Native Danish listeners' evaluation of English accents

Steffen Graversen Vesterlund, Department of English, Aarhus University
Ocke-Schwen Bohn, Department of English, Aarhus University

Abstract: This paper examines native Danish listeners' attitudes towards five native English accents and some of the factors which are likely to influence listeners' evaluations. Forty-seven native Danish listeners participated in a verbal guise test in which they rated samples from five English varieties on status/competence (the power dimension), solidarity and voice quality dimensions, and had to guess the speaker's origin: Standard Southern British English (SSBE), General American (GA), Australian English (AUS), Scottish English (SCO), and Southern US English (SUS). Additionally, the listeners stated their accent preference and responded to questions regarding their English media consumption. The standard varieties SSBE and GA were rated highly on the power dimension, but downgraded on solidarity. The varieties AUS, SCO, and SUS were rated more positively on solidarity, but downgraded on power. SUS was correctly identified most frequently, followed by SSBE and GA, while the listeners had problems identifying SCO and AUS correctly. Accent preference and English media consumption were related to some of the individual traits, and the listeners' ability to identify GA correctly was related to their English media consumption. Overall, the present results suggest that future studies should examine the influence of media consumption on attitudes towards accents in greater detail.

Keywords: Language attitudinal study, English accent preferences, EFL, media and language attitudes.

1. Introduction

When George Bernhard Shaw, more than a hundred years ago, noted that "it is impossible for an Englishman to open his mouth without making some other Englishmen hate or despise him" (Shaw 1916, Preface to *Pygmalion*), he was probably right, but we know now that he was far too exclusive. Of course, it is not just males whose linguistic choices may offend other males, and it is not just native speakers of a language who react to linguistic traits of other native speakers of that language. A fairly large number of studies has documented, for English as well as many other languages, that people evaluate speakers along various social and psychological dimensions based on how the speaker is conveying the message (for a recent review, see Kinzler 2021). This "how" can be at the level of lexical items and morphosyntactic constructions, and in oral communication it is always and unavoidably the speaker's accent that provides a large amount of information about the speakers' social status and psychological state to the listener.

1.1. Language attitudinal studies

Accent-based evaluations of native speakers by native listeners have been examined in a range of studies with native listeners from various regions, e.g., Australia (Bayard, Weatherall, Gallois & Pittam 2001; Bradley & Bradley 2001), Canada (Lambert, Hodgson, Gardner & Fillenbaum 1960), New Zealand (Bayard et al. 2001), the UK (Brown et al. 1985; Dixon, Mahoney & Cocks 2002; Bishop, Giles & Thakerar 2005; Coupland & Bishop 2007), and the US (Stewart, Ryan & Giles 1985; Preston 1999; Heaton & Nygaard 2011). The accents involved are often the standard varieties SSBE and GA, but also regional standards such as Australian English (AUS), New Zealand English (NZ), Irish English (IR), and Scottish English (SCO), as well as a range of regional accents as in the Coupland and Bishop (2007) and Heaton & Nygaard (2011) studies. These studies typically implement the matched guise test or the verbal guise test combined with a set of direct questions to elicit how native listeners evaluate the different varieties. In a matched guise test, participants are

presented with speech samples of different accents or even different languages recorded from the same speaker (the "guises"), which they then rate for a number of different characteristics, such as *humorous* or *educated*. The verbal guise test is a modified version of the matched guise test, where participants listen to different speakers. Whereas the matched guise test has the advantage of controlling for variables such as voice quality of the speaker, it can be very difficult to find speakers who can produce valid and believable speech samples of different accents or languages.

In the process of evaluating language attitudes, the attitudes are often measured along dimensions such as power/status and solidarity. The power dimension relates to a speaker's status (e.g., perceived occupation and education), whereas the solidarity dimension relates to perceived social attributes, such as friendliness and helpfulness. The most common findings in language attitudinal studies involving native listeners are that SSBE is rated highest on the power dimension (e.g., intelligence and wealth), and that SSBE rates fairly well on solidarity traits, but not as high as on power. GA tends to be rated second highest on the power dimension or, in some cases as in Bayard et al. (2001), rated higher than SSBE. In general, native listeners do not evaluate regional accents such as AUS, NZ, IR, SCO, and Southern US English (SUS) as positively as GA and SSBE on the power dimension, but they tend to rate higher on the solidarity dimension with traits such as friendliness, humor, and helpfulness. Importantly, the Bayard et al. (2001) study suggests that these evaluations may change over time; they report that "the American accent seems well on the way to equaling or even replacing RP as the prestige - or at least preferred - variety, not only in New Zealand but in Australia and some non-English speaking nations as well" (22).

Like native speakers, nonnative speakers also associate native speakers of their target language with certain characteristics based on their accent. This has been documented for a range of countries including Austria (Dalton-Puffer, Kaltenboek & Smit 2003), China (Chan 2018), Japan (McKenzie 2006, 2008), Korea (Yook & Lindemann 2012), Spain (Carrie 2017; Carrie & McKenzie 2018), and Denmark (Jarvella, Bang, Jakobsen & Mees 2001; Ladegaard 1998; Ladegaard & Sachdev 2006). These studies reported that SSBE and GA are evaluated as the most preferred accents on the power dimension, but are downgraded on the social attractiveness dimensions. These studies also suggest that nonnative speakers whose target accent in school is SSBE tend to favor SSBE more than GA (Carrie 2017; Carrie & McKenzie 2018; Dalton-Puffer et al. 2003; Ladegaard 1998; Ladegaard & Sachdev 2006), and that nonnative speakers whose target accent in school is GA tend to favor GA over SSBE (McKenzie 2006). Regional varieties of English are rated lower in terms of power but are evaluated higher on the solidarity dimension.

One important difference between the bases for native and nonnative evaluations of accents is that for nonnatives, experience with target accents is likely to be more limited than for native speakers, both in terms of quantity of exposure and in terms of authenticity when direct exposure to native speakers of the target language is outweighed by indirect exposure through media such as movies. For the most widely used lingua franca, English, television and streaming make it possible for nonnatives to get exposed to different varieties of English. It is likely that this media exposure could shape listeners' attitudes toward different varieties as it is "an important socializing agent, providing knowledge about the social world and shaping (i.e. cultivating) viewers' social and cultural construction" (Dragojevic et al. 2016: 63).

In Denmark, English has a special and prominent role both in the educational system, at many workplaces, and in the media. English is the first foreign language taught in schools and introduced early in grade school, and it is frequently used as the medium of communication in tertiary education and in business (McArthur 2006). Foreign films and TV programs are being shown in their original language in Denmark, and with the majority of films and TV-shows being English, exposure to English is almost unavoidable (Preisler 2003). Much of this exposure is to GA, as reported by Ladegaard and Sachdev (2006), who found that during a random week, out of 472 programs broadcast on eight Danish national TV channels, 43% percent were American, and 6 % were British. Preisler

(2003) reported that Danes who prefer GA are interested in pop music or computer games, whereas Danes preferring SSBE are also interested in classical music and golf. This suggests that attitudes towards these varieties are intertwined with individuals' identity and that people's attitude towards accents might be influenced by one's personal preference. Preisler (2003) also reported that Danes who prefer GA tend to be younger and less educated than Danes who prefer SSBE.

Two studies examined native Danish listeners' evaluations of native English accents. In one study, Ladegaard (1998) and Ladegaard and Sachdev (2006) employed a verbal guise test and an accent recognition task with five varieties of English: SSBE, SCO, GA, AUS, and what was labeled as "Cockney". High school students and university undergraduates evaluated these accents in terms of status, competence, social attractiveness, personal integrity, and perceived quality of the language. SSBE was rated most positive on status and competence, GA was rated higher than SSBE on personal integrity and social attractiveness, and SCO and AUS as the most positive on the solidarity dimension. GA was most successfully identified correctly, followed by SSBE. The three other accents were difficult for the Danish students to correctly identify, particularly AUS, which high school students identified correctly at a rate of 8%, and undergraduates at a rate of 17%.

Participants were also asked to answer a set of direct questions about their attitudes to British and American language and culture, and which accent they were aiming at. This was included to test the hypothesis that younger people would rate an American accent more positively than other English varieties due to the high exposure to American culture, primarily through American media. The authors reported that American culture is viewed as more exciting than the participants' own culture and British culture. Interestingly, this cultural preference did not influence their choice of a target accent (with a preference for SSBE) or the evaluation of SSBE and GA as SSBE was rated highest on status and competence.

The other study is Jarvella et al. (2001), which focused on how skillful Danish students were at identifying speakers from England, Ireland, Scotland, and the USA. This study also had the students rate each speaker for attractiveness. Jarvella et al. (2001) excluded SSBE and GA as they wanted the listeners to rate for attractiveness and these two accents, as described above, tend to receive a higher rating on power and prestige dimensions. Two speakers from each accent were included. There were two experiments in which the listeners had to identify and rate speakers for attractiveness: In the first experiment evaluations were based on the speakers reading a word list out loud, and in the second experiment the speakers produced casual speech. The Danish students were able to identify the speakers 74% of the time and were more successful in identifying the speakers from England and USA. In terms of ratings of attractiveness, the British speakers were rated highest, and the American speakers were surprisingly rated the lowest (Jarvella et al. 2001).

1.2 The present study
One important motivation for the present study is that the data for the two earlier studies were collected more than 20 years ago. In the meantime, conditions for exposure to English in Denmark have changed considerably. The starting age for introducing English in the school curriculum has successively been lowered to first grade (in 2014), and, perhaps more importantly, the availability of English-language media has drastically increased with the wide-spread accessibility of the internet and social media.

The present study examined native Danish listeners' attitudes to a range of English accents by eliciting their reactions to audio files with verbal guises representing these accents, and by asking participants directly about their attitudes towards English accents. Participants were also asked whether they could identify the accents to determine whether knowledge of an accent might influence its evaluation, and participants provided estimates of their English-language media consumption. The design of the present study is inspired by previous language attitudinal studies as reviewed above to enable comparisons of our results with those of earlier studies. Five native English accents were

selected for the evaluations: Standard Southern British English (SSBE), General American (GA), Australian English (AUS), Scottish English (SCO), and Southern US English (SUS). These are accents which are frequently used in language attitudinal studies. From a Danish perspective, there are additional reasons to include these five accents. SSBE is the accent primarily taught in Danish educational settings, thus Danes are highly exposed to this variety and are likely to associate SSBE with a high degree of "correctness" (Milroy 2007: 133). GA was included because the Ladegaard and Sachdev (2006) study suggests that native Danish speakers are more exposed to this variety through English-language media than other varieties, and Bayard et al. (2001) reported a shift by native English speakers from SSBE to GA as the preferred English accent. This motivates our question of whether a shift in accent preference would also be observable for native Danish listeners. In some of the studies, varieties such as AUS, IR and SCO tend to be rated higher on traits that are related to solidarity. Compared to other regional variety speakers, the origin of Scottish and Australian English speakers is expected to be harder for native Danes to identify. Lastly, SUS is included because previous studies have not included this accent to the same extent as other regional varieties. Preston (1999) and Heaton and Nygaard (2011) reported that SUS tends to be rated lower on traits that are related to the power dimension, such as intelligence. It is expected that native Danish listeners will express similar attitudes towards SUS.

In summary: The questions that this study attempts to address are:

1. How do native Danish listeners rate the different native English accents?
2. How accurate are the native Danish listeners at identifying each of the English accents?
3. Do native Danish listeners show any preferences for specific English accents and if so, how do these affect the evaluation of the accents?
5. Does English media consumption influence how native Danes evaluate the English accents?
6. How do the present results relate to other language attitudinal studies?

2. Methods
This section will describe how we conducted the experiment: the participants, linguistic features of the speakers, the procedure, and decisions on how the questionnaire should be formed.

2.1 Participants
47 native Danish speakers (m age: 28.7 years, 24 f, 23 m) participated as unpaid volunteers. Depending on their age, participants had between 5 and 8 years English language instruction with SSBE and GA as target varieties. 42 of the participants had attended Danish high school, where English is an obligatory subject with exposure to a few regional varieties (Ladegaard 1998). Five of the participants, who had a BA or MA in English, were included in the study because even though they had acquired some linguistic knowledge about accents, their responses did not differ systematically from the other participants.

Participants were recruited via Facebook and word of mouth. Participants filled in a background questionnaire (Appendix 3) which elicited information on their gender, age, current occupation, their estimated daily use of English, length of residence in an English-speaking country, and on the estimated amount of weekly English media consumption.

2.2 Materials: speech samples
We chose the verbal guise test as it ensured having authentic speech samples and a sufficient number of sound samples. In the process of choosing the speech samples, speakers with similar voice quality and speaking rate where selected. The verbal guise voice samples were selected from the Speech Accent Archive (http://accent.gmu.edu). The Speech Accent Archive currently features nearly 3,000 samples of the same read text from both native and non-native speakers with many different English

accents. The text, reproduced below, "contains most of the consonants, vowels, and clusters of standard American English" (Weinberger 2015).

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

For the current study, we included only the first half of the passage (until *Bob*) because it contained enough accent-specific features for each speaker and because it limited the time that participants had to spend on the task. The Speech Accent Archive also contains demographic information about each speaker, which helps select speakers based on variables such as gender, age, and regional origin.

We selected samples from two male speakers each for the five English varieties Standard SSBE, GA, SUS, SCO, and AUS.[1] These speakers were selected because they differed primarily with respect to accent properties (see below), and as little as possible with respect to other properties of the speech samples which were irrelevant for the aims of the present study, such as speaking rate and voice quality.

Speaker 1 (GA) from Pittsburgh, PA, USA, was 42 years old at the time of recording. His typical GA features include the use of /r/ in non-prevocalic positions (in *store* [stɔɹ]), the flap [ɾ] (in *ask her to bring* [æsk əɹ ɾə bɹɪŋ]), the vowel [æ] (in *ask* [æsk]), and the diphthong [oʊ] (in *snow*).

Speaker 2 (SCO) from Glasgow, Scotland, was 37 years old at the time of the recording. His typical SCO features include the alveolar trill [r] (in *bring* [brɪŋ]), the occurrence of /r/ in non-prevocalic positions (in *her* [ər]), and the monophthongs [o] and [e] instead (in *snow* [sno] and *maybe* [mebi]).

Speaker 3 (AUS) from Darwin, Australia, was 24 years old at the time of the recording. His features, typical of Cultivated Australian English, and shared with SSBE, include non-rhoticity, linking and intrusive /r/, lack of /r/ in non-prevocalic positions (in *brother* [bɹʌðɛ]), the onglide [ə] (in *snow* [snəʊ]) is [əʊ]. Specifically, AUS features include the diphthongized /i/ (in *please* as [plɪiz]), and the fronted /u/ (in *spoons* [spʉnz]).

Speaker 4 (GA) from Idaho Falls, ID, USA, was 32 years old at the time of the recording. He exhibits many of the same GA features as Speaker 1, such as the use of non-prevocalic /r/ (in *store* [stɔɹ], brother [bɹʌðəɹ]), the vowel [æ] (in *ask* [æsk]), and the diphthong [oʊ] (in *snow*).

Speaker 5 (SCO) from Glasgow, Scotland, was 32 years old at the time of the recording. His Scottish accent is not as prominent as that of Speaker 2, but he exhibits the typically SCO features of a monophthongal [o] (in *snow* [sno]) and rhoticity (in *her* [həɹ], *brother* [bɹʌðəɹ]).

Speaker 6 (SUS) from Atlanta, GA, USA, was 56 years old at the time of recording. His Southern features include the monophthong [a] (in *five* [fav]) and the so-called the southern drawl, which "involves relatively greater length in stressed, accented syllables as compared to unstressed; this is accompanied by diphthongization and other modifications of some accented syllables" (Wells 1982: 529). Like many other Southern US speakers, his speech is rhotic (in *her* [həɹ], *store* [stɔɹ]).

Speaker 7 (SSBE) from Bury St. Edmunds, UK, was 18 years old at the time of the recording. His SSBE features included non-rhoticity, the use of [ɑ] (in *ask* [ɑsk]), and the onglide [ə] (in *snow* [snəʊ]).

Speaker 8 (SSBE) from Stratford-on-Avon, UK, was 43 years old at the time of recording. Like speaker 7, his SSBE features included non-rhoticity, the use of [ɑ] (in *ask* [ɑsk]), and the onglide [ə]

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[1] In the Speech Accent Archive, Speaker 1 is *english1* (GA)*,* Speaker 2 is *english24* (SCO)*,* Speaker 3 is *english73* (AUS)*,* Speaker 4 is *english75* (GA)*,* Speaker 5 is *english80* (SCO)*,* Speaker 6 is *english116* (SUS)*,* Speaker 7 is *english145* (SSBE)*,* Speaker 8 is *english368* (SSBE)*,* Speaker 9 is *english579* (AUS) *and* Speaker 10 is *english619* (SUS).

(in *snow* [snəʊ]).

Speaker 9 (AUS) from Adelaide, Australia, was 22 years old at the time of the recording. Like the AUS speaker 3, his features include non-rhoticity (in *brother* [bɹʌðɛ]), the onglide [ə] (in *snow* [snəʊ]) is [əʊ], the diphthongized /i/ (in *please* [plɨiz]), and the very fronted /u/ (in *spoons* [spʉnz]).

Speaker 10 (SUS) from Jackson, TN, USA, was 21 years old at the time of the recording. Like the SUS speaker 6, this speaker has post-vocalic /r/ (in *her* [həɹ]) and the monophthong [a] (in *five* [fav]) and the so-called southern drawl is also present. This speaker realizes /u/ as a diphthongized vowel with a fronted onglide (in *spoons* [spʉuns]).

The ten sound files were separately uploaded as a black-screen video to Youtube for presentation in SurveyXact.

2.3 Materials: questionnaire
The present study was conducted during the COVID-19 pandemic, which dictated a number of methodological decisions. We designed an online questionnaire which did not require a physical meeting of experimenter and participants. The entire questionnaire and the introduction were written in Danish.

The questionnaire consisted of three parts: The verbal guise test, the three direct questions that elicited participants' overt attitudes towards English, and background information for each participant.

In the verbal guise test, the participants had to evaluate each speaker on three dimensions Power (*Intelligent*, *Educated*, *Rich*, *Authoritative*, and *Confident*), solidarity (*Friendly*, *Reliable*, *Humorous*, *Helpful* and *Honest*), and voice quality (*Pleasant Voice* and *Powerful voice*), see Appendix 1. These dimensions were chosen based on the studies by Bayard et al. (2001), Ladegaard (1998), Ladegaard and Sachev (2006), and Cargile et al. (1994). Participants rated each trait on Likert scales ranging from 1 ("very little) to 6 ("very much"). Below the rating scales, participants were asked to identify the speaker origin (free classification), and to rate how confident they were in their assessment of the speaker's origin on a scale of 1 to 4, with 1 ("uncertain), 2 ("somewhat uncertain"), 3 ("somewhat certain"), 4 ("certain"). The ability to correctly identify the origin of the speaker was also included to examine if the native Danish listeners' speaker origin identification would be similar to native English speakers, and the confidence rating was included to examine if there would be a relation between how well the native Danes correctly identified the origin of the speaker and how confident they were in their assessment. A separate questionnaire elicited responses regarding English accent use/preferences (Appendix 2), namely *Which English accent do you aim at using when speaking English? Which English accent do you most frequently encounter?* and *Which English accent do you least prefer to hear spoken?*

2.4 Procedure
The experiment was run via SurveyXact. Participants were first introduced to the aim of the study and the structure of the questionnaire, and they were instructed to wear headphones to listen to the sound files. Participants then gave their informed consent and received assurance that their data would be treated in compliance with the GDPR. Next, participants were presented with one page for each speaker which contained the sound clip and the evaluation and identification questions for that speaker (see Appendix 1). Finally, participants responded to the questions regarding English accent use/preferences (Appendix 2). Once the participant had completed the page for a speaker, the participants would be presented with the next page with a new speaker. Because SurveyXact lacks facilities to randomize pages, the order of presentation of the ten speakers was fixed as follows: Speaker 9 (AUS), speaker 1 (GA), Speaker 2 (SCO), Speaker 6 (SUS), Speaker 5 (SCO), Speaker 8 (SSBE), Speaker 10 (SUS), Speaker 4 (GA), Speaker 7 (SSBE), Speaker 3 (AUS). This sequence ensured that the same varieties were not presented right after each other.

3. Results and data analysis

This section is organized as follows: We first present the participants' evaluations of the samples from five English accents along the 12 rating scales. Next, we focus on how good participants are at identifying each speaker's regional origin, and how confident they are in their assessment. We then present listeners' attitudes towards accents (preferences/dislikes) and whether these attitudes affected ratings for the 12 traits. Finally, we examine whether media consumption influences accent evaluation and the ability to identify accents correctly.

3.1 Overall rating for the five English varieties

We grouped the 12 traits of the questionnaire into three categories: Power, Solidarity, and Voice Quality. These categories correspond to Ladegaard and Sachdev's (2006) "Social status and competence", "Social attractiveness and personal integrity", and "Quality of language". Figure 1 shows how the listeners evaluated the English accents for these three categories, with SSBE scoring the most positive rating out of all accents on the Power dimension and rating fairly high on the Solidarity and Voice Quality dimensions as well. GA is rated second highest on Power but compared to the other varieties GA is rated low on Voice Quality and lowest on Solidarity. SCO and AUS rate high on both the Solidarity and Voice Quality dimensions but lower on Power compared to SSBE and GA. Finally, SUS is rated considerably lower on the Power dimension compared to the other accents. SUS is also rated lower on Voice Quality and is almost on par with GA in terms of Solidarity

Figure 1: Mean ratings for Power, Solidarity, and Voice Quality traits for five English accents.
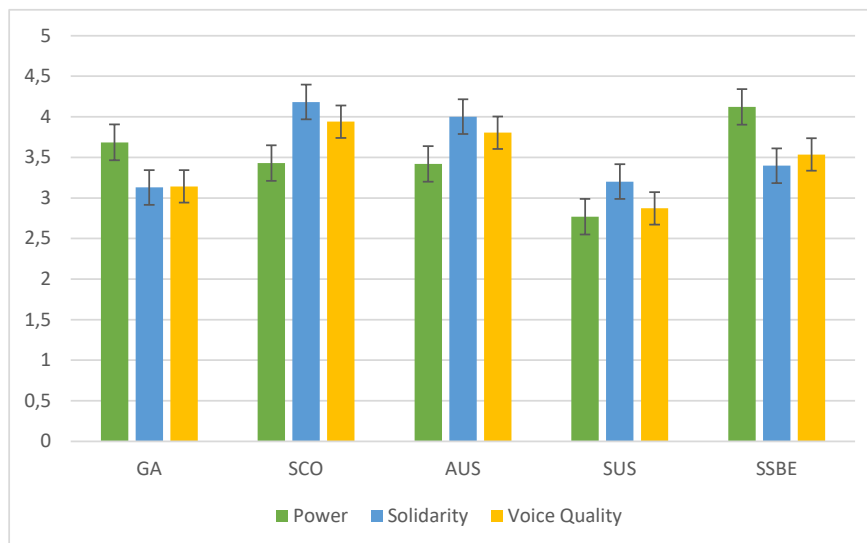

Figure 2 presents in more detail the mean ratings for each trait for the two speakers of each variety. In order to examine whether the differences shown in Figure 2 are statistically significant, we performed a series of ANOVAs with post-hoc Tukey tests. The results reported below are all based on non-parametric Kruskal-Wallis One Way ANOVAs on Ranks because Shapiro-Wilk tests revealed that none of the scores were normally distributed, which prevented using parametric tests.

Figure 2: Mean rating for each English accent by the Danish listeners. Error bars indicate the standard error of mean (SEM).
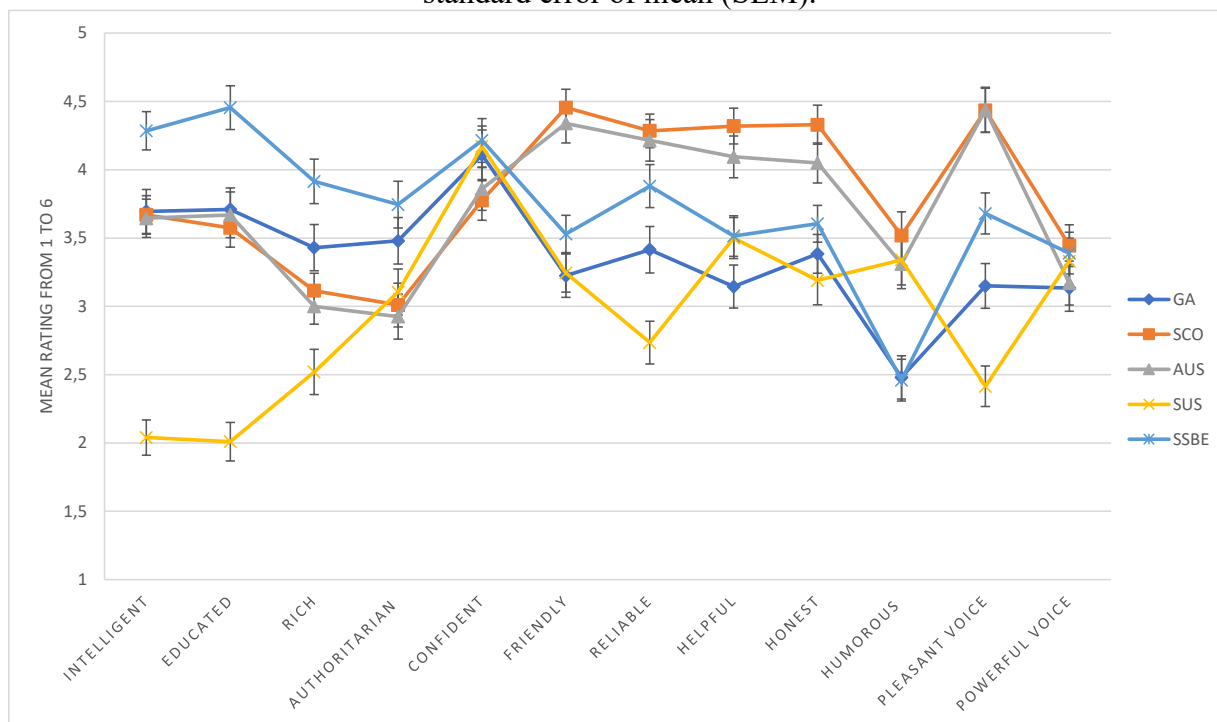
The Kruskal-Wallis ANOVAs on Ranks revealed that all traits significantly differed from each other between the accents except for *Powerful Voice* and *Confident* where there was no significant difference between the medians for the groups. Table 1 lists the results of the post-hoc tests showing statistically significant (with $\alpha = .05$) differences between the evaluations of the five accents

Table 1: Differences in the evaluation of traits for the English accent groups. NS is non-significant, *: $p < 0.05$, **: $p < 0.01$, ***: $p < 0.001$

Intelligent	GA	SCO	AUS	SUS
SSBE	**	**	**	***
GA		NS	NS	***
SCO			NS	***
AUS				***

Educated	GA	SCO	AUS	SUS
SSBE	**	***	***	***
GA		NS	NS	***
SCO			NS	***
AUS				***

Rich	GA	SCO	AUS	SUS
SSBE	NS	***	***	***
GA		NS	NS	***
SCO			NS	**
AUS				*

Authoritarian	GA	SCO	AUS	SUS
SSBE	NS	**	***	**
GA		NS	**	NS
SCO			NS	NS
AUS				NS

Friendly	GA	SCO	AUS	SUS
SSBE	NS	**	**	NS
GA		***	***	NS
SCO			NS	***
AUS				***

Reliable	GA	SCO	AUS	SUS
SSBE	**	**	**	***
GA		NS	NS	***
SCO			NS	***
AUS				***

Helpful	GA	SCO	AUS	SUS
SSBE	NS	***	**	NS
GA		***	***	NS
SCO			NS	***
AUS				**

Humorous	GA	SCO	AUS	SUS
SSBE	NS	***	***	***
GA		***	***	***
SCO			NS	NS
AUS				NS

Honest	GA	SCO	AUS	SUS
SSBE	NS	***	***	NS
GA		***	NS	NS
SCO			NS	***
AUS				***

Pleasant Voice	GA	SCO	AUS	SUS
SSBE	*	**	**	***
GA		***	***	**
SCO			NS	***
AUS				***

The statistical analyses confirm some of the differences observed in Figure 1 and Figure 2. Table 1 shows that SSBE and SCO, AUS, and SUS differ significantly on the Power dimension (*Intelligent, Educated, Rich*, *Authoritarian,* and *Confident*). There is also a significant difference between the median of SSBE and GA on *Intelligent* and *Educated*, but there is no statistically significant difference between SSBE and GA for *Rich* and *Authoritarian*. SUS differs significantly from the other accents on *Intelligent, Educated* and *Rich*.

SCO and AUS differ significantly from the other three accents on *Helpful* and *Friendly*. For *Honest*, there are statistically highly significant differences between SCO and GA, SSBE, and SUS, and between AUS and SUS and SSBE. For the trait *Pleasant Voice,* SCO and AUS are both significantly different from GA, SSBE and SUS. SSBE differs significantly from GA and SUS, and GA differs significantly from SUS in *Pleasant Voice*.

3.2 Identification of the speaker's origin
In the verbal guise test, one of the questions asked the participants to guess where each speaker is from. The participants did not have a list to choose from but had to write their guesses in text. Therefore, the answer from each participant had to be assessed to determine whether they had correctly identified the speaker. For SSBE, *London, South England, British,* and *England* were accepted as correct. For GA, *American*, *North American*, and *USA* were accepted as correct. For SUS, *Southern US, Texas, Alabama* were accepted as correct, as were *South US* and *Southern part of USA*, since the geographical area covers the specific ones. For SCO, *Scotland* and *Northern England* were

accepted as correct – the ten responses of *Ireland* for SCO were not accepted as correct even though SCO and Irish English share several phonetic traits. For AUS, *Australia* was accepted as correct. The participants were also asked to rate on a scale from 1 (not certain) to 4 (certain) how confident they were in their assessment. Table 2 summarizes the percentage of the participants who correctly identified the accent of the speakers, the mean rating for the participants' confidence rating ranging from 1 to 4, and the Recognition index for each speaker. The Recognition index is the product of the proportion of correct identification and the confidence rating scores, which results in a range of Recognition indices from 0 to 4. For example, the Recognition index for Speaker 7 is 0.66 * 2.19 = 1.44. For SUS, SSBE, GA, and AUS, the recognition indices per speaker only differed between 0.06-0.36, whereas there was a large difference in recognition indices between the two SCO speakers of 1.47.

Table 2: Correct identification of accent, confidence rating, and recognition index for each accent

	SSBE	GA	AUS	SCO	SUS
Correct Identification	64.9 %	62.8 %	30.9 %	40.5 %	93.6 %
Confidence Rating	2.23	2.39	2.02	2.35	3.22
Recognition Index	1.44	1.50	0.62	0.95	3.01

The native Danish listeners were particularly good at identifying SUS with a recognition index at 3.01. This indicates that the Danish listeners were accurate in their identification of the accent and were very confident in their assessment. This is not surprising as the Southern US accent is very characteristic and is an accent that Danes are familiar with from American movies, tv-shows and news coverage.

For GA and SSBE, the Danish listeners were fairly good at identifying these two accents with recognition indices of 1.50 and 1.44 respectively. It is not surprising that the SSBE and GA were frequently identified correctly by the listeners, who also were somewhat confident in their assessment, because these varieties are often encountered by Danes in media and educational settings, and they are categorized as the "standard" varieties of English.

SCO was a bit more difficult for the listeners to identify with a recognition index at 0.95. The listeners expressed more uncertainty in their assessment of Speaker 5 than Speaker 2. This could be a result of Speaker 5 having fewer linguistic features characteristic of the Scottish accent compared to Speaker 2, and several of these features link him more to a SSBE speaker – see section 2.2 Unsurprisingly, many of the listeners guessed that the SCO speakers were from *Ireland* or *Northern Ireland*, since these varieties share several linguistics cues (Ladegaard 1998: 261).

Lastly, for AUS, the listeners had difficulty identifying the two speakers, which is evident from the lowest recognition index of all accents at 0.62. Many listeners guessed that Speaker 3 and especially Speaker 9 were from *England*, *UK* or *London*, which are reasonable guesses as the Australian English speakers share several linguistics features that are also present in SSBE. It should be noted that Speaker 9 received a lower correct identification and lower confidence rating than Speaker 3. A possible reason for this difference could be that Speaker 9 was presented as the first speaker and Speaker 3 was the last speaker. The listeners may have been more confident in their

assessment in the beginning of the study compared to the end. This could also have affected the identification as all the listeners heard Speaker 9 in the beginning and might have picked up on more linguistic cues as they heard more speakers.

3.3 Preference for a particular accent and evaluation of that accent

The second part of the questionnaire contained two direct questions, the first of which asked the participants which accent they aim at using when speaking English. 25 (of 47) participants wrote that they aimed at British English, with answers including *British*, *English, Oxford* and *Standard English*. 14 participants answered that they aimed at using a Standard American accent, with answers being *American, US* or *Standard American*. The remaining nine participants had diverse responses with three aiming at *a mix of British and American,* two aiming at a *Danish accent*, one responded aiming at a *Nordic accent*, and three who were not aiming at using any specific accent.

With most of the listeners either preferring British or American English, we decided to only compare preferences for these accents in this section. The mean rating for all traits for GA and SSBE speakers was split into two groups based on the variety the listeners aimed at using. The difference in mean rating of the traits for each speaker are summarized in Figure 3.

Figure 3: Mean rating for GA and SSBE as a function of participants' preferred accent
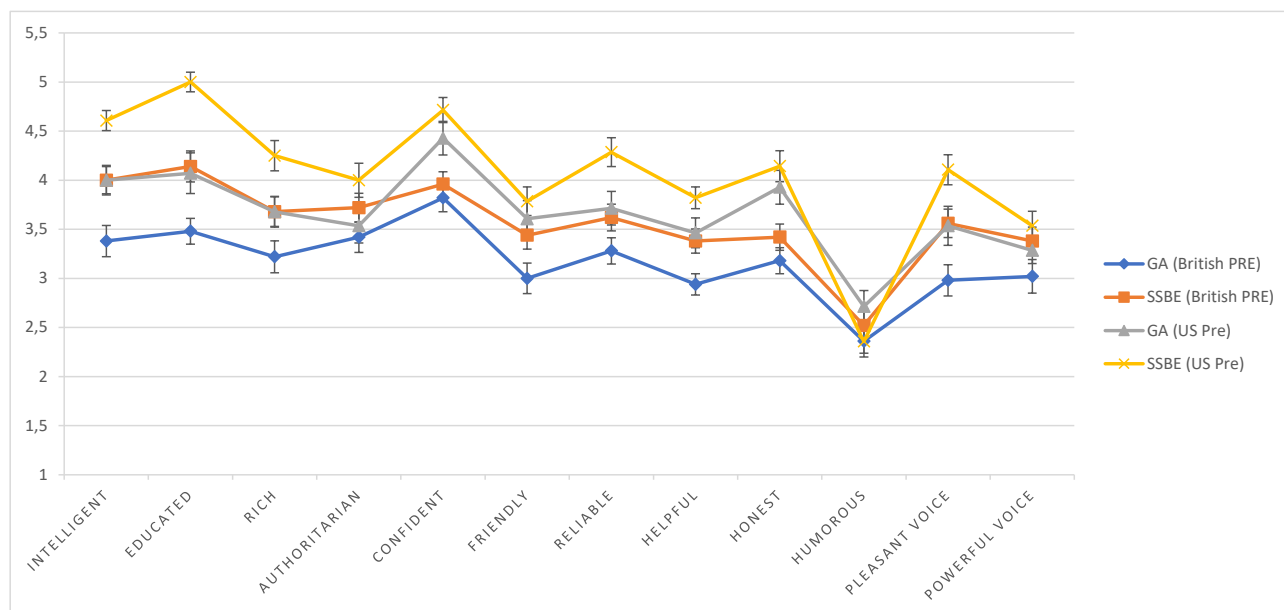(Error bars indicate Standard Error Mean (SEM))

Figure 3 suggests that listeners who aim at using an American accent are rating both GA and SSBE higher than the listeners who aim at using a British accent. The evaluation of each accent by each group follows a similar pattern. However, it appears that the rating of SSBE by participants who aim at using American is higher than for GA for all traits except for *Humorous*. The same pattern can be observed in how the two groups differ in their evaluation of the GA accent. Furthermore, the participants who aim at American English also rate GA on par with how participants with a British English preference evaluate SSBE. Moreover, it seems that some of the traits are evaluated similarly across all participants and between the two accents. These traits are *Humorous, Authoritarian* and *Powerful Voice*.

To examine whether the visual impression provided by Figure 3 would be statistically supported, we conducted a series of analyses. We first ran Shapiro-Wilk tests to determine whether

the ratings were normally distributed, which made it possible to conduct parametric t-tests, or not, in which case we conducted non-parametric Mann-Whitney U tests. For the samples of the GA accent, the ratings were normally distributed for 6 out of the 12 traits*: Educated, Rich, Friendly, Reliable, Pleasant Voice* and *Powerful Voice*. For the SSBE, only two ratings were not normally distributed: *Educated* and *Powerful Voice*. It was possible to conduct parametric independent t-tests on these ratings. For the ratings that were not normally distributed, non-parametric Mann-Whitney U tests were conducted. Table 4 contains the *p*-values for the two-tailed independent t-tests and Mann-Whitney U tests that were significantly different.

Table 4. Levels of significance for trait evaluation differences between GA and SSBE preference listeners. NS is non-significant, *: $p < 0.05$, **: $p <$ Bonferroni correction

Trait	Preference	GA rated	SSBE rated
Intelligent	GA	*	*
	SSBE		
Educated	GA	*	**
	SSBE		
Rich	GA	*	*
	SSBE		
Confident	GA	*	*
	SSBE		
Honest	GA	**	**
	SSBE		
Pleasant Voice	GA	NS	*
	SSBE		

With a significance level of $\alpha = 0.05$, the two groups differed significantly in how they rated GA for the trait *Educated* ($p = 0.02007$) and for rating SSBE for *Intelligent* ($p = 0.00803$)*, Rich* ($p = 0.01428$)*, Honest* ($p = 0.0029$)*, Confident* ($p = 0.00717$) and *Pleasant Voice* ($p = 0.0181$). For the non-parametric test, the two groups differed significantly in how they rated GA for *Intelligent* ($p = 0.00908$)*, Confident* ($p = 0.02191$) and *Honest* ($p = 0.00800$). For SSBE, the two groups differed significantly for *Educated* ($p = 0.00129$). However, with multiple comparisons, we adjusted the alpha level using the Bonferroni correction, which resulted in an alpha level of (.05/6, the number of comparisons) = .0083 for both the parametric and the nonparametric tests on the GA ratings, and alpha levels of (.05/10) = .005 and (0.5/2) = .025 for the parametric and the nonparametric tests, respectively, on the SSBE ratings. With this adjustment three traits are still statistically significant for GA: *Honest* ($p < 0,0083$) and for SSBE it is also *Honest* ($p < 0.005$) and *Educated* ($p < 0.025$). In other words, listeners who aim at using a British accent and an American accent differed significantly in the evaluation of GA speakers in terms of *Honest* and SSBE speakers in terms of *Honest* and *Educated*.

3.4 Attitudes towards accents and its influence on accent evaluation
The last direct question that the participants had to answer in the second part of the questionnaire was *which accent do you least prefer to hear*. Participants provided numerous responses with some disliking specific accents such as *Scouse* and *Geordie*, and some disliking *Indian accent, Danish accent*, *British* and *American English*. A few participants also had no strong aversion towards any English accent. However, the most noticeable aversion toward any English accent given by the native Danish listeners was the *Southern US accent* – with 17 out of the 47 listeners stating they dislike hearing SUS. In order to examine if this aversion for a specific accent would influence the accent evaluations, the listeners were divided into two groups: one group consisting of the 17 participants who expressed a dislike for SUS and the other group consisting of the remaining 30 participants who expressed a dislike for some other accent or who did not have any particular dislike towards any English accent. Figure 4 summarizes the mean rating for all traits for SUS by the two accent dislike groups.

Figure 4: Mean rating for SUS based as a function of accent dislike for SUS (Error bars indicate Standard Error of the Mean (SEM))
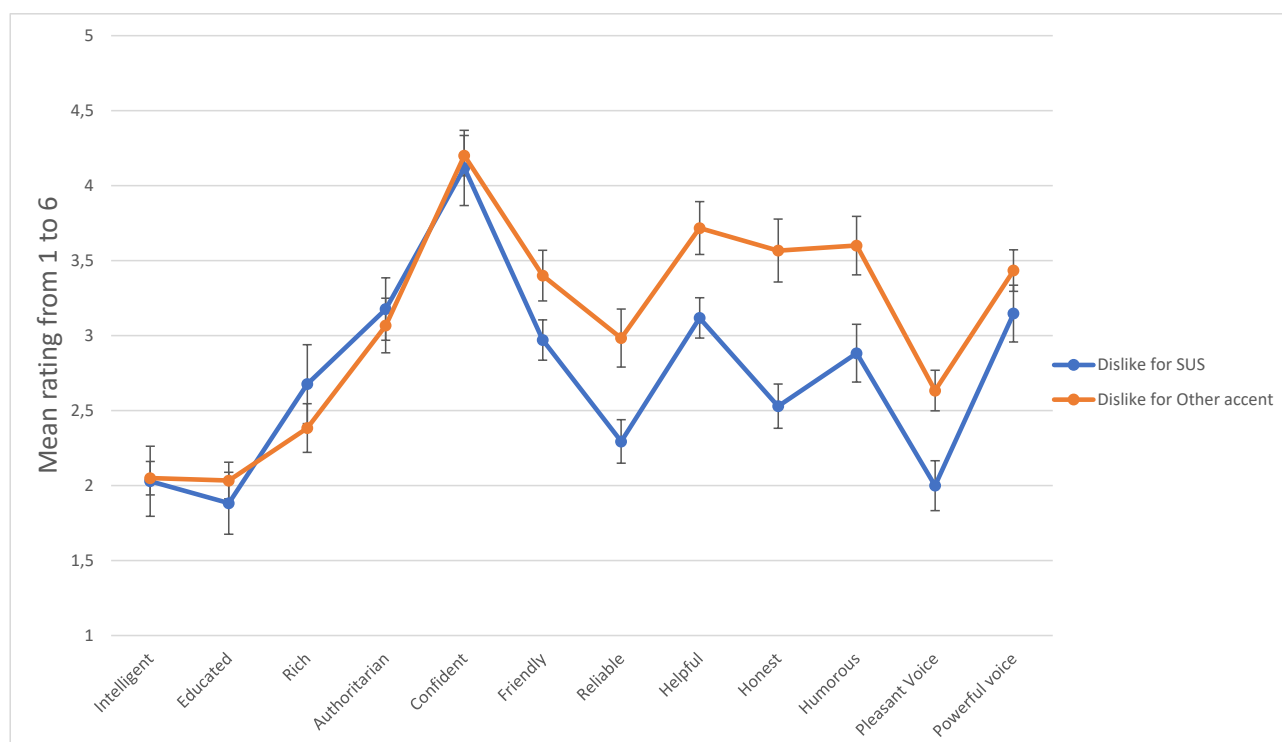

Figure 4 suggests that for some of the traits, such as *Intelligent*, *Educated*, *Authoritarian, Rich* and *Confident*, there are no noticeable differences between the two groups, i.e., the two groups evaluate SUS equally on the Power dimension (*Intelligent*, *Educated*, *Authoritarian, Rich,* and *Confident*). The ratings for *Confidence*, as pointed out in section 3.1., are stable across all 10 speakers. However, for the remaining seven traits, the Solidarity dimension and the Voice Quality dimension, it seems that listeners with an aversion towards SUS evaluate this accent lower than listeners who do not. This could indicate that the group of native Danish listeners who dislike hearing SUS have stronger negative social connotations associated with this accent compared to listeners who do not express an aversion towards SUS. In order to determine if the differences shown in Figure 4 are significant, additional statistical analyses were conducted.

We checked whether the differences followed a normal distribution. The ratings for *Educated, Honest* and *Rich* did not follow normal distributions, so we conducted Mann-Whitney U tests which revealed that the only trait out of the three where the two groups differed at the significance level α = 0.05 was *Honest* ($p = 0.0015$). For the other nine traits independent t-tests were conducted. Significant differences existed only for the evaluation of the traits *Helpful*, *Humorous*, *Reliable* and *Pleasant Voice* (at $p > 0.05$). The independent t-tests suggest that the two groups differ significantly for *Pleasant Voice, Reliable*, *Helpful* and *Humorous*. However, when the Bonferroni correction is applied, the alpha level for the parametric t-tests has to be adjusted to $(.05/9) = .0056$, and for the non-parametric tests to $(.05/3) = .01667$. With these adjustments, none of the *p*-values reach significance. Differences between the evaluation of the traits *Pleasant Voice* ($p = 0.0069$) and *Reliable* ($p = 0.0077$) are marginally significant. However, the *p*-value obtained from the Mann-Whitney U test for the trait *Honest* remains significant even when adjusted for multiple comparisons. Interestingly, this was also the trait that was significantly different for listeners who preferred a particular accent (section 3.3). This indicates that accent preference and accent aversion have similar rating patterns.

3.5 Media consumption: influence on evaluation
Participants had to estimate how much English media they used in an average week. Their answers were examined individually as they had the option to write freely, so some answers were *10-15 hours*, *30+*, *around 20 hours*, etc. For our analyses, it would be useful to divide the participants into two groups with either low or high consumption of English media. There was a somewhat natural threshold for the two groups at 15 hours. Therefore, the group with low English media consumption was defined as 0 to 15 hours a week (with 26 participants), and the group with high English media consumption was defined as 20+ hours (with 20 participants; there were no answers between 15 and 20 hours). One of the participants was not included as the person wrote that they used 140 hours a week on English media. The evaluation of each accent was calculated in a similar manner as the previous sections: the average rating for the speakers with the same accent was calculated for each listener according to their media consumption. Figure 5 and Figure 6 show the mean ratings for each accent based on the participant's media consumption.

Figure 5: Evaluation of the five accents by participants with low English media consumption
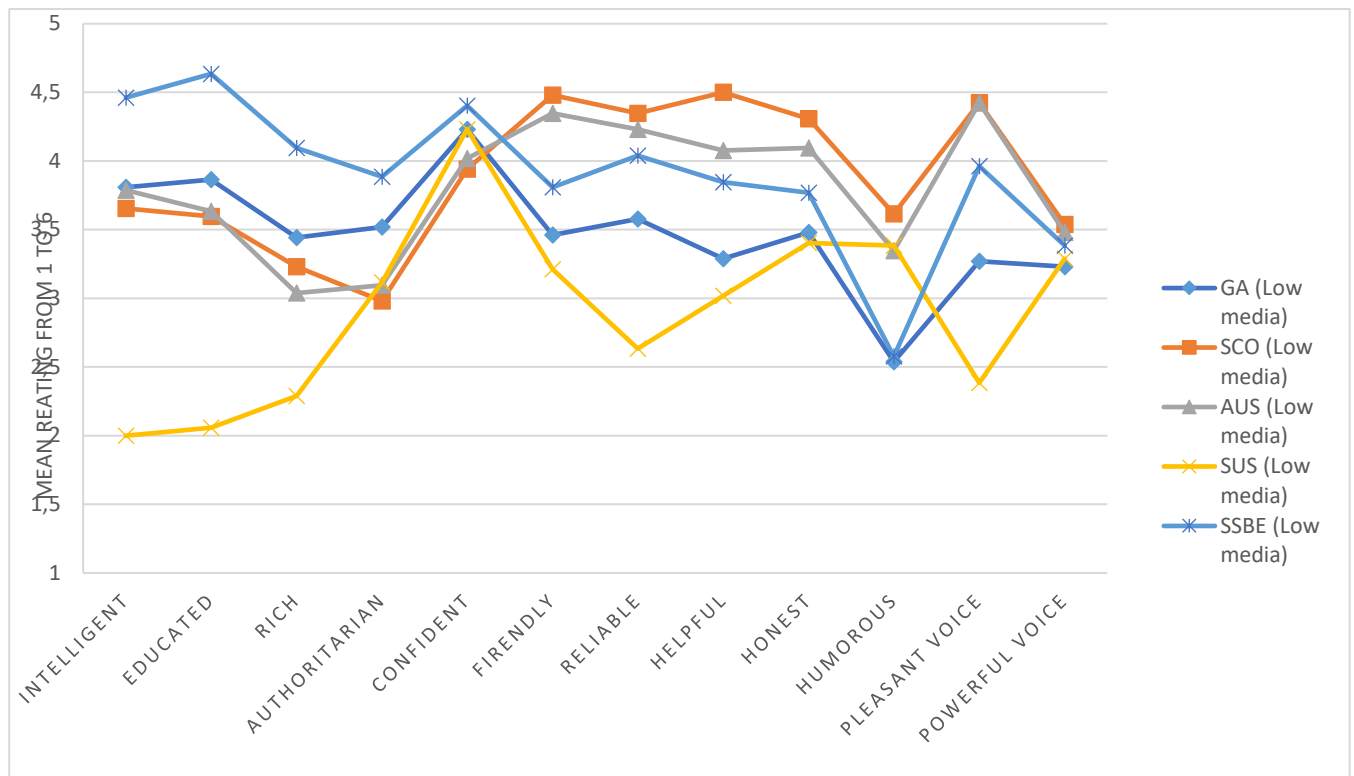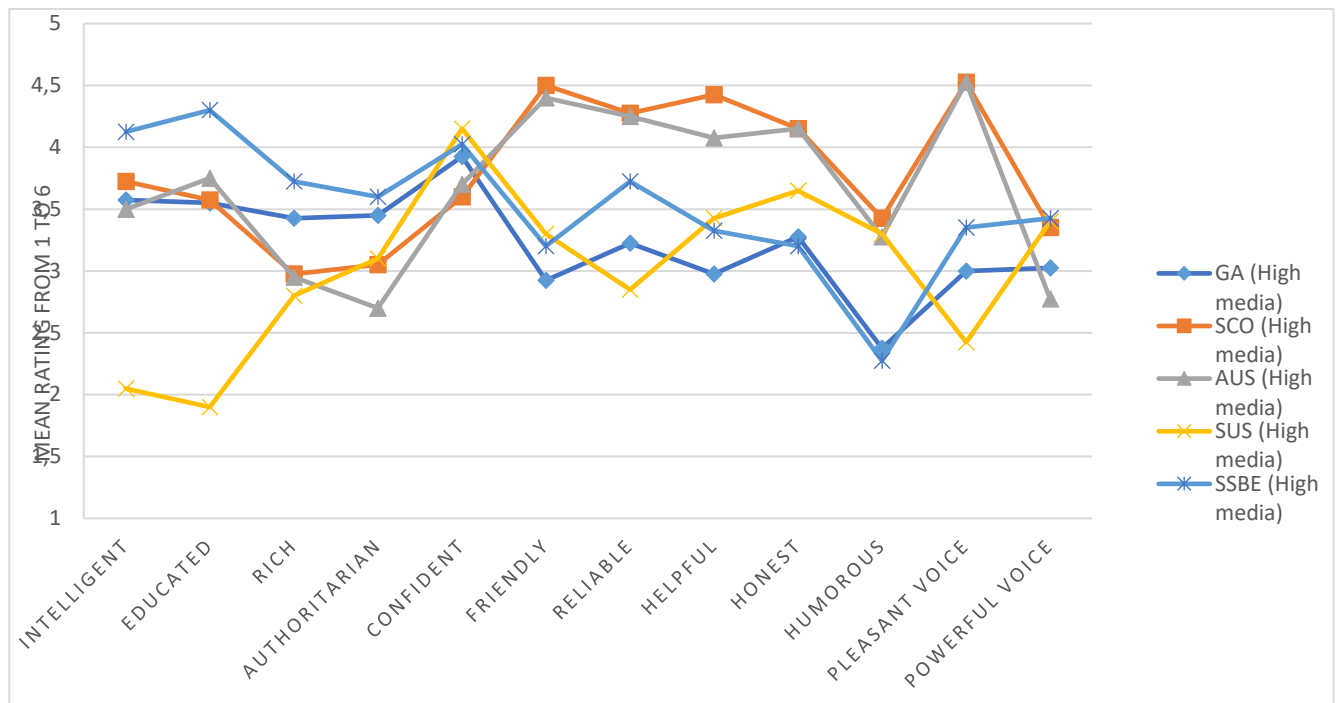

Figure 6: Evaluation of the five accents by participants with high English media consumption

The mean ratings shown in the two graphs do not appear to differ considerably from each other as there are similar patterns for each accent and trait. However, there are a few differences that would need to be examined. Comparison of Figure 5 and Figure 6 suggests that participants with high

English media consumption rated *Rich* higher for SUS compared to those with low English media consumption. This comparison also suggests that for the SSBE accent the traits *Pleasant Voice, Honest* and *Helpful* are rated higher by the participants with low English media consumption. To determine whether these differences are significant, it is necessary to perform an independent t-test for each accent based on the two media consumption groups.

As with the other analyses reported in this section, Shapiro-Wilk tests were conducted to determine if each sample followed a normal distribution. This test for normality failed for many of the samples and for these cases, we used non-parametric Mann-Whitney U tests. For the normally distributed samples we conducted independent t-tests. Table 5 shows the traits that were significantly different at significance level = 0.05 . None of the Mann-Whitney U tests found any statistically significant differences between any groups.

Table 5. Levels of significance for trait evaluation differences between listeners with high vs. low English media consumption. NS is non-significant, *: $p < 0.05$, **: $p <$ Bonferroni correction

Trait	Media Consumption	GA rated	SSBE rated	AUS rated
Friendly	Low	*	*	NS
	High			
Helpful	Low	NS	*	NS
	High			
Honest	Low	NS	*	NS
	High			
Pleasant Voice	Low	NS	**	NS
	High			
Powerful Voice	Low	NS	NS	*
	High			

At a significance level of .05, statistically significant differences for how the two English media groups evaluated were found for: *Friendly* for GA, *Powerful voice* for AUS English and *Friendly, Honest, Helpful* and *Pleasant Voice* for SSBE. However, applying the Bonferroni correction, the alpha level had to be reduced to (.05/12) = .00417. With this correction, only one of the comparisons is still statistically significant, i.e., the trait *Pleasant Voice* for SSBE. This means that the participants' evaluation of how *pleasant* the SSBE accent is differs significantly depending on their English media consumption.

3.6 Media consumption: influence on identifiability
We also examined the influence English media consumption has on the participants' ability to identify the accents correctly. We first assigned participants to either the low or the high English media consumption groups and then compared their guesses for each speaker. Similar to the procedure in section 3.2, each guess had to be assessed as correct or incorrect, e.g., if the listeners guessed that the speaker origin of Speaker 7 (SSBE) was *London, England* or *Southern England* it was judged to be a

correct guess. The results are summarized in Table 6, which presents the correct percentage identification of each speaker for the two English media consumption groups. The correct identifications of the speakers with the same accent were grouped together into one category, which was deemed acceptable due to the mostly similar evaluation of the two speakers.

Table 6. Percent correct identification of accents by listeners with low and high media consumption

	SSBE	GA	AUS	SCO	SUS
Low Media	59.65 %	46.15 %	26.95 %	38.45 %	92.45 %
High Media	72.50 %	80.00 %	37.50 %	42.50 %	100 %

The data in Table 6 indicate that the participants with high English media consumption are better at identifying the origin of the speakers than the group with low English media consumption. It would be necessary to support these observations with Chi-square tests to determine if there is a relationship between media consumption and correctly identification of the accents. The *p*-values obtained by the Chi-square tests adjusted with the Yates correction can be seen in Table 7.

Table 7: Results of Chi-square tests with Yates correction

Accent	*p*-value obtained by the Chi-square test with Yates correction
General American	0.0002056**
Scottish	0.859383
Australian English	0.391923
Southern US English	0.2013
Southern Standard British English	0.2866
** The median difference is significant adjusted with the Bonferroni correction	

The results of the Chi-square tests indicate that there is a statistically highly significant relationship between the English media consumption groups' ability to correctly identify the GA accent, even if the Bonferroni correction is applied, which results in an alpha level of (.05/5) = .01.

3.7 Summary of results
The results from section 3.1. showed that the native Danish participants rated SSBE and GA most positive on Power dimension but that these accents are downgraded on the Solidarity dimension. The regional varieties are rated lower on Power, especially SUS, but SCO and AUS are rated highly positive on Solidarity. In section 3.2, the accent most easily identified by the listeners was SUS with a recognition index at 3.01, followed by GA with 1.50 and SSBE with 1.44, then SCO with 0.95 and AUS with 0.62 Having an accent preference (section 3.3) is significantly related to how participants perceive *Honesty* of the speakers, and the same pattern was found for having an accent dislike (section 3.4). Lastly, English media consumption was only found to be significant for how participants perceived SSBE as a pleasant accent (section 3.5). In terms of English media consumption and

speaker origin identification, a higher consumption of English media was related to a significant difference in correct identification of GA (section 3.6).

4. Discussion and conclusion

The present study addressed three questions: (1) How do native Danish listeners evaluate five native accents of English along the dimensions of Power, Solidarity, and Voice Quality, (2) how these valuations are affected by the preference or dislike for particular accents of English, and (3), how do media consumption patterns affect these evaluations. The sections below will discuss the results of the present study and conclude with a discussion of its shortcomings and suggestions for future research.

4.1 Native Danish listeners' attitude towards English varieties

The results from the verbal guise test show that native Danish listeners' evaluation of the five English varieties are similar to results found in other language attitudinal studies for both native and non-native listeners. The Danish listeners rated SSBE as most positive on Power dimension and SSBE also scored fairly high on the Solidarity and Voice quality dimensions, but lower than SCO and AUS. This rating pattern of SSBE is similar to results in previous language attitudinal studies (Ladegaard 1998; Ladegaard and Sachdev 2006; Carrie and McKenzie 2018; Coupland and Bishop 2007). With the native Danish listeners being young (average age 28.3 years), it was expected that GA would score closely to SSBE due to English media consumption. Surprisingly, GA did not score as well as expected on the three dimensions. GA did receive the second highest score on the Power dimension which is a pattern that has been reported in previous studies (Ladegaard 1998; Ladegaard and Sachdev 2006).

However, amongst the five accents, GA was rated the lowest on Solidarity and second lowest on Voice quality – GA only surpassed the regional of SUS accent on voice quality. It is surprising that GA did not score higher than SSBE on the solidarity dimension as this is a pattern found in several studies (Ladegaard 1998; Bayard et al. 2001; Jarvella et al. 2001). Based on their results, Bayard et al. (2001) argue that General American might be on the way to surpass SSBE as the preferred accent. Bradac and Giles (1991) hypothesize that Scandinavian leaners of English as a foreign language should evaluate GA more favorably than SSBE and be more motivated to learn GA because of the influence of American English and culture. The results from the present study do not support these views as SSBE was rated more positively than GA on Power and GA was rated most negatively on Solidarity. Of the accents examined here, GA was not rated the most positive on any of the 12 traits. There were also 25 listeners in the present study who aimed at using a form of SSBE when speaking English whereas 14 listeners aimed at using American English. This also suggests that Danes are more motivated to learn SSBE than GA, which is similar to the findings of Ladegaard and Sachdev (2006).

The case of SSBE being rated higher than GA on Power could be due to SSBE being the preferred accent in English educational settings in Denmark, which may lead to a perception of SSBE as being the "correct" accent. The ratings of the regional varieties SCO and AUS were as expected, they outperformed SSBE and GA significantly on the Solidarity and Voice quality. Cargile et al. (1994) point out that this is a rating pattern that is often reported in language attitudinal studies. Scottish and Australian English were downgraded when native Danish listeners had to evaluate the two accents on Power. It should be noted that Speaker 5 (SCO) was rated as expected on Solidarity, however, Speaker 5 was also rated higher than speakers of other regional varieties on Power. This result is not surprising as this speaker's Scottish accent was more atypical of SCO than the accent of Speaker 2. The accent of Speaker 5 resembles Canadian English on some linguistic traits more than SCO, which could explain the positive rating of Speaker 5 on the Power dimension. Lastly, SUS was rated significantly lower on Power compared to the other four accents. This is not surprising as "one

of the primary characteristics of the stereotyped Southern [US accent] is ignorance, but it is a specific kind of ignorance – one disassociated from education and literacy" (Lippi-Green 2012: 223). This suggests that Danes have a particular stereotype of people from the Southern states as being less intelligent. Similar to the other non-standard varieties, SUS is rated noticeably higher on Solidarity than on the Power dimension. SUS was also the accent that received the most negative rating on Voice quality (*Pleasant* and *Powerful Voice*). This could be the result of the number of participants having a particular dislike for the SUS accent.

In terms of identification of the five English varieties, native Danish listeners varied considerably across the accents. The accent which was most frequently correctly identified was SUS with a recognition index at 3.01. This is not surprising as the SUS accent has certain noticeable linguistic features compared to the other varieties, such as the so-called Southern drawl. The representation of SUS speakers in English media is likely also a factor that influences the level of correct identification of the SUS accent. If the Danish listeners have certain associations about people speaking with a SUS accent, then those associations might be reflected in their rating of these people. Both GA and SSBE were fairly well identified with a recognition index of 1.50 and 1.44, respectively. These two varieties are varieties that native Danes are exposed to via media and educational settings. Therefore, it is not surprising that the identification of these two varieties is relatively high.

The correct identification rate of SCO and AUS was much lower than the three other accents. SCO and AUS had recognition indices of 0.95 and 0.62 respectively. The results for identification of the five accents are similar to other studies for native listeners (Bayard et al. 2001; Lambert et al. 1960; Steward et al. 1985) and non-native listeners (Ladegaard 1998; Ladegaard and Sachdev 2006; Dalton-Puffer et al. 2003).

As briefly touched upon with the evaluation and speaker origin identification of the SUS speakers, the social connotation hypothesis could explain the evaluation of SUS, SSBE and to some degree also GA. However, even though many Danish listeners could not correctly identify the AUS speakers and the SCO speaker 5, the rating in the Verbal Guise Test illustrates a pattern that reflects social connotations and cultural norms associated with speakers from these regions. The two SCO and AUS speakers are rated the most positive on Solidarity and Voice quality. Therefore, the data support the proposition by Ladegaard (1998: 269) that listeners to some extent might rely on subconscious information.

4.2 Preference /dislike for a particular accent and evaluation of that accent
If listeners have a specific preference for a particular accent, it would be a fair assumption that the preference/dislike would affect how listeners rate that particular accent. The direct questions about listeners' overt attitudes showed a strong preference for using British English when the listeners had to speak English themselves; 25 out of the 47 participants chose British English. The accent that came in second place in terms of preference when speaking English was American English; 14 out of 47 participants chose American English. Coupland and Bishop (2007) also found that listeners tend to rate an accent similar to their own as more preferable. In the case of the Danish listeners, it would be expected that those listeners who speak with an American accent would favor GA and those who speak with a British accent would favor SSBE. However, the results in the present study did not find this pattern, i.e., the Danish listeners who preferred American English voted both SSBE and GA more positively than those listeners who preferred British English. Dalton-Puffer et al. (2003) also found that participants who preferred General American were more tolerant in their accent rating. However, the statistical analysis in the present study revealed that the only trait that was significantly different across the two groups was *Honest*. *Honest* was significantly different for the evaluation of both GA and SSBE. This suggest that preferring a particular accent affects the evaluation of speakers in terms of how honest the listeners perceive them.

The focus of having a particular dislike for an accent and how it influences accent evaluation

has not received the same attention as having a preference for an accent. The present study found only a dislike for one particular accent, which was SUS; 17 out of the 47 listeners expressed this specific dislike. The Danish listeners who dislike SUS and those listeners who dislike another English accent evaluated SUS similarly in terms of Power. This could suggest that the stereotype of Southern US people as being ignorant is particularly strong amongst Danes and that this stereotype is not directly related to a dislike of the accent. However, the data indicate that Danish listeners who dislike SUS English rate it noticeably lower on Solidarity. The rating by the two accent dislike groups was significantly different for the trait *Honest*. Interestingly, this was the same trait that was significantly different for the groups that had a particular accent preference. This suggests that having a particular preference or dislike for an accent influences how listeners evaluate speakers on the Honest dimensions.

4.3 Media consumption and its influence on accent evaluation and identifiability
For numerous reasons, the question about the influence of media on language attitude is difficult to examine. Studies have not found significant results regarding the influence of media on language change, and media's influence on attitudes is also difficult to fully explore (Stuart-Smith 2007). Perhaps the opportunity to easily access tv-shows, movies, podcasts, and influencers from all over the world could affect attitudes towards languages/accents. Bayard et al. (2001) found results indicating that there is attitudinal change towards of preference of GA over SSBE, which could be related to media exposure. For the present study, it was expected that the evaluations from listeners who consumed more English media would differ from listeners who consumed English media less. Media can, unintentionally, be the source which promotes or reinforces stereotypes both in terms of informational and entertainment venues (Moyer 2013: 110). Therefore, it was expected to find a difference based on English media consumption as American tv-shows and movies are easily accessible on the television for native Danes, but also simple to access on online streaming services. Regional accents are also less represented in the media landscape and when they are represented in the media, they are often portrayed less favorably on status-related traits (Dragojevic et al. 2016). However, there were no significant differences in how the 26 listeners with low English media consumption rated the GA speakers compared to the 20 listeners with a high English media consumption. There were also no strong differences between the two groups for the other varieties. Out of the five English varieties, only one trait was significantly different between the two groups, i.e., the rating of *Pleasant Voice* for SSBE. However, it is not clear why a higher consumption of English media would lead individuals to rate SSBE as a more pleasant voice or being better at identifying speaker origin.

The question on the influence of English media on native Danish listeners' evaluation of the speaker, apart from the rating of *Pleasant Voice* of SSBE, did not reveal any major findings. However, it was also of interest to examine if there is a difference in identifiability for the two English media consumption groups. The speaker origin identification was included for the focus on English media as "it may be easier for listener-judges to recognize speech varieties that they are exposed to via television, film and social media" (Carrie and McKenzie 2018: 314). Interestingly, there was a statistically significant difference in the identifications of GA. For the other four varieties, no significant differences were observed, because the two groups were both largely correct in their identifications, SUS and SSBE, or incorrect in their identifications, SCO and AUS. This indicates that listeners who have a high consumption of English media are better at identifying the origin of General American speakers. This could be a result of the group with high English media consumption being more exposed to General American than the other group due to the dominance of American produced tv-shows and movies. Other studies have reported that levels of accurate identifications of speaker origin are influenced by prior exposure to the accents, which is largely provided by education and English media (Carrie and McKenzie 2018: 325).

The results of identification based on participants' encountering of GA and another English variety did not reveal any significant difference. This could indicate that higher consumption of English media leads to a better identification of the General American accent. Therefore, the findings of this study support the hypothesis that there is a link between media variables and linguistic variables (Stuart-Smith 2007).

4.4 Shortcomings and future research
Two major shortcomings for this study have to do with the participants. Firstly, only 47 participants completed the entire questionnaire, which makes it problematic to generalize the findings. Secondly, as it was not possible to administer the questionnaire as a group administration and it had to be done online, primarily, through the same network of people, several of the 47 participants have a high level of education, which is not representative of the entire population. However, many researchers in the field also conduct experiments on students (Ladegaard 1998; Ladegaard and Sachdev 2006; Bayard et al. 2001). Many of the participants, who were students, came from many different departments such as *medicine, political science, psychology,* and *history*, which is somewhat more varied than if they all came from the same department.

In terms of the questionnaire, it was problematic that the speech samples could not be randomized to avoid bias. It was also not ideal that Speaker 5 (SCO) was deemed as the second-best choice for SCO since his Scottish accent was not that characteristic. However, the sound clips of the other Scottish speakers either had technical problems (e.g., background noise) or did not match the other speakers in terms of voice quality. On the other hand, an advantage when using the verbal guise test is that participants are responding to different speakers who are all speaking authentically. The verbal guise test is also a well-established method used to elicit participants' covert attitudes.

There were numerous aspects that were not touched upon in the analysis even though it would have been relevant to examine. Social factors, such as age (Coupland and Bishop 2007), gender (Coupland and Bishop 2007; Chan 2018), and occupation (Garrett et al. 1999) have been found to influence the evaluation of languages/accents. Length of exposure to particular English accents is also a factor that could have been included in the analysis as length of exposure likely influences listeners' attitudes. However, for this study, the focus was particularly on how native Danish listeners would evaluate different English varieties and how well they were at identifying these accents.

The decision to focus on having a particular preference/dislike for an accent and how it would influence the evaluation of that particular accent was included. Future studies with a larger number of participants could investigate the differences in listener's evaluation of English accents with specific attention to the solidarity trait *Honest*. Future research could also focus on how a particular preference/dislike for an accent might influence the rating of other varieties.

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Appendix 1. Verbal Guise Test

Sound clip of Speaker #

	Scale (1 = very little, 6 = very much)					
Intelligent	1	2	3	4	5	6
Friendly	1	2	3	4	5	6
Pleasant Voice	1	2	3	4	5	6
Reliable	1	2	3	4	5	6
Educated	1	2	3	4	5	6
Helpful	1	2	3	4	5	6
Humorous	1	2	3	4	5	6
Rich	1	2	3	4	5	6
Confident	1	2	3	4	5	6
Authoritarian	1	2	3	4	5	6
Honest	1	2	3	4	5	6
Powerful Voice	1	2	3	4	5	6

Where do you think the speaker is from? _____

How confident are you in your guess?

Unsure	A little unsure	A little sure	Sure

Appendix 2. Direct questions regarding attitudes to English accents

Which accent do you aim at using when speaking English? _____

Which English accent do you most frequently encounter? _____

Which English accent do you least prefer to hear spoken? _____

Appendix 3. Background information

In this section, please provide information about yourself as mentioned in the preface to the questionnaire, anonymity will be ensured.

Age: _____

Gender:

      Male ( ), Female ( ), Other ( )

How much do you use English on a daily basis?

      Very little ( ), little ( ), a bit ( ), much ( ), very much ( )

How many hours do you spend on a weekly basis on English media? (Tv-shows, movies, podcasts, music, etc.) _____

Occupation:

      Student in an upper secondary education ( )
      Student in a higher education ( )
      The private sector ( )
      The public sector ( )
      Not currently employed ( )
      Pension ( )
      Independent ( )
      Other ( )

If you have been or are a student in a higher education, please write the name of the education: _____

Have you lived/stayed in an English speaking country?

      Yes ( ) , No ( )

If you have lived/stayed in an English-speaking country, how long was the stay? _____