The impact of non-native accentedness on evaluations of job applicants

Radboud Universiteit Nijmegen

Bachelor Thesis

Katarzyna Ciok

Table of Contents

Abstract

In the present day, the workplace is becoming increasingly more international. As a consequence, several issues arise in the professional environment, one of them being different forms of discrimination. Accents, just as other cues that help to determine the origin of an individual, can influence speaker evaluations and form the basis for bias and discrimination. Nevertheless, the relationship between accentedness and speaker evaluations is complex. Thus, the present study attempted to establish whether non-native accentedness influences evaluations of job applicants during an interview for an HR position and whether the potential negative effect can be reduced by employing *prejudice control*, i.e., by informing listeners about the bias in speaker evaluations that non-native accentedness may cause. In order to achieve this goal, an experiment was conducted, in which 122 Dutch participants evaluated a job applicant speaking English with either native British or French accent (with or without prejudice control). The speakers were evaluated on their suitability for the job and along three other dimensions, namely, dynamism, status and solidarity. The results show that the non-native speaker was evaluated as positively as the native speaker on a scale that assessed the applicant's suitability for the job. Furthermore, it was found that the more similar the participants perceived the speaker to be to themselves, the more positive were these evaluations. No difference was found between the native and the non-native speaker with regard to status and solidarity ratings. Since no difference in evaluations was found, it was not possible to test whether the prejudice control method is effective. The findings seem to contradict numerous studies that report negative effects of non-native accentedness on speaker evaluations across the different dimensions included in this study. In addition, they suggest that the relationship between accentedness and evaluations is influenced by the perceived similarity of the listener to the speaker.

Key words: accentedness, non-native accent, speaker evaluation, discrimination, job interview, workplace.

Introduction

As a result of globalization, migrations and development of communication technologies, interactions between native (NS) and non-native speakers (NNS) of different languages have become highly prevalent. Moreover, people with different linguistic backgrounds frequently communicate in a language that is not the native language for either of them, and this language

is often English. Although it is not possible to provide the exact number of English speakers, both native and non-native, approximately one out of four people in the world are able to communicate in English (Crystal, 2003). English is considered a *global lingua franca* and is used in many intercultural encounters; its importance is particularly remarkable in international business (Tietze, 2004). It should be noted that besides serving as a tool for communication with external stakeholders, English also plays a crucial role *within* organizations. The study by Harzing & Pudelko (2013) showed that in almost all multinational companies (MNCs) from Anglophone and Nordic countries, and 89% of MNCs from continental Europe, English is used as their corporate language. This widespread use of English, besides its evident benefits and usefulness, also poses a threat, mostly to those who are not native speakers, even if their English proficiency is high. The reason for that is that most non-native speakers display a non-native accent, which is usually easily noticeable and is often present even after having spent years in the country where the language is spoken (Flege, Munro & MacKay, 1995). Research shows that listeners are highly sensitive to accents and skilled at distinguishing native speech from non-native speech, and astonishingly, even when the speech recording is played backwards (Derwing & Munro, 2009). These results show that non-native accentedness is indeed a salient characteristic in one's speech. This salient characteristic has been proven to negatively impact non-native speakers as individuals speaking with a non-native accent are generally evaluated less favourably than those who speak with native accents (Fuertes, Gottdiener, Martin, Gilbert, & Giles, 2012). Furthermore, they tend to be victims of various forms of discrimination in different contexts, including employment (Derwing & Munro, 2009; Timming, 2017; Massey & Lundy, 2001). The growing importance of English in business setting and the damaging effect that having a non-native accent may have on an individual stresses the importance of studies on accentedness in the workplace. Consequently, the goal of this study is to contribute to the existing research on accentedness by examining the effect of non-native accentedness in job hiring context and determining whether this effect can be reduced by making listeners aware of the bias that may be caused by accented speech.

Accent as a cue

Everyone can be considered to be speaking with an accent, even native speakers of a given language. For instance, when an American speaker of English listens to a British person, they may recognize their accent as different from their own, even though they are both native speakers of English. Keeping that in mind, *accent* can be defined as a manner of pronunciation that deviates from the standard language spoken in a given country or region (Lippi-Green,

2012). As mentioned earlier, listeners easily make distinction between native and non-native speech (Derwing & Munro, 2009). Furthermore, it has been shown that L2 language speakers still have a non-native accent even after spending years in a country where the language is spoken (Flege et al., 1995). Thus, even after years of practice and exposure to a given language, it is easy for others to recognize that an individual is not a native speaker. This information, just like skin colour or any other cues that help determine the origin of a speaker, may lead to discrimination in various contexts, for example, in housing (Massey & Lundy, 2001; Purnell, Idsardi & Baugh, 1999) or employment (Timming, 2017).

Social categorization and similarity attraction

Two concepts are worth discussing in order to better understand the mechanisms behind the impact of accentedness on speaker evaluations, namely, social categorization and similarity attraction theory. Social categorization is a mental process by which a 'target person' is assigned to a social category based on prior knowledge and experiences (Fiske & Neuberg, 1990). This process of social categorization is of great importance due to the limited cognitive resources that individuals have at their disposal (Fiske & Neuberg, 1990). It is easier and faster for a perceiver to use previous information, including stereotypes, to make inferences about individuals by assigning them to pre-existing groups that they already have some prior knowledge about (Fiske & Neuberg, 1990). As explained earlier, accents are salient cues that help determine origin of a speaker. Therefore, individuals are likely to be assigned to certain categories just on the basis of their speech. Despite the advantages that social categorization brings to mental processes, this naturally occurring process also brings disturbing and problematical consequences, such as prejudice and discrimination (Fiske & Neuberg, 1990). Nevertheless, according to Nesdale & Rooney (1996), the impact of accents on speaker evaluations may depend on the certainty that a listener has with regard to the speaker's group membership. Thus, whether, or to what degree, prejudice or discrimination occur may depend on whether the listener is certain what is the speaker's origin, or native language.

Similarity attraction theory states that increased perceived similarity of an individual to another individual (with regard to various aspects such as personality traits, attitudes or values) has a positive influence on attraction (Byrne, 1971). Therefore, a decrease in perceived similarity, on the basis of an individual being assigned to a group that one perceives as different from their own, may result in a biased, more negative, evaluation of the individual. This theory highlights the need for distinction between listeners of the same or different linguistic background as the

speaker, since non-native speakers may be evaluated more positively by listeners of the same origin who might perceive them as more similar to themselves. Nevertheless, it has to be noted that the opposite may occur, namely, listeners may feel *vicarious shame* when non-native speakers with whom they share linguistic background speak a foreign language with an undesirable accent (Schmader & Lickel, 2006).

Understandability

As accentedness means that the speech deviates, to a certain degree, from the standard pronunciation, it is rational to assume that such speech may be more difficult to understand. Thus, it might be the case that non-native speakers are evaluated more negatively because it is more difficult for listeners to understand them. In addition, it is essential to distinguish between the effects of accents and the effects of understandability. As shown by Creese and Kambere (2003), accents influence perceptions of language proficiency. As a result, even highly fluent non-native speakers may be downgraded as listeners do not differentiate between accent and real communication skills.

The impact of accented speech

Non-native accent is a salient cue that influences perceptions and attitudes towards the speaker, and this influence is generally negative. This claim was confirmed by a meta-analysis of 20 studies which demonstrated that speakers with a native accent are evaluated more positively than those who speak English with various non-native accents across three different dimensions, namely status, solidarity and dynamism (Fuertes et al., 2012). These three dimensions have been identified and frequently applied in research on accentedness and they are based on a number of more specific characteristics (Śliwa & Johansson, 2014; Fuertes et al., 2012; Giles & Billings, 2004). First of all, *status* is based on evaluations of characteristics such as confidence, intelligence or social class (Śliwa & Johansson, 2014). *Solidarity* encompasses, among others, attractiveness, similarity to the listener and trustworthiness (Śliwa & Johansson, 2014). Lastly, *dynamism* is based on characteristics such as enthusiasm, talkativeness or liveliness (Śliwa & Johansson, 2014). According to Fuertes et al. (2012), this negative effect of accentedness results in native speakers having a substantial advantage over speakers with a non-native accent in settings such as education, employment, and sales. Furthermore, it has been shown that the size of the accent effect varies across contexts and that it has the biggest impact in formal contexts, such as employment or sales (Fuertes et al., 2012).

These findings together with the growing importance of foreign languages in business again emphasize the need for further research on accentedness within the workplace. However, before discussing existing research on non-natively accented speech, it is important to differentiate between two types of studies. Firstly, the studies focusing on the evaluations and attitudes towards non-native accents held by native speakers (NS-NNS) of the language, and secondly, by those who are also non-native speakers (NNS-NNS). Within the second type of studies, as mentioned before, a distinction can be made between those in which the listeners and the speakers share the same linguistic background and those in which they do not. Previous studies of those different types, with a focus on findings within business and employment context, will be discussed below.

NNS evaluations by NS

A common approach in studies on accentedness is comparing evaluations and attitudes of native speakers towards non-native speakers. One of these studies is that by Deprez-Sims and Morris (2010) who conducted an experiment in which native speakers of American English evaluated job applicants with French, Colombian and Midwestern-American accents. The authors found that native English speakers were evaluated more positively than the French speaker. In addition, it was shown that this effect was mediated by lower perceived similarity which the authors consider being consistent with the similarity attraction theory (Deprez-Sims & Morris, 2010). At the same time, there was no significant difference between Colombian accent and French or American accents which, according to the authors of the study, could have been caused by listeners not being able to recognize the origin of the Colombian speaker, and as a consequence, associations evoked by the accent were limited (Deprez-Sims & Morris, 2010). In another study, Tsalikis, DeShields, and LaTour (1991) demonstrated that salespersons speaking English with a Greek accent were evaluated more negatively by American listeners than native American-English speakers on competence, credibility, friendliness and intention to buy. It was also demonstrated that, in a phone sales context, British English native speakers evaluated native British speakers higher on status than those who spoke English with a Dutch accent (Nejjari, Gerritsen, Van der Haagen & Korzilius, 2012).

NNS evaluations by NNS

One could expect that a non-native speaker will be more tolerant towards accented speech, as they, very likely, also speak with a non-native accent. Nevertheless, research findings tend to

contradict this idea, at least in the case of moderately and strongly accented speech. According to Hendriks, Van Meurs and Reimer (2018), the evaluations of non-native speakers, as compared to native speakers, are less positive when the accent is moderate. However, in the case of slight non-native accents, the evaluations do not differ much from native speech (Hendriks et al., 2018). The same effect was also observed in a different study in which German, French and Spanish participants evaluated Dutch-accented and native English speech (Hendriks, Van Meurs & De Groot, 2017). It was found that Dutch speakers of English were evaluated more negatively than native speakers only when the non-native accent was strong (Hendriks et al., 2017). At the same time, Nejjari, Gerritsen, Van Hout and Planken (2020) conducted a study in which German, Spanish and Singaporean listeners evaluated Dutch-accented English, British English and American English and found that Dutch-accented English and native English (both American and British) were understood equally well. Furthermore, it was found that Dutch accented English resulted in equal, or even better, evaluations than L1 English accents (Nejjari et al., 2020). These findings seem to contradict the previously discussed studies, where only negative impact of non-native accents on speaker evaluations were reported, by showing that non-native accents do not necessarily lead to more negative evaluations. In addition to the strength of accent, there is another factor that should be considered, namely, linguistic backgrounds of the speaker and the listener. A study by Stibbard and Lee (2006) suggests that the effects of having a non-native accent on intelligibility (recognizing words) are more negative when listeners and the speaker have a different linguistic background. At the same time, other studies demonstrate that non-native listeners of the same linguistic background as the speaker also downgrade non-natively accented speech (Roessel, Schoel, Zimmermann & Stahlberg, 2019; Hendriks, Van Meurs & Hogervorst, 2016). These studies clearly show the importance of making a distinction between the evaluations made by listeners of the same or a different linguistic background than the speaker.

Reducing the impact of accentedness

Given the importance of the issues that emerge as a result of having a non-native accent, different perspectives with regard on how to deal with them have been proposed. One way to approach the problem of accent-based discrimination centres around the non-native speakers. Van Meurs, Hendriks and Planken (2012), proposed an awareness-raising course that would inform students on the potentially harmful impact of their accents and exercises that could help them reduce their non-native accentedness. This approach may not be so appropriate since non-native accents are easily noticeable and difficult to remove (Derwing & Munro, 2009). Non-

native accents have been found to be present even if the speaker started learning the language relatively early and even after spending years in the host country (Flege et al., 1995). Furthermore, Lindemann (2002) suggests that communication problems that arise in interactions with non-native speakers may be a result of listeners' negative attitudes, not non-native speakers' insufficient proficiency. The second approach, which focuses on the listeners, seems to be more adequate, at least in certain contexts. Roessel et al. (2019) show that the negative impact of a non-native accent on evaluations of job applicants may be reduced by simply making participants aware of the potential prejudice that may be caused by accents and by asking them to avoid basing their judgments on them. It was concluded that this intervention, named *prejudice control* in the study, is an effective way of minimizing the effects of accentedness in employment context (Roessel et al., 2019). This is in line with findings which suggest that when one is aware of their bias, they are more likely to attempt to reduce this bias and they are also more likely to consider subtle bias as an act of discrimination (Perry, Murphy & Dovidio, 2015). Based on these results, it seems reasonable to direct efforts to the listeners and their perceptions, rather than the speakers. The first step to do so can be raising listeners' awareness on the issue of prejudice and discrimination that may arise in response to non-native accents.

Present study

The goal of this study was to determine the effect of non-native accent on evaluations of job applicants. More specifically, how French-accented English speakers are evaluated, as compared to native British speakers, by Dutch listeners. Thus, NNS speakers of English (the French) were evaluated by NNS speakers of different linguistic background (Dutch), in a job hiring situation. In contrast to Roessel et al. (2019), the listeners in the current study did not have the same linguistic background as the non-native speaker of English. The French accent was chosen due to the relative geographical proximity between the Netherlands and France, as well as the French speaking part of Belgium. Geographical proximity, together with both countries being members of the EU, most likely results in frequent encounters between individuals with these linguistic backgrounds.

Listeners may have more or less negative attitudes towards accented speech, depending on the accent, thus, different accents and different backgrounds of both the speaker and the listener need to be investigated. As shown in Deprez-Sims and Morris (2010), French accented English speakers were evaluated more negatively than native American English speakers, while

Colombian speakers were not. Secondly, as shown by Roessel et al. (2019), in case of NNS evaluations by NNS of the same linguistic background, the effects of non-native accents can be reduced by making listeners aware of the bias that may be caused by accented speech. Despite the relative ease of employment of the prejudice control method, as well as its potential, it is a novel method and needs further investigation. This study will attempt to determine whether the intervention is indeed effective and whether it is also applicable to a context in which speakers and listeners do not have the same linguistic background. Furthermore, the study may help to increase the ecological validity of the method as the experiment will be conducted with individuals in hiring positions, in contrast to Roessel et al. (2019) whose participants were students. The research questions in this study are:

RQ1: *What is the impact of non-native accentedness on evaluations given to a job applicant by non-native listeners of a different linguistic background?*

    SQ1: *Is there a relationship between job suitability ratings given to a job applicant and perceived similarity of the listener to the speaker?*

    SQ2: *Is there a relationship between job suitability ratings given to a job applicant and understandability?*

    SQ3: *Is there a relationship between job suitability ratings given to a job applicant and perceived strength of an accent?*

RQ2*: What is the effect of non-native accentedness on status, solidarity and dynamism evaluations given to a job applicant by non-native speakers of a different linguistic background?*

RQ3: *Can the potential effect of non-native accentedness on evaluations given to a job be reduced by informing listeners about the bias that may be caused by accents?*

Method
Materials

There was one independent variable in the study, namely, accent condition. The different levels of the accent condition were French accented without prejudice control, French accented with prejudice control and standard British English.

The stimulus material consisted of two versions of a job interview audio recording, both conducted fully in English. The content of the two recordings was exactly the same (see

Appendix A) and they were both about 2 and a half minutes long. The job interview transcript was taken from *Learn English* website that belongs to British Council (*A Job Interview*, 2020). Some changes were made in the original transcript to ensure that the job applicant speaks more than the interviewer and to make the recording shorter. In both versions the job applicant was a female and the interviewer a male in to ensure that the participants could easily distinguish between the speakers and thus focus better on the job applicant. With regard to the differences between the recordings, in one version the job applicant was be a native speaker of English, while in the second version, a native speaker of French. To avoid confounding variables, such as voice characteristics, it had to be ensured that the two recordings used in the study are as similar as possible. Thus, for each language, two speakers were found and a total of four audio files was recorded: two with native English speakers and two native French speakers. Then, on the basis of the researchers' judgment, a pair of best matching recording was chosen, accounting for voice characteristics and articulation rate.

With regard to prejudice control, the variable was only manipulated for participants that listened to the version with French accented job applicant, as it was not be sensible to evaluate the influence of prejudice control on potential prejudice caused by non-natively accented speech for native speakers of English. Therefore, there were two groups listening to the recording with French accented speech. Among them, one group was be presented with a text, serving as a prejudice control, before listening to the recording. The prejudice control text (see Appendix C) was written on the basis of information given in Roessel et al. (2019).

Before conducting the main experiment, a pre-test was conducted in order to confirm that the accents of the British and the French speaker were strong enough for them to be recognized as a native/non-native speaker and to determine whether participants could correctly identify the origin of the job applicants. 33 Dutch students of Radboud University participated in the pre-test, out of which one participant had to be excluded as their response was not understandable. The pre-test had a within-subject design and was conducted online through Qualtrics. They subjects listened to the recordings and answered two questions about each of the job applicants, one about their accent and one about their origin. The questionnaire used for the pre-test can be found in Appendix D.

The results of the pretest (n = 32) showed that the accent of the British English speaker was correctly recognized as native by 23 (71.9%) participants. The French accent, on the other

hand, was correctly recognized as non-native by 31 (96.9%) participants, 15 (46.9%) of whom had also recognized that the native language of the job applicant was French. Other most common answers regarding the native language of the French speakers were Spanish (9.4%) Czech (6.3%), German (6.3%), Hindi (6.3%).

Subjects

As the goal of the study is to investigate evaluations of French accented English speech by the Dutch, the survey was directed at native Dutch speakers. Other important characteristics of the participants were: proficiency in English (as the survey and the speech samples were fully in English) and having experience in job hiring process, as the one who interviewed or hired an applicant.

In total, 122 subjects participated in the study, 2 of whom had to be excluded from the analyses due to extremely short response duration (under 90 seconds). Thus, data of 120 participants was analysed (Native English: n = 34, French Prejudice Control: n = 44, French No Prejudice Control: n = 42), 54.2% of whom were men and 45.8% women. The subjects were between 19 and 68 years old (M = 42.07, SD = 14.34). The education level of the subjects varied from secondary education to doctorate, and the most frequently reported level of education was bachelor's degree (HBO, WO) (59%).

To determine whether the three conditions were comparable, a series of test was conducted. A one-way analysis of variance showed no significant effect of condition on age (F (2, 117) = .97, p = .381). Chi square tests showed that there was no significant relation between gender and condition (χ^2(2) = .37, p = .832), nor between education level and condition (χ^2(10) = 9.90, p = .45). Another one-way analysis of variance did not show a significant effect of condition on level of English proficiency (F (2, 117) = 1.24, p = .293). Lastly, a chi square test showed that there was no significant relation between experience in hiring a foreign applicant and condition (χ^2(2) = 2.12, p = .347). Thus, it could be concluded that the different conditions did not differ with regard to the described characteristics.

Design

The study had a 3x1 between-subjects design, therefore, each participant was exposed to only one level of the independent variable. For the reason mentioned earlier, the prejudice control variable was only applied in case of participants listening to French accented speech. Therefore,

there were three different accent conditions: native English speech (n = 34), French accented English speech without prejudice control (n = 42) and French accented English speech with prejudice control (n = 44).

Instruments

In order to compare the evaluations of job applicants in those three conditions, a questionnaire was used. The participants were first presented with information about the authors of the study, the general topic ("evaluations of job applicants"), how the results would be used and that their participation was anonymous. After that, in order to ensure that they meet all the required criteria, the participants were asked about their native language, their nationality and whether they had experience in job hiring process. If even one of those criteria was not fulfilled, the participants were thanked for their participation and the survey ended. It was important to exclude native Dutch speakers of different nationality in order to rule out influence of other variables, for example, due to the fact that in Belgium, Dutch and French are both official languages, the exposure of Belgian speakers of Dutch to French accented speech and French language in general could result in better evaluations. If all criteria were met, the key part of the questionnaire started.

The key part of the questionnaire consisted of one version of the recording followed by several questions regarding the perception and attitude of a participant towards the job applicant, as well as some questions regarding the participant themselves (demographic questions, self-assessed level of English and experience in job hiring process). In the case of the prejudice control group, before listening to the recording, the participants were also presented with a text on the influence of accentedness on evaluations (see Appendix C). The questions regarding the evaluation of the job applicant were based on the questionnaire used by Deprez-Sims and Morris (2010) in their research, with some adjustments. Therefore, the participants were first presented a series of 7-point Likert scale evaluative statements (1 meaning *strongly disagree*, 7 meaning *strongly agree*) which assessed the suitability of the applicant for the position, for example, *I would be satisfied if the applicant was hired,* and *I feel favourable toward the applicant*. The reliability of the scale comprising of 6 elements was good: α = .93, thus, it was possible to create a new variable, *job suitability total*. Then, they were presented with 9 statements with semantic differential scales, 3 for status, 3 for solidarity and 3 for dynamism. The reliability of 'status' comprising of 3 elements was good: α = .90, therefore, new variable, *status total* was created. The reliability of 'solidarity' comprising of 3 elements was acceptable:

α = .75, which also allowed for creation of a new variable, named *solidarity total*. Lastly, the reliability of 'dynamism' comprising of 3 elements was unacceptable: α = .41. As a consequence, the scale was excluded from further analyses. Next, the subjects answered questions about similarity, understandability and accentedness, also adapted from Deprez-Sims and Morris (2010). These questions were important due to previously mentioned similarity attraction theory and to control for the effect of understandability. Furthermore, as discussed earlier, strength of an accent can also have influence on the evaluations, for that reason, participants were asked about the extent to which the job applicant's speech is accented. The full questionnaire can be found in the Appendix B.

Procedure

Potential participants were recruited using a snowball sampling. In other words, acquaintanceships of the researchers were asked to participate in the study and to possibly share the survey with their friends or co-workers. In addition, the survey was posted on LinkedIn.com and Facebook. The survey was conducted online, through Qualtrics website, and subjects participated in it individually. As mentioned earlier, at the beginning of the survey subjects were informed about who are the researchers, the general aim of the study and anonymity of their responses. There were no rewards offered for participation, nor were the subjects debriefed at the end of the experiment. The questionnaire, on average, took 6 minutes and 45 second to complete.

Statistical treatment

In order to answer the research question, a number of statistical tests were run, more specifically, multiple one-way ANOVAs and correlation analyses.

Results

Job suitability, status and solidarity

A one-way analysis of variance showed no significant effect of condition on job suitability rating (F (2, 117) = 3.05, p = .051). To test whether status evaluations differed between conditions, also a one-way analysis of variance was performed. The results showed no significant effect of condition on status evaluations (F (2, 117) = 2.66, p = .074). Another one-way analysis of variance showed a significant effect of condition on solidarity evaluations (F

(2, 117) = 3.73, *p* = .027). Solidarity ratings given in the French with prejudice control condition (*M* = 4.92, SD = .99) were higher than the ratings given in the French without prejudice control condition (*M* = 4.25, *SD* = 1.23; *p* = .022, Bonferroni correction). There was no significant difference between solidarity ratings given to Native English speaker and French speaker without prejudice control (*p* = .642, Bonferroni correction), nor between Native English and French with prejudice control (*p* = .572, Bonferroni correction). The descriptive statistics can be found in Table 1.

Perceived similarity, understandability and accent strength

To test whether the perceived similarity differed between the conditions, a one-way analysis of variance was conducted. The results showed a significant effect of condition on perceived similarity (*F* (2, 117) = 3.31, *p* = .040), however, post-hoc comparisons with Bonferroni correction did not show significant differences between the groups. This difference might be explained by the fact that Bonferroni correction adjusts the probability values depending on the number of comparisons. In this way it decreases the likelihood of committing the Type I error (false positive). Thus, it was assumed that there was no effect of condition on perceived similarity. Another one-way analysis of variance showed no significant effect of condition on understandability (*F* (2, 117) = 1.65, *p* = .198)**.**

With regard to perceived accent strength, a one-way analysis of variance showed a significant effect of condition (*F* (2, 117) = 15.68, *p* < .001). The native English speech (*M* = 3.88, *SD* = 1.47) was rated as less strongly accented (*p* < .001, Bonferroni correction) than French accented speech without prejudice control (*M* = 5.48, *SD* = 1.02) and French accented speech with prejudice control (*M* = 4.95, *SD* = 1.26; *p* = .001, Bonferroni correction). There was no significant difference with regard to accent strength ratings between French with prejudice control condition and French without prejudice control condition (*p* = .165, Bonferroni correction). The descriptive statistics are given in Table 1.

Table 1. Means and standard deviations (between brackets) for job suitability, status, solidarity, perceived similarity, understandability and accent strength by condition

	Accent condition		
	Native English	French with prejudice control	French without prejudice control
	n = 34	n = 44	n = 42
	M (*SD*)	*M* (*SD*)	*M* (*SD*)
Job suitability	4.95 (.95)	4.95 (.99)	4.44 (1.23)
Status	5.29 (1.11)	5.61 (.82)	5.03 (1.45)
Solidarity	4.58 (1.16)	4.92 (.99)	4.25 (1.23)
Similarity	3.56 (1.71)	3.64 (1.35)	2.88 (1.38)
Understandability	2.97 (1.92)	2.73 (1.47)	3.38 (1.70)
Accent strength	3.88 (1.47)	4.95 (1.26)	5.48 (1.02)

Correlation job suitability and perceived similarity, job suitability and accent strength

A significant positive correlation was found between job suitability ratings and perceived similarity (r_s (120) = .45, $p < .001$). The subjects who perceived the job applicant as more similar to themselves were shown to give them more positive job suitability evaluations. However, no significant correlation was found between job suitability ratings and perceived strength of accent (r_s (120) = -.10, $p = .259$), nor between job suitability and understandability (r_s (120) = .10, $p = .272$).

Discussion and Conclusion

Even though research tends to agree that speakers who have a non-native accent are evaluated more negatively than native speakers, this effect was not found in this study. First of all, in contrast to the findings of Deprez-Sims and Morris (2010), the French speaker

was not evaluated more negatively than the native speaker on the hiring scale that assessed the job applicant's suitability for the job. It might have been due to the fact that in their study the listeners perceived the French speaker as less similar to themselves than the native speaker, as well as less understandable than the native speaker (Deprez-Sims and Morris, 2010). In the current study, on the other hand, the subjects perceived the English and the French speaker as equally similar to themselves and they found them equally understandable. Moreover, it was found that there was a relationship between perceived similarity and job suitability ratings. Specifically, the more similar the listener perceived the speaker to be to themselves, the more positive were the job suitability ratings they gave them. This finding is in line with similarity attraction theory (Byrne, 1971) since increased perceived similarity resulted in more attraction which translated into better evaluations. Thus, it appears that it was the perceived similarity to the speaker that influenced the evaluations, not the accent itself.

Secondly, the fact that no difference was found between the evaluations of the native and non-native speakers, in terms of status and solidarity, is in contrast with the extensive meta-analysis conducted by Fuertes et al. (2012). Solidarity ratings given to the French applicant were higher when the listeners were presented with the prejudice control text before listening to the recording, however, there was no difference between the ratings given to the native English speaker and the French speaker (with or without prejudice control). Thus, since no difference was found between the English speaker and the French speaker in either of the conditions, it was not the non-native accent that had an impact on the solidarity ratings. Perry et al. (2015) found that individuals attempt to reduce their bias when they are aware of having it. Therefore, it is possible that after reading the prejudice control text, the participants were aware that their evaluations might be biased. This in turn, caused them to give the French speaker higher ratings than the ones given by participants in the condition without prejudice control. At the same time, the fact that there was no difference with regard to the speakers' status evaluations is in line with the study of Nejjari et al. (2020), as in that study non-native speakers of English were also evaluated as positively as native speakers on this dimension.

Furthermore, the native English speech was rated as less strongly accented than French-accented speech, both with and without prejudice control. However, despite the difference in perceived accent strength, the applicants were not evaluated differently on job suitability, nor solidarity and status. Hendriks et al. (2018) and Hendriks et al. (2017) show that only moderate/strong non-native accents result in more negative evaluations as compared to native

accents. Therefore, a possible explanation is that the French accent was not strong enough to impact the evaluations. This explanation seems to be likely, even though the ratings given to the French job applicant on the scale evaluating their accent strength suggest that the speech was perceived as moderately/strongly accented. It could be explained by the fact that on this semantic differential scale, with *native* on one end and *strongly accented* on the other, the accent strength ratings given to the native speaker were much closer to the middle of the scale rather than to the *native* end. Despite the fact that the points on the scale are abstract, it is reasonable to assume that scores in the middle of the scale should indicate a slight or moderate accent. Nevertheless, since the native speech was given ratings close to the middle of the scale, the interpretation of the scores needs to be adjusted. In other words, one needs to account for the fact that the distance between the score indicating *native* and the *strongly accented* end is reduced. Keeping that in mind, the scores given to the French speaker are more likely to indicate a slight, rather than a moderate/strong accent.

There is another factor that might have influenced the results. In the pretest, only about half of the participants correctly recognized that the native language of the speaker was French, while research shows that the impact of a foreign accent may depend on the level of certainty of the speaker's group membership (Nesdale & Rooney, 1996). Deprez-Sims and Morris (2010) also showed that the negative effect of a non-native accent may depend on whether the listener can recognize the origin of the speaker, as only then certain associations may be evoked. Thus, it is possible that the evaluations (job suitability, status and solidarity) did not differ between the groups because the listeners were not certain of the French speaker's native language.

The present study clearly had important strengths, the most important of them being that the participants were individuals with experience in the job hiring process. Thus, due to age and experience, the findings might be more valid than in the case of most studies in which usually only students participate. Nevertheless, some limitations also need to be discussed. First of all, despite the attempt to choose the best matching pair of recordings, it is possible that there were some differences between the speakers, such as voice characteristics, which might have influenced the results. Secondly, the recordings did not sound completely natural, which was hard to avoid keeping in mind that the speakers were reading a job interview transcript. Furthermore, although the study controlled for understandability, it was measured with only one question and the participants assessed it themselves. It is possible that the degree to which the listeners really understood the speakers might have differed or that their responses were

influenced by social desirability bias. In other words, they did not want to admit that they had difficulties understanding a speaker to avoid feeling incompetent in English.

In the future, research on accentedness and speaker evaluations could benefit from studies that, in addition to explicitly asking for evaluations, would also attempt to uncover implicit attitudes. This could be done, for example, by employing the Implicit Association Test (IAT) which is a method for uncovering attitudes that people are not aware of or are not willing to share (Greenwald, McGhee & Schwartz, 1998). It is possible that listeners, when explicitly asked to evaluate a speaker, respond more positively because of social desirability bias. In other words, they respond in a way they believe is desirable or socially acceptable. For instance, they may avoid reporting negative attitude towards immigrants to avoid being perceived as intolerant or racist. Thus, by studying implicit attitudes more insight could be gained on the impact of accented speech. Furthermore, to the author's knowledge, the existing research is almost entirely based on the English language. Therefore, the effects of speaking with an accent in languages other than English need to be studied. It might be the case that the findings will differ for various reasons, for example, because people may be more accustomed to hearing non-natively accented English than other languages due to the pervasiveness of English in today's globalized world.

While the subject of discrimination based on race or gender has been receiving some attention, the issue of non-native accentedness is being neglected. Due to the increasing prominence of English, especially in business settings, it is crucial to gain more understanding of how non-native accents influence speaker evaluations and how the potential negative effects can be reduced. The current investigation attempted to contribute to the existing research and, in contrast to many studies, the findings offer a more optimistic view on the issue of discrimination and prejudice as triggered by non-native accents. Nevertheless, it does not mean that the issue is not as serious, it simply implies that the relationship between accentedness and speaker evaluations is complex and that there are plenty of factors that influence it. Thus, more research is needed to understand this relationship as well as on how to reduce the negative effects of accentedness that tend to be found.

Reference list:

A job interview. (2020, May 14). British Council.

      https://learnenglish.britishcouncil.org/skills/listening/advanced-c1/a-job-interview

Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.

Creese, G., & Kambere, E. N. (2003). What colour is your English?. *Canadian Review of Sociology/Revue canadienne de sociologie*, *40*(5), 565-573.

Crystal, D. (2012b). *English as a Global Language (Canto Classics)* (2nd ed.). Cambridge University Press.

Deprez-Sims, A.-S., & Morris, S. B. (2010). Accents in the workplace: Their effects during a job interview. *International Journal of Psychology*, *45*(6), 417–426. https://doi.org/10.1080/00207594.2010.499950

Derwing, T. M., & Munro, M. J. (2009). Putting accent in its place: Rethinking obstacles to communication. *Language teaching*, *42*(4), 476.

Fuertes, J. N., Gottdiener, W. H., Martin, H., Gilbert, T. C., & Giles, H. (2012). A meta-analysis of the effects of speakers' accents on interpersonal evaluations. *European Journal of Social Psychology*, *42*(1), 120-133.

Fiske, S. T., & Neuberg, S. L. (1990). A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on attention and interpretation. *Advances in experimental social psychology*, *23*, 1-74.

Flege, J. E., Munro, M. J., & MacKay, I. R. (1995). Factors affecting strength of perceived foreign accent in a second language. *The Journal of the Acoustical Society of America*, *97*(5), 3125-3134.

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. (1998). Measuring individual differences in implicit cognition: the implicit association test. *Journal of personality and social psychology*, *74*(6), 1464.

Harzing, A. W., & Pudelko, M. (2013). Language competencies, policies and practices in multinational corporations: A comprehensive review and comparison of Anglophone, Asian, Continental European and Nordic MNCs. *Journal of World Business*, *48*(1), 87-97.

Hendriks, B., van Meurs, F., & de Groot, E. (2017). The effects of degrees of D utch accentedness in ELF and in F rench, G erman and S panish. *International Journal of Applied Linguistics*, *27*(1), 44-66.

Hendriks, B., Van Meurs, F., & Hogervorst, N. (2016). Effects of degree of accentedness in lecturers' Dutch-English pronunciation on Dutch students' attitudes and perceptions of comprehensibility. *Dutch Journal of Applied Linguistics*, *5*(1), 1-17.

Hendriks, B., van Meurs, F., & Reimer, A.-K. (2018). The evaluation of lecturers' nonnative-accented English: Dutch and German students' evaluations of different degrees of Dutch-accented and German-accented English of lecturers in higher education. *Journal of English for Academic Purposes*, *34*, 28–45. https://doi.org/10.1016/j.jeap.2018.03.001

Lindemann, S. (2002). Listening with an attitude: A model of native-speaker comprehension of non-native speakers in the United States. *Language in Society*, 419-441.

Lippi-Green, R. (2012). *English with an accent: Language, ideology and discrimination in the United States*. Routledge.

Massey, D. S., & Lundy, G. (2001). Use of Black English and racial discrimination in urban housing markets: New methods and findings. *Urban affairs review*, *36*(4), 452-469.

Nejjari, W., Gerritsen, M., Van der Haagen, M., & Korzilius, H. (2012). Responses to Dutch-accented English. *World Englishes*, *31*(2), 248-267.

Nejjari, W., Gerritsen, M., Van Hout, R., & Planken, B. (2020). Where does a 'foreign' accent matter? German, Spanish and Singaporean listeners' reactions to Dutch-accented English, and standard British and American English accents. *PLOS ONE*, *15*(4), e0231089. https://doi.org/10.1371/journal.pone.0231089

Nesdale, D., & Rooney, R. (1996). Evaluations and stereotyping of accented speakers by pre-adolescent children. *Journal of Language and Social Psychology, 15,* 133-154.

Perry, S. P., Murphy, M. C., & Dovidio, J. F. (2015). Modern prejudice: Subtle, but unconscious? The role of Bias Awareness in Whites' perceptions of personal and others' biases. *Journal of Experimental Social Psychology*, *61*, 64-78.

Purnell, T., Idsardi, W., & Baugh, J. (1999). Perceptual and phonetic experiments on American English dialect identification. *Journal of language and social psychology*, *18*(1), 10-30.

Roessel, J., Schoel, C., Zimmermann, R., & Stahlberg, D. (2019). Shedding new light on the evaluation of accented speakers: basic mechanisms behind nonnative listeners' evaluations of nonnative accented job candidates. *Journal of Language and Social Psychology*, *38*(1), 3–32. https://doi.org/10.1177/0261927X17747904

Schmader, T., & Lickel, B. (2006). Stigma and shame: Emotional responses to the stereotypic actions of one's ethnic ingroup. *Stigma and group inequality: Social psychological perspectives*, 261-285.

Śliwa, M., & Johansson, M. (2014). How non-native English-speaking staff are evaluated in linguistically diverse organizations: A sociolinguistic perspective. *Journal of International Business Studies*, *45*(9), 1133-1151.

Stibbard, R. M., & Lee, J. I. (2006). Evidence against the mismatched interlanguage speech intelligibility benefit hypothesis. *The Journal of the Acoustical Society of America*, *120*(1), 433-442.

Tietze, S. (2004). Spreading the management gospel–in English. *Language and Intercultural Communication*, *4*(3), 175-189.

Timming, A. R. (2017). The effect of foreign accent on employability: A study of the aural dimensions of aesthetic labour in customer-facing and non-customer-facing jobs. *Work, employment and society*, *31*(3), 409-428.

Tsalikis, J., DeShields, , O. W., & LaTour, M. S. (1991). The role of accent on the credibility and effectiveness of the salesperson. *The Journal of Personal Selling and Sales Management*, *11*(1), 31–41.

Van Meurs, F., Hendriks, B., & Planken, B. (2012). Studying the effects of non-nativeness in a business communication context. *Van Schools! tot! Scriptie.*, 37.

Appendix

Appendix A. Transcript of the job interview

Interviewer: Hello, Thanks for coming in for the interview.

Interviewee: It's my pleasure. Thanks for inviting me.

Interviewer: Well, as you know, the company has been expanding and we have an opening in our HR department. We're creating a new role for someone to lead our training and development team.

Interviewee: Yes, I very much think that my skills and experience are a good fit for the current position.

Interviewer: That sounds great. So, your CV looks strong, though it would be good if you could give us an overview of what you've been doing over the past four years or so.

Interviewee: Well, in my first job I was working for a small HR services provider which offered HR services to corporate clients.

Interviewer: Right, and it says here you left that company about three years ago.

Interviewee: Yes, that's right. I was looking for more stability and also to be part of a larger organisation. So I joined a company with one hundred staff and a small HR team. As there are only a few of us, we each deal with a range of HR topics. In addition to payroll, one of the areas I was responsible for was learning and development.

Interviewer: Well, that sounds good. And I can see you have an L&D qualification.

Interviewee: Yes, I got a diploma two years ago. I am also currently working on a further diploma with a specific focus on learning and performance management.

Interviewer: Well, it looks like you have the qualifications and experience we're looking for. What do you think will be the challenges of coming to a much larger company?

Interviewee: I can see that it might be a weakness to not have experience in an organisation of this size, though I see that it could be a benefit. I won't be bringing many preconceived and inflexible ideas with me to the role.

Interviewer: Yes, that would be a good thing.

Interviewee: Also, I'm used to taking a personal approach to employee development. I realise that with 2,000 staff members this will have to happen in a different way, but I have many ideas that can be replicated on a larger scale.

Interviewer: I see what you mean. Do you have any questions left?

Interviewee: No, all the information was clear to me.

Interviewer: Great. So, thanks again for coming in. We'll discuss all candidates next week and then I'll get back to you to let you know the outcome.

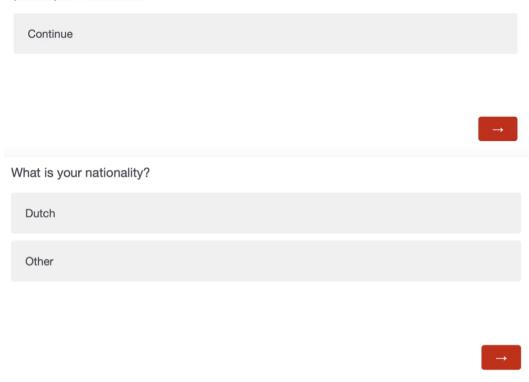Interviewee: Thank you for your time. I'd welcome the opportunity to continue discussing this role with you.

Appendix B. Main study questionnaire
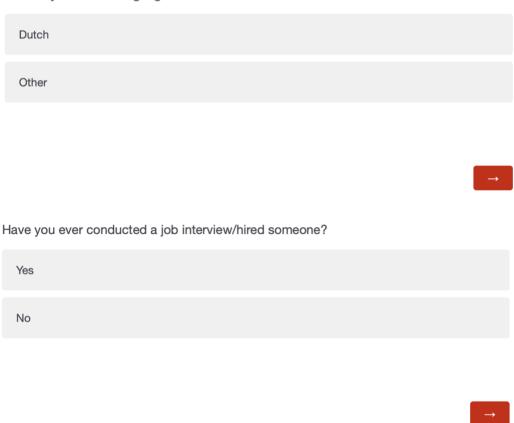
Radboud University

Dear participant,

We are students of Radboud University in Nijmegen and for our Bachelor's theses we are conducting research on evaluations of job applicants. To achieve this goal, we are looking for native Dutch speakers from the Netherlands who have experience in hiring people. Specifically, those who have hired someone or conducted a job interview in the past 10 years. The survey is anonymous, and the results will only be used for this study. This questionnaire should take approximately 10 minutes.

If you have read the information above and you give consent to participate in the study, please press *Continue*.

Continue

→

What is your nationality?

Dutch

Other

→

What is your native language?

Dutch

Other

→

Have you ever conducted a job interview/hired someone?

Yes

No

→

In the next section you will listen to a job interview recording. The job applicant is a woman, and the interviewer is a man. We are asking you to focus on the job applicant as you will evaluate her later on in this questionnaire. You can listen to the recording only once. After that, you may proceed to the following section.

Please note:
Before you listen to the recording, we would like to point out that English is not the applicant's native language. Research has shown that speaking with a non-native accent can cause bias in evaluating individuals. Therefore, we would like to ask you to not base your judgment on feelings or stereotypes that may have been evoked by the accent.

Continue

→

▶ ●————————— -2:17

→

On the basis of the recording, please answer the questions below

Please choose the answer that you identify with the most:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I would be satisfied if the applicant was hired	O	O	O	O	O	O	O
I feel favourable toward the applicant	O	O	O	O	O	O	O
I would want to work with the applicant	O	O	O	O	O	O	O
I think that the applicant would be an asset to the company	O	O	O	O	O	O	O
It is likely that I would hire the applicant	O	O	O	O	O	O	O
I think that the applicant would have good relationships with other employees	O	O	O	O	O	O	O

How similar is this person to you?

Not similar at all ◯ ◯ ◯ ◯ ◯ ◯ ◯ Very similar

How understandable is the job applicant's accent?

Very understandable ◯ ◯ ◯ ◯ ◯ ◯ ◯ Not understandable

To what extent is the applicant's speech accented?

Native ◯ ◯ ◯ ◯ ◯ ◯ ◯ Strongly accented

→

I perceive the interviewee as:

Educated	◯ ◯ ◯ ◯ ◯ ◯ ◯	Uneducated
Intelligent	◯ ◯ ◯ ◯ ◯ ◯ ◯	Dull
Confident	◯ ◯ ◯ ◯ ◯ ◯ ◯	Insecure
Dishonest	◯ ◯ ◯ ◯ ◯ ◯ ◯	Honest
Boring	◯ ◯ ◯ ◯ ◯ ◯ ◯	Interesting
Unreliable	◯ ◯ ◯ ◯ ◯ ◯ ◯	Reliable
Friendly	◯ ◯ ◯ ◯ ◯ ◯ ◯	Hostile
Strong	◯ ◯ ◯ ◯ ◯ ◯ ◯	Gentle
Talkative	◯ ◯ ◯ ◯ ◯ ◯ ◯	Restraint

→

In the following section, you will find a few demographic questions, as well as some questions about your experience in the job hiring process.

What is your age?

What is your gender?

Male

Female

Non-binary / third gender

Prefer not to say

What is the highest degree or level of education you have completed?

Secondary education

MBO degree

Bachelor's degree (HBO, WO)

Master's degree

Doctorate

Other/prefer not to say

How would you describe your level of English proficiency?

Beginner ○ ○ ○ ○ ○ ○ ○ Advanced

Have you ever hired/conducted a job interview with a foreign applicant?

Yes

No

Prefer not to say

→

Thank you for participating in our survey!

If there are any follow-up questions or uncertainties, you can get in contact with us via:
lisa.laponder@student.ru.nl

Appendix C. Prejudice control text

Before you listen to the recording, we would like to point out that the applicant does not speak in her native language. Research has shown that speaking with an accent can cause bias in evaluating individuals. Therefore, we would like to ask you to not base your judgment on feelings or stereotypes that may be evoked.

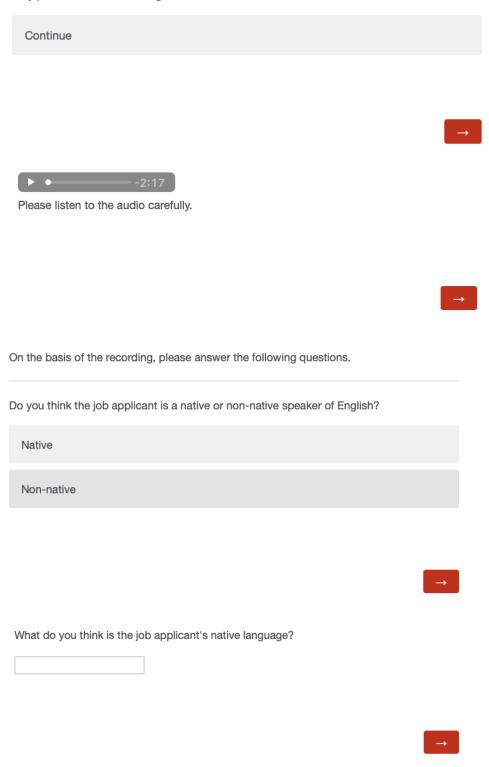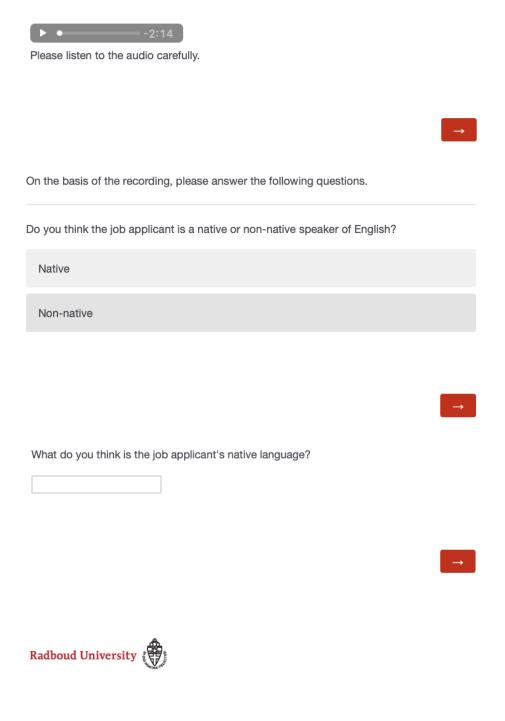## Appendix D. Pre-test questionnaire

Dear participant,

We are students of Radboud University in Nijmegen and for our Bachelor's theses we are conducting research on accentedness in the job application process. In order to do so, we are looking for Dutch students, with Dutch as their native language, that are willing to participate in our short survey. The survey is anonymous, and the results will only be used for this study. The questionnaire should take approximately 5 minutes.
If you have read the information above and you give consent to participate in the study, please press Continue.

Continue

→

In the next section you will listen to a part of a job interview recording. The job applicant is a woman, and the interviewer is a man. Please focus on the job applicant, as you will be asked questions about her. You can listen to the recording once. After the listening you may proceed to the following section.

Continue

→

▶ ●————————————— -2:17

Please listen to the audio carefully.

→

On the basis of the recording, please answer the following questions.

Do you think the job applicant is a native or non-native speaker of English?

Native

Non-native

→

What do you think is the job applicant's native language?

[   ]

→

▶ ●────────── -2:14

Please listen to the audio carefully.

→

On the basis of the recording, please answer the following questions.

Do you think the job applicant is a native or non-native speaker of English?

Native

Non-native

→

What do you think is the job applicant's native language?

[   ]

→

Radboud University

Thank you for participating in our survey!

If there are any follow-up questions or uncertainties, you can get in contact with us via:
lisa.laponder@student.ru.nl

Appendix E. Checklist EACH

Checklist EACH (version 1.6, november 2020)

You fill in the questions by clicking on the square next to the chosen answer □
After clicking, a cross will appear in this square ☒

1. Is a health care institution involved in the research?
Explanation: A health care institution is involved if one of the following (A/B/C) is the case:

A. One or more employees of a health care institution is/are involved in the research as principle or in the carrying out or execution of the research.
B. The research takes place within the walls of the health care institution and should, following the nature of the research, generally not be carried out outside the institution.
C. Patients / clients of the health care institution participate in the research (in the form of treatment).

☒ No → continue with questionnaire

□ Yes → Did a Dutch Medical Institutional Review Board (MIRB) decide that the Wet Medisch Onderzoek (Medical Research Involving Human Subjects Act) is not applicable?
□ Yes → continue with questionnaire
□ No → This application should be reviewed by a Medical Institutional Review Board, for example, the Dutch [CMO Regio Arnhem Nijmegen](#) → end of checklist

2. Do grant providers wish the protocol to be assessed by a recognised MIRB?

☒ No → continue with questionnaire

□ Yes → This application should be reviewed by a Medical Institutional Review Board, for example, the Dutch [CMO Regio Arnhem Nijmegen](#) → end of checklist

3. Does the research include [medical-scientific research](#) that might carry risks for the participant?
☒ No → continue with questionnaire

□ Yes → This application should be reviewed by a Medical Institutional Review Board, for example, the Dutch [CMO Regio Arnhem Nijmegen](#) → end of checklist

Standard research method

4. Does this research fall under one of the stated [standard research methods](#) of the Faculty of Arts or the Faculty of Philosophy, Theology and Religious Studies?
☒ Yes → 1. Standard evaluation and attitude research **(fill in name and number of standard research method)** → continue with questionnaire
□ No → assessment necessary, end of checklist

Participants

5. Is the participant population a healthy one?
    ☒ Yes → continue with questionnaire
    ☐ No → assessment necessary, end of checklist → go to assessment procedure

6. Will the research be conducted amongst minors (<16 years of age) or amongst (legally) incapable persons?
    ☐ Yes → assessment necessary, end of checklist → go to assessment procedure
    ☒ No → continue with questionnaire

Method

7. Is a method used that makes it possible to produce a coincidental finding that the participant should be informed of?
    ☐ Yes → assessment necessary, end of checklist → go to assessment procedure
    ☒ No → continue with questionnaire

8. Will participants undergo treatment or are they asked to perform certain behaviours that can lead to discomfort?
    ☐ Yes → assessment necessary, end of checklist → go to assessment procedure
    ☒ No → continue with questionnaire

9. Are the estimated risks connected to the research minimal?
    ☐ No → assessment necessary, end of checklist → go to assessment procedure
    ☒ Yes → continue with questionnaire

10. Are the participants offered a different compensation than the usual one?
    ☐ Yes → assessment necessary, end of checklist → go to assessment procedure
    ☒ No → continue with questionnaire

11. Should deception take place, does the procedure meet the standard requirements?
    ☐ No → assessment necessary, end of checklist → go to assessment procedure
    ☒ Yes → continue with questionnaire

12. Are the standard regulations regarding anonymity and privacy met?
    ☐ No → assessment necessary, end of checklist → go to assessment procedure
    ☒ Yes → continue with questionnaire

Conducting the research

13. Will the research be carried out at an external location (such as a school, hospital)?

⊠ No → continue with questionnaire

☐ Yes→ Do you have/will you receive written permission from this institution?

☐ No → assessment necessary, end of checklist → [go to assessment procedure](#)

    ☐ Yes → continue with questionnaire

14. Is there a contact person to whom participants can turn to with questions regarding the research and are they informed of this?

☐ No → assessment necessary, end of checklist → [go to assessment procedure](#)

⊠ Yes → continue with questionnaire

15. Is it clear for participants where they can file complaints with regard to participating in the research and how these complaints will be dealt with?

☐ No→ assessment necessary, end of checklist → [go to assessment procedure](#)

⊠ Yes → continue with questionnaire

16. Are the participants free to participate in the research, and to stop at any given point, whenever and for whatever reason they should wish to do so?

☐ No→ assessment necessary, end of checklist → [go to assessment procedure](#)

⊠ Yes → continue with questionnaire

17. Before participating, are participants informed by means of an information document about the aim, nature and risks and objections of the study? (zie [explanation on informed consent](#) and [sample documents)](#).

☐ No→ assessment necessary, end of checklist → [go to assessment procedure](#)

⊠ Yes → continue with questionnaire

18. Do participants and/or their representatives sign a consent form? (zie [explanation on informed consent](#) and [sample documents](#).

☐ No→ assessment necessary, end of checklist → [go to assessment procedure](#)

⊠ Yes → checklist finished

If you want to record the results of this checklist, please save the completed file.

If you need approval from the EACH due to the requirement of a publisher or research grant provider, you will have to follow the formal assessment procedure of the EACH.