Leadership with an accent? An experimental study into the effect of native and non-native accentedness in English on evaluations of perceived leadership.

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In a matched-guise and verbal-guise experiment, 277 listeners with three nationalities (92 Dutch, 92 Danish and 93 native speakers of English) listened to samples recorded by male speakers with three accents (Dutch, Danish and British). Accent and listener nationality were evaluated for perceived leadership ability (status, solidarity, dynamism and leadership qualities) and comprehension (perceived intelligibility and actual comprehension). Results showed that Danish-accented speech was evaluated more negatively than British-accented for leadership qualities and status and that Dutch-accented speech was evaluated more negatively than British-accented speech for status. Overall, findings indicated that a non-native English accent might lead to more negative evaluations of leadership qualities than a native English accent.

Introduction

As the world becomes more globalized, companies are building operations in multiple international locations (Marschan-Piekkari, Welch, & Welch, 1999). Organizations expand not only physically but also online (Mai & Hoffmann, 2014). The online world has made it possible to be connected all over the globe (Levin institute, 2016). In order for companies to connect and collaborate internationally in an effective way, sharing a common language is crucial. Communicating in the same language has therefore become an essential part of doing business in an international environment (Levin institute, 2016). Previous studies have found that English is seen as the most international language compared to other languages (Dewey, 2007) and that English is considered the most preferred language for companies to do business in (Seidlhofer, 2005). In addition, it was stated that English as a Lingua Franca
(ELF) can nowadays be seen as a necessity to operate internationally (Nickerson, 2005). The results as found by Dewey (2007), Seidlhofer (2005) and Nickerson (2005) are plausible explanations for the increase in the use of ELF (Dewey, 2007).

Consequently, this increase has led to a growth of non-native speakers of English. Non-native speakers of English have outnumbered native speakers, and more specifically, currently only one out of four speakers of English is native (Crystal, 2003; Trudgill & Hannah, 2013). It is important to note that differences are found in the level of English between countries the non-native speakers live in (Education First, 2018). For example, 70.31 percent of the Dutch people speak English on a proficient level (Education First, 2018). Another example can be found in the Scandinavian countries where, for instance in Denmark, 67.34 percent has a high proficiency level in English (Education First, 2018). Together with the Scandinavian countries, the Netherlands has been found to be one of the top English speaking countries in the World (Education First, 2018). Examples of less proficient English speaking countries are Spain and France with proficiency rates of respectively 55.85 and 55.49 percent (Education First, 2018). These levels of proficiency may influence the way businesses operate worldwide. Within countries with a more advanced level of English, companies often tend to focus on operating internationally (Louhiala-Salminen, Charles & Kankaanranta, 2005). To keep up with the international competition, companies tend to change their company language into English within all countries they operate (Louhiala-Salminen et al., 2005; Zander et al., 2011). An example of this is the German car manufacturing company Volkswagen changing their corporate language into ELF with a purpose to choose from a bigger candidate pool for different management positions within the company (Kierstein, 2016).

With companies changing to ELF in business (Louhiala-Salminen, 2005), and with 75 percent of the English speakers being non-native (Crystal, 2003), companies are now able to
attract a broad range of candidates coming from different nationalities. Instead of only having leaders with English as their first language, companies accept non-native speakers of English to lead and manage their company more and more. Though increasing the amount of non-native leaders in a company could be advantageous, it might be attached to possible uncertainties. Koster and Koet (1993) argue that non-native speakers of English have the tendency to pronounce English sounds in their native way, which leads to deviations from the English norm because ‘virtually no single sound is pronounced in two languages in exactly the same way’ (Koster & Koet, 1993, p.70). Therefore, as accentedness is almost unavoidable when being a non-native speaker of English (Koster & Koet, 1993; Munro & Derwing, 1995), a growth can be found in the number of non-native accents in multiple layers in international businesses. This results in collaborations with native speakers of English and non-native speakers of English with foreign accents from all over the world (Mai & Hoffmann, 2014).

At the same time, studies have found that stronger non-native accents are evaluated more negatively than slight or native accents (Hendriks, van Meurs, & de Groot, 2017; Munro & Derwing, 1995; Nejjari, Gerritsen, Van der Haagen, & Korzilius, 2012). These results were found for evaluations of the speaker within the three dimensions status, solidarity, and dynamism (Fuertes, Gottdiener, Martin, Gilbert & Giles, 2012). In the study conducted by Nejjari et al. (2012), native speakers of English have evaluated native and non-native speakers of English. In their study, Nejjari et al. (2012) found that a British English accent elicited more status than a slight and a moderate Dutch English accent. However, little evidence has been found for non-native speakers of English evaluating other non-native speakers of English. Many studies have focused on effects of accents in many different social contexts, but not in a business context (Hendriks et al., 2017; Munro & Derwing, 1995; Nejjari et al., 2012). While non-native individuals worldwide have been able to get higher and more prominent positions because of companies’ tendency to operate in English, it was found that
people evaluate non-native accents more negatively than native English accents as demonstrated in the research conducted by Hendriks et al. (2017). Given the rise of foreign business leadership (Louhiala-Salminen, 2005) in combination with the earlier results stating that stronger non-native accents are evaluated more negatively than slighter non-native accents or native accents (Hendriks et al., 2017; Nejjar et al. 2012), the question arises whether this leads to business leaders receiving lower evaluations of their perceived leadership due to their non-native accent. Therefore, the aim of this study is to find out to what extent leadership ability is evaluated differently (as perceived by native and non-native speakers of English) based on having a native or non-native accent.

**Theoretical background**

*ELF in business*

Good leadership within a management team is essential to be a successful organization (Vacar & Dumitrascu, 2012). To stay ahead of the competition, companies want to employ leaders with the most suitable leadership qualities for their business (Louhiala-Salminen et al., 2005). According to Drouillard and Kleiner (1996) and Fernald, Solomon and Tarabishy (2005), examples of ‘good’ leadership qualities are status, communication skills, leadership motivation, energy and intelligence. To select the most suitable managers and stay ahead of the competition, companies want to create a larger selection of possible candidates to choose from (Louhiala-Salminen et al., 2005). Therefore, companies are changing their corporate language into English so they can choose their candidates globally (Zander et al., 2011). Again, the case of Volkswagen changing their corporate language to English is an example of this (Kierstein, 2016). The reason for Volkswagen to make this change was for recruiting international management. The top layer of executives consisted mostly of German speaking leaders. To attract a more diverse top management team, it was decided to fully operate in English, in all countries (Kierstein, 2016). As a result of companies changing to English as
their company language, a more diverse work field is created with the combination of non-native and native speakers leading different management teams (Mai & Hoffmann, 2014). Companies aim to employ more qualified leaders by recruiting from a bigger range of applicants, native as well as non-native speakers of English, with leadership qualities better suited to their company (Kierstein, 2016; Louhiala-Salminen et al., 2005). However, this aim might be influenced by the non-native accent most non-native speakers have when speaking in a foreign language (Koster & Koet, 1993).

**Non-native accentedness**

Having a non-native accent might have a negative influence (Hendiks et al., 2017) on how the leadership ability of the recruited leaders is perceived. The strength of the accent could influence the effect the accent has on other people (Nejjari et al., 2012). Different gradations of accent strength exist (Hendriks, Van Meurs & Hogervorst, 2016). Previous studies have found that moderate to stronger accents seem to have a negative effect on the evaluation of the speaker by the listener (Hendriks et al., 2017; Nejjari et al., 2012) and a previous study by Carlson and McHenry (2006) found that speakers with an accent that was perceived as more prominent, were rated lower on employability whilst speakers having accents that were perceived as minimal, accent did not affect employability.

The earlier study by Nejjari et al. (2012) showed that, in terms of status and intelligibility, native British people evaluated speakers with a stronger Dutch accent more negatively than speakers with a slight Dutch accent or a British accent.

In addition, research performed by Hendriks et al. (2017) focused on examining evaluations of non-native listeners on non-native accent strength. The results foremost showed a more negative evaluation of the speaker’s competence for a stronger Dutch accent than for a slight Dutch accent or a native English accent. These evaluations were from non-native speakers of English coming from France, Germany and Spain (Hendriks et al., 2017).
Besides the studies performed by Hendriks et al. (2017) and Hendriks, van Meurs and Reimer (2018), little research has currently been conducted on non-native speakers of English evaluating other non-native speakers of English. In the research conducted by Hendriks et al. (2017) the evaluations were from non-native speakers of English coming from countries with different English proficiency rates. Germany was ranked 10th on the list of highest English proficiency worldwide in 2018 and Spain and France respectively 32nd and 35th (Education First, 2018). The research performed by Smith and Nelson (2006) showed that a higher proficiency of the listeners tends to lead to better comprehension. Therefore, to avoid possible differences in comprehension, it might be important to compare individuals from different countries with more similar English proficiency levels.

Besides the listeners’ proficiency, other factors that might determine effects of non-native accents on comprehension are familiarity with the accent (Hendriks et al., 2018) and a closer look into comprehension. Munro and Derwing (1995) observed that native English listeners transcribed non-native accented English perfectly after hearing it once, but sometimes judged it as difficult to understand. Possibly, the tendency of the listener to assign low comprehensibility scores to non-native accented speech might have partly been due to increased processing difficulty. Accented speech is often not speech someone is used to hear and may therefore take more processing time. This extra time used to process accented speech may give the listener the idea that it is more difficult to understand than hearing a native accent. (Munro & Derwing, 1995). With regard to familiarity with the accent, several studies have demonstrated that the more familiar the listener is with the accent, the better the message is comprehended (Gass & Varonis, 1984; Smith & Nelson, 2006). In addition, it was found that evaluations of the speaker were lower when listeners were familiar with the accent (Nejjari et al., 2012).
Effects of accentedness

The effects of accent on evaluation of the speaker as found in multiple studies were compared and categorized in the meta-analysis of Fuertes et al. (2012) in three dimensions: status, solidarity and dynamism. Within the three dimensions, items such as competence, intelligence, energy and trustworthiness were researched. According to Drouillard and Kleiner (1996) and Fernald, Solomon and Tarabishy (2005), besides being items that are found in the dimensions dynamism, status and solidarity, the items competence, intelligence, energy and trustworthiness are also seen as leadership qualities. As mentioned in the beginning of the theoretical background, leadership is an important factor to be able to run a company successfully (Vacar & Dumitrascu, 2012). Therefore in order to measure leadership, more items that contribute to ‘good’ leadership should be taken into account. Other characteristics that support ‘good’ leadership include communication skills, decisiveness, team orientation, risk taking and leadership motivation (Drouillard & Kleiner, 1996; Fernald, Solomon & Tarabishy, 2005; Papadakis & Bourantas, 1998).

As it is difficult to measure the actual leadership qualities of an individual, the perceived leadership ability will be analysed in this study. These leadership qualities, as well as all items that are subcategorized under the three dimensions status, solidarity and dynamism, are important factors when analysing the evaluation of accentedness on perceived leadership ability and will therefore be used as items in this study.

The present study

The overall objective in this study is to cast some light on the evaluations of non-native accentedness in business leadership. With companies globalizing and taking on English as a corporate language, more non-native speakers of English fill in management positions (Louhiala-Salminen, 2005). This tendency results in foreign managers having a non-native English accent. As earlier research showed that moderate to stronger non-native accents cause


more negative evaluations than slight non-native accents or native accents of English (Nejjari et al., 2012), it might be relevant for business leaders working in an international environment to know whether their leadership qualities are evaluated more negatively because of their non-native accent.

To date, most research on accentedness is focused on evaluations by native listeners of non-native speakers of English (Fuertes et al., 2012; Nejjari et al., 2012). Little research has been performed on evaluations by non-native listeners of non-native speakers. Therefore, this study will focus on evaluations by non-native listeners of non-native speakers of English regarding the perceived leadership ability of these speakers. The study performed by Hendriks et al. (2017) did partly focus on non-native evaluations on non-native speakers as non-native (Dutch) speakers were evaluated by French, German and Spanish listeners. The differences that exist between these countries in their level of English might have influenced the results in that individuals originating from different countries with a higher proficiency level might have comprehended the speakers better (Smith & Nelson, 2006).

To make a better comparison, countries that are more alike and comparable in their level of English language skills need to be compared. The Netherlands and Denmark might be a better comparison. The Netherlands and Denmark might first of all make a better comparison because both countries are in the top five of the English speaking countries and both have English proficiency rates close to 70 percent (Education First, 2018) and will therefore be comparable in their level on English. Secondly, both countries have an international focus and have companies operating fully in English (Louhiala-Salminen, 2005). Therefore the Netherlands and Denmark might be sharing the aspect of doing business internationally. Thirdly, both countries have languages that have emerged from the same Germanic languages (Gil, 2011; Trudgill & Hannah, 2013). This means Denmark and the
Netherlands share the same historical language and therefore both languages might share some similarities, such as certain words or sounds that are alike (Gil, 2011).

To conclude, in this study Dutch-accented English and Danish-accented English will be evaluated by Dutch and Danish non-native English listeners. To check for differences between evaluations of non-native English accents and native English accents, British will be analysed as native English accent. Native English speaking leaders are still prominently present within today’s business world and will thus be evaluated by both native as well as non-native English speakers. This in combination with earlier research on English accentedness led to the decision to extend the group of Dutch and Danish participants with native English speaking participants. The English speaking participants will also be asked to evaluate native and non-native accents.

To conclude, the aim of the present study is to investigate whether perceived leadership is evaluated differently by Dutch, Danish and British listeners, based on the accent (Dutch, Danish and British). Consequently, this results in the following research question and sub questions:

Research Question 1: To what extent does Dutch and Danish non-native accentedness have an effect on Dutch, Danish and British listeners' evaluations of perceived leadership qualities?

RQ-1a: To what extent does Dutch and Danish non-native accentedness and British native accentedness have an effect on Dutch, Danish and native English listeners' attitudinal evaluations of perceived leadership qualities?

RQ-1b: To what extent does Dutch and Danish non-native accentedness and British native accentedness have an effect on Dutch, Danish and native English listeners' comprehension of the message?
Methodology

Materials

Listeners evaluated an audio fragment of a speech of a leader of a company in either non-native Dutch-accented English, non-native Danish-accented English or in native British English. One speaker per accent level was evaluated. For the selection of the speaker performing the Dutch accent and the British accent, a matched-guise speaker recorded these accents (Nejjari, Gerritsen, van Hout, & Planken, 2019). For the performance of the Danish accent, four to six male Danish speakers were asked to record the speech in Danish-accented English. Six language experts from Denmark, the Netherlands and England listened to all audio fragments to measure the strength of the accent. The strength of the accent was measured with two 7-point Likert scales: ‘This speaker has a strong foreign accent in his English’ anchored by ‘strongly agree – strongly disagree’ and ‘This speaker sounds like a native speaker of English’ anchored by ‘strongly agree – strongly disagree’ (Hendriks et al., 2018). To see whether respondents recognised the accent, participants were asked to indicate the nationality of the speaker. Danish and Dutch accented speakers, as well as the British accented speaker, were pretested for voice characteristics. The voice characteristics were measured with four 7-point Likert scales anchored by ‘totally disagree - totally agree’, ‘This speaker sounds monotonous’, ‘This speaker has a pleasant voice’, ‘This speaker sounds natural’ and ‘This speaker has a loud voice’. The speech rate was measured with a 7-point semantic differential anchored by ‘slow – fast’ following the statement ‘This speaker speaks’ (Hendriks et al., 2018).

Participants were presented with ten audio fragments in the pre-test. They were asked to judge the accent of the speaker in the audio fragments on e.g. accent strength, loudness. This was done as to define the most compatible audio fragments for a Dutch-accented, Danish-accented and British-accented fragment. Three audio fragments were chosen after
being compared, based on evaluations from the pre-test. Audio fragment 1 is performed by a male speaker from Denmark. Audio fragment 2 and 3 have the same male speaker who lived in both England and the Netherlands performing both the Dutch and British fragment. The audio fragments that had the most similar evaluations were chosen for this study. Table 1 shows the evaluations for the three chosen fragments.

Table 1. M and SD for evaluations of the Dutch, Danish and British fragments on accent strength, nativeness, natural, monotonous, pleasant and loud based on a 7-point Likert scale (1 = strongly disagree – 7 = strongly agree) and one semantic scale for speed (1 = slow – 7 = fast).

<table>
<thead>
<tr>
<th>Audio Fragment</th>
<th>Strength foreign accent</th>
<th>Sounds native</th>
<th>natural</th>
<th>monotonous</th>
<th>pleasant</th>
<th>loud</th>
<th>Slow (1) vs fast (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Danish</td>
<td>6.22 (0.83)</td>
<td>1.78 (1.30)</td>
<td>3.22 (1.56)</td>
<td>5.22 (0.83)</td>
<td>4.33 (1.32)</td>
<td>3.11 (0.93)</td>
<td>3.44 (0.53)</td>
</tr>
<tr>
<td>2 Dutch</td>
<td>6.22 (1.39)</td>
<td>1.33 (0.71)</td>
<td>3.00 (1.80)</td>
<td>3.33 (1.23)</td>
<td>4.67 (1.23)</td>
<td>4.22 (0.83)</td>
<td>4.22 (0.44)</td>
</tr>
<tr>
<td>3 British</td>
<td>1.89 (1.97)</td>
<td>6.78 (0.44)</td>
<td>6.56 (0.53)</td>
<td>2.11 (1.45)</td>
<td>5.67 (1.00)</td>
<td>4.33 (1.66)</td>
<td>4.11 (0.60)</td>
</tr>
</tbody>
</table>

**Subjects**

A total of 277 participants with three nationalities (Dutch, Danish and native English speakers) took part in the experiment: 92 Dutch listeners (age: $M = 32.73$, $SD = 15.03$; range 18-83; 64.5 % female), 92 Danish listeners (age: $M = 28.66$, $SD = 10.66$; range 18-81; 59.8 %
female), and 93 native speakers of English (age: $M = 35.51$, $SD = 14.31$; range 19-76; 64.5 \% female). A univariate analysis for age showed no significant effect of accent ($F (2, 274) = 0.04$, $p = .962$) but it did show a significant effect of listener nationality ($F (2, 274) = 6.01$, $p = .003$). Multiple comparisons showed that the Danish participants ($M = 28.66$, $SD = 10.66$) were significantly younger than the native English speaking participants ($M = 35.51$, $SD = 114.31$, $p = .021$, Bonferroni-correction). No age difference was found between the Dutch ($M = 32.73$, $SD = 15.03$) and the Danish participants ($p = .123$, Bonferroni-correction) nor between the Dutch and the native English speaking participants ($p = .485$, Bonferroni-correction).

A chi-square analysis showed the distribution of female and male participants in the Dutch, Danish and British-accented fragments were equal ($\chi^2 (2) = 0.35; p = .839$). Another chi-square analysis showed the distribution of female and male participants in the Dutch, the Danish and the native English speaking group were equal ($\chi^2 (2) = 0.75; p = .689$).

To analyse familiarity with the accent, the file was split into familiarity L1 and familiarity L2. With familiarity L1, the familiarity with an individuals’ own language is meant; For Danish participants the Danish accent and for Dutch participants the Dutch accent. Under familiarity L2, the familiarity with the other non-native language is understood; for Danish participants the Dutch accent and for Dutch participants the Danish accent. A univariate analysis for familiarity L1 showed no significant effect of accent ($F (1, 58) = 0.150$, $p = .755$). Another univariate analysis for familiarity L2 with the accent showed no significant effect of accent as well ($F (1, 59) = 0.620$, $p = 434$).

In addition, a univariate analysis for Lextale score showed no significant effect of accent ($F (2, 274) = 0.34$, $p = .710$) but it did show a significant effect of listener nationality ($F (2, 274) = 14.22$, $p < .001$). Multiple comparisons showed that the Dutch ($M = 64.17$, $SD = 10.66$) as well as the Danish participants ($M = 61.62$, $SD = 10.65$) scored significant lower on the Lextale test than the native English speaking participants ($M = 70.52$, $SD = 13.46$, Dutch,
A univariate analysis for English proficiency showed no significant effect of accent ($F(2, 274) = 0.33, p = .851$) but it did show a significant effect of listener nationality ($F(2, 274) = 14.72, p = .001$). Multiple comparisons showed that the Dutch ($M = 6.02, SD = 0.76$) and the Danish participants ($M = 6.01, SD = 0.95$) scored their proficiency significantly lower than the Native English speaking participants ($M = 6.55, SD = 0.60$), Dutch, $p < .001$, Tukey HSD-correction; Danish, $p < .001$, Tukey HSD-correction). No differences were found between how Dutch and Danish participants scored their proficiency $p = .997$, Tukey HSD-correction).

A chi-square analysis showed that the distribution of living status in the Dutch, Danish and British-accented fragments was equal ($\chi^2(6) = 4.87; p = .561$). Another chi-square analysis for living status showed a significant difference in the distribution of living status for Dutch participants, Danish participants and native speakers of English ($\chi^2(6) = 29.03; p = .000$). There were significantly more Danish participants (22.4%) that were students than Dutch (16.6%) or native English participants (18.8%) that were students. In addition, significantly more native English speaking participants (20.6%) were employed than Dutch (13.7%) or Danish participants (10.1%). No differences were found for non-employed or retired. Table 2 shows the distribution (count and percentages) of current living status and listener nationality.
Table 2. Distribution (count and percentages) of current living status (student, employed, non-employed, retired) and listener nationality (Danish, Dutch, native English).

<table>
<thead>
<tr>
<th>Current living status</th>
<th>Listener nationality</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Danish</td>
<td>Dutch</td>
<td>Native English</td>
<td>Total</td>
</tr>
<tr>
<td>Student</td>
<td>Count</td>
<td>62</td>
<td>46</td>
<td>30</td>
<td>138</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>22.4</td>
<td>16.6</td>
<td>10.8</td>
<td>49.8</td>
</tr>
<tr>
<td>Employed</td>
<td>Count</td>
<td>28</td>
<td>38</td>
<td>57</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>10.1</td>
<td>13.7</td>
<td>20.6</td>
<td>44.4</td>
</tr>
<tr>
<td>Non-employed</td>
<td>Count</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>0.7</td>
<td>1.8</td>
<td>0.4</td>
<td>2.9</td>
</tr>
<tr>
<td>Retired</td>
<td>Count</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>0.0</td>
<td>1.4</td>
<td>1.4</td>
<td>2.9</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>93</td>
<td>89</td>
<td>95</td>
<td>277</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>33.6</td>
<td>32.1</td>
<td>34.3</td>
<td>100</td>
</tr>
</tbody>
</table>

A univariate analysis for number of years employed showed no significant effect of accent \(F(2, 268) = 0.08, p = .921\) but it did show a significant effect of listener nationality \(F(2, 268) = 4.37, p = .014\). Multiple comparisons showed that the Dutch participants \((M = 10.07, SD = 11.09)\) have been employed for a shorter amount of time than the native English speaking participants \((M = 15.06, SD = 13.51, p = .013, Tukey HSD-correction)\). The Danish participants \((M = 11.43, SD = 10.23)\) have not been employed shorter nor longer than the Dutch \((p = .711, Tukey HSD-correction)\) or the native English speaking participants \((p = .094, Tukey HSD-correction)\).
Finally, a univariate analysis for years worked as a leader showed no significant effect of accent ($F(2, 268) < 0.01, p = .999$) but it did show a significant effect to listener nationality ($F(2, 268) = 6.13, p = .002$). Multiple comparisons showed that the Danish participants ($M = 1.69, SD = 4.86$) have worked less years as a leader than the native English speaking participants ($M = 5.26, SD = 7.04, p = .002$, Tukey HSD-correction). No difference was found between how long the Dutch ($M = 3.38, SD = 8.34$) and the Danish participants ($p = .230$, Tukey HSD-correction) and the Dutch and the native English speaking participants have worked as a leader ($p = .159$, Tukey HSD-correction).

**Design**

This study had a 3 x 3 between-subject design with two independent variables with both three levels. The first independent variable, accent, had three levels (moderate Dutch accent, moderate Danish accent and moderate British accent). The second independent variable, listeners’ nationality, had three levels (Dutch, Danish and British) as can be found in Figure 1.

This study had a matched-guise and verbal-guise experimental design. It was a matched-guise design because one single speaker performed different levels of accentedness, for Dutch-accented English and native British English (Cargile & Giles, 1998). This study had a verbal-guise design because a genuine native or accented speaker was found for each of the recordings (Ahmed, Abdullah & Heng, 2014; Galloway & Rose, 2015).

Figure 1: This analytical model shows the independent variables Accent of speaker, categorical with three levels (Dutch, Danish and British) and listener nationality, categorical with three levels (Dutch, Danish and native English). It also shows the dependent variables comprehension, with two levels (perceived comprehension, ordinal and actual comprehension, categorical) and evaluation of the speaker, ordinal with three levels (status, solidarity, dynamism and leadership qualities).
Instrumentation

For this study, participants had to answer questions on comprehension of the text, evaluation of the speaker, personal questions, attitude toward accentedness and proficiency in English. The comprehension of the text was measured by the use of two variables, perceived comprehension and actual comprehension. Perceived intelligibility was measured with three 7-point Likert scales anchored by ‘totally disagree – totally agree’ following the statements ‘This speaker was easy to understand’, ‘I understood every word the speaker said’, ‘I understood the message within the fragment’ (Hendriks et al., 2018). The reliability of the perceived intelligibility was good (α = .82). Actual comprehension was measured by asking several multiple choice questions about the content of the fragment. The evaluation of the speaker was measured with a 7-point Likert scale anchored by ‘totally disagree – totally agree’ following the statement ‘I think this speaker is’. Three dimensions were investigated: status, with the items ‘competent, self-confident, intelligent, nice, sympathetic, clear, status’, solidarity, with the items ‘impolite, unfriendly, lazy, cold, unreliable, aggressive’ (reverse coded) and dynamism, with the items ‘lively, gentle, full on energy’ (Fuertes et al., 2012; Hendriks et al., 2018). The reliability of status, solidarity and dynamism were respectively adequate (α = .78), good (α = .82) and adequate (α = .73). Besides the leadership qualities
competence, intelligence and energy that will be measured with the evaluation of the speaker, other leadership qualities will be measured with a 7-point Likert scale anchored by ‘totally disagree – totally agree’, following the statement ‘I think this speaker is’. The leadership qualities determined, decisive, team-oriented, risk-taking, motivated as a leader and a good communicator were investigated (Drouillard & Kleiner, 1996; Fernald, Solomon & Tarabishy, 2005; Papadakis & Bourantas, 1998). The reliability of leadership qualities is good (α = .81).

The strength of the accent was measured with two 7-point Likert scales: ‘This speaker has a strong foreign accent in his English’ anchored by ‘strongly agree – strongly disagree’ and ‘This speaker sounds like a native speaker of English’ anchored by ‘strongly agree – strongly disagree’ (Hendriks et al., 2017). For measuring the accent strength the last question was reverse coded. Participants’ familiarity with the accent was measured with three 7-point Likert scales anchored by ‘totally disagree - totally agree’, following the statement ‘I am very familiar with English with a Dutch accent/ English with a Danish accent/ English with a British accent’ (Hendriks et al., 2018). After the questions about the audio fragment, questions concerning the participant were asked. Participants were asked to indicate their own gender (male/ female/ other), age (number), nationality, mother tongue, number of years employed (number), number of years worked as a leader (number) and current living status (employed/ student/ non-employed/ retired). Proficiency in English was firstly measured with a 7-point semantic differential anchored by ‘poor – excellent’, ‘My English writing skills are’, ‘My English listening skills are’, ‘My English speaking skills are’, ‘My English reading skills are’. The reliability of proficiency was good (α = .86). To test participants’ proficiency, a Lextale test was used to evaluate the level of English (Lemhöfer & Broersma, 2012). Finally, participants’ own level of accentedness and attitude toward accentedness was measured with two 7-point Likert scales anchored by ‘strongly disagree – strongly agree’, ‘I have a non-
native accent in my English’, ‘I think it is important for people to sound like a native speaker when they speak English’. (Hendriks et al., 2018)

**Procedure**

A questionnaire was administered using the online survey tool Qualtrics. Participants have first read a short introduction in which they were thanked for participating. Participants were told that taking part in the study was voluntary and they were allowed to stop at any moment. Finally the participants were told they would listen to an audio fragment and evaluate it. Participants were approached by e-mail and via social media. Participants were found through personal connections, special Facebook groups for filling in questionnaires per country and at university. On average, it took participants 11.4 minutes to fill in the online questionnaire.

**Statistical treatment**

This study had two independent and two dependent variables, both with multiple levels. The answers to the research question were measured by using SPSS. Two separate two-way Manova’s were performed. In this way the relationship between the independent and dependent variables were measured.

**Results**

**Control variables**

A univariate analysis for accent strength showed significant effects of accent ($F(2, 268) = 363.34, p < .001$) and of listener nationality ($F(2, 268) = 6.22, p = .002$) and no significant interaction effect of listener nationality and accent ($F(4, 268) = 0.67, p = .610$). Multiple comparisons showed that the British accent ($M = 2.25, SD = 1.12$) was significantly less strong than the Danish ($M = 5.75, SD = 1.19, p < .001$, Tukey HSD-correction) or the Dutch accent ($M = 6.06, SD = 0.94, p < .001$, Tukey HSD-correction) while the Danish and the Dutch accent were rated as equally strong ($p = .139$, Tukey HSD-correction). Multiple
comparisons also showed that the Danish participants ($M = 4.86$, $SD = 1.95$) rated accent strength as significantly stronger than the native English speaking participants ($M = 4.38$, $SD = 2.03$, $p = .007$, Tukey HSD-correction). No difference was found between the Dutch participants ($M = 4.72$, $SD = 2.16$) and both the Danish ($p = .635$, Tukey HSD-correction) and the native English speaking participants ($p = .082$, Tukey HSD-correction).

For the analysis for the origin of the speaker, a lenient correction was applied to see whether the origin of the speaker was correctly filled in by the participants. A lenient correction was chosen instead of a strict correction (only Dutch, Danish or British) to make sure countries that have similar sounding accents were also seen as correct. Under lenient correction one might understand the following answers: for Danish: Danish, Scandinavian, Swedish, Finnish, Norwegian; for Dutch: Dutch, Belgian, German; for British: all countries where English is spoken as a native language like English, Irish, Scottish, British, American, Australian etc. A chi-square analysis for lenient correction showed a significant difference in the distribution of accent ($\chi^2 (2) = 34.35; p < .001$). The British accent (32.9 %) was filled in correctly more often than the Dutch accent (24.5 %) and the Danish accent (20.2 %). The Dutch (7.6 %) and Danish accent (13.4 %) were filled in incorrectly more often compared to the British accent (n<5 %). Table 3 shows the distribution of the origin of the speaker and the Danish, Dutch and British accent. In addition, a chi-square analysis for lenient correction showed all three groups of participants (Dutch, Danish and native speakers of English) had almost an equal number of questions correct on the nationality of the speaker ($\chi^2 (2) = 5.42; p = .067$).
Table 3. Distribution (count and percentages) of the origin of the speaker and accent (Danish, Dutch and British).

<table>
<thead>
<tr>
<th>Origin of speaker</th>
<th>Correct</th>
<th>Count</th>
<th>Danish</th>
<th>Dutch</th>
<th>British</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Total</td>
<td>20.2</td>
<td>24.5</td>
<td>32.9</td>
<td>77.6</td>
<td></td>
</tr>
<tr>
<td>Incorrect</td>
<td>Count</td>
<td>37</td>
<td>21</td>
<td>&lt;5</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>13.4</td>
<td>7.6</td>
<td>n&lt;5</td>
<td>22.4</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>93</td>
<td>89</td>
<td>95</td>
<td>277</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>33.6</td>
<td>32.1</td>
<td>34.3</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

**Actual comprehension and perceived intelligibility**

A two-way multivariate analysis for actual comprehension and perceived intelligibility, with as factors accent and listener nationality, showed a significant multivariate effect of accent ($F (4, 534) = 5.25, p < .001$) and listener nationality ($F (4, 534) = 4.46, p = .001$) and no significant interaction effect of listener nationality and accent ($F (8, 534) = 1.47, p = .164$).

The univariate analyses showed an effect of accent on perceived intelligibility ($F (2, 268) = 9.88, p < .001$), but no effect of accent on actual comprehension ($F (2, 268) = 0.66, p = .517$). Multiple comparisons for perceived intelligibility showed differences between the different accents, irrespective of the listener nationality. The Dutch-accented fragments ($M = 4.84, SD = 1.15$) were evaluated more negatively on perceived intelligibility than the Danish-accented fragments ($M = 5.42, SD = 1.22, p = .005$, Tukey HSD-correction) or the British-accented fragments ($M = 5.62, SD = 1.38, p < .001$, Tukey HSD-correction) but the Danish-
accented fragments did not differ significantly from the British-accented fragments ($p = .449$, Tukey HSD-correction).

In addition, the univariate analyses show an effect of listener nationality on perceived intelligibility ($F (2, 268) = 7.10, p = .001$), but they showed no effect of listener nationality on actual comprehension ($F (2, 268) = 2.75, p = .066$). Multiple comparisons for perceived intelligibility showed that irrespective of the accent, the Dutch participants rated their intelligibility of the speaker significantly lower ($M = 4.96, SD = 1.41$) than the English participants ($M = 5.64, SD = 1.12$, $p = .001$, Tukey HSD-correction). The Danish participants ($M = 5.31, SD = 1.22$) did not rate their intelligibility higher or lower than the Dutch or the native English speaking participants (Dutch, $p = .124$, Tukey HSD-correction; English, $p = .172$, Tukey HSD-correction). Table 4 shows means and standard deviations for actual comprehension and listener nationality with as factors accent and listener nationality.
Table 4. Means and standard deviations (between brackets) for perceived intelligibility and actual comprehension in function of listener nationality and accent.

<table>
<thead>
<tr>
<th>Listener Nationality</th>
<th>Accent</th>
<th>$n$</th>
<th>Actual comprehension</th>
<th>Perceived intelligibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Danish</td>
<td>Danish</td>
<td>30</td>
<td>2.77</td>
<td>0.43</td>
</tr>
<tr>
<td></td>
<td>Dutch</td>
<td>29</td>
<td>2.62</td>
<td>0.62</td>
</tr>
<tr>
<td></td>
<td>British</td>
<td>33</td>
<td>2.73</td>
<td>0.45</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>92</td>
<td>2.71</td>
<td>0.50</td>
</tr>
<tr>
<td>Dutch</td>
<td>Danish</td>
<td>32</td>
<td>2.81</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td>Dutch</td>
<td>30</td>
<td>2.63</td>
<td>0.62</td>
</tr>
<tr>
<td></td>
<td>British</td>
<td>31</td>
<td>2.84</td>
<td>0.37</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>93</td>
<td>2.76</td>
<td>0.48</td>
</tr>
<tr>
<td>English</td>
<td>Danish</td>
<td>31</td>
<td>2.87</td>
<td>0.34</td>
</tr>
<tr>
<td></td>
<td>Dutch</td>
<td>30</td>
<td>2.97</td>
<td>0.18</td>
</tr>
<tr>
<td></td>
<td>British</td>
<td>31</td>
<td>2.74</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>92</td>
<td>2.86</td>
<td>0.38</td>
</tr>
<tr>
<td>Total</td>
<td>Danish</td>
<td>93</td>
<td>2.82</td>
<td>0.39</td>
</tr>
<tr>
<td></td>
<td>Dutch</td>
<td>89</td>
<td>2.74</td>
<td>0.53</td>
</tr>
<tr>
<td></td>
<td>British</td>
<td>95</td>
<td>2.77</td>
<td>0.45</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>277</td>
<td>2.78</td>
<td>0.46</td>
</tr>
</tbody>
</table>
**Status, solidarity, dynamism and leadership qualities**

A two-way multivariate analysis for status, solidarity, dynamism and leadership qualities, with as factors accent and listener nationality, found significant multivariate effects of accent ($F(8, 530) = 8.17, p < .001$), listener nationality ($F(8, 530) = 6.24, p < .001$) and an interaction effect of listener nationality and accent ($F(16, 810) = 1.81, p = .026$).

The univariate analyses showed no interaction effect of listener nationality and accent on status ($F(4, 268) = 0.55, p = .463$), dynamism ($F(4, 268) = 1.27, p = .375$) and leadership qualities ($F(4, 268) = 0.66, p = .529$) but they did show an interaction effect of accent and listener nationality on solidarity ($F(4, 268) = 2.18, p = .030$). Figure 2 shows the interaction effect of listener nationality and accent on solidarity.

![Estimated Marginal Means of SOLIDARITY](image)

Figure 2. This is the interaction plot in function of listener nationality and accent for Solidarity.

Separate univariate analyses for the interaction effect of accent and listener nationality on solidarity showed mixed results. The file was split on nationality. A univariate analysis showed only one effect, which was for Danish participants. A univariate analysis showed a
significant effect of accent on solidarity \((F (2, 89) = 8.43, p < .001)\). Danish participants rated the Danish-accented fragment significantly higher on solidarity \((M = 5.77, SD = 0.93)\) than the Dutch-accented fragment \((M = 4.82, SD = 0.97, p = .001, \text{Tukey HSD-correction})\) or the British-accented fragment \((M = 4.92, SD = 1.06, p = .003, \text{Tukey HSD-correction})\). No significant difference was found between how Danish participants rated a Dutch or a British accent \((p = .903, \text{Tukey HSD-correction})\). In addition, a univariate analysis showed no significant difference between how Dutch people rated a Danish, a Dutch or a British accent on solidarity \((F (2, 90) = 0.14, p = .986)\). Another univariate analysis showed no significant difference between how British people rated a Danish, a Dutch or a British accent on solidarity \((F (2, 89) = 2.97, p = .056)\).

The file was split on accent. A univariate analysis showed only one significant effect, which was for the Dutch accent. It showed a significant effect of listener nationality on solidarity \((F (2, 86) = 3.96, p = .023)\). For the Dutch-accented speaker, solidarity was rated significantly higher by Dutch participants \((M = 5.39, SD = 0.84)\) than by Danish participants \((M = 4.82, SD = 0.97, p = .030, \text{Tukey HSD-correction})\). No difference was found for how solidarity was rated between English participants \((M = 5.32, SD = 0.76)\) and Danish participants \((p = .066, \text{Tukey HSD-correction})\) or between English participants and Dutch participants \((p = .943, \text{Tukey HSD-correction})\). Another univariate analysis showed no significant effect of listener nationality for the Danish accented speaker on solidarity \((F (2, 90) = 2.93, p = .059)\), nor a significant effect of listener nationality and British accent on solidarity \((F (2, 92) = 2.63, p = .077)\).

Three univariate analyses showed main effects of accent on status \((F (2, 268) = 6.28, p < .001)\) and leadership qualities \((F (2, 268) = 3.95, p = .009)\) but not on dynamism \((F (2, 268) = .08, p = .933)\).
Multiple comparisons showed, irrespective of listener nationality, significant differences for accent and the dependent variables status and leadership qualities. The Dutch-accented fragment \((M = 4.71, SD = 0.84)\) and the Danish-accented fragment \((M = 4.80, SD = 0.76)\) were attributed less status than the British-accented fragment \((M = 5.20, SD = .84,\) Dutch; \(p < .001,\) Danish; \(p = .002,\) Tukey HSD-correction). The Dutch-accented fragment and the Danish-accented fragment did not significantly differ \((p = .680,\) Tukey HSD-correction). For leadership qualities, only one significant difference was found. The Danish-accented fragment \((M = 4.22, SD = 1.08)\) was ranked significantly lower on leadership qualities than the British-accented fragment \((M = 4.62, SD = .87, p = .008,\) Tukey HSD-correction). The Dutch-accented fragment \((M = 4.38, SD = .93)\) was not evaluated significantly higher or lower on leadership qualities than the Danish-accented fragment or the British-accented fragment (respectively Danish, \(p = .464;\) British, \(p = 178,\) Tukey HSD-correction). Table 5 shows means and standard deviations for status, solidarity, dynamism and leadership qualities with as factors listener nationality and accent.

In addition, the univariate analyses showed main effects of listener nationality on status \((F(2, 268) = 7.77, p < .001)\), dynamism \((F(2, 268) = 16.39, p < .001)\) and leadership qualities \((F(2, 268) = 15.31, p < .001)\). Multiple comparisons showed, irrespective of the accent, significant differences for listener nationality within all three dependent variables status, dynamism and leadership qualities. The English participants \((M = 5.24, SD = .69)\) ranked status, irrespective of the accent, significantly higher than the Dutch \((M = 4.72, SD = .85, p < .001,\) Tukey HSD-correction) or the Danish participants \((M = 4.77, SD = .86, p < .001,\) Tukey HSD-correction) while no significant differences were found between the Dutch and the Danish participants \((p = .938,\) Tukey HSD-correction). Secondly, English participants \((M = 3.98, SD = 1.17)\) ranked dynamism significantly higher than Dutch \((M = 3.37, SD = .93, p = .001,\) Tukey HSD-correction) or Danish participants \((M = 3.17, SD = 1.15,\)
Dutch participants did not rank dynamism significantly higher than Danish participants ($p = .405$, Tukey HSD-correction). Finally, English participants ($M = 4.86, SD = .86$) ranked leadership qualities higher than Dutch ($M = 4.28, SD = .83$, $p < .001$, Tukey HSD-correction) or Danish participants ($M = 4.09, SD = 1.06, p < .001$, Tukey HSD-correction). Dutch participants did not rank dynamism significantly higher or lower than Danish participants ($p = .405$, Tukey HSD-correction).
Table 5. Means and standard deviations (between brackets) for status, solidarity, dynamism and leadership qualities in function of listener nationality and accent.

<table>
<thead>
<tr>
<th>Listener Nationality</th>
<th>Accent</th>
<th>n</th>
<th>Status $M$ (SD)</th>
<th>Solidarity $M$ (SD)</th>
<th>Dynamism $M$ (SD)</th>
<th>Leadership Qualities $M$ (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danish</td>
<td>Danish</td>
<td>30</td>
<td>4.77 (0.76)</td>
<td>5.77 (0.93)</td>
<td>3.44 (1.05)</td>
<td>3.95 (1.23)</td>
</tr>
<tr>
<td></td>
<td>Dutch</td>
<td>29</td>
<td>4.56 (0.87)</td>
<td>4.82 (0.97)</td>
<td>3.02 (1.17)</td>
<td>3.94 (0.94)</td>
</tr>
<tr>
<td></td>
<td>British</td>
<td>33</td>
<td>4.94 (0.90)</td>
<td>4.92 (1.06)</td>
<td>3.04 (1.22)</td>
<td>4.34 (0.96)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>92</td>
<td>4.77 (0.86)</td>
<td>5.17 (1.07)</td>
<td>3.17 (1.15)</td>
<td>4.09 (1.06)</td>
</tr>
<tr>
<td>Dutch</td>
<td>Danish</td>
<td>32</td>
<td>4.66 (0.81)</td>
<td>5.37 (0.84)</td>
<td>3.28 (0.88)</td>
<td>4.10 (0.89)</td>
</tr>
<tr>
<td></td>
<td>Dutch</td>
<td>30</td>
<td>4.43 (0.87)</td>
<td>5.39 (0.84)</td>
<td>3.47 (0.86)</td>
<td>4.17 (0.86)</td>
</tr>
<tr>
<td></td>
<td>British</td>
<td>31</td>
<td>5.09 (0.77)</td>
<td>5.36 (0.81)</td>
<td>3.38 (1.05)</td>
<td>4.58 (0.66)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>93</td>
<td>4.73 (0.85)</td>
<td>5.38 (0.82)</td>
<td>3.37 (0.93)</td>
<td>4.28 (0.83)</td>
</tr>
<tr>
<td>English</td>
<td>Danish</td>
<td>31</td>
<td>5.00 (0.68)</td>
<td>5.84 (0.72)</td>
<td>3.87 (1.24)</td>
<td>4.61 (1.02)</td>
</tr>
<tr>
<td></td>
<td>Dutch</td>
<td>30</td>
<td>5.15 (0.59)</td>
<td>5.32 (0.76)</td>
<td>3.93 (1.11)</td>
<td>5.02 (0.62)</td>
</tr>
<tr>
<td></td>
<td>British</td>
<td>31</td>
<td>5.58 (0.68)</td>
<td>5.45 (1.06)</td>
<td>4.14 (1.17)</td>
<td>4.96 (0.86)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>92</td>
<td>5.24 (0.69)</td>
<td>5.54 (0.88)</td>
<td>3.98 (1.17)</td>
<td>4.86 (0.86)</td>
</tr>
<tr>
<td>Total</td>
<td>Danish</td>
<td>93</td>
<td>4.81 (0.76)</td>
<td>5.66 (0.85)</td>
<td>3.53 (1.08)</td>
<td>4.22 (1.08)</td>
</tr>
<tr>
<td></td>
<td>Dutch</td>
<td>89</td>
<td>4.71 (0.84)</td>
<td>5.18 (0.89)</td>
<td>3.48 (1.10)</td>
<td>4.38 (0.93)</td>
</tr>
<tr>
<td></td>
<td>British</td>
<td>95</td>
<td>5.20 (0.83)</td>
<td>5.24 (1.00)</td>
<td>3.51 (1.23)</td>
<td>4.62 (0.87)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>277</td>
<td>4.91 (0.84)</td>
<td>5.36 (0.94)</td>
<td>3.51 (1.14)</td>
<td>4.41 (0.76)</td>
</tr>
</tbody>
</table>
Conclusion and discussion

This study examined evaluations of native and non-native accented speech (Dutch, Danish and British) by native and non-native speakers of English (Dutch, Danish and native English speakers) regarding the perceived leadership ability of these speakers. The purpose of this study was to find out whether perceived leadership was evaluated differently based on a Dutch, Danish and British accent by Dutch, Danish and native English speaking listeners. The research questions was; To what extent does Dutch and Danish non-native accentedness have an effect on Dutch, Danish and British listeners’ attitudinal evaluations of perceived leadership qualities (RQ-1a) and the listeners’ comprehension of the message (RQ-1b). To analyse the perceived leadership ability, status, solidarity, dynamism and leadership qualities were measured. To analyse the comprehension of the listeners, perceived intelligibility and actual comprehension were measured.

The findings indicate that differences were found for accent and listener nationality for status, solidarity, dynamism and leadership qualities. Additionally, the findings of this study indicate that differences were found for perceived intelligibility but not for actual comprehension. Findings of this study revealed that accent and the nationality of the speaker have a considerable impact on the speaker’s evaluation. Overall, non-native accentedness was evaluated more negatively than native accentedness for perceived leadership.

Perceived intelligibility and actual comprehension

Overall, differences were found for perceived intelligibility but not for actual comprehension. A significant effect was found for accent on perceived intelligibility where the Dutch-accented fragment was assigned lower perceived intelligibility scores than the Danish or British-accented fragment. No differences were found for actual comprehension. In addition, a significant effect was found for listener nationality on perceived intelligibility where Dutch participants rated their intelligibility lower than the native English speaking
participants. No significant differences were found for Danish participants. Again, no differences were found for actual comprehension.

These findings indicate that participants hearing a Dutch-accented fragment tend to underestimate their intelligibility of the speaker as compared to hearing a Danish-accented fragment or a British-accented fragment. Secondly, Dutch participants tend to underestimate their intelligibility of the speaker as compared to native speakers of English. However, what was actually comprehended of the speaker did not significantly differ.

The first finding for accent is partially in line with Nejjar et al. (2012), who found that intelligibility for a moderate to stronger Dutch accent was evaluated more negatively than for a British accent or a slight Dutch accent. For Danish-accented speech, little to no research has yet been performed on evaluations of perceived intelligibility. It might have been expected that the Danish and Dutch-accented fragment would be evaluated similarly but the Danish-accented fragment was equally evaluated as the British-accented fragment. Perhaps this is due to the speakers that have performed the accented speeches. The Dutch and British-accented speech was performed by the same male speaker. Perhaps for the same voice, the British-accented speech was more comprehensible than the Dutch-accented speech. The Danish accented speech was performed by a different male speaker. Perhaps this male speaker was as equally comprehensible as the speaker performing the British accented fragment, and perhaps both Danish and British-accented speech was easier to understand than the Dutch-accented fragment.

These findings are partially in line with the findings by Munro and Derwing (1995) stating that perceived intelligibility might be assigned a lower score than actual comprehension for non-native accents even though the message was fully understood. According to Munro and Derwing (1995), an individual might not be used to a longer processing time that is necessary with hearing a non-native accent compared to the shorter
usual time that an individual needs in their native language. This extra processing time might
give the idea that an individual understands less and might therefore assign lower scores to
perceived intelligibility (Munro & Derwing, 1995; Munro & Derwing, 1995).

To answer Research Question 1b, differences can be found in native versus non-native
accentedness on intelligibility of the speaker but no differences were found for actual
comprehension. Therefore, non-native accentedness might only have a significant negative
impact on the intelligibility of the message but not on the actual comprehension of the
message.

**Status, solidarity, dynamism and leadership qualities**

An interaction effect was found of accent and listener nationality on solidarity. For
accent, differences were found for status and leadership qualities, indicating a possible
negative effect for non-native accentedness. For listener nationality, status, dynamism and
leadership qualities, Dutch and Danish participants give more negative evaluations than native
English speakers, who evaluate more positively. These findings might indicate a negative
impact for non-native accentedness in comparison to native on the evaluation of the perceived
leadership abilities of the speaker.

The only significant interaction effect in this study was found for accent and listener
nationality on solidarity. First, an effect was found for accent and Danish participants on
solidarity. Danish participants assigned higher scores to the Danish-accented fragment on
solidarity than the Dutch-accented fragment or the British accented fragment. Second, this
study showed an effect for listener nationality Dutch accent on solidarity. For the Dutch-
accented speaker, solidarity was evaluated more positively by Dutch participants than by
Danish participants.

These findings indicate that non-native speakers of English from Denmark rate the
solidarity of their own accent higher than other Dutch participants do. These findings also
indicate that Dutch accentedness was evaluated more positively by Dutch than by Danish participants. Perhaps this might be the case because these non-native speakers of English feel more related to their own accent as described in the theory of ingroup versus outgroup (Gudykunst, Yoon & Nishida, 2009). An individual can be part of the ingroup (included in the group) or the outgroup (excluded of the group) (Gudykunst et al., 2009) and have in- or outgroup relationships. According to Dovidio and Gluszek (2012) accented speech may arouse ingroup or outgroup biases and can activate stereotypes about an outgroup. It might be stressful to speak in a non-native language in the country where that language is spoken, causing speakers to communicate differently, for example slower, shorter or less natural. Because of this, listeners might understand less, might be less motivated to listen or might respond more negatively which causes more of an outgroup feeling toward other accented speakers and an ingroup feeling toward the listener’s own accent. (Dovidio & Gluszek, 2012) This might explain why Danish participants rated a Danish-accented fragment higher on solidarity and why a Dutch-accented fragment was rated higher by Dutch participants on solidarity. Danish participants might have had more positive feelings toward the Danish-accented speaker because this speaker might have felt as part of the ingroup. The same might have occurred for the Dutch participants with the Dutch-accented speech.

To continue, Findings of this study revealed that accent might have an important impact on the evaluation of the speaker. Non-native accentedness might have a negative effect on the evaluation of the perceived leadership ability of the speaker. Main effects were found for accent on leadership qualities as well as status. No significant effects were found for Dynamism. For status, the Dutch and Danish-accented fragment were ranked significantly lower than the British-accented fragment. For leadership qualities, the Danish-accented fragment was ranked significantly lower than the British-accented fragment. No differences were found for between the Dutch and both the Danish and British-accented fragment.
For status, this finding is partially in line with the findings of Nejjari et al. (2012) where British people evaluated the British-accented fragment or the slight Dutch-accented fragment higher than the stronger Dutch-accented fragment for status and affect. This finding is also partially in line with the findings of Cargile and Giles (1998), which showed that a stronger non-native accents might lead to more negative evaluations toward status. In addition, Coupland and Bishop (2007) measured attitudes towards different non-native and native English accents. Their findings are also in line with the findings of this study. In the study of Coupland and Bishop (2007), it was shown that a standard English accent evoked the highest social attractiveness and it was named the second most prestige accent globally. In this present study, the British accent was also evaluated most positively as compared to the Danish and Dutch accent. For Dynamism, no effects have been found. This might partly be expected as for dynamism, no significant results were found either in the research of Cargile and Giles (1998).

For listener nationality, Dutch and Danish participants ranked status, dynamism and leadership qualities significantly lower than native speakers of English. This might be due to different levels as to how important individuals see status. Status was already, since the beginning of the English language as we know it today, an important asset in native English speaking countries like England (Trudgill & Hannah, 2013). The upper class, having a special refined dialect was only accepted and spoken with individuals having status and power (Trudgill & Hannah, 2013). Still, different social classes exist in native English speaking countries like the United Kingdom and the United States (Reay, 2004). Perhaps this feeling of needing status and power to be accepted in a higher social class, might have caused that native English speakers have ranked status as well as dynamism and leadership qualities higher in general than non-native speakers of English. Also, in this study it was found that most native English speaking participants were employed and that most Dutch and Danish participants
were students. Perhaps, for individuals who are already employed, status, dynamism and leadership qualities are of greater importance than for students. This might explain why native speakers of English evaluated status, dynamism and leadership qualities higher in general.

Overall, for leadership qualities, no research has yet been performed on Dutch, Danish and British accentedness. However, for status, earlier research has been performed on accentedness (Cargile & Giles, 1998; Hendriks et al., 2017; Nejjari et al., 2012). The findings of earlier research for status (Cargile & Giles, 1998; Hendriks et al., 2017; Nejjari et al., 2012) indicate a negative impact on the evaluation of the speaker for non-native accentedness compared to native accentedness. The findings of this study confirm this indication partially for leadership qualities because the Dutch and Danish-accented fragments were ranked significantly lower than the British-accented fragment and the Dutch and the Danish participants ranked leadership qualities significantly lower than the native speakers of English. Therefore, effects were found between native and non-native accentedness but no differences were found between different non-native accents. To answer research question 1a, this reveals that accent has an important impact on the evaluation of the perception of the leadership qualities of the speaker, where non-native accentedness might be evaluated as more negatively than native accentedness.

Limitations and future research

The findings of this study should be interpreted within its limitations. In the first place, the sample sizes used in this study could be seen as generally small. A larger group of participants might have strengthened the results and allowed researchers to make better generalizations of the results related to native and non-native speakers’ accent perception in leadership of native as well as non-native speakers of English. Secondly, a possible influence that might have limited these findings could have been the method used for collecting the data of the actual comprehension. Three questions were asked about the content of the text of the
speaker. Perhaps in future research a more in-depth questionnaire or a more elaborate set of questions might give more detailed results. Another possible limitation is that the methodology used in this study was a quantitative study including a questionnaire and self-report data.

Perhaps, for future research, qualitative in-depth reviews (data reported by the researchers) might give different results as no misunderstandings by the participants can occur when filling in the questionnaire and as opinions and more elaborate answers can be taken into account. Furthermore, in this study Dutch people, Danish people and native speakers of English were chosen as participants and a Dutch, Danish and British accent has been chosen. For future research, it would be interesting to perform the same study but with different non-native countries, to be able to compare more results. Moreover, the same study could be performed but for a different language than English. A language which is spoken in multiple continents, like Spanish, could be analysed. Afterwards, accents and language of people coming from non-native Spanish speaking countries could be compared. Finally, although the leadership qualities as used in this study were found to be important leadership qualities by several studies (Drouillard & Kleiner, 1996; Fernald, Solomon & Tarabishy, 2005; Papadakis & Bourantas, 1998), it could be debatable what important leadership qualities are since “the elusive concept of leadership, inevitably involving a complex interaction of people and environment, is difficult to adequately define with current methodologies and instrumentation” (p.169, Vance & Larson, 2002). In this present study, the leadership qualities as measured were considered the most suitable qualities but results might differ when different leadership qualities are measured.

To conclude, the most important implication of this present study is that the perception of accent plays a powerful role in our judgement of others (Kamisli & Dugan, 1997), specifically when evaluating someone’s leadership qualities. Perhaps, to some extent,
attention should be given by international companies and English schools to accentedness in English and language learning theories and how accent can be applied in these theories successfully. If students or managers can learn to minimalize their non-native accent, this might have a positive outcome when holding a leadership position. In addition, accent should be considered important for current international leaders with moderate non-native accents or for students preparing to work internationally as leaders.
References


Appendix A. Speech that is recorded for the experiment.

We strive to devote our talent and resources to creating superior products and services that contribute to a better global society. We are constantly evaluating our performance and making changes to meet both the evolution of technology and people’s expectation to our services. Our goal is to deliver useful and relevant results. In line with our strategy, we are actively pursuing continuous growth opportunities in the right markets, which we believe will create increasing value for all our stakeholders.
Appendix B. Dutch, Danish and native English questionnaire.

**Master Thesis questionnaire Dutch**

Q1 U wordt uitgenodigd om deel te nemen aan een onderzoeksproject dat wordt uitgevoerd door studenten van de Radboud Universiteit. Het invullen van deze online vragenlijst duurt ongeveer 10 minuten. Uw deelname aan dit onderzoek is geheel vrijwillig en u kunt op elk moment stoppen met de vragenlijst. De verzamelde gegevens worden volledig anoniem gemaakt.

**INSTRUCTIES:**
U wordt gevraagd om naar een audiofragment van ongeveer 30 seconden te luisteren. De speech is van een manager van een groot multinational bedrijf, die een korte toespraak heeft gehouden tijdens de jaarlijkse werknemersvergadering van het bedrijf.

U mag het fragment meer dan eens beluisteren als dat nodig is. Nadat u naar het fragment hebt geluisterd, krijgt u een aantal vragen over het fragment en de spreker. Omdat we alleen geïnteresseerd zijn in uw mening, zijn er geen juiste of verkeerde antwoorden. Aan het einde van de vragenlijst wordt u gevraagd om wat informatie over uzelf te geven. Er is geen tijdslimiet voor deze vragenlijst.

Wilt u meer informatie over het onderzoeksproject, neem dan gerust contact op met de studenten via jeppe.houbak@student.ru.nl of lv.riemsdijck@student.ru.nl.

**TOESTEMMING:**
- u hebt de bovenstaande informatie gelezen
- u stemt vrijwillig in met deelname aan dit onderzoek
- u bent minimaal 18 jaar oud

Als u akkoord gaat met deze verklaringen en wenst deel te nemen aan dit onderzoek, ga dan verder. Als u niet wenst deel te nemen aan dit onderzoek, gelieve deze pagina te sluiten.

Bij voorbaat dank voor uw hulp bij ons onderzoek.

Q2 Luister alstublieft naar het volgende audio fragment en selecteer de antwoorden op de drie onderstaande vragen waarvan u denkt dat ze juist zijn. Let op dat zowel de vragen als de antwoorden in het Engels zijn.

Q3 Luister alstublieft naar het volgende audio fragment en selecteer de antwoorden op de drie onderstaande vragen waarvan u denkt dat ze juist zijn. Let op dat zowel de vragen als de antwoorden in het Engels zijn.

Q4 Luister alstublieft naar het volgende audio fragment en selecteer de antwoorden op de drie onderstaande vragen waarvan u denkt dat ze juist zijn. Let op dat zowel de vragen als de
antwoorden in het Engels zijn.

Q5 What is the speaker *constantly evaluating*?

- employees (1)
- performance (2)
- effectiveness (3)
- lunch breaks (4)

Q6 What is the goal of the company?

- to deliver important and significant results (1)
- to deliver important and relevant results (2)
- to deliver useful and significant results (3)
- to deliver useful and relevant results (4)

Q7 Who will the company create increasing value for?

- all their suppliers (1)
- all their customers (2)
- all their stakeholders (3)
- all their managers (4)

Q8 In dit gedeelte van de vragenlijst krijgt u een aantal vragen over de spreker en de speech.
Q9 Deze spreker was gemakkelijk om te begrijpen.

○ Volledig mee oneens (1)
○ Mee oneens (2)
○ Enigszins mee oneens (3)
○ Neutraal (4)
○ Enigszins mee eens (5)
○ Mee eens (6)
○ Volledig mee eens (7)

Q10 Ik begreep alle woorden die de spreker heeft gezegd.

○ Volledig mee oneens (1)
○ Mee oneens (2)
○ Enigszins mee oneens (3)
○ Neutraal (4)
○ Enigszins mee eens (5)
○ Mee eens (6)
○ Volledig mee eens (7)
Q11 Ik begreep de boodschap in de speech.

- Volledig mee oneens (1)
- Mee oneens (2)
- Enigszins mee oneens (3)
- Neutraal (4)
- Enigszins mee eens (5)
- Mee eens (6)
- Volledig mee eens (7)

Q12 Deze persoon...

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<thead>
<tr>
<th></th>
<th>Volledig mee oneens (1)</th>
<th>Mee oneens (2)</th>
<th>Enigszins mee oneens (3)</th>
<th>Neutraal (4)</th>
<th>Enigszins mee eens (5)</th>
<th>Mee eens (6)</th>
<th>Volledig mee eens (7)</th>
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<tbody>
<tr>
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<td>Klinkt monotoon (2)</td>
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<td>Heeft een aangename stem (3)</td>
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</tbody>
</table>
Q13 Deze persoon spreekt

- Heel erg langzaam (16)
- Langzaam (17)
- Enigszins langzaam (18)
- Gemiddeld (19)
- Enigszins snel (20)
- Snel (22)
- Heel erg snel (23)

Q14 Deze persoon klinkt

<table>
<thead>
<tr>
<th></th>
<th>Volledig mee eens (1)</th>
<th>Mee oneens (2)</th>
<th>Enigszins mee oneens (3)</th>
<th>Neutraal (4)</th>
<th>Enigszins mee eens (5)</th>
<th>Mee eens (6)</th>
<th>Volledig mee eens (7)</th>
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<tr>
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<td>Duidelijk (6)</td>
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### Q15 Deze persoon klinkt

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<th>Volledig mee oneens (1)</th>
<th>Mee oneens (2)</th>
<th>Enigszins mee oneens (3)</th>
<th>Neutraal (4)</th>
<th>Enigszins mee eens (5)</th>
<th>Mee eens (6)</th>
<th>Volledig mee eens (7)</th>
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<tbody>
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<td>Lui (3)</td>
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<td>Koud (4)</td>
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<td>Onbetrouwbaar (5)</td>
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<td>Agressief (6)</td>
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### Q16 Deze persoon klinkt

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<th>Mee oneens (2)</th>
<th>Enigszins mee oneens (3)</th>
<th>Neutraal (4)</th>
<th>Enigszins mee eens (5)</th>
<th>Mee eens (6)</th>
<th>Volledig mee eens (7)</th>
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<tr>
<td>Zachtaardig (2)</td>
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Q17 Deze persoon klinkt als iemand die ... (is).

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<tr>
<th></th>
<th>Volledig mee oneens (1)</th>
<th>Mee oneens (2)</th>
<th>Enigszins mee oneens (3)</th>
<th>Neutraal (4)</th>
<th>Enigszins mee eens (5)</th>
<th>Mee eens (6)</th>
<th>Volledig mee eens (7)</th>
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<tr>
<td>Vastbesloten (1)</td>
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<td>Besluitvaardig (2)</td>
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<td>Een team-player (3)</td>
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<td>Risico neemt (4)</td>
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<td>Gemotiveerd is om te leiden (5)</td>
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<td>Goed communiceert (6)</td>
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Q18 Ik denk dat deze persoon ... heeft.

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<tr>
<th></th>
<th>Volledig mee oneens (1)</th>
<th>Mee oneens (2)</th>
<th>Enigszins mee oneens (3)</th>
<th>Neutraal (4)</th>
<th>Enigszins mee eens (5)</th>
<th>Mee eens (6)</th>
<th>Volledig mee eens (7)</th>
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<tbody>
<tr>
<td>Een hoge status (1)</td>
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</table>
Q19 Deze spreker heeft een sterk buitenlands accent wanneer hij Engels spreekt.

- Volledig mee oneens (1)
- Mee oneens (2)
- Enigszins mee oneens (3)
- Neutraal (4)
- Enigszins mee eens (5)
- Mee eens (6)
- Volledig mee eens (7)

Q20 Deze spreker klinkt als een moedertaalspreker van het Engels.

- Volledig mee oneens (1)
- Mee oneens (2)
- Enigszins mee oneens (3)
- Neutraal (4)
- Enigszins mee eens (5)
- Mee eens (6)
- Volledig mee eens (7)

Q21 Uit welk land denkt u dat deze spreker komt?

____________________________________________________________________________________
Q22 Ik ben erg bekend met het accent van de spreker in het fragment.

- Volledig mee oneens (1)
- Mee oneens (2)
- Enigszins mee oneens (3)
- Neutraal (4)
- Enigszins mee eens (5)
- Mee eens (6)
- Volledig mee eens (7)

Q23 Geef uw eigen Engelse taalvaardigheid op een schaal van 1 tot 7 (1 = slecht, 7 = goed).

<table>
<thead>
<tr>
<th></th>
<th>1 (Slecht)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 (Goed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schrijfvaardigheid (1)</td>
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<td>Luistervaardigheid (2)</td>
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<tr>
<td>Spreekvaardigheid (3)</td>
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<tr>
<td>Leesvaardigheid (4)</td>
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</tbody>
</table>
Q24 Ik praat Engels met een Nederlands accent.

- Volledig mee oneens (1)
- Mee oneens (2)
- Enigszins mee oneens (3)
- Neutraal (4)
- Enigszins mee eens (5)
- Mee eens (6)
- Volledig mee eens (7)

Q25 Ik vind het belangrijk dat mensen klinken als moedertaalsprekers wanneer zij Engels spreken.

- Volledig mee oneens (1)
- Mee oneens (2)
- Enigszins mee oneens (3)
- Neutraal (4)
- Enigszins mee eens (5)
- Mee eens (6)
- Volledig mee eens (7)

Q26 Vul alstublieft de volgende gegevens over uzelf in.

Uw geslacht

- Man (1)
- Vrouw (2)
- Anders (3)

27 Uw leeftijd

__________________________________________
Q28 Uw nationaliteit

Q29 Uw moedertaal

Q30 Uw huidige status

- Student (1)
- Werkend (2)
- Werkeloos (3)
- Met pensioen (4)

Q31 Het aantal jaar dat u totaal in dienst bent geweest (full-time of part-time).

Q32 Het aantal jaren dat u in een leidinggevende functie heeft gewerkt.

Q33 **Instructie:**
Dit laatste gedeelte van de vragenlijst is een korte taaltest in het Engels.

Deze test bestaat uit ongeveer 60 opgaven, waarbij u bij elke opgave een reeks letters ziet. Uw taak is om te beslissen of dit een bestaand Engels woord is of niet. Als u denkt dat het een bestaand Engels woord is, klikt u op "ja" en als u denkt dat het geen bestaand Engels woord is, klikt u op "nee".

Als u zeker weet dat het woord bestaat, ook al kent u de exacte betekenis niet, dan kunt u nog steeds "ja" antwoorden. Maar als u niet zeker weet of het een bestaand woord is, moet u "nee" antwoorden.

In dit experiment gebruiken we de Brits-Engelse spelling, in plaats van de Amerikaans-Engelse spelling. Bijvoorbeeld: "realise" in plaats van "realize"; "colour" in plaats van "color", enzovoort. Laat dit u alstublieft niet in verwarring brengen. Bij dit experiment gaat het niet om het detecteren van dergelijke subtiele
spellingsverschillen. U heeft zoveel tijd als u wilt voor elke beslissing. Dit deel van het experiment duurt ongeveer 5 minuten.
<table>
<thead>
<tr>
<th></th>
<th>Ja (1)</th>
<th>Nee (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platery (1)</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Denial (2)</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Generic (3)</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Mensible (4)</td>
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<td>○</td>
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<tr>
<td>Scornful (5)</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Stoutly (6)</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Ablaze (7)</td>
<td>○</td>
<td>○</td>
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<td>Destription (52)</td>
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<tr>
<td>Cylinder (53)</td>
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</tbody>
</table>
Danish questionnaire:  
**Master Thesis survey Dansk**

Q1 Du er inviteret til at deltage i en undersøgelse udarbejdet af studerende på Radboud Universitet i Holland. Dette online spørgeskema vil tage omkring 10 minutter at gennemføre. Din deltagelse i projektet er frivilligt og du kan vælge at afbryde din deltagelse når som helst. Den data vi indsamler vil blive opbevaret og anvendt helt anonymt.

Vejledning:
Du vil blive bedt om at lytte til et lydklip på omkring 30 sekunder. Talen du vil lytte til, er fra en leder i et stort multinationalt firma, som giver en kort tale i forbindelse med firmaets årlige medarbejdertag.

Du er velkommen til at lytte til lydklippet mere end én gang om nødvendigt. Efterfølgende vil du blive bedt om at besvare en række spørgsmål angående lydklippet og den talende person. Eftersom vi mest af alt er interesseret i din personlige holdning, findes der hverken rigtige eller forkerte svar til vores spørgsmål. I den afslutnende del af spørgeskemaet, vil du blive bedt om at give nogle personlige oplysninger om dig selv. Der er ikke nogen tidssfrist for fuldførelsen af dette spørgeskema.
Ønsker du efterfølgende at få mere information om formålet med vores undersøgelse er du velkommen til at kontakte en af de studerende via en af følgende e-mail adresser: jeppe.houbak@student.ru.nl eller lv.riemsdijk@student.ru.nl.
Samtykke: • Jeg har læst ovenstående information• Jeg accepterer at deltage frivilligt i denne undersøgelse• Jeg er mindst 18 år gammel Såfremt du accepterer disse vilkår og ønsker at deltage i vores undersøgelse bedes du trykke på pilen for at fortsætte. Hvis du ønsker at afbryde din deltagelse skal du lukke din browser. Mange tak på forhånd for din deltagelse.

Q2 Lyt venligst til nedenstående lydklip og vælg efterfølgende det svar til hvert af de 3 spørgsmål, som du mener er korrekt. Bemærk venligst at spørgsmålene og svarmulighederne er på engelsk.

Q3 Lyt venligst til nedenstående lydklip og vælg efterfølgende det svar til hvert af de 3 spørgsmål, som du mener er korrekt. Bemærk venligst at spørgsmålene og svarmulighederne er på engelsk.

Q4 Lyt venligst til nedenstående lydklip og vælg efterfølgende det svar til hvert af de 3 spørgsmål, som du mener er korrekt. Bemærk venligst at spørgsmålene og svarmulighederne er på engelsk.

Q5 What is the speaker constantly evaluating?

- employees (1)
- performance (2)
- effectiveness (3)
- lunch breaks (4)

Q6 What is the goal of the company?

- to deliver important and significant results (1)
- to deliver important and relevant results (2)
- to deliver useful and significant results (3)
- to deliver useful and relevant results (4)
Q7 Who will the company create increasing value for?

- all their suppliers (1)
- all their customers (2)
- all their stakeholders (3)
- all their managers (4)

Q8 I denne del af spørgeskemaet vil du blive bedt om at besvare en række spørgsmål angående lydklippet og den talende person.

Q9 Personen i lydklippet var let at forstå.

- Helt uenig (1)
- Uenig (2)
- Delvist uenig (3)
- Hverken enig eller uenig (4)
- Delvist enig (5)
- Enig (6)
- Helt enig (7)

Q10 Jeg forstod alle ord fra personen i lydklippet.

- Helt uenig (1)
- Uenig (2)
- Delvist uenig (3)
- Hverken enig eller uenig (4)
- Delvist enig (5)
- Enig (6)
- Helt enig (7)
Q11 Jeg forstod budskabet i lydklippet.

- Helt uenig (1)
- Uenig (2)
- Delvist uenig (3)
- Hverken enig eller uenig (4)
- Delvist enig (5)
- Enig (6)
- Helt enig (7)

Q12
Denne person:

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<thead>
<tr>
<th>Lyder naturlig (1)</th>
<th>Helt uenig (1)</th>
<th>Uenig (2)</th>
<th>Delvist uenig (3)</th>
<th>Hverken enig eller uenig (4)</th>
<th>Delvist enig (5)</th>
<th>Enig (6)</th>
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Q13 Denne person taler...

- Meget langsomm (1)
- Langsomt (2)
- Forholdsvist langsomm (3)
- Gennemsnitligt (4)
- Forholdsvist hurtigt (5)
- Hurtigt (6)
- Meget hurtigt (7)

Q14 Denne person lyder...

<table>
<thead>
<tr>
<th>Kompetent (1)</th>
<th>Helt uenig (1)</th>
<th>Uenig (2)</th>
<th>Delvist uenig (3)</th>
<th>Hverken enig eller uenig (4)</th>
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<td>Q15 Denne person lyder...</td>
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<td>Uenig (2)</td>
<td>Delvist uenig (3)</td>
<td>Hverken enig eller uenig (4)</td>
<td>Delvist enig (5)</td>
<td>Enig (6)</td>
<td>Helt enig (7)</td>
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<th>Hverken enig eller uenig (4)</th>
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### Q17 Denne person lyder...

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### Q18 Denne personen har...

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### Q19 Personen har en stærk udenlandsk accent på Engelsk.

- ○ Helt uenig (1)
- ○ Uenig (2)
- ○ Delvist uenig (3)
- ○ Hverken enig eller uenig (4)
- ○ Delvist enig (5)
- ○ Enig (6)
- ○ Helt enig (7)
Q20 Personen lyder som værende af Engelsk oprindelse.

○ Helt uenig (1)
○ Uenig (2)
○ Delvist uenig (3)
○ Hverken enig eller uenig (4)
○ Delvist enig (5)
○ Enig (6)
○ Helt enig (7)

Q21 Hvilket land tror du personen oprindeligt kommer fra?

________________________________________________________________

Q22 Jeg er meget bekendt med personens accent.

○ Helt uenig (1)
○ Uenig (2)
○ Delvist uenig (3)
○ Hverken enig eller uenig (4)
○ Delvist enig (5)
○ Enig (6)
○ Helt enig (7)
Q23 Angiv venligst dine egne engelskfærdigheder på en skala fra 1 til 7 (1 = dårlig, 7 = god).

<table>
<thead>
<tr>
<th></th>
<th>1 (Dårlig) (144)</th>
<th>2 (163)</th>
<th>3 (164)</th>
<th>4 (166)</th>
<th>5 (167)</th>
<th>6 (169)</th>
<th>7 (God) (177)</th>
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<td>Tale (3)</td>
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<td>Læse (4)</td>
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</table>

Q24 Jeg taler selv med en Dansk accent på engelsk.

- ☐ Helt uenig (1)
- ☐ Uenig (2)
- ☐ Delvist uenig (3)
- ☐ Hverken enig eller uenig (4)
- ☐ Delvist enig (5)
- ☐ Enig (6)
- ☐ Helt enig (7)
Q25 Jeg synes det er vigtigt, at folk taler uden udenlandsk accent på engelsk.

- Helt uenig (1)
- Uenig (2)
- Delvist uenig (3)
- Hverken enig eller uenig (4)
- Delvist enig (5)
- Enig (6)
- Helt enig (7)

Q26 Udfyld venligst de følgende personlige oplysninger.

Dit køn

- Mand (1)
- Kvinde (2)
- Andet (3)

Q27 Din alder

Q28 Din nationalitet

Q29 Dit modersmål
Q30 Din nuværende status

- Studerende (1)
- I arbejde (2)
- Arbejdsløs (3)
- Pensioneret (4)

Q31 Samlede antal år du har været ansat eller i arbejde (både fuldtid, deltid og studiejob).

_________________________________________________________________________

Q32 Samlede antal år du har haft en lederfunktion på dit arbejde.

_________________________________________________________________________

Q33 Vejledning:
Denne afsluttende del af vores spørgeskema er en kort sprogtest på engelsk.
Testen består af 60 enheder, der hver består af forskellige bogstavsammensætninger. Din opgave er at vurdere hvorvidt denne sammensætning er et eksisterende ord på engelsk eller ej. Hvis du mener ordet findes på engelsk skal du klikke "Ja". Hvis du ikke mener ordet findes på engelsk skal du klikke "Nej".
Hvis du er sikker på at ordet findes på engelsk, men ikke kender til ordets betydning, skal du stadigvæk klikke "Ja". Hvis du er usikker på om ordet findes, skal du klikke "Nej".
I dette eksperiment benyttes britisk engelsk stavning frem for amerikansk engelsk. Det betyder at der vil stå "realise" i stedet for "realize" og "colour" i stedet for "color". Lad venligst ikke den stavemetode forvirre dig, da formålet ikke er at identificere sådanne forskelle. Du har al den tid du ønsker til at tage din beslutning vedrørende hvert enkelt ord. Det forventes at denne del vil tage omkring 5 minutter at fuldføre.

The words as used in the Lextale test were the same in all three questionnaires. In order to see them, please take a look at Dutch questionnaire.

Master Thesis questionnaire native English

Q1 You are invited to participate in a research project which is being conducted by students from the Radboud University. This online questionnaire will take approximately 10 minutes to complete. Your participation in this research study is voluntary and you may withdraw at any time. The data collected will be made fully anonymous.

INSTRUCTIONS:
You will be asked to listen to one audio fragment of about 30 seconds. The speech is from a manager in a large multi-national company, who has given a short speech during the company's annual employee meeting.
CONSENT:
• you have read the above information
• you voluntarily agree to participate
• you are at least 18 years old

If you agree with these statements and wish to participate in this research study, please continue. If you do not wish to participate in the research study, please close your browser.

Thank you in advance for helping us with our research.

Q2 Please listen to the audio fragment and select the answers to the three questions below you think are correct.

Q3 Please listen to the audio fragment and select the answers to the three questions below you think are correct.

Q4 Please listen to the audio fragment and select the answers to the three questions below you think are correct.

Q5 What is the speaker *constantly evaluating*?

- employees (1)
- performance (2)
- effectiveness (3)
- lunch breaks (4)
Q6 What is the goal of the company?

- to deliver important and significant results (1)
- to deliver important and relevant results (2)
- to deliver useful and significant results (3)
- to deliver useful and relevant results (4)

Q7 Who will the company create increasing value for?

- all their suppliers (1)
- all their customers (2)
- all their stakeholders (3)
- all their managers (4)

Q8 In this part of the survey, you will be asked several questions about the speaker and the audio fragment.

Q9 The speaker was easy to understand.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)
Q10 I understood every word the speaker said.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q11 I understood the message in the fragment.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)
<table>
<thead>
<tr>
<th>Q12 This person...</th>
<th>Strongly disagree (1)</th>
<th>Disagree (2)</th>
<th>Somewhat disagree (3)</th>
<th>Neither agree nor disagree (4)</th>
<th>Somewhat agree (5)</th>
<th>Agree (6)</th>
<th>Strongly agree (7)</th>
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</thead>
<tbody>
<tr>
<td>Sounds natural (1)</td>
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<td>Sounds monotonous (2)</td>
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<td>Has a pleasant voice (3)</td>
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<td>Q13 I think this person speaks...</td>
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<td>Very slow (1)</td>
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<td>Slow (2)</td>
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<td>Somewhat slow (3)</td>
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<td>Average (4)</td>
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<td>Somewhat fast (5)</td>
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<td>Fast (6)</td>
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<td>Very fast (7)</td>
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<tr>
<td>Q14 This person sounds...</td>
<td>Strongly disagree (1)</td>
<td>Disagree (2)</td>
<td>Somewhat disagree (3)</td>
<td>Neither agree nor disagree (4)</td>
<td>Somewhat agree (5)</td>
<td>Agree (6)</td>
<td>Strongly agree (7)</td>
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<td>Competent (1)</td>
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<td>Self-confident (2)</td>
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<td>Intelligent (3)</td>
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<td>Nice (4)</td>
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<td>Sympathetic (5)</td>
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<td>Clear (6)</td>
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<tr>
<th>Q15 This person sounds...</th>
<th>Strongly disagree (1)</th>
<th>Disagree (2)</th>
<th>Somewhat disagree (3)</th>
<th>Neither agree nor disagree (4)</th>
<th>Somewhat agree (5)</th>
<th>Agree (6)</th>
<th>Strongly agree (7)</th>
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<tr>
<td>Impolite (1)</td>
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<td>Unfriendly (2)</td>
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<td>Lazy (3)</td>
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<td>Cold (4)</td>
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<td>Unreliable (5)</td>
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<td>Aggressive (6)</td>
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<tr>
<td>Q16 This person sounds...</td>
<td>Strongly disagree (1)</td>
<td>Disagree (2)</td>
<td>Somewhat disagree (3)</td>
<td>Neither agree nor disagree (4)</td>
<td>Somewhat agree (5)</td>
<td>Agree (6)</td>
<td>Strongly agree (7)</td>
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<td>Lively (1)</td>
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<td>Gentle (2)</td>
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<td>Full on energy (3)</td>
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<tr>
<th>Q17 This person sounds...</th>
<th>Strongly disagree (1)</th>
<th>Disagree (2)</th>
<th>Somewhat disagree (3)</th>
<th>Neither agree nor disagree (4)</th>
<th>Somewhat agree (5)</th>
<th>Agree (6)</th>
<th>Strongly agree (7)</th>
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<tr>
<td>Determined (1)</td>
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<td>Decisive (2)</td>
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<td>Team-oriented (3)</td>
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<td>Risk taking (4)</td>
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<td>Motivated to lead (5)</td>
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<td>A good communicator (6)</td>
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</tbody>
</table>
Q18 This person has...

<table>
<thead>
<tr>
<th>A high status (1)</th>
<th>Strongly disagree (1)</th>
<th>Disagree (2)</th>
<th>Somewhat disagree (3)</th>
<th>Neither agree nor disagree (4)</th>
<th>Somewhat agree (5)</th>
<th>Agree (6)</th>
<th>Strongly agree (7)</th>
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</table>

Q19 This speaker has a strong foreign accent in his English.

- [ ] Strongly disagree (1)
- [ ] Disagree (2)
- [ ] Somewhat disagree (3)
- [ ] Neither agree nor disagree (4)
- [ ] Somewhat agree (5)
- [ ] Agree (6)
- [ ] Strongly agree (7)

Q20 This speaker sounds like a native speaker of English

- [ ] Strongly disagree (1)
- [ ] Disagree (2)
- [ ] Somewhat disagree (3)
- [ ] Neither agree nor disagree (4)
- [ ] Somewhat agree (5)
- [ ] Agree (6)
- [ ] Strongly agree (7)

Q21 Which country do you think this speaker is from?

__________________________________________________________________________
Q22 I am very familiar with the accent of the speaker in the fragment.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q23 Please indicate your own English proficiency on the scales from 1 to 7 (1 = bad, 7 = good).

<table>
<thead>
<tr>
<th>Writing skills (1)</th>
<th>1 (Bad) (1)</th>
<th>2 (2)</th>
<th>3 (3)</th>
<th>4 (4)</th>
<th>5 (5)</th>
<th>6 (6)</th>
<th>7 (Good) (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening skills (2)</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Speaking skills (3)</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Reading skills (4)</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>
Q24 I have a non-native accent in my English.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q25 I think it is important for people to sound like a native speaker when they speak English.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q26
Please fill out the following information about yourself.
Your gender

- Male (1)
- Female (2)
- Other (3)

Q27 Your age
Q28 Your nationality
________________________________________

Q29 Your own native language
________________________________________

Q30 Your current living status

○ Student (1)
○ Employed (2)
○ Non-employed (3)
○ Retired (4)

Q31 Number of years you have been employed in total (Full-time, Part-time or student job).  
________________________________________

Q32 Number of years you have worked as a leader in total.
________________________________________

Q33 Instruction:
This final part of the questionnaire is a short language test in English.

This test consists of about 60 trials, in each of which you will see a string of letters. Your task is to decide whether this is an existing English word or not. If you think it is an existing English word, you click on "yes", and if you think it is not an existing English word, you click on "no". If you are sure that the word exists, even though you don't know its exact meaning, you may still respond "yes". But if you are not sure if it is an existing word, you should respond "no".

In this experiment, we use British English rather than American English spelling. For example: "realise" instead of "realize"; "colour" instead of "color", and so on. Please don't let this confuse you. This experiment is not about detecting such subtle spelling differences anyway. You have as much time as you like for each decision.

This part of the experiment will take about 5 minutes.

The words as used in the Lextale test were the same in all three questionnaires. In order to see them, please take a look at Dutch questionnaire.
Pretest questionnaire

Q1 You are invited to participate in a research project which is being conducted by
students from the Radboud University. This online questionnaire will take approximately 25
minutes to complete. Your participation in this research study is voluntary and you may
withdraw at any time. The data collected will be made fully anonymous.

INSTRUCTIONS:
You will be asked to listen to ten audio fragments of 30 to 45 seconds each. You are allowed
to listen to the fragments more than once if necessary. After each fragment, you will be asked
to evaluate the speakers on their voice characteristics by answering eight questions. As we are
merely interested in your opinion, there are no wrong or right answers. At the end of the
questionnaire you will be asked to answer some background questions. You can take as long
as you like to answer each question, there is no time limit.
Should you want more information on the research project, please feel free to contact the
students at jeppe.houbak@student.ru.nl or lv.riemsdijk@student.ru.nl.

CONSENT: • you have read the above information • you voluntarily agree to participate •
you are at least 18 years old If you agree with these statements and wish to participate in this
research study, please continue. If you do not wish to participate in the research study, please
close your browser. Thank you in advance for helping us with our research.
Q2 Please listen to audio fragment 1 and indicate your answers to the questions on the scales below.

For all 10 audio fragments, eight of the same questions were proposed. Q3 – Q91 are ten times the following eight questions.

Q3 This speaker has a strong foreign accent in English.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)
Q4 This speaker sounds like a native speaker of English.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q5 What country does this speaker come from?

________________________________________________________________

Q6 This speaker sounds natural.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)
Q7 This speaker sounds monotonous.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q8 This speaker has a pleasant voice.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)
Q9 This speaker has a loud voice.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q10 This speaker speaks...

- Extremely slow (1)
- Moderately slow (2)
- Slightly slow (3)
- Average (4)
- Slightly fast (5)
- Moderately fast (6)
- Extremely fast (7)

Q92 Please provide the following information:

Q93 Age

________________________________________________________________
Q94 Gender

☐ Male (1)

☐ Female (2)

☐ Other (3)

Q95 Nationality