, 1997; Hundt, Zipp & Huber, 2015; Meer, Westphal, Hänsel & Deuber, 2019). This is supported by Dalton-Puffer, Kaltenboeck & Smit (1997), who tested 132 university students of English in Austria with a modified matched-guise test on their attitudes towards native and non-native varieties of English in Austria. Their results showed that the native accents scored much higher in comparison to their non-native counterparts when it came to status and overall preference. Similarly, Sasayama (2013) investigated the attitudes of contemporary Japanese college students towards Japanese English and American English. Her study unveiled that the Japanese respondents favored American English over Japanese English considering power items, but preferred Japanese English when it came down to solidarity items. This suggests that the use of an in-group style can increase the feeling of solidarity within their own linguistic community as language can be seen as an important symbol of social identity. This means that individuals will ascribe more solidarity to other individuals within their own linguistic community (Giles, Bourhis, & Taylor, 1977 as cited in Dragojevic & Giles, 2016). A more recent study by Meer, Westphal, Hänsel and Deuber (2019) reports that a British and American voice received slightly higher ratings for social status than local varieties of English by Trinidadian secondary school students. Although an American-influenced Trinidadian voice was also highly appreciated. This also seems to be the case for the Arubans in the current study, as islands in the Caribbean happen to be heavily influenced by the American tourism (Seward

& Spinrad, 1982). In the same vein, Boonsuk and Fang (2020) examined the attitudes of several international students towards their own English accents and towards native English accents from the UK and the US. Their results revealed that most of the students judged their own accents to be flawed compared to the native accents. The students believed a native accent to be the norm and also considered it to be the ultimate goal. However, despite the fact that most students in this study had this attitude, some had positive attitudes towards their own English accents and thus signified that an accent does not necessarily hinder intelligibility.

In contrast, a study done by Chan (2013), investigated the attitudes towards English accents in Hong Kong. The findings unveiled that standard accents received higher ratings for both status and solidarity than non-standard accents. This suggests that individuals from Hong Kong tend to not deem the Hong Kong English accent to be a symbol of solidarity unlike previous studies mentioned. Moreover, Bernaisch & Koch (2016) explored the attitudes towards Englishes in India. In the same vein, a standard variety (British English) was evaluated overall the most positive compared to Indian English and Sri Lanka English by Indian speakers of English with respect to competence, power, solidarity and status. However, young female speakers tended to display more positive attitudes towards their own local variety of English compared to their male counterparts suggesting that the effect of gender interacted with the accents to some extent. Similarly, Cavallaro and Chin (2009) found that Singaporeans rated the Singapore Colloquial English (SCE) lower on solidarity than Singapore Standard English (SSE). They also observed the gender of the speaker and whether this had an effect on the listeners' attitudes but results focused on the gender of the listeners (and not the speakers) and how they reacted to the different speakers. These authors concluded that the SSE speaker was rated similarly by both a female and male hearer. Although the finding was not statistically significant, they did indicate that female listeners had the tendency to give a lower rating for the SCE than male listeners.

The current findings in language attitude studies are rather uncertain on whether individuals prefer a standard variety of English over a non-standard variety pertaining to status and solidarity or social attractiveness. More relevantly, we do not know whether these previous findings also is the case of multilingual societies, such as the Aruban society.

## **1.2 Gender as a factor in language attitude studies**

There are some studies in the field of language attitudes that have considered gender as a factor that influences listeners' attitudes towards speakers. Gallois, Callan and Johnstone (1984) examined personality judgements of male and female Australian Aboriginals and white Australian speakers. Using a verbal guise technique, they found that white Australians and Aboriginal listeners judged the male Aboriginal speakers as more friendly and trustworthy compared to the male standard Australian speakers. In contrast, the female Aboriginal speakers were judged less positively than the female standard Australian speakers. Different contexts also yielded different results, as female speakers were rated higher in social context and males were rated higher in the school context. They also observed whether there was an interaction between the ethnicities of the speakers. Results revealed that the urban white male and females and rural white females, but not males, gave a higher rating to white Australian speakers than Aboriginal speakers in respect to status, irrespective of the context. This suggests that the ethnicity of the speakers had an interaction with the gender of the speakers with respect to the judgments of the listeners. Moreover, a study by Bayard, Weatherall, Gallois and Pittam (2001) recruited 400 students from New Zealand, Australia and US to evaluate a New Zealand English, Australian English, American English and RP-type English with respect to 22 personality and demographics traits. Results indicated that an American female voice was rated most favorably, followed by American male. A female New Zealand English (NZE) voice scored mid-low range and NZE male was disliked by all

three groups. More recently, Serrarens (2017) investigated the attitudes of native speakers of Dutch towards those with a Standard American accent and Received Pronunciation (RP) and whether or not there was an interaction between the gender of the speaker and the accent. She concluded that native speakers of Dutch ascribe more social attractiveness to speakers of RP than to AmE. Additionally, native speakers of Dutch rated the male speakers more positively over the female speakers. However, there was no significant interaction between the gender of the speaker and the accents in relation to status and social attractiveness.

As not much other research in the field of language attitude studies has been done which include the gender of the speaker, and the available research lack conclusive results, it remains unclear whether a male voice is preferred over a female with respect to status and social attractiveness.

### **1.3 Phonetic cues and accent attitudes**

Acoustic-phonetic properties of an individual are strongly linked with personality attitudes. According to Baus et. al. (2019) pitch functions as a strong cue for a listener's judgment of a speaker's personality traits. Voices that have a low-pitch are often judged to be more attractive and dominant in comparison to high-pitched voices, especially for males. Speech rate has also been reported to influence listeners' attitudes towards speakers (Stewart & Ryan 1982; Giles, Henwood, Coupland, Harriman & Coupland, 1992). Stewart and Ryan (1982) report that faster speakers were judged more favorably in comparison to slower speakers on social and personality characteristics for English. In a study by Ericsson and Ericsson (2001), it was suggested that the women use longer vowel duration than men do. Likewise, Simpson (2003) study concluded that the tongue body movement for male speakers was found to be slightly longer than female speakers. Meaning that, the tongue tip release begins earlier for the female speakers which results in females having a longer vowel duration. Thus,

phonetic properties of an individual such as vowel duration may also have an effect on listeners' attitudes towards speakers with an accent.

### **Research Questions**

The present study aims at examining the following questions:

1. What attitudes do Arubans have towards speakers of American English and Aruban accented English in terms of status, social attractiveness and vocal attractiveness?
2. Does the accent of a speaker and his or her gender affect the attitudes of Arubans towards the speaker in terms of status, social attractiveness and vocal attractiveness?

To answer these two questions, the current study made use of a modified matched guise technique, namely, the verbal guise technique in the elicitation of language attitudes. Section 2 presents the survey and the analysis performed on the collected data is explained in section 3. In section 4, the results are presented. Subsequently, in section 5 the results related to the dependent variables is discussed along with its limitations. Lastly, section 6 provides a conclusion of the study with a short outlook offered for future studies.

## **2. Methodology**

Many studies on language attitudes have used the matched-guise technique (Lambert, Hodgson, Gardner, and Fillenbaum 1960) where participants are asked to evaluate different accents of a speaker who has been instructed to read the same text in a number of different guises. However, McKenzie (2008) argues that it is more practical to use a modified version of the matched-guise technique, namely, the verbal-guise technique and employ multiple speakers to produce the different accents. The present study uses the verbal-guise technique (following Carrie, 2017; Sasayama, 2013; Dalton-Puffer et. al., 1997; Gallois et. al., 1984) to examine how Arubans evaluate female and male speakers with an American English accent

and Aruban accented English with respect to status, social attractiveness and vocal attractiveness.

### *2.1 Participants*

40 Participants (16 male, 24 female, age range 22-59,  $M$  age = 31.73) were recruited via social media and were not reimbursed for their participation in the survey. Most of the participants had completed their university degree at the time of testing. With respect to their language background 19 participants spoke Papiamentu at home, 2 spoke Dutch, 3 spoke Papiamentu and Dutch, 4 spoke English, 5 spoke Papiamentu and English, 2 spoke Spanish, 1 spoke Papiamentu, English and Spanish, 1 spoke Papiamentu, English and Dutch, 1 spoke Papiamentu, English, Spanish and Dutch, 1 spoke English and Cantonese, and finally 1 spoke Tagalog. Given the variation among the participants with respect to their home language and to avoid adding an additional variable to the study, namely, the home language of the participants, it was decided to further analyze only the data of the 19 participants who indicated to speak Papiamentu at home<sup>3</sup> as it was also the largest group among all the participants.

## *2.2 Materials*

### *2.2.1 Speakers*

A total of 8 speakers, 4 native speakers of American English (2 male and 2 female) and 4 speakers of Aruban accented English (2 male and 2 female) were asked to record at home the constructed material (see subsection 2.2.2) using their iPhone or tablet<sup>4</sup>. They were not reimbursed for their service. Table 1 presents an overview of the profile of each speaker.

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<sup>3</sup> In any future studies it would also be interesting to examine whether the home language has an effect of the attitudes of individuals.

<sup>4</sup> In an ideal situation, speakers would be invited to the lab to record the text fragments. Due to the restrictions of COVID-19, an instruction sheet was emailed to each speaker with the steps needed in order to record themselves at home. The sentences were recorded on an iPhone or tablet and were emailed back to the researcher.

Table 1. Profile of each speaker

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Speaker 1	Female AmE. This speaker is 37 years old and was born and raised and currently lives in Chicago, Illinois. Her current profession is a journalist for a law firm in Chicago.
Speaker 2	Female AmE. This speaker is 63 years old and was born and raised and currently lives in Chicago, Illinois. Her current profession is owner chief and financial officer for K&S General Contracting Inc.
Speaker 3	Male AmE. This speaker is 30 years old and was born and raised and currently lives in Brooklyn, New York. His current profession is retail service agent.
Speaker 4	Male AmE. This speaker is 39 years old and was born and raised and currently lives in Chicago, Illinois. His current profession is head of sales for K&S General Contracting Inc.
Speaker 5	Female AaE. This speaker is 40 years of age and was born in the Netherlands raised on Aruba and currently lives in Aruba. Her current profession is in administration.
Speaker 6	Female AaE. This speaker is 65 years of age and was born and raised and currently lives on Aruba. Her current profession is owner of an administration and accountant consultancy.
Speaker 7	Male AaE. This speaker is 37 years of age and was born and raised and currently lives on Aruba. His current profession is an auto body mechanic and automobile damage consultant.
Speaker 8	Male AaE. This speaker is 67 years old and was born and raised and currently lives on Aruba. He is a retired electrician and car salesman.

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### 2.2.2 Stimuli

A small corpus of 12 neutral text fragments which varied in length was constructed. The short text fragment consisted of a single sentence with an average of 15 syllables, see example (1), while the long text fragments consisted of 2 sentences and were 40 syllables long on average, see example (2). See Table 1 in Appendix A for all text fragments.

(1) Did you know that a group of owls is called a parliament?

(2) The flag of Nicaragua features a rainbow in the center that includes a band of purple, while the flag of Dominica shows a picture of a bird with purple feathers. These elements make them the only two flags in the world that use the color purple.

Speakers were asked to record the whole corpus. However, including the whole corpus in the survey would have led to a very long-lasting experiment which would have been difficult to carry out. After data inspection 6 audio fragments were selected per speaker (3 short and 3 long) of which 2 were questions and 4 were declaratives. This resulted to a total of 48 audio fragments which were included in the survey. Descriptively, the male American English speakers differed from the male Aruban accented speakers with respect to duration as the average duration of the fragments of the male AmE was shorter than the AaE for both the short and long fragments. The female American English speakers from the male Aruban accented speakers with respect to duration with a smaller gap compared to the male American English speakers. The results of a one-way ANOVA showed that there were no statistically significant differences with respect to accent [ $F(1, 46 = 1.003, p > .05)$ ] or gender [ $F(1, 46 = .108, p > .05)$ ] regarding fragment duration. While the results of a one-way ANOVA revealed that there was a statistically significant difference for accent [ $F(1, 46 = 18.774, p < .05)$ ] but not for gender [ $F(1, 46 = 1.381, p > .05)$ ] regarding the speech rate. See Table 2 for an overview of the average fragment duration and speech rate for the male and female Americans and the male and female Arubans. An overview of the length of each fragment per speaker is given in Table 2 in Appendix A.

Table 2. Average fragment durations and average speech rate for American males, females and Aruban male, females

	Average frag. duration (Short texts)	Average frag. duration (Long texts)
American Males	15.53 seconds	48.55 seconds
American Females	19.89 seconds	55.07 seconds
Aruban Males	22.86 seconds	62.44 seconds
Aruban Females	21.3 seconds	63.36 seconds

	Average speech rate (Short texts)	Average speech rate (Long texts)
American Males	1.02 seconds	1.21 seconds
American Female	1.32 seconds	1.37 seconds
Aruban Males	1.52 seconds	1.56 seconds
Aruban Females	1.42 seconds	1.58 seconds

### 2.2.3 Questionnaire

Following previous studies on language attitudes<sup>5</sup> (see Bayard et. al., 2001; Dragojevic & Giles, 2016) a questionnaire with four parts was constructed. In the first part, participants were asked to express the degree of their agreement on 5 statements relating to status (i. intelligent, ii. assertive, iii. authoritative, iv. competent, v. successful), indicating their response on a 7-point Likert scale. Every point expressed a degree of agreement, namely, the participants could select from i. strongly agree, ii. agree, iii. somewhat agree, iv. neither agree nor disagree, v. somewhat disagree, vi. disagree and vii. strongly disagree, see Figure 1 (in subsection 2.2.4). In the second part participants were asked to indicate their degree of agreement on 5 statements relating to social attractiveness (i. honest, ii. friendly, iii. helpful, iv. sense of humor, v.

<sup>5</sup> The questionnaire was constructed by combining parts of the questionnaires used in the studies by Bayard et. al., (2001) and Dragojevic & Giles (2016). This combination was done to avoid any overlap in the current questionnaire.

sociable), while in the third part, participants were asked to indicate their degree of agreement on 5 statements relating to vocal attractiveness (i. pleasant, ii. attractive, iii. powerful, iv. strong, v. educated<sup>6</sup>). Moreover, a 7-point Likert scale was chosen over a 5-point Likert scale as a greater range of choices offer more autonomy for participants to choose their exact option rather than an option close to what they like (Joshi, Kale, Chandel & Pal, 2015). The scale was constructed in such a way that all the options were spelled out starting from *strongly agree* on the left and *strongly disagree* on the right. Naming every point resulted in ordinal data. Lastly, in the fourth part, participants were asked to provide biographical information regarding their age, gender, language background, education and whether they used headphones or loudspeakers to listen to the audio recording. A complete list of the 15 statements is given in Table 3 in Appendix A as well as the biographical questions. To keep the survey at a reasonable length and maintain variety, the 48 audio fragments (8 speakers  $\times$  6 text fragments) were randomly distributed across the three dimensions (status, social attractiveness and vocal attractiveness). Listeners were presented with all 5 statements simultaneously for each audio fragment. An overview of the design of the survey is given in Table 3.

Table 3. Questionnaire design

Speaker	Accent	Status		Social attractiveness		Vocal attractiveness	
Speaker 1 Female	American	Frag. 1 (short)	Frag. 2 (long)	Frag. 3 (short)	Frag. 4 (long)	Frag. 5 (short)	Frag. 6 (long)
Speaker 2 Female	American	Frag. 1 (short)	Frag. 2 (long)	Frag. 3 (short)	Frag. 4 (long)	Frag. 5 (short)	Frag. 6 (long)
Speaker 3 Male	American	Frag. 1 (short)	Frag. 2 (long)	Frag. 3 (short)	Frag. 4 (long)	Frag. 5 (short)	Frag. 6 (long)

<sup>6</sup> Intuitively, *educated* would normally be categorized as a characteristic of status and does not necessarily reflect the voice quality of the speaker's gender. The study by Bayard et. al., (2001) categorized it as a statement for voice quality and was therefore also chosen to be included for voice quality in this study.

Speaker 4 Male	American	Frag. 1 (short)	Frag. 2 (long)	Frag. 3 (short)	Frag. 4 (long)	Frag. 5 (short)	Frag. 6 (long)
Speaker 5 Female	Aruban	Frag. 1 (short)	Frag. 2 (long)	Frag. 3 (short)	Frag. 4 (long)	Frag. 5 (short)	Frag. 6 (long)
Speaker 6 Female	Aruban	Frag. 1 (short)	Frag. 2 (long)	Frag. 3 (short)	Frag. 4 (long)	Frag. 5 (short)	Frag. 6 (long)
Speaker 7 Male	Aruban	Frag. 1 (short)	Frag. 2 (long)	Frag. 3 (short)	Frag. 4 (long)	Frag. 5 (short)	Frag. 6 (long)
Speaker 8 Male	Aruban	Frag. 1 (short)	Frag. 2 (long)	Frag. 3 (short)	Frag. 4 (long)	Frag. 5 (short)	Frag. 6 (long)

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#### 2.2.4 Procedure

Qualtrics was used to create an online web-based survey. Participants were first asked to give their consent to take part in the survey. Upon agreeing, a screen appeared with the instructions on how to complete the survey, see Appendix A for the exact instructions. Participants were informed that they will hear a series of audio fragments uttered by several speakers and that they could listen to the audio fragments as many times as they wished. Participants were instructed to listen carefully to the audio fragments and respond to the corresponding questions. Participants had to provide an answer in order to be able to listen to the next audio fragment and could not go back and change their responses. Each audio fragment was accompanied with the phrase “*Please indicate on the scale how much you agree with the statement below*”. All 5 statements were shown simultaneously on the screen and the participants had to indicate their response on the 7-point Likert scale for each statement. The survey was self-paced and there was no time limit for completion. On average the experiment lasted 20-30 minutes. An example of a question is given in Figure 1.

*Please indicate on the scale how much you agree with the statement below.  
I think this speaker sounds ...*

	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Intelligent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assertive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Authoritative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Competent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Successful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 1. Example of a survey question for status with the 5 accompanying statements.

### 2.3. Data Analysis

A total of 4560 responses (48 audio fragments  $\times$  5 statements  $\times$  19 participants) were used for the analysis. Given the research questions in (1) and (2) three variables were generated, namely, status, summing the values of the corresponding statements (intelligent, assertive, authoritative, competent and successful), social attractiveness summing the values of the corresponding statements (honest, friendly, helpful, sense of humor, sociable) and vocal attractiveness summing the values of the corresponding scales (pleasant, attractive, powerful, strong, educated). Since summated scales were used, it was important to assess their reliability. The reliability of the scales was assessed using the Cronbach's  $\alpha$ <sup>7</sup> (Cronbach, 1951). A score over 0.7 is considered to indicate high internal consistency (Santos, 1999). Overall reliability for status statements was  $\alpha=0.87$ ; for social attractiveness  $\alpha=0.83$  and for vocal attractiveness  $\alpha=0.91$ . Given the high reliability for each variable, no changes were needed for further analysis of the results.

#### 2.3.1 Ordinal logistic regression

<sup>7</sup> One would use Cronbach's alpha as a measure to assess the reliability of a set of scale. In the case of this study it is one way of measuring the strength of the consistency of the scale items i.e. checking that all items strongly and positively co-variate enough with each other.

Given the research design in which participants indicated their responses using a 7-point Likert scale in which every point expressed a degree of agreement (see subsection 2.2.3) the obtained data were ordinal in nature. To answer the research question in (2), three ordinal logistic regression analyses were run, one per dimension (Warner, 2015), namely, one for status, one for social attractiveness and one for vocal attractiveness using IBM, SPSS. Participants' responses were included as the dependent variable, while speakers' gender (male, female), accent (American English, Aruban accented English) and their interaction were included as factors. One of the assumptions for the ordinal regression is the test of parallel lines. There was a violation of the test of parallel lines for all three regressions and thus further adjustments were needed in order for the statistic test to be valid. The distribution of the data for status was more towards the left and therefore the option *strongly disagree* which received less than 5% responses was excluded (see Figure 2 in subsection 4). In the same way, the options *strongly disagree*, *disagree* and *somewhat disagree* which received less than 13% were excluded for the dimension of social attractiveness (see Figure 3 in subsection 4). In the case of vocal attractiveness an ordinal logistic regression was not possible, thus a multinomial logistic regression was performed instead. Participants' responses were included as the dependent variable, while the speakers' gender (male, female) and accent (American English, Aruban accented English) were included as factors.

#### **4. Results**

The results obtained per dimension (status, social attractiveness and vocal attractiveness) will be presented first to answer the research question in (1).

**Status.** Table 4 presents an overview of participants' responses for status. A higher percentage to the left of the scale (strongly agree) is associated to a higher rating for the status dimension, while a higher percentage to the right of the scale is associated with a lower rating. The majority

of participant responses were between *strongly agree* and *disagree*. While the option *strongly disagree* was selected significantly less often. As shown in Table 4 American females were rated the highest followed by American males in respect to status compared to male and female Arubans. Female Aruban speakers received the lowest score with respect to status.

Table 4. Overview of participants' responses for status

Accent	Gender	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
American	Male	15 (3.9%)	121 (31.8%)	82 (21.6%)	85 (22.4%)	41 (10.8%)	22 (5.8%)	14 (3.7%)
	Female	29 (7.6%)	138 (36.3%)	65 (17.1%)	89 (23.4%)	28 (7.4%)	24 (6.3%)	7 (1.8%)
Aruban	Male	11 (2.9%)	92 (24.2%)	78 (20.5%)	118 (31.1%)	48 (12.6%)	29 (7.6%)	4 (1.1%)
	Female	6 (1.6%)	70 (18.4%)	96 (25.3%)	112 (29.5%)	56 (14.7%)	39 (10.3%)	1 (0.3%)

Note: Percentages are given in parenthesis. Rows add to 100.

Note: Color marks indicate the highest score per speakers.

**Social attractiveness.** Table 5 presents an overview of participants' responses for social attractiveness. A higher percentage to the left of the scale (*strongly agree*) is associated to a higher rating for the social attractiveness dimension, while a higher percentage to the right of the scale is associated with a lower rating. The majority of participant responses were between *strongly agree* and *somewhat disagree*. Whereas the options *disagree* and *strongly disagree* were selected less often. As shown in Table 5 American females were rated the highest followed by Aruban females in respect to social attractiveness compared to male American and Aruban speakers. Male American speakers received the lowest score.

Table 5. Overview of participants' responses for social attractiveness

Accent	Gender	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
American	Male	9 (2.4%)	106 (27.9%)	105 (27.6%)	90 (23.7%)	48 (12.6%)	19 (5.0%)	3 (0.8%)
	Female	33 (8.7%)	129 (33.9%)	81 (21.3%)	75 (19.7%)	44 (11.6%)	12 (3.2%)	6 (1.6%)
Aruban	Male	21 (5.5%)	113 (29.7%)	101 (26.6%)	104 (27.4%)	31 (8.2%)	9 (2.4%)	1 (0.3%)
	Female	13 (3.4%)	122 (32.1%)	104 (27.4%)	94 (24.7%)	28 (7.4%)	17 (4.5%)	2 (0.5%)

Note: Percentages are given in parenthesis. Rows add to 100.

Note: Color marks indicate the highest score per speakers.

**Vocal attractiveness.** Table 6 presents an overview of participants' responses for vocal attractiveness. A higher percentage to the left of the scale (*strongly agree*) is associated to a higher rating for the vocal attractiveness dimension, while a higher percentage to the right of the scale is associated with a lower rating. Looking at the overall reaction we observe a more evenly distribution among the participants' responses. As shown in Table 6 American females were rated the highest in respect to vocal attractiveness compared to American males and the male and female Aruban speakers.

Table 6. Overview of participants' responses for vocal attractiveness

Accent	Gender	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
American	Male	19 (5.0%)	73 (19.2%)	87 (22.9%)	100 (26.3%)	42 (11.1%)	44 (11.6%)	15 (3.9%)
	Female	34 (8.9%)	88 (23.2%)	84 (22.1%)	77 (20.3%)	51 (13.4%)	29 (7.6%)	17 (4.5%)
Aruban	Male	16 (4.2%)	37 (9.7%)	98 (25.8%)	101 (26.6%)	58 (15.3%)	54 (14.2%)	16 (4.2%)

Female	4 (1.1%)	49 (12.9%)	85 (22.4%)	119 (31.1%)	65 (17.1%)	39 (10.3%)	19 (5.0%)
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Note: Percentages are given in parenthesis. Rows add to 100.

Note: Color marks indicate the highest score per speakers.

In summary, the results show that there is an overall positive response from the participants with respect to the dimensions of status and social attractiveness for both accents, with a slight preference for the American English accent. For vocal attractiveness, participants rated the American English accent higher, while the Aruban accented English received a more neutral rating on the scale.

To answer the research question in (2) I ran a number of ordinal logistic regression analyses and a multinomial logistic regression. In a nutshell for status and social attractiveness the results of the ordinal logistic regression show that speakers' accent affects significantly participants responses' [Status: Estimate =  $-0.893$ ,  $SE = 0.132$ ,  $p < 0.5$ ; Social attractiveness: Estimate =  $-0.893$ ,  $SE = 0.132$ ,  $p < 0.5$ ], while speakers' gender does not [Status: Estimate =  $-0.233$ ,  $SE = 0.130$ ,  $p > 0.5$ ; Social attractiveness: Estimate =  $-0.233$ ,  $SE = 0.130$ ,  $p > 0.5$ ], see also Table 3 in Appendix B. Figure 2 and Figure 3 provide an overview of the distribution of participants' responses for the dimensions of status and social attractiveness across the different accents and genders.

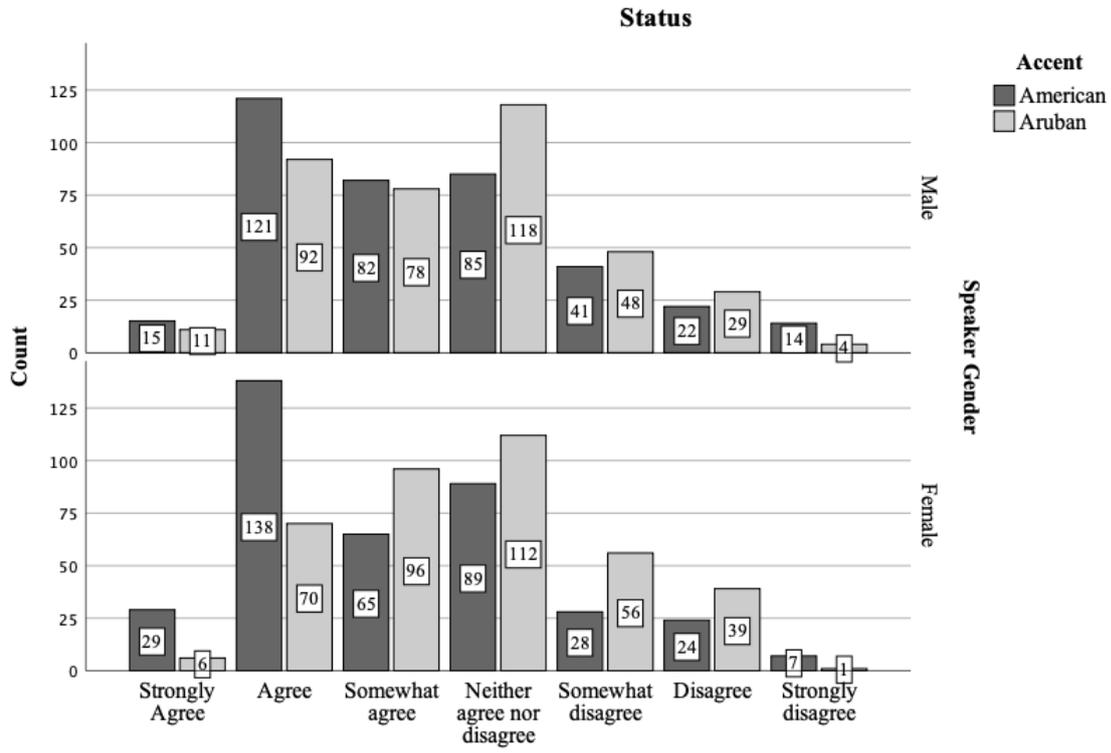


Figure 2. Distribution of participants responses for the dimension of status

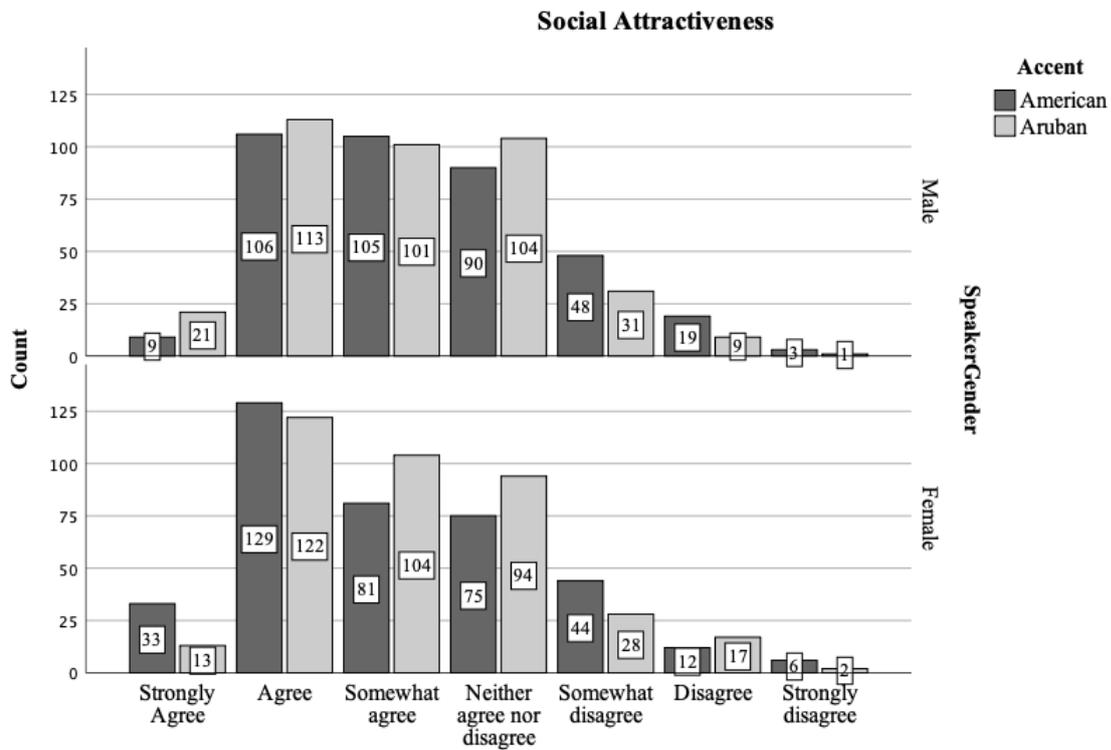


Figure 3. Distribution of participants' responses for the dimension of Social attractiveness

Examining the distribution of participants' responses for the dimension of vocal attractiveness we see that it differs from the distribution of participants' responses for the dimensions of status and social attractiveness. As shown in Figure 4 participants' responses for the American speakers appear more to the left of the scale, while the responses for the Aruban speakers are more clustered in the middle. The results of a series of multinomial regressions<sup>8</sup> indicated that accent affected significantly participants' responses, while gender did not, see Tables 5 to 11 in Appendix B.

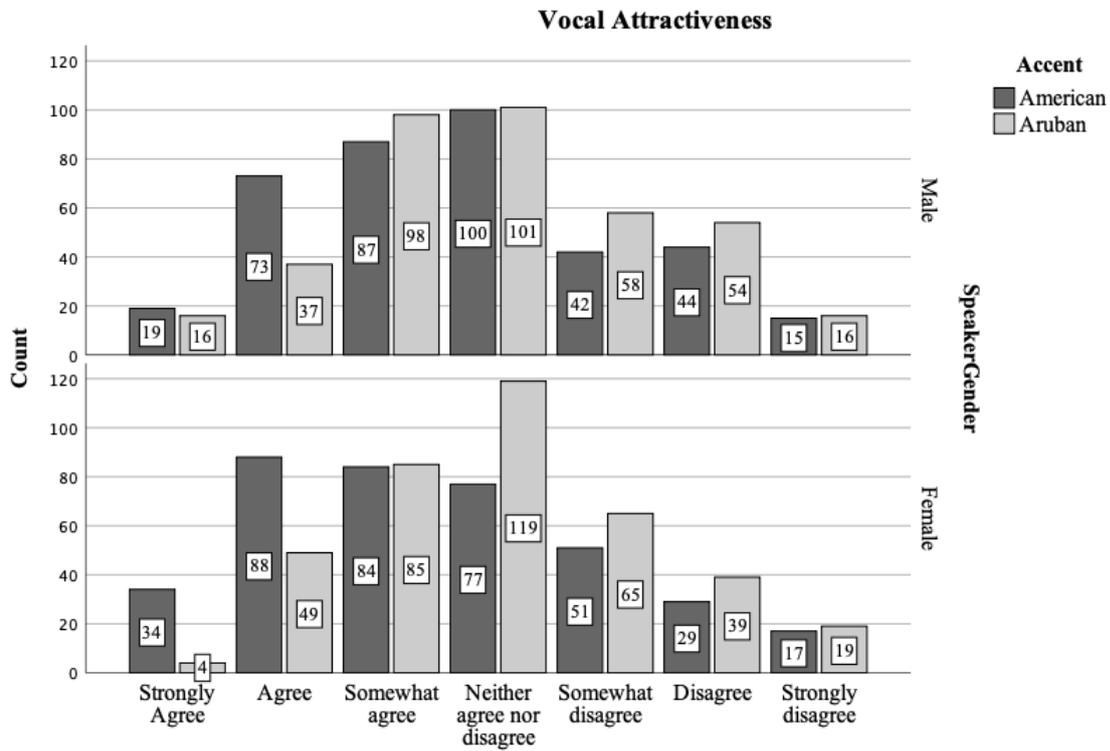


Figure 4. Distribution of participants' responses for the dimension of Vocal attractiveness

## 5. Discussion

<sup>8</sup> To obtain all relevant comparisons, multiple multinomial regression analyses were completed by replacing the reference category for every test.

Previous research on language attitudes has shown that speakers with a non-standard English accent tend to be rated less favorably in terms of status and or solidarity or social attractiveness compared to speakers with a standard English accent (Dalton-Puffer, Kaltenboeck & Smit, 1997; Bernaisch & Koch, 2016; Chan, 2013; Sasayama, 2013; Cavallaro and Chin, 2009; Meer, Westphal, Hänsel and Deuber, 2019; Boonsuk and Fang, 2020). The results of the present study seem to be consistent with other research which found that the accent but not gender of the speaker had a significant effect on the listeners attitudes. The average responses given by the 19 participants show how the 8 speakers were evaluated with respect to status, social attractiveness and vocal attractiveness. For status, participants seemed to favor the American English accent over the Aruban accented English. Although, the Aruban accented English closely followed with positive ratings as participants' responses were either clustered in the middle or to the left of the scale, suggesting a high rating . Similarly, for social attractiveness, American and Aruban females were favored over American and Aruban males with a significant difference for accent but not gender. The American females were preferred out of them all. A possible explanation why the Aruban females were favored alongside the American females could be due to an in-group loyalty where solidarity attributions are often ascribed to individuals within their own linguistic community (Dragojevic et. al., 2016). The ratings were overall positive for both accents suggesting that there is not much of a difference in attitude towards these two accents. Furthermore, even though the females were favored over the males, there was not a significant difference between the two. Finally, American females were rated most favorable for vocal attractiveness as responses appeared more to the left of the scale. The responses for the American males were divided between left and middle of scale, and the overall responses for the Arubans were clustered in the middle. These results are likely to be related to the frequent exposure to American music and media and heavy influence of tourism from the US.

Consistent with previous studies, for this research, status had a higher rating for the standard accent (AmE) over the non-standard accent (AaE). For social attractiveness both accents were judged positively with a slight preference for the American females. For vocal attractiveness the American females were favored out of all, suggesting that there also might be other properties such as voice quality that play a role when examining listeners' attitudes. These results could possibly be due to tourism, the heavy influence of the United States and the multilingual nature of the Aruban society. According to Dewaele & Wei (2013), multilingual societies tend to be more tolerant towards different language varieties compared to people who know fewer languages. Additionally, these authors also concluded that individuals that studied abroad also became more tolerant compared to those who have never stayed abroad for more than three months. It can thus be suggested that it is not only the multilingualism of the community that allows Arubans to be more accepting of non-standard accents, but also the diverse cultures that are present on the island that encourage the acknowledgement of different accents with less prejudice.

Finally, the possible interaction between gender and accent was not significant. Multinomial regression analysis revealed that accent not gender contributed more to the attitudes of the listeners. This indicates that there is not enough evidence in the current study that can explain whether the gender of speaker along with the accent has an effect on listeners judgments regarding status, social, vocal attractiveness.

## **5.1 Limitations**

Even though this study was the first to gain more insight on the attitudes of Arubans towards a standard (AmE) and a non-standard (AaE) accent, it did have its limitations. For example, due to Covid-19 restrictions, speakers had to record themselves at home on their own devices and mail them to the researcher for further adjustments. This resulted in different qualities of the

recordings, such as volume control and background noise. Additionally, the content of the text fragments that were recorded could have had an influence on the attitudes of the participants. The text fragments were constructed in such a way they would be as neutral as possible and were divided into short and longer sentences that contained both declaratives and interrogatives. It can be argued that the text fragments were not long enough in order for participants to make a proper judgement. The same can hold true for the number of items included in the survey. The sample size included for the analysis is also to be considered as it only included 19 out of the 40 participants and cannot necessarily be representative for the entire Aruban population. Moreover, all 8 of the speakers also had their own speaking style which differed in flow, pitch and speech rate, which can result in different attitudes elicited by listeners. More research is needed on the speech rate and pitch of accents as it would be a fruitful area for further work. Lastly, the data obtained was ordinal due to the labels on all the points of the scale. Different results may have been achieved if only the two ends of the scale were labelled as the data would have then been treated as interval. this preference.

## **6. Conclusion**

The main aim of this study was to examine whether an American English accent or an Aruban accented English had an effect on Arubans' attitudes pertaining to the dimensions of status, social attractiveness and vocal attractiveness and whether the gender of the speaker affected the attitudes of Arubans towards the speaker in terms of status, social attractiveness and vocal attractiveness. The results revealed that in general, the Aruban participants evaluated both AmE and AaE very similarly, however looking more closely, there was a preference for the American English over the Aruban accented English, specifically the American females. This is similar to the results in Sasayama (2013) and Meer, Westphal, Hänsel & Deuber (2019), where there was a preference for the standard accent over the non-standard accent. However

the non-standard accent was also appreciated and rated positively, especially on the dimension of social attractiveness. Nonetheless, even though the Americans received higher ratings, the Arubans were also rated relatively positive, suggesting the multilingual society of Aruba to be more open to non-standard accents. This result may be explained by the fact that the more knowledge of multiple languages an individual has the more tolerant they are towards different language varieties (Dewaele & xx, 2012). Moreover, the interaction between the gender of the speaker and the accent was not significant, thus further research must be done to investigate whether this interaction does in fact affect listeners' attitudes. Lastly, as the main concern of this study was accent, other factors such as ethnicity, home language, pitch and speech rate should also be included when examining different accents as it could provide more insight on why individuals have certain attitudes about different language variations.

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## Appendices

### Appendix A Complete set of text fragments

#### *Short texts*

1. Did you know that a group of owls is called a parliament?
2. Should I bring a jacket? It seems to be very windy outside.
3. My favorite color is red and I like to walk on the beach to watch the sunset.
4. Sorry I couldn't call you back, my dog ate my charger.
5. I have always wanted to travel the world, I love going on adventures!
6. I'm hungry, should we order pizza?

#### *Long texts*

1. The flag of Nicaragua features a rainbow in the center that included a band of purple, while the flag of Dominica shows a picture of a bird with purple feathers. These elements make them the only two flags in the world that use the color purple.
2. With around 950 million native speakers and an additional 200 million people speaking Mandarin Chinese as a second language, it's the most popular language in the world.
3. If you close your eyes in a completely dark room. When you open them, the color you see is intrinsic gray. It's the shade of dark gray people see when there's no light.
4. Dogs' nose prints are as unique as human fingerprints and can be used to identify them.
5. When bees collect nectar, they drink it and keep it in their stomach. Once they're back at the hive they puke the nectar into the hive.
6. Cranberries are commonly referred to as "bounce berries" because they bounce when they're ripe.

Table 1. Fragment duration per speaker

Speaker	Accent	Frag. 1	Frag. 2	Frag. 3	Frag. 4	Frag. 5	Frag. 6
Speaker 1 Female	American	2.27 sec	11.15 sec	2.99 sec	6.50 sec	2.47 sec	3.54 sec
Speaker 2 Female	American	4.03 sec	17.42 sec	4.24 sec	9.62 sec	3.89 sec	6.84 sec
Speaker 3 Male	American	2.50 sec	13.43 sec	2.83 sec	6.54 sec	2.73 sec	4.77 sec
Speaker 4 Male	American	2.26 sec	13.31 sec	2.68 sec	6.39 sec	2.53 sec	4.11 sec
Speaker 5 Female	Aruban	3.12 sec	14.82 sec	3.62 sec	8.67 sec	3.64 sec	5.54 sec
Speaker 6 Female	Aruban	3.43 sec	17.80 sec	3.61 sec	9.40 sec	3.88 sec	7.13 sec
Speaker 7 Male	Aruban	3.22 sec	16.17 sec	3.79 sec	9.66 sec	5.05 sec	6.13 sec
Speaker 8 Male	Aruban	3.29 sec	16.46 sec	3.66 sec	7.84 sec	3.85 sec	6.18 sec

### All 15 statements

Table 2. All statements per dimension

Status	Social Attractiveness	Vocal Attractiveness
Intelligent	Honest	Pleasant
Assertive	Friendly	Attractive
Authoritative	Helpful	Powerful
Competent	Sense of humor	Strong
Successful	Sociable	Educated

**Biographical questions**

What is your age?

---

What is your gender?

- Male
- Female
- Rather not say

What is your highest education achieved?

- High school graduate
- Associates degree
- Bachelor degree
- Master's degree
- PhD

What language(s) do you speak at home with your parents/siblings?

---

What language(s) do you speak with your friends?

---

Did you listen to the audios via loudspeaker or headphones?

- Loudspeaker
- headphones

**Instructions for survey**

Welcome and thank you for taking the time in participating in this survey. This survey will take approximately 15-20 minutes.

My name is Kristi Lo-Fo-Sang and I am currently studying English Language and Communication at the Utrecht University. For my thesis I have decided to investigate the different attitudes Aruban's have towards different linguistic variations. This is

an **interactive** survey, thus you will hear several audio recordings of individuals speaking. Please make sure the device you are using has a good speaker and or that you are using headphones. If for any reason you must abandon the survey, you can choose to stop at any time. The data collected will be kept anonymous and in a password protected location.

Please follow the instructions below:

You will hear different audio recordings of several speakers. You can play the recording as many times as you want but must give an answer in order to move on to the next question. You cannot go back to change your answers so please take your time and choose your answers carefully.

## Appendix B

Table 3. Parameter Estimates for Status

		Parameter Estimates Status						
		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[Response = 1]	-3.644	.157	538.528	1	.000	-3.951	-3.336
	[Response = 2]	-1.185	.100	141.662	1	.000	-1.380	-.990
	[Response = 3]	-.267	.095	7.907	1	.005	-.453	-.081
	[Response = 4]	1.044	.100	109.704	1	.000	.849	1.239
	[Response = 5]	2.111	.122	300.390	1	.000	1.872	2.350
Location	[Accent=0]	-.893	.132	45.840	1	.000	-1.152	-.635
	[Accent=1]	0 <sup>a</sup>	.	.	0	.	.	.
	[SpeakerGender=0]	-.233	.130	3.227	1	.072	-.487	.021
	[SpeakerGender=1]	0 <sup>a</sup>	.	.	0	.	.	.
	[Accent=0] *	.498	.185	7.226	1	.007	.135	.861
	[SpeakerGender=0]							
	[Accent=0] *	0 <sup>a</sup>	.	.	0	.	.	.
	[SpeakerGender=1]							
	[Accent=1] *	0 <sup>a</sup>	.	.	0	.	.	.
[SpeakerGender=0]								
[Accent=1] *	0 <sup>a</sup>	.	.	0	.	.	.	
[SpeakerGender=1]								

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Table 4. Parameter Estimates for Social attractiveness

Parameter Estimates Social attractiveness								
		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[Response = 1]	-2.865	.147	377.987	1	.000	-3.154	-2.576
	[Response = 2]	-.389	.103	14.263	1	.000	-.591	-.187
	[Response = 3]	.892	.106	71.223	1	.000	.685	1.099
Location	[Accent=0]	-.426	.144	8.784	1	.003	-.708	-.144
	[Accent=1]	0 <sup>a</sup>	.	.	0	.	.	.
	[SpeakerGender=0]	.040	.141	.083	1	.774	-.235	.316
	[SpeakerGender=1]	0 <sup>a</sup>	.	.	0	.	.	.
	[Accent=0] *	.486	.203	5.739	1	.017	.088	.884
	[SpeakerGender=0]							
	[Accent=0] *	0 <sup>a</sup>	.	.	0	.	.	.
	[SpeakerGender=1]							
	[Accent=1] *	0 <sup>a</sup>	.	.	0	.	.	.
	[SpeakerGender=0]							
[Accent=1] *	0 <sup>a</sup>	.	.	0	.	.	.	
[SpeakerGender=1]								

Link function: Logit.

a. This parameter is set to zero because it is redundant.

### Multinomial logistic regression analyses

Table 5. Parameter Estimates for Vocal attractiveness with reference category: Strongly agree

Parameter Estimates									
Please indicate on the scale how much you agree with the statement below.  I think this speaker sounds ... - Intelligent <sup>a</sup>		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Agree	Intercept	2.506	.520	23.215	1	.000			
	[Accent=0]	-1.555	.558	7.766	1	.005	.211	.071	.631
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-1.667	.600	7.722	1	.005	.189	.058	.612
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.

	[Accent=0] * [SpeakerGender=0]	2.062	.683	9.106	1	.003	7.864	2.060	30.015
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Somewhat agree	Intercept	3.056	.512	35.686	1	.000			
	[Accent=0]	-2.152	.551	15.279	1	.000	.116	.040	.342
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-1.244	.578	4.627	1	.031	.288	.093	.895
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	1.861	.663	7.873	1	.005	6.430	1.752	23.593
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
Neither agree nor disagree	Intercept	3.393	.508	44.548	1	.000			
	[Accent=0]	-2.575	.548	22.050	1	.000	.076	.026	.223
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-1.550	.575	7.265	1	.007	.212	.069	.655
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	2.394	.660	13.145	1	.000	10.953	3.003	39.945
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
Somewhat disagree	Intercept	2.788	.515	29.291	1	.000			
	[Accent=0]	-2.383	.561	18.056	1	.000	.092	.031	.277
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-1.500	.587	6.521	1	.011	.223	.071	.706
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	1.888	.686	7.575	1	.006	6.606	1.722	25.344

	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Disagree	Intercept	2.277	.525	18.814	1	.000			
	[Accent=0]	-2.436	.583	17.482	1	.000	.087	.028	.274
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-1.061	.597	3.156	1	.076	.346	.107	1.116
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	2.060	.704	8.555	1	.003	7.844	1.973	31.184
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Strongly disagree	Intercept	1.558	.550	8.022	1	.005			
	[Accent=0]	-2.251	.625	12.967	1	.000	.105	.031	.358
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-1.558	.654	5.677	1	.017	.211	.058	.758
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	2.015	.797	6.392	1	.011	7.500	1.573	35.764
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.

a. The reference category is: **Strongly Agree**.

b. This parameter is set to zero because it is redundant.

Table 6. Parameter Estimates for Vocal attractiveness with reference category: Agree

Parameter Estimates									
Please indicate on the scale how much you agree with the statement below.  I think this speaker sounds ... - Intelligent <sup>a</sup>		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Strongly Agree	Intercept	-2.506	.520	23.215	1	.000			
	[Accent=0]	1.555	.558	7.766	1	.005	4.733	1.586	14.124
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	1.667	.600	7.722	1	.005	5.297	1.634	17.168
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	-2.062	.683	9.106	1	.003	.127	.033	.485
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	Somewhat agree	Intercept	.551	.179	9.431	1	.002		
[Accent=0]		-.597	.235	6.436	1	.011	.550	.347	.873
[Accent=1]		0 <sup>b</sup>	.	.	0	.	.	.	.
[SpeakerGender=0]		.423	.263	2.581	1	.108	1.527	.911	2.559
[SpeakerGender=1]		0 <sup>b</sup>	.	.	0	.	.	.	.
[Accent=0] * [SpeakerGender=0]		-.201	.343	.344	1	.558	.818	.417	1.603
[Accent=0] * [SpeakerGender=1]		0 <sup>b</sup>	.	.	0	.	.	.	.
[Accent=1] * [SpeakerGender=0]		0 <sup>b</sup>	.	.	0	.	.	.	.
[Accent=1] * [SpeakerGender=1]		0 <sup>b</sup>	.	.	0	.	.	.	.
Neither agree nor disagree		Intercept	.887	.170	27.326	1	.000		
	[Accent=0]	-1.021	.231	19.602	1	.000	.360	.229	.566
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	.117	.256	.208	1	.648	1.124	.680	1.858
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	.331	.337	.965	1	.326	1.393	.719	2.698

	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Somewhat disagree	Intercept	.283	.189	2.231	1	.135			
	[Accent=0]	-.828	.258	10.271	1	.001	.437	.263	.725
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	.167	.283	.348	1	.555	1.182	.679	2.058
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	-.174	.385	.204	1	.651	.840	.395	1.788
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
Disagree	Intercept	-.228	.215	1.131	1	.287			
	[Accent=0]	-.882	.303	8.461	1	.004	.414	.229	.750
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	.606	.303	4.014	1	.045	1.834	1.013	3.318
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	-.003	.417	.000	1	.995	.997	.441	2.258
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
Strongly disagree	Intercept	-.947	.270	12.288	1	.000			
	[Accent=0]	-.697	.378	3.389	1	.066	.498	.237	1.046
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	.109	.403	.073	1	.787	1.115	.506	2.458
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	-.047	.560	.007	1	.933	.954	.319	2.856
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.



	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Neither agree nor disagree	Intercept	.336	.142	5.614	1	.018			
	[Accent=0]	-.423	.212	3.980	1	.046	.655	.432	.993
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.306	.201	2.330	1	.127	.736	.497	1.091
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	.533	.294	3.273	1	.070	1.703	.957	3.033
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Somewhat disagree	Intercept	-.268	.165	2.651	1	.104			
	[Accent=0]	-.231	.242	.907	1	.341	.794	.494	1.276
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.256	.234	1.203	1	.273	.774	.490	1.223
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	.027	.348	.006	1	.938	1.027	.519	2.034
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Disagree	Intercept	-.779	.193	16.227	1	.000			
	[Accent=0]	-.284	.289	.965	1	.326	.752	.427	1.327
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	.183	.257	.507	1	.476	1.201	.725	1.988
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	.199	.383	.269	1	.604	1.220	.576	2.584
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	Intercept	-1.498	.254	34.857	1	.000			

Strongly disagree	[Accent=0]	-.099	.368	.073	1	.787	.905	.440	1.861
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.314	.370	.720	1	.396	.730	.353	1.509
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] *	.154	.535	.083	1	.773	1.166	.409	3.327
	[SpeakerGender=0]								
	[Accent=0] *	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=1]								
[Accent=1] *	0 <sup>b</sup>	.	.	0	.	.	.	.	
[SpeakerGender=0]									
[Accent=1] *	0 <sup>b</sup>	.	.	0	.	.	.	.	
[SpeakerGender=1]									

a. The reference category is: **Somewhat agree**.

b. This parameter is set to zero because it is redundant.

Table 8. Parameter Estimates for Vocal attractiveness with reference category: Neither agree nor disagree

Parameter Estimates									
Please indicate on the scale how much you agree with the statement below.								95% Confidence Interval for Exp(B)	
I think this speaker sounds ... - Intelligent <sup>a</sup>		B	Std. Error	Wald	df	Sig.	Exp(B)	Lower Bound	Upper Bound
Strongly Agree	Intercept	-3.393	.508	44.548	1	.000			
	[Accent=0]	2.575	.548	22.050	1	.000	13.136	4.484	38.488
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	1.550	.575	7.265	1	.007	4.713	1.527	14.550
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] *	-2.394	.660	13.145	1	.000	.091	.025	.333
	[SpeakerGender=0]								
	[Accent=0] *	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=1]								
[Accent=1] *	0 <sup>b</sup>	.	.	0	.	.	.	.	
[SpeakerGender=0]									
[Accent=1] *	0 <sup>b</sup>	.	.	0	.	.	.	.	
[SpeakerGender=1]									
Agree	Intercept	-.887	.170	27.326	1	.000			
	[Accent=0]	1.021	.231	19.602	1	.000	2.776	1.766	4.361
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.117	.256	.208	1	.648	.890	.538	1.471



	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Strongly disagree	Intercept	-1.835	.247	55.150	1	.000			
	[Accent=0]	.324	.364	.791	1	.374	1.383	.677	2.825
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.008	.365	.000	1	.983	.992	.485	2.030
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	-.379	.531	.509	1	.476	.685	.242	1.939
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.

a. The reference category is: **Neither agree nor disagree**.

b. This parameter is set to zero because it is redundant.

Table 9. Parameter Estimates for Vocal attractiveness with reference category: Somewhat disagree

Parameter Estimates									
Please indicate on the scale how much you agree with the statement below.  I think this speaker sounds ... - Intelligent <sup>a</sup>		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Strongly Agree	Intercept	-2.788	.515	29.291	1	.000			
	[Accent=0]	2.383	.561	18.056	1	.000	10.833	3.610	32.512
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	1.500	.587	6.521	1	.011	4.483	1.417	14.178
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	-1.888	.686	7.575	1	.006	.151	.039	.581
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.

	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Agree	Intercept	-.283	.189	2.231	1	.135			
	[Accent=0]	.828	.258	10.271	1	.001	2.289	1.379	3.798
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.167	.283	.348	1	.555	.846	.486	1.473
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	.174	.385	.204	1	.651	1.190	.559	2.534
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Somewhat agree	Intercept	.268	.165	2.651	1	.104			
	[Accent=0]	.231	.242	.907	1	.341	1.260	.784	2.025
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	.256	.234	1.203	1	.273	1.292	.817	2.043
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	-.027	.348	.006	1	.938	.973	.492	1.927
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Neither agree nor disagree	Intercept	.605	.154	15.374	1	.000			
	[Accent=0]	-.193	.237	.659	1	.417	.825	.518	1.313
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.050	.226	.049	1	.824	.951	.611	1.480
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	.506	.343	2.178	1	.140	1.658	.847	3.244
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.

	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Disagree	Intercept	-.511	.203	6.360	1	.012			
	[Accent=0]	-.054	.308	.030	1	.862	.948	.518	1.735
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	.439	.277	2.514	1	.113	1.552	.901	2.671
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	.172	.421	.166	1	.684	1.187	.520	2.711
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Strongly disagree	Intercept	-1.230	.261	22.241	1	.000			
	[Accent=0]	.131	.383	.118	1	.731	1.140	.539	2.414
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.058	.384	.023	1	.880	.944	.444	2.005
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	.127	.563	.051	1	.822	1.135	.377	3.421
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.

- a. The reference category is: **Somewhat disagree**.  
b. This parameter is set to zero because it is redundant.

Table 10. Parameter Estimates for Vocal attractiveness with reference category: Disagree

Parameter Estimates									
Please indicate on the scale how much you agree with the statement below.		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
I think this speaker sounds ... - Intelligent <sup>a</sup>									
	Intercept	-2.277	.525	18.814	1	.000			

Strongly Agree	[Accent=0]	2.436	.583	17.482	1	.000	11.431	3.648	35.816
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	1.061	.597	3.156	1	.076	2.889	.896	9.313
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	-2.060	.704	8.555	1	.003	.127	.032	.507
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Agree	Intercept	.228	.215	1.131	1	.287			
	[Accent=0]	.882	.303	8.461	1	.004	2.415	1.333	4.375
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.606	.303	4.014	1	.045	.545	.301	.987
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	.003	.417	.000	1	.995	1.003	.443	2.270
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Somewhat agree	Intercept	.779	.193	16.227	1	.000			
	[Accent=0]	.284	.289	.965	1	.326	1.329	.754	2.344
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.183	.257	.507	1	.476	.833	.503	1.378
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	-.199	.383	.269	1	.604	.820	.387	1.737
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Neither agree nor disagree	Intercept	1.116	.185	36.555	1	.000			
	[Accent=0]	-.139	.286	.237	1	.626	.870	.497	1.523
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.489	.250	3.835	1	.050	.613	.376	1.000

	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] *	.334	.378	.781	1	.377	1.396	.666	2.928
	[SpeakerGender=0]								
	[Accent=0] *	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=1]								
	[Accent=1] *	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]								
	[Accent=1] *	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=1]								
Somewhat disagree	Intercept	.511	.203	6.360	1	.012			
	[Accent=0]	.054	.308	.030	1	.862	1.055	.577	1.931
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.439	.277	2.514	1	.113	.644	.374	1.109
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] *	-.172	.421	.166	1	.684	.842	.369	1.923
	[SpeakerGender=0]								
	[Accent=0] *	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=1]								
Strongly disagree	Intercept	-.719	.280	6.607	1	.010			
	[Accent=0]	.185	.414	.200	1	.655	1.203	.534	2.710
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.497	.399	1.552	1	.213	.608	.278	1.330
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] *	-.045	.585	.006	1	.939	.956	.304	3.008
	[SpeakerGender=0]								
	[Accent=0] *	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=1]								
Strongly disagree	[Accent=1] *	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]								
	[Accent=1] *	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=1]								

a. The reference category is: **Disagree**.

b. This parameter is set to zero because it is redundant.

Table 11. Parameter Estimates for Vocal attractiveness with reference category: Strongly disagree

Parameter Estimates
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Please indicate on the scale how much you agree with the statement below.		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
I think this speaker sounds ... - Intelligent <sup>a</sup>									
Strongly Agree	Intercept	-1.558	.550	8.022	1	.005			
	[Accent=0]	2.251	.625	12.967	1	.000	9.500	2.790	32.351
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	1.558	.654	5.677	1	.017	4.750	1.318	17.113
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	-2.015	.797	6.392	1	.011	.133	.028	.636
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Agree	Intercept	.947	.270	12.288	1	.000			
	[Accent=0]	.697	.378	3.389	1	.066	2.007	.956	4.214
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	-.109	.403	.073	1	.787	.897	.407	1.976
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	.047	.560	.007	1	.933	1.048	.350	3.140
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Somewhat agree	Intercept	1.498	.254	34.857	1	.000			
	[Accent=0]	.099	.368	.073	1	.787	1.104	.537	2.270
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	.314	.370	.720	1	.396	1.369	.663	2.829
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	-.154	.535	.083	1	.773	.857	.301	2.445
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.

	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Neither agree nor disagree	Intercept	1.835	.247	55.150	1	.000			
	[Accent=0]	-.324	.364	.791	1	.374	.723	.354	1.477
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	.008	.365	.000	1	.983	1.008	.493	2.062
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	.379	.531	.509	1	.476	1.460	.516	4.134
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Somewhat disagree	Intercept	1.230	.261	22.241	1	.000			
	[Accent=0]	-.131	.383	.118	1	.731	.877	.414	1.857
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	.058	.384	.023	1	.880	1.060	.499	2.251
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	-.127	.563	.051	1	.822	.881	.292	2.654
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
Disagree	Intercept	.719	.280	6.607	1	.010			
	[Accent=0]	-.185	.414	.200	1	.655	.831	.369	1.872
	[Accent=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=0]	.497	.399	1.552	1	.213	1.644	.752	3.595
	[SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=0] * [SpeakerGender=0]	.045	.585	.006	1	.939	1.046	.332	3.290
	[Accent=0] * [SpeakerGender=1]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Accent=1] * [SpeakerGender=0]	0 <sup>b</sup>	.	.	0	.	.	.	.

	[Accent=1] *	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SpeakerGender=1]								

- a. The reference category is: **Strongly disagree.**
- b. This parameter is set to zero because it is redundant.