Apologies in Advance:

Using Speaker-Based Disarmer Strategies to Reduce Prejudiced Reactions to German-Accented English at Job Interviews

by

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Abstract

Although researchers have established the presence of accent-based discrimination, few studies focus on speaker-based solutions. Therefore, this study investigates the impact of two speaker-based disarmer strategies on listeners' perceptions, considering the speakers' degree of accentedness and the listeners' mother tongue. An experiment with a 2x3x3 between-subjects design was conducted with German, Dutch, and Scandinavian participants (N = 811). Participants were asked to rate a job application video of a slightly or strongly German-accented speaker who either addressed the intention to be comprehensible, apologised for her accent, or used no disarmer strategy. The speakers were rated on comprehensibility, status, competence, likeability, dynamism, and hirability. Results showed that, compared to no disarmer strategy, the show effort strategy led to higher ratings on all variables, and the apology strategy increased listeners' status and likeability perceptions. These effects were mediated by comprehensibility. Furthermore, it was found that strongly accented speakers were evaluated more negatively on comprehensibility, competence, and likeability than slightly accented speakers. German listeners were stricter with competence ratings than Scandinavian listeners. Non-native speakers can be advised to use the show effort strategy to reduce bias during job applications. Recruiters and interviewers should be aware of the negative impact of accent-based discrimination on hiring decisions.

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1. Introduction

Accent-based discrimination, the downgrading of speakers with a foreign accent, has been the focus of scientific literature for decades and is academically a well-established and recognised issue. While an accent originates from the remaining phonological features of the speakers' first language (L1) (Cook, 1999; Kellerman & Vermeulen, 1998; Nejjari, Gerritsen, Van der Haagen, & Korzilius, 2012) and often remains recognisable in their non-primary languages (Kachru, 1985; 1992), it by definition does not influence grammatical, syntactical, morphological, or lexical linguistic aspects attributed to language competence (Giles, 1970). Despite the meaninglessness of accentedness as an indicator of a speaker's skills and competencies, biased reactions towards non-native speakers (NNSs) have been observed in various settings, such as work environments and job applications, in education, court cases, or simply during daily life interactions (Fuertes, Gottdiener, Martin, Gilbert, & Giles, 2012; Gluszek & Dovidio, 2010; Gluszek & Hansen, 2013; Romero-Rivas, Morgan, & Collier, 2021). During job applications, this discrimination can even lead to accented candidates receiving lower hiring recommendations than native speakers (NSs) (Fuertes et al., 2012; Gluszek & Dovidio, 2010; Gluszek & Hansen, 2013). However, social norms against accent-based discrimination appear weaker than those against, for instance, race- or gender-based discrimination (Giles & Watson, 2013; Ng, 2007). As society's perceptions of normative appropriateness (i.e. how socially acceptable something is believed perceived to be) and the expression of prejudiced reactions are highly correlated, accent-based discrimination is likely to be less detected and prevented than other forms of prejudice (Crandall, Eshleman, & O'Brien, 2002; Monteith, Arthur, & Flynn, 2010; Perry, Murphy, & Dovidio, 2015). To investigate ways to reduce this socially relevant issue, this study experimented with speaker-based disarmer strategies.

1.1. Degree of Accentedness

According to Baugh (2000), a single word is sufficient for listeners to detect the presence of a foreign accent and downgrade speakers. Beyond this, listeners can also distinguish between different degrees of accentedness, i.e. the strength of the NNSs' foreign accent (Roessel, Schoel, Zimmermann, & Stahlberg, 2019). This has been found to influence listeners' perceptions of the NNSs' characteristics, as the stronger the foreign accent is perceived to be, the more negative the attitudinal evaluations tend to be, with judgements of slight accents often not differing significantly from those of native accents (Brennan & Brennan, 1981a; Cargile & Giles, 1998; Carlson & McHenry, 2006; Hendriks, Van Meurs, & de Groot, 2015; Hendriks, Van Meurs, & Reimer, 2018; Hendriks, Van Meurs, & Usmany, 2021; McKenzie, 2008; Nejjari et al., 2012; Nesdale & Rooney, 1996; Ryan, Carranza, & Moffie, 1977). For instance, Hendriks et al. (2021) found that moderately accented speakers were downgraded on their comprehensibility, competence, likeability, status, and teaching quality compared to slightly accented Dutch speakers. At the same time, there was no difference between slightly accented and native speakers for any of the variables, except for teaching quality.

In addition to accent strength, the listener's ability to identify the NNS's mother tongue is relevant to the expression of accent-based discrimination as it can result in listeners attributing certain stereotypical traits to the NNSs (DuBois, 2018; Kristiansen, 2001). Listeners who identify the NNS as having the same language background as themselves may evaluate the speaker more positively as they are part of the same in-group (Tajfel, 2010). Alternatively, they might feel vicarious shame as someone in their in-group has an unfavourable accent and as a result, they might judge the NNS more negatively (Hendriks et al., 2018; Schmader & Lickel, 2006).

1.2. Listeners' Native Language

Studies on accent-based discrimination can typically be classified into three categories concerning the native language of listeners. As there is usually a speaker who has a foreign accent in the target language (such as a German accent in English), the native language of listeners can be either a) the same as that of the speaker (e.g., German), b) the same as the target language (e.g., English), or c) neither of these. Most studies focus on the perceptions that native listeners of the target language have of NNSs. They indicate that such native listeners tend to have a less positive perception of NNSs compared to NSs (Bresnahan, Ohashi, Nebashi, Liu, & Shearman, 2002; DeShields & De Los Santos, 2000; Major, Fitzmaurice, Bunta, & Balasubramanian, 2002; Munro & Derwing, 1995a; Nejjari et al., 2012; Tsalikis, DeShields, & LaTour, 1991). The studies that focus on the perceptions of non-native listeners suggest that they also downgrade NNSs, irrespective of whether or not they share the same L1 (Callan, Gallois, & Forbes, 1983; McKenzie, 2010).

While oftentimes, a study covers one of the three scenarios mentioned above, Hendriks et al. (2021) focused explicitly on the effect of listener L1 and compared several of the three possibilities. They found that listeners who were native speakers of the target language made no distinction between NSs and NNSs regarding intelligibility, comprehensibility, status, competence, likeability, and teaching quality, which contradicts the findings of previous studies (e.g., Bresnahan et al., 2002; DeShields & De Los Santos, 2000). Listeners who shared an L1 with the NNS and listeners whose L1 was neither that of the NNS nor of the target language downgraded the NNS; the former participants did so more harshly than the latter. This harsher judgement was explained by the vicarious shame that listeners might feel for people with the same L1 with an undesirable accent (Schmander & Lickel, 2006). Another possible explanation was that listeners may believe that weakening a non-native accent is possible, thus downgrading the NNS for not attaining this (Hendriks, Van Meurs, & Hogervorst, 2016).

1.3. Processing Fluency

Two types of processing fluency are frequently measured: intelligibility (i.e., how understandable a speaker is objectively) and comprehensibility (i.e., how understandable listeners perceive speakers to be) (Kachru & Smith, 2008; Spence, Hornsey, Stephenson, & Imuta, 2022). For intelligibility some studies have found a *native speech intelligibility benefit* (i.e., both native and non-native listeners find NSs are more intelligible than NNSs) (e.g., Fayer & Krasinski, 1987; Smith & Bisazza, 1982; Major et al., 2002), while others found a *matched interlanguage speech intelligibility benefit* (i.e., listeners find speakers with whom they share an L1 background easier to understand than NSs) and an *interlanguage speech intelligibility detriment* (i.e., listeners who share an L1 with NNSs find them more intelligible than NNSs with whom they do not share an L1) (e.g., Stibbard & Lee, 2006). Other studies suggest that despite the initially higher processing cost of foreign accents compared to native accents, intelligibility is high even for strong accents as both native and non-native listeners are quick to adapt to them (Baese-Berk, Bradlow, & Wright, 2013; Clarke & Garrett, 2004; Munro & Derwing, 1995b; Derwing & Munro, 1997; Weber, Di Betta, & McQueen, 2014; Nejjari et al., 2012; Witteman, Weber, & McQueen, 2014).

While it is thus not entirely clear whether there is a difference in the objective intelligibility of NNSs and NSs, the subjective comprehensibility perceptions of NNSs are consistently lower for NNSs than NSs (Munro & Derwing, 1995, 1999). This has been found, for instance, in a lecturing context comparing moderately Dutch-accented speakers and native Dutch listeners (Hendriks et al., 2016). However, besides being a factor on which NNSs are downgraded, comprehensibility has also been analysed as a mediator for attitudinal evaluations. Dragojevic, Giles, Beck, & Tatum (2017) found that comprehensibility explained the relationship between the degree of accentedness and status perceptions with a stronger accent

resulting in less comprehension and, in turn, lower status perceptions. This finding aligns with the *fluency principle*, which states that a criterion that influences the listeners' processing fluency will have corresponding effects on the attitudinal evaluations (Dragojevic, 2020). Regarding hiring recommendations, contradicting findings have been found for the influence of comprehensibility. While Deprez-Sims and Morris (2013) found that the perceptions of comprehensibility are associated with hiring recommendations, their earlier study did not find this effect (Deprez-Sims & Morris, 2010). A meta-analysis did not find comprehensibility to be a moderator of hirability (Spence et al., 2022). However, comprehensibility has been found to affect hiring recommendations in a serial mediation where it mediated the effect of accent strength on affect and competence, leading to lower hiring recommendations of the NNS (Roessel et al., 2019).

1.4. Attitudinal Evaluations

To date, numerous studies have investigated and found a range of negative stereotypes that non-native accents are associated with (Gluszek & Dovidio, 2010). A trait consistently affected by accentedness is the speaker's status (Fuertes et al., 2012; Spence et al., 2022). For instance, Nejjari et al. (2012) found that native English listeners evaluate Dutch-accented speakers as having less status than native English speakers. Non-native listeners (German, French, and Spanish) have shown the same downgrading of Dutch-accented English speech (Hendriks et al., 2015). This trait is so deeply rooted that children as young as nine have been found to associate native accents with a higher status than non-native accents (Kinler & Dejusus, 2013).

For competence, the same trend of downgrading NNSs can be found (Fuertes et al., 2012; Gluszek & Dovidio, 2010; Roessel, Schoel, Zimmermann, & Stahlberg, 2017). Again, this seems to be the case for native and non-native listeners, as demonstrated in the study by Hendriks et al. (2015). Ryan (1983) suggests that the low competence perceptions may be due to an over-generalisation of listeners' difficulty separating accentedness and language competence.

The meta-analysis by Fuertes et al. (2012) states that NNSs are also rated lower than NSs regarding likeability and dynamism. This effect on likeability was found, for instance, by Hendriks et al. (2021) for Dutch-accented speakers. Hendriks et al. (2021) found no significant difference in likeability perceptions comparing NNSs and NSs. However, compared to slightly German-accented speakers speaking Dutch, the strongly accented speakers were perceived as less likeable by native Dutch listeners. This study also concluded that strongly German-accented speakers were rated lower on dynamism than native Dutch and slightly German-accented speakers.

1.5. Foreign Accents in Employment

While being an omnipresent issue, accent-based discrimination has been found to occur most prevalently in work environments (Fuertes et al., 2012; Gluszek & Dovidio, 2010; Gluszek & Hansen, 2013). This is reflected in perceptions of job suitability, hirability, and the chance of promotion (Carlson & McHenry 2006; Deprez-Sims & Morris 2013; Hansen, Rakić, & Steffens 2014; Hosoda, Nguyen, & Stone-Romero 2012; Hosoda & Stone-Romero 2010; Roessel et al., 2017; Purkiss, Perrewé, Gillespie, Mayes, & Ferris, 2006; Timming 2017). Such experimental studies have shown that despite identical skills and competence, foreign-accented job candidates are downgraded merely due to their accentedness. In addition to these "laboratory experiments", Schmaus and Kristen (2021) conducted a field experiment in Germany. They found that Turkish-accented applicants calling a company to inquire whether a position was still available were told that it was already filled more often than German-accented applicants. As findings from laboratory experiments have been criticised for not being very generalisable

to real-world employment situations (e.g., Jackson & Cox, 2013), this finding is valuable in substantiating the presence of accent-based discrimination already in the early hiring process.

There seem to be two strands of arguments trying to explain the presence of accent-based discrimination in job settings. The *functionality explanation* (based on the fluency principle) is that NNSs receive lower hiring recommendations because non-native accents could impede communication and, thus, the NNS's effectiveness at the job (Deprez-Sims & Morris 2013; Munro & Derwing, 1995; Spence et al., 2022). The *prejudice explanation* is that non-native accents trigger group-specific assumptions and signal "otherness", resulting in a downgrading of NNSs (Gluszek & Dovidio, 2010; Horr, Hunkler, & Kroneberg, 2018; Spence et al., 2022; Timming, 2017).

In an attempt to shed light on these proposed psychological drivers of accent-based discrimination in employment contexts, studies have tested the impact of job characteristics. As a result, two job position characteristics have been found to influence whether or not a foreign accent can lead to a lower chance of getting hired. Firstly, the status of the position; for high-status jobs, NSs were evaluated more positively than NNSs, while for low-status jobs, NNSs were rated as more suitable than NSs (Kalin & Rayko, 1978). Secondly, applications to positions with high communication demands, such as human resources manager, resulted in stronger hiring recommendations for NSs than NNSs (Deprez-Sims & Morris, 2010; Hosoda & Stone-Romero, 2010; Timming, 2017). In support, a meta-analysis by Spence et al. (2022) found that job communication demands significantly moderated hirability, with high communication demands resulting in the favouring of NSs.

1.6. Prejudice Control

Despite the importance of finding ways to reduce or even eliminate downgrading due to speakers' accents, only a handful of studies on accent-based discrimination are solution-oriented. Most investigated prejudice control interventions can be classified as listener-based, as the NNSs do not do or say anything to reduce prejudiced reactions towards them. These listener-based interventions can be subdivided into perspective-taking, awareness-raising, and intergroup contact.

Perspective-taking studies ask listeners to describe a situation from the perspective of the NNS and then measure the listeners' perceptions of the speaker. This intervention has been found to be effective in reducing accent-based discrimination by several studies (Galinsky & Moskowitz, 2000; Galinsky & Ku, 2004; Weyant, 2007; Weyant, 2019). Perspective-taking has also been measured implicitly by Hansen, Rakic, and Steffens (2014), who criticised the effects of explicit perspective-taking being influenced by social desirability effects. In their study, a confederate approached German participants in English before being asked to evaluate Turkish-accented job candidates. That way, they were placed in the situation of being the NNS and consequently evaluated the accented job candidate more positively than participants not approached in English. Despite the success of these interventions in experimental settings, their practicality in real-life settings can be considered low.

Awareness-raising has been studied by Roessel et al. (2017), who requested that participants not base their hiring evaluations of the accented job candidate on stereotypes or feelings associated with the accent. With this, they reduced biased perceptions that native German listeners had of German-accented speakers in English. Intergroup contact with NNSs (specifically a lack thereof) has been proposed to be an underlying mechanism of accent-based discrimination (Dewaele & McCloskey, 2014; Saito et al., 2019; Simon, Lybaert, & Plevoets, 2022). This is based on the *Contact Theory*, which claims that contact with the discriminated-against population reduces unfamiliarity and, consequently, prejudiced reactions (Butkus, Maciulyte-Sniukiene, & Matuzeviciute, 2016). Kang, Rubin, and Lindemann (2015) have experimentally investigated this and had native English listeners conduct a problem-solving

exercise with NNSs. This exercise reduced prejudiced reactions and led to higher comprehensibility and competence ratings. Prejudice control interventions in contexts other than accentedness, such as race-based discrimination, mostly fall into the listener-based categories of perspective-taking and awareness-raising (see Galinsky & Ku, 2005 for age-based discrimination; Pope, Price, & Wolfers, 2018 and Todd, Bodenhausen, Richeson, & Galinsky, 2011 for race-based discrimination)

The only study that could be found that uses a speaker-based intervention for accent-based discrimination is the study by Hosoda, Sadler, Windsor, Trafalis, and Thienpothong (2023). In their experiment, Mexican Spanish-accented job applicants used an acknowledgement strategy, stating the presence of their accent during the job interview. These applicants received better hiring recommendations than Spanish-accented applicants who did not acknowledge their foreign accent. Furthermore, the male speakers who mentioned their accent were perceived as more competent (and likeable, yet not significantly) than those who did not mention their accent. The researchers argue that acknowledging a foreign accent will likely reduce prejudiced reactions as listeners are more at ease about asking clarification questions should they not understand the NNS (Hosoda et al., 2023). A similar result was found in the context of prejudiced reactions towards ex-offenders who, when using an apology strategy, were more likely to receive positive hiring recommendations than if they used no such tactic (Ali, Lyons, & Ryan, 2017). In the context of physical disabilities, Hebl and Skorinko (2005) found that acknowledging the disability resulted in a more favourable hiring recommendation than not acknowledging it, but only when doing so at the beginning or middle of the job interview. In the following sections, such speaker-based prejudice control interventions will be referred to as *disarmer strategies*, meant to "disarm" the listeners and reduce the prejudiced reactions they are likely to have towards the NNS.

1.7. Research Gaps and the Current Research

While the number of studies focusing on prejudice control interventions for accent-based discrimination has increased over the past years, a research gap remains concerning both the replication of the existing studies and the variety of interventions that have been investigated. What can be noted is that many of the previously tested types of prejudice control, such as talking to a confederate in the listeners' second language or conducting problem-solving exercises with the speaker, are listener-based and not very well suited to be implemented in real life. While it can be argued that listeners could expose themselves more to foreign-accented speech, this would rely on the prerequisite that listeners are aware of the issue and willing to educate themselves. However, this cannot be guaranteed, especially as it has been found that even when listeners become mindful of the presence of accent-based discrimination, they are not very willing to change their behaviour due to the lack of societal pressure (e.g., Giles & Watson, 2013; Gluszek & Dovidio, 2010; Ura, Preston, & Mearns, 2015). An alternative approach is, therefore, to focus on the NNSs and provide them with tools to reduce biased reactions towards them. Therefore, the current study investigates speaker-based disarmer strategies (e.g., apologising for one's accent). This goes beyond Hosoda et al.'s (2023) acknowledgement strategy, in which the speaker merely mentions their accent. More information on the disarmer strategies pre-tested and used in the current study can be found in section 2.1.2.

Although listener L1 has been found to influence the presence and severity of accent-based discrimination (Bresnahan et al., 2002; Callan, Gallois, & Forbes, 1983; DeShields & De Los Santos, 2000; Major et al., 2002; McKenzie, 2010; Munro & Derwing, 1995a; Nejjari et al., 2012; Tsalikis, DeShields, & LaTour, 1991), studies often do not compare different listener groups (but see Hendriks et al., 2021 for a comparison of listener groups). Therefore, three listener groups are included in the current study. The first group are native Germans who share

an L1 with the NNS and who might, as a result, be the most critical out of the three groups as they might feel vicarious shame for people with the same L1 with an undesirable accent (Schmander & Lickel, 2006). The second group comprises Scandinavian listeners who have not been tested extensively in previous research. This listener group can be expected to have a relatively high English proficiency due to their early exposure to English through education as well as English-language media and the similarities between English and Scandinavian languages (Sonny, 2021). Thus, it might be the case that they behave comparably to listeners whose L1 is the target language. The third group of listeners are native Dutch, whose L1 is neither that of the NNS (German) nor the target language (English). They are chosen for three reasons. Firstly, there is linguistic proximity between Dutch and German (speaker L1). This contrasts the Scandinavian listeners who belong to the same category of not sharing an L1 with the NNS but whose L1 is not as close to German as Dutch. Thus, the Dutch listeners' evaluations could rank between those of Scandinavian (lenient) and German (strict) listeners. Secondly, Oudenhoven, Selenko, and Otten (2009) found that in the combination of a small nation (e.g., The Netherlands) and a large nation (e.g., Germany), the small one tends to be more critical towards the NNSs of the large one. Thirdly, the Dutch have specifically been found to be critical towards NNSs (Edwards & Fuchs, 2019), which allows a comparison between, probably strict, native German listeners and perhaps the strictest group of non-native listeners.

Another research gap is that many studies do not measure the impact of different degrees of accentedness despite their effect on how NNSs are perceived (for a comparison of different accent strengths see Brennan & Brennan, 1981; Cargile & Giles, 1998; Carlson & McHenry, 2006; Hendriks et al., 2015; Hendriks et al., 2018; Hendriks et al., 2021; McKenzie, 2008; Nejjari et al., 2012; Nesdale & Rooney, 1996; Ryan et al., 1977) Therefore, the current research compares slightly and strongly German-accented English speech and measures the potential difference in listeners' perceptions. To the best of my knowledge, no previous studies on accent-based discrimination have experimented with video recordings of the speakers. This is mainly attributed to the high likelihood of the physical appearance of the different speakers influencing the results. To circumvent this issue, the current research aimed to find a speaker who could speak with both a slight and strong accent and thus be suitable for both recordings (see section 2.1.1.). With the introduction of video recordings in the context of job applications, the ecological validity of the current study should increase.

The theoretical relevance of this study lies in its introduction of several previously untested factors. Firstly, disarmer strategies that NNSs can implement as a prejudice control intervention are investigated. Secondly, the stimulus material consists of video recordings that are hoped to result in a higher ecological validity than the audio recordings used in previous studies. Factors that have been previously tested but not in combination with disarmer strategies are the different groups of listener L1s and two degrees of accentedness (slight vs. strong). Furthermore, this study is practically relevant as it has the potential to provide accented speakers with strategies to reduce prejudiced reactions.

To conclude, the research question for the current study is: "What is the impact of apology and show effort disarmer strategies on the comprehensibility, status, competence, likeability, dynamism, and hirability ratings that Dutch, German, and Scandinavian listeners have of slightly and strongly German-accented English job applicants?" In addition, comprehensibility is investigated as a mediator between the disarmer strategies and attitudinal evaluations, leading to the second research question: "To what extent does comprehensibility mediate the effect of disarmer strategies on the status, competence, likeability, dynamism, and hirability ratings that Dutch, German, and Scandinavian listeners have of slightly and strongly German-accented English job applicants?"

2. Method

The research question was investigated with a Qualtrics questionnaire using a verbal-guise experiment with six conditions (slight/strong accent x show effort/apology/no disarmer) and German, Dutch, and Scandinavian listeners.

2.1. Materials

The stimulus material consisted of video recordings of a native-German woman in her early 20s reading a shortened version of an interview script by Deprez-Sims and Morris (2010) (see Appendix 1) with either a slight or strong German accent in her English and using a show effort, apology, or no disarmer strategy.

A video recording was chosen for the stimulus material in the current study as video-based job applications and interviews have been implemented by an increasing number of companies due to the increased efficiency and improved candidate assessment (Pitchstr, 2023). Thus, a video resembles real-life job applications more closely than an audio recording, which is traditionally used in accentedness research (e.g., Munro & Derwing, 1995; Hendriks et al., 2016). The same speaker was chosen for both the slight and strong accent conditions to not cause a third variable effect due to the likely influence of the speakers' appearance on the dependent variables. A pre-test (see section 2.1.1.) was conducted to select a native German speaker with a slight German accent in their English who could believably strengthen their accent enough for participants to perceive it as a distinctly different degree of German accentedness.

This script by Deprez-Sims and Morris (2010) was selected for two reasons. Firstly, the interviewee used high levels of self-promotion, which has been found to result in respondents perceiving themselves as less similar to the interviewee and thus, their evaluations are not positively skewed by the similarity-attraction paradigm (Howard & Ferris, 1996). Secondly, the interviewee's moderate qualifications for the position allowed for a broader range of differences concerning the listeners' evaluations and thus prevented floor or ceiling effects (Dovidio & Gaertner, 2000). As it was found that interviewer-interviewee similarity can influence hirability ratings (Deprez-Sims & Morris, 2010), the original script was changed from a dialogue to a monologue. Furthermore, all recordings started with the candidate briefly introducing herself, stating which position she is applying for, and that she is not a native speaker of English and thus has a non-native accent. She added a show effort or apology disarmer strategy, which were selected in a pre-test (see section 2.1.2) at the beginning of the application video. This placement was chosen as Hebl and Skorinko (2005), who investigated the effect of mentioning a physical disability during a job interview, found that saying it at the beginning or middle of an interview resulted in a more favourable hiring recommendation than when it was disclosed at the end. The job for which the candidates were applying was a position within the human resources department. This choice was made as previous studies have found that NSs are favoured over NNSs for jobs with high status and communication demands (such as in the HR department) (Deprez-Sims & Morris, 2010; Hosoda & Stone-Romero, 2010; Kalin & Rayko, 1978; Spence, 2022; Timming, 2017). Selecting a low-status job position would likely skew the results as the NNS could be favoured over the NS. This would not be because accent-based discrimination towards NNSs does not exist but because these speakers are seen as low-status, which is a perceived match with a low-status job (Kalin & Rayko, 1978).

2.1.1. Speaker Pre-Test

This pre-test aimed to select a speaker for the video recordings of the main experiment. The selection criteria were that this speaker could demonstrate a large variety in accent strength and had an identifiable German accent, most notably in the strong accent condition. To this end, four native-German female speakers in their early 20s recorded a 30-second fraction of the

script by Deprez-Sims and Morris (2010). They each made one recording in their regular (slight) German accent and one in which they strengthened their accent to sound more German. In a within-subjects design, participants were randomly presented with all eight recordings and asked to indicate the speakers' country of origin and perceived accent strength. Furthermore, speech quality, rate, and confidence were measured to test whether the selected speaker sounded comparable on these variables in their slightly and strongly accented recordings. The entire questionnaire can be found in Appendix 2. The average time spent on the experiment was M = 12.82 (SD = 6.54) minutes.

In total, 31 participants started the questionnaire, of whom 25 finished. Due to missing datapoints, the number of usable participants dropped to 13. These participants' mean age was M = 28.23 (SD = 8.34) and ranged from 23 to 55 years. There were ten females (76.9%) and three males (23.1%). The most common level of education ranging from university of applied sciences to research university education was research university education (12 participants, 92.3%). The most common mother tongue was Dutch (7 participants, 53.8%), followed by German (3 participants, 22.1%), with the remaining participants' L1 being Chinese, Lithuanian, and Marathi. Their mean self-assessed English proficiency, measured on a 7-point Likert scale ranging from 1 = *poor* to 7 = *excellent*, was M = 6.00 (SD = 0.91).

Firstly, it was investigated whether or not participants were able to identify the mother tongue of the speaker correctly. This was measured with the open question "Where do you think this person is from?". For the strong accent recordings, the country of origin of speaker 2 was correctly identified as German by all 13 participants, followed by speakers 1 and 3 with nine participants (69.2%) each, and lastly, speaker 4 with six participants (46.2%). As all speakers strengthened their accents to sound even more German for this condition (and thus it not being their natural accent strength), this accent needed to be perceived as German by the listeners. For the slight accent recordings, speaker 2's and speaker 4's country of origin was correctly identified as German by seven participants (53.8%), followed by speaker 1 with four participants (30.8%), and lastly speaker 3 with two participants (15.4%). Thus, speaker 2 again had the most identifiable accent, on a par with speaker 4.

To ensure that speaker 2 did not simply have a strong accent but instead an identifiable accent that differed in strength between the slight and strong condition, perceived accent strength was measured with the following two statements that were rated on 7-point Likert scales (1 = *completely disagree*, 7 = *completely agree*): "This person sounds like a native speaker of English" (reversed) and "This person has a strong foreign accent in their English" (Jesney, 2004). As the reliability of these two items was poor in one condition, α = .48, only the item "This person has a strong foreign accent in their English" was used as this more specifically asked about accentedness, the variable of interest, and the other item asked about sounding native, which could also be interpreted as including, for instance, vocabulary and grammar. A paired-samples t-test found a significant difference in perceived accent strength between the slightly and strongly accented recoding of speaker 2, ($t(12) = 6.57$, $p < .001$, 95% CI [.47, 2.37], Cohen's d = 1.94), with the strongly accented recording (M = 5.62, SD = 1.45) being rated as having a significantly stronger foreign accent than the slightly accented recording (M = 2.08, SD = 1.26). The paired-samples t-tests for the slightly and strongly accented recordings of the remaining three speakers were also significant (all p's < .009); however, the mean difference for speaker 2 was largest with M_{diff} = 3.54. Thus, speaker 2 was selected for the main experiment.

Lastly, the perceived speech quality, speech rate, and confidence of speaker 2's slightly accented and strongly accented recordings were compared. For this, the statement "This speaker…" and 7-point Likert scales ranging from 1 = *completely disagree* to 7 = *completely agree* were utilised to measure speech quality with the items "sounds natural", "has a pleasant voice", "sounds monotonous" (reversed) and "sounds lively", speech rate with the items

"speaks fast", "speaks hesitantly" (reversed), and confidence with the items "speaks with confidence", and "has a powerful voice" (adapted from Bayard, Weatherall, Gallois, & Pittam, 2001; Hogervorst, 2011; Jesney, 2004). Reliability analyses of these items were conducted for the slightly and strongly accented recordings of speaker 2. Speech quality yielded Cronbach's alphas of $\alpha > .85$; consequently, the four items were combined into a compound variable. As the speech rate and confidence alphas were poor ($\alpha > .42$), the four items were analysed separately.

Paired-samples t-tests found no significant differences between the slightly and strongly accented recordings of speaker 2 in terms of speech quality ($t(12) = 2.13$, $p = .055$, 95% CI [-.02, 1.98], Cohen's d = .59). However, speaker 2 was perceived to speak significantly faster in the slightly accented recording ($M = 4.85$, $SD = 1.41$) than in the strongly accented recording ($M = 3.15$, $SD = 1.46$), ($t(12) = 3.31$, $p = .006$, 95% CI [.58, 2.81], Cohen's d = .92), significantly more hesitantly in the strongly accented recording ($M = 4.08$, $SD = 1.50$) compared to the slightly accented recording ($M = 2.31$, $SD = 1.18$), ($t(12) = 2.95$, $p = .012$, 95% CI [-3.08, -.46], Cohen's d = .82), with significantly more confidence in the slightly accented recording ($M = 5.46$, $SD = 0.52$) than in the strongly accented recording ($M = 4.23$, $SD = 1.69$), ($t(12) = 2.62$, $p = .022$, 95% CI [.21, 2.25], Cohen's d = .73), and with a significantly more powerful voice in the slightly accented recording ($M = 4.69$, $SD = 1.03$) than in the strongly accented recording ($M = 3.69$, $SD = 1.38$), ($t(12) = 2.79$, $p = .016$, 95% CI [.22, 1.78], Cohen's d = .78). An overview of the means and standard deviations can be found in Table 1.

Table 1. The means, standard deviations (between round brackets), and number of observations [between square brackets] for speech quality, "speaks fast", "speaks hesitantly", "speaks with confidence", and "has a powerful voice" (1 = low, 7 = high) in function of speaker 2's slightly and strongly accented recording.

Dependent Variable	Recording Speaker 2	
	Slightly Accented *M* (*SD*) [*n*]	Strongly Accented *M* (*SD*) [*n*]
Speech Quality	5.13 (0.97) [13]	4.15 (1.26) [13]
Speaks Fast	4.85 (1.41) [13]	3.15 (1.46) [13]
Speaks Hesitantly	2.31 (1.18) [13]	4.08 (1.50) [13]
Speaks with Confidence	5.46 (0.52) [13]	4.23 (1.69) [13]
Has a Powerful Voice	4.69 (1.03) [13]	3.69 (1.38) [13]

2.1.2. Disarmer Strategies Pre-Test

This pre-test aimed to select two disarmer strategies for the main experiment. As there is only one study on disarmer strategies in the context of foreign accentedness (Hosoda et al., 2023), the researchers relied on their own experiences and creativity to create these strategies. However, they also gave participants in the pre-test the chance to suggest additional strategies. Four disarmer strategies were tested in this pre-test. All strategies started with the information that the speaker is not a native Dutch speaker and thus has a foreign accent.

The *apology strategy* added an apology and the hope that the accent would not be a problem in an attempt to receive compassion from the listener and thus reduce negative perceptions. Although this has not yet been tested for accentedness, Ali, Lyons, and Ryan (2017) found that ex-offenders who used an apology tactic when addressing their previous offence during a job interview received more positive hiring recommendations than those using

no tactic. The idea behind the *show effort strategy* ("I will try my best to be understandable") was that listeners might subconsciously believe that accented speakers should try harder. Therefore, an accommodation by the speaker in terms of effort might lead to an accommodation by the listener in terms of a more favourable judgment. Furthermore, the effort to be *comprehensible* was explicitly chosen because an improved ability to process foreign-accented speech has been found to lead to enhanced attitudinal evaluations (Boduch-Grabka & Lev-Ari, 2021; Dragojevic, 2020; Roessel, Schoel, & Zimmermann, 2020). Despite a disarmer strategy not automatically improving processing fluency, it might make listeners aware that the speaker is not that difficult to understand. The purpose of the *imposition denial strategy* ("I am convinced that this will not be a problem") was to create a consciousness in the listener that an accent should not be an issue that might break prejudiced reaction patterns. The *acceptance request strategy* ("I hope you are patient with me") was thought to possibly lead to listeners wanting to perceive themselves and be perceived by others as patient, thus being less harsh on the speaker. In addition, it was hoped that all four disarmer strategies elicit empathy in the listener, as previous studies have argued that this is likely to be the underlying mechanism behind the effectiveness of prejudice control interventions (Hansen, Rakic & Steffens, 2014; Subtirelu & Lindemann, 2016; Weyant, 2007; Weyant, 2019).

This pre-test (see Appendix 3) tested these four disarmer strategies with a within-subjects design for their realism, participant usage, advisory score, and resistance. These variables were all measured with 7-point Likert scales ranging from 1 = *completely disagree* to 7 = *completely agree*. Realism was measured with the statement "This text is…" followed by the adjectives "far-fetched" (reversed), "realistic", "authentic", and "believable" (adapted from Hwang & Zhang, 2018; Jenkins & Dragojevic, 2011; Vashisht & Royne, 2016). All Cronbach's alphas were $\alpha > .75$; thus, the composite means were calculated for this scale. The participants' usage of this disarmer strategy was measured with the statement "[insert disarmer strategy] is something I would also do myself". The participants' advice for others to use this strategy was measured with the statement "I would advise people who speak with a non-native accent to [insert disarmer strategy] to avoid being judged negatively by their conversation partner". Resistance to the disarmer strategy was measured with the statement "I find saying that [insert disarmer strategy]…" followed by the descriptions "harmful" and "useful" (reversed) (based on Brannon, Tagler, & Eagly, 2007). As one Cronbach's alpha was poor ($\alpha = .46$), the two items were analysed separately, as "resistance" and "usefulness" respectively. The average time spent on the experiment was $M = 9.12$ ($SD = 3.73$) minutes.

In total, 15 people participated in this pre-test, of whom 12 completed the questionnaire. The ages of these 12 participants ranged from 21 to 29 ($M = 24.92$, $SD = 3.26$), and there were nine females (75%) and three males (25%). The education level of all 12 participants was at a university (Dutch WO) level, and they were all native Dutch speakers. Ten respondents (83.3%) indicated having a Dutch accent when speaking a foreign language. When asked whether or not they have used disarmer strategies when speaking a foreign language, nine participants (75%) negated. Three prompts were used to investigate this further. Firstly, they were asked to remember or imagine a conversation in which they became aware or even self-conscious about their non-native accent. Six participants (50%) indicated that they would do nothing, three respondents (25%) would apologise, two (16.67%) would admit the presence of their accent, and one (8.33%) would make a joke about it. Secondly, when being questioned about which strategies they have witnessed in others, six participants (50%) reported not having heard disarmer strategies from other people, four respondents (33.33%) indicated that others had addressed the presence of their accent, and two respondents (16.67%) mentioned that others have apologised for their accent. Thirdly, when being asked which disarmer strategies they would advise others to use, eight participants (66.67%) mentioned not addressing the accent,

three (25%) recommended addressing it, and one (8.33%) responded that the speaker could say that they are making an effort.

To select the two highest-scoring disarmer strategies, repeated-measures ANOVAs with Bonferroni post-hoc tests were conducted to compare the means of the four dependent variables (realism, own use, advice, resistance) across the four disarmer strategies. The means and standard deviations are located in Table 2. It was found that the difference in mean realism between the four disarmer strategies was significantly different ($F(3, 33) = 8.02$, $p < .001$, $\eta_p^2 = .42$). Post-hoc analyses with a Bonferroni adjustment revealed that the show effort disarmer strategy ($M = 5.67$, $SD = 0.56$) was rated as significantly more realistic than the imposition denial disarmer strategy ($M = 3.85$, $SD = 1.71$, $p = .032$). The acceptance request strategy ($M = 4.98$, $SD = 1.38$) was also rated significantly more realistic than the imposition denial strategy ($p = .026$). There was no significant difference between the other disarmer strategies (all p's > .126). When inspecting the realism means for the four disarmer strategies without taking into consideration statistical significance, they can be ranked from most to least realistic in the following order: show effort ($M = 5.67$, $SD = 0.56$), acceptance request ($M = 4.98$, $SD = 1.38$), apology ($M = 4.71$, $SD = 0.41$), imposition denial ($M = 3.85$, $SD = 1.71$).

For the participants' usage of the disarmer strategy, a repeated-measures ANOVA did not find any statistically significant differences ($F(3,33) = 2.35$, $p = .091$). A comparison of means resulted in the following ranking from highest to lowest own usage: show effort ($M = 3.92$, $SD = 2.11$), apology ($M = 3.58$, $SD = 1.93$), acceptance request ($M = 2.92$, $SD = 1.78$), imposition denial ($M = 2.50$, $SD = 1.57$).

When investigating the extent to which participants advised others to use the four disarmer strategies, a repeated-measures ANOVA found statistically significant differences ($F(3, 33) = 6.02$, $p = .002$, $\eta_p^2 = .35$). The show effort strategy ($M = 4.67$, $SD = 1.78$) was advised significantly stronger than the imposition denial strategy ($M = 3.08$, $SD = 1.88$, $p = .029$) and the apology strategy ($M = 2.50$, $SD = 1.17$, $p = .014$). The other strategies did not differ significantly from each other (all p's > .182). Thus, the most highly advised disarmer strategy was show effort ($M = 4.67$, $SD = 1.78$), followed by acceptance request ($M = 3.25$, $SD = 1.55$), imposition denial ($M = 3.08$, $SD = 1.88$), and apology ($M = 2.50$, $SD = 1.17$).

A repeated-measures ANOVA did not find statistically significant differences in resistance ($F(3, 33) = 1.29$, $p = .295$) to nor in usefulness ($F(3, 33) = 2.62$, $p = .067$) of the four disarmer strategies. The statistically insignificant ranking by means yielded the following hierarchy for resistance (high-low): apology ($M = 4.08$, $SD = 1.08$), acceptance request ($M = 4.08$, $SD = 1.62$), imposition denial ($M = 4.00$, $SD = 1.71$), show effort ($M = 3.25$, $SD = 1.71$). For usefulness (high-low), the order was: show effort ($M = 5.00$, $SD = 1.21$), acceptance request ($M = 4.50$, $SD = 1.17$), apology ($M = 3.75$, $SD = 1.36$), imposition denial ($M = 3.67$, $SD = 1.67$).

The final general ranking of all four disarmer strategies was analysed by creating the sum of each ranked strategy and ordering them from lowest to highest (as the first place gives one point, second two, and so on). This showed that with 21 points, the show effort strategy was most present amongst the first places, followed by apology with 29 points, acceptance request with 30 points, and imposition denial with 40 points. The participants did not give any further helpful remarks at the end of the questionnaire.

As show effort was rated highest in this ranking, and there being an (at times significant) trend of this disarmer strategy scoring highest in terms of realism, usage, advice, and usefulness, and causing the least resistance, it was selected for the main experiment. The second selected disarmer strategy was the apology, as it was the most mentioned strategy by participants in the open questions (besides not addressing an accent, which does not qualify as a strategy) and scored second highest in the general ranking. The fact that the apology strategy was advised the least and caused the most resistance can be explained by participants believing that NNSs

should not have to apologise for their accents. However, this does not mean that an apology would not be an effective disarmer strategy. On the contrary, it might even increase the effectiveness of this strategy, as listeners realise that apologising for an accent should not have to happen in the first place, resulting in less harsh judgements.

Table 2. The means, standard deviations (between round brackets), and number of observations [between square brackets] for realism, usage, advice, resistance, and usefulness (1 = low, 7 = high) in function of disarmer strategy.

Disarmer Strategy	Dependent Variable				
	Realism *M* (*SD*) [*n*]	Usage *M* (*SD*) [*n*]	Advice *M* (*SD*) [*n*]	Resistance *M* (*SD*) [*n*]	Usefulness *M* (*SD*) [*n*]
Apology	4.71 (1.40) [12]	3.58 (1.93) [12]	2.50 (1.17) [12]	4.08 (1.08) [12]	3.75 (1.36) [12]
Show Effort	5.67 (0.56) [12]	3.92 (2.11) [12]	4.67 (1.78) [12]	3.25 (1.71) [12]	5.00 (1.21) [12]
Imposition Denial	3.85 (1.71) [12]	2.50 (1.57) [12]	3.08 (1.88) [12]	4.00 (1.71) [12]	3.67 (1.67) [12]
Acceptance Request	4.98 (1.38) [12]	2.92 (1.78) [12]	3.25 (1.55) [12]	4.08 (1.62) [12]	4.50 (1.17) [12]

2.2. Design

The main experiment was conducted using a 2x3x3 between-subjects design with the factors being the degree of accentedness (two levels: slight German-accented English, strong German-accented English), the type of disarmer strategy (three levels: no disarmer, apology, show effort), and the listeners' L1 (German, Dutch, Scandinavian). There were six different conditions (accentedness x disarmer) across which the subjects were distributed.

2.3. Instrumentation

2.3.1. Main Dependent Variables

The main dependent variables of the experiment were comprehensibility, status, competence, likeability, dynamism, and hirability. Comprehensibility was measured using questions based on Hendriks et al. (2016). On 7-point Likert scales, the participants were asked to what extent they agree (1 = *completely disagree*, 7 = *completely agree*) with the following statements: "I am able to understand the candidate", "The candidate speaks clearly", "The candidate is intelligible", "The candidate is easy to comprehend", "I have no problems understanding what the candidate is talking about", and "I understand what the candidate means" (Cronbach's α = .89).

The dependent variables status, competence, likeability, and dynamism were measured using 7-point Likert scales (1 = *completely disagree*, 7 = *completely agree*) (based on Bayard et al., 2001; Hendriks et al., 2016; Nejjari et al., 2012; Tsalikis, De Shields, & LaTour, 1991) for the statement "In my opinion, this candidate sounds…" with by the following adjectives for status: "authoritative", "trustworthy', "self-confident", "influential", and "has a powerful voice" (Cronbach's α = .80). For competence, the adjectives were "reliable", "intelligent", "competent", "hardworking", and "educated" (Cronbach's α = .87). The following descriptions were used to measure likeability: "credible", "sympathetic", "warm", "humorous", "tactful", "polite", "pleasant", and "friendly" (Cronbach's α = .84). To measure dynamism, the descriptions following the initial statement were: "energetic", "talkative", "cheerful", "hardworking", and "active" (Cronbach's α = .83 after removing the "hardworking", see the Factor Analysis in section 2.3.1.1).

Hirability was measured using an adapted version of the hirability scale from Deprez-Sims and Morris (2010). On 7-point Likert scales (1 = *completely disagree*, 7 = *completely*

agree), the following statements were rated: "I would recommend employing this candidate", "I would feel satisfied if this candidate would be hired", "I feel favourable towards this candidate", "I would have the desire to work with this candidate", "This candidate would be an asset to the company", and "There is a high likelihood of this candidate being hired" (Cronbach's $\alpha = .92$). The entire questionnaire can be found in Appendix 4.

2.3.1.1. Factor Analysis Main Dependent Variables

A Factor Analysis was conducted to assess the construct validity of the main dependent variables and potentially group the items differently if necessary. This technique was deemed appropriate as Bartlett's test was significant $X^2(561) = 17047.41$, $p < .001$, indicating that the variables in the dataset are related. Moreover, with a value of .96, Kaiser-Meyer-Olkin's measure for sampling adequacy is well above the 0.5 minimum value, which means that the factors can account for a substantial proportion of the variance.

Based on a principle component analysis using varimax rotation, six different factors with an eigenvalue above 1 were distinguished, which was in line with the inflexion point in the scree plot ($EV_{factor\ 1} = 14.29$, $EV_{factor\ 2} = 2.66$, $EV_{factor\ 3} = 1.69$, $EV_{factor\ 4} = 1.37$, $EV_{factor\ 5} = 1.24$, $EV_{factor\ 6} = 1.08$). These factors explain 65.65% of the variance in the 34 items included in this factor analysis and have factor loadings ranging between .46 and .81.

Factor 1 was the only one that consisted of items from several different pre-determined variables. In addition to all five competence items, there was "hardworking" from the dynamism scale. This item was already included in the competence scale and, therefore, excluded from further analysis. Furthermore, the items "trustworthy" and "self-confident" from the status scale, and "credible" and "polite" from the likeability scale loaded most strongly onto factor 1. None of these items was kept in this factor but was moved to the factor where the rest of the items from their scale were (factor 4 and factor 6, respectively). There were three reasons for this. Firstly, although they could also thematically fit with the competence items, there is no disconnect between the rest of the likeability or status items, and they still fit with their original scale. Secondly, these four items also substantially co-loaded onto the factor where the rest of the likability or status items were and thus were only a slightly better fit in factor 1 than their pre-determined variable. Thirdly, their inclusion in their original scale (see section 2.3.1) was favoured as their impact on increasing the number of items and Cronbach's alpha was more meaningful than their impact in factor 1. Factor 2 comprised of all six comprehensibility items, factor 3 of all six hirability items, factor 4 of the remaining six likeability items (as "credible" and "polite" already loaded onto factor 1), factor 5 of the remaining four dynamism items (as "hardworking" already loaded onto factor 1), and factor 6 of the remaining three status items (as "trustworthy and "self-confident" already loaded onto factor 1). However, as discussed above, the items from likeability and status that loaded onto factor 1 were included in factor 4 and factor 6, respectively. To conclude, besides deleting the item "hardworking" from the dynamism scale, all variables discussed in section 2.3.1 remained unchanged. Their Cronbach's alphas can be found in section 2.3.1.

2.3.2. Background Questions

In addition to these main dependent variables, the following background questions were measured: age (open question), gender (male/female/non-binary or third gender/prefer not to say), current or highest completed level of education (secondary education/Bachelor's degree/Master's degree/Doctorate/other, namely…), nationality (open question), and mother tongue (open question). Familiarity with the accent was measured using three 7-point Likert scales (1 = *completely disagree*, 7 = *completely agree*) for the statements "I am familiar with German-accented English", "I often meet people who have a German accent in their English", and "I regularly talk to people who have a German accent in their English" (Hendriks et al.,

2018). As the reliability of this variable was good: α = .82, the composite mean was calculated with higher scores indicating higher familiarity.

To measure the participants' general English proficiency, they were asked "How would you rate your English proficiency" with a 7-point Likert scale ranging from 1 = *poor* to 7 = *excellent*. To elaborate and measure their self-assessed English skills, they were additionally asked to rate their level of English concerning the items "speaking", "writing", "reading", and "listening" on 7-point Likert scales (1 = *poor*, 7 = *excellent*) based on Krishna and Alhuwalia (2008). As the reliability of this variable was good: α = .81, the composite mean was calculated with higher scores indicating higher proficiency. Additionally, Lemhöfer and Broersma's (2012) LexTALE test measured participants' actual English proficiency.

In addition to proficiency, the respondents were also asked to rate their accent using 7-point Likert scales (1 = *completely disagree*, 7 = *completely agree*) and the statements "I sound like a native speaker of English" (reversed) and "I have a strong foreign accent in my English" (Jesney, 2004). As the reliability of listener accent was poor: α = .52, only the item "I have a strong foreign accent in my English" was used as this more specifically asked about accentedness, the variable of interest, and the other item asked about sounding native which could also be interpreted as including things such as vocabulary and grammar. Higher scores again indicated higher degrees of foreign accentedness.

Furthermore, the participants were asked to indicate whether or not they were a student with a yes/no question. Their previous work and hiring experience were measured with a yes/no question to investigate a possible influence of this on their evaluations. If they had work experience, the participants were asked to indicate the number of years they had worked.

Lastly, to measure the respondents' general prejudice towards accented speakers, they were asked to rate the following statements on 7-point Likert scales (1 = *completely disagree*, 7 = *completely agree*): "Speakers with non-native English accents should learn to speak English better", "Speakers with a non-native accent in English is less effective than a speaker with a native English accent", "It is irritating when a speaker has a non-native accent in English", "Speakers with non-native English accents are less intelligent than native English speakers", "Speakers with non-native English accents cannot express their opinions in English as well as native English speakers", and "In my country, speakers are evaluated less positively if they have a non-native accent in their English" (Ura, Preston, & Mearns, 2015). As the reliability of this variable was good: α = .82, the composite mean was calculated with higher scores indicating more substantial prejudice.

2.3.3. Manipulation Checks

Two manipulation checks were included in the current study. Firstly, the perceived accentedness of the speakers was measured to test whether there was a clear difference in accentedness between the slightly and strongly accented speakers. For this, the following two statements were rated on 7-point Likert scales (1 = *completely disagree*, 7 = *completely agree*): "This speaker sounds like a native speaker of English" (reversed) and "This speaker has a strong foreign accent in his English" (Jesney, 2004). As the reliability of speaker accent was poor: α = .60, only the item "This speaker has a strong foreign accent in her English" was used for the analysis as this more specifically asked about accentedness, the variable of interest, and the other item asked about sounding native which could also be interpreted as including aspects such as vocabulary and grammar. The second manipulation check was to test whether participants could correctly identify the speakers' country of origin. This was prompted by the question "Which country do you think this speaker is from?" and a drop-down menu with all countries from which the participants could choose.

2.4. Subjects

In total, 992 respondents participated in the experiment. This number dropped to 811 eligible respondents after deselecting 11 participants who reported their mother tongue as English, 58 participants whose mother tongue was not German, Dutch, or any of the Scandinavian languages, 13 participants who did not have any or only secondary education, 30 respondents with scores below 50 on the LexTALE test, and 88 respondents who, assumingly mindlessly, selected the same response on the Likert scale for at least 75% of items belonging to the main variables.

The age of the remaining 811 respondents was M = 33.23 (SD = 6.47) and ranged from min = 25 years to max = 45 years (range = 20). Of the participants, 452 were male (55.7%), 352 were female (43.4%), five were non-binary/third gender (0.6%), and two people preferred not to specify their age (0.2%). The most frequent level of education ranging from a Bachelor's degree to a Doctorate was a Bachelor's degree (463 participants, 57.1%). The majority of respondents (650 participants, 80.1%) were not students anymore, had work experience (747 participants, 92.1%), but had not worked as a member of a hiring panel before (570 participants, 70.3%). The mother tongue and nationality of 209 participants (25.8%) was German, followed by 205 (25.3%) Dutch, 104 (12.8%) Danish, 104 (12.8%) Norwegian, 95 (11.7%) Finnish, and 94 (11.65) Swedish.

On scales where a score of one represented the lowest possible presence of the measured construct and seven represented the highest possible presence, the mean self-assessed English proficiency was M = 5.95 (SD = 0.77) (information from four participants was missing due to a system error). The participant's degree of accentedness was M = 4.07 (SD = 1.66). Their familiarity with German-accented English was M = 4.41 (SD = 1.46) on a scale where 1 = *low familiarity* and 7 = *high familiarity*. Their mean self-assessed English skill was M = 5.64 (SD = 0.84), and their mean LexTALE score, meant to measure their actual English proficiency with scores out of 100, was M = 72.28 (SD = 12.92) with a minimum score of 50 and a maximum score of 100. This mean represents a B2 CEFR level (Lemhöfer & Broersma, 2012). The participants' mean score on the prejudice measure test was M = 3.67 (SD = 1.23).

The distribution of participants' characteristics was measured across the degree of accentedness and disarmer strategy conditions. One-way ANOVAs found equal distributions of age, self-assessed English skills, actual English proficiency (LexTALE), familiarity, and general prejudice across the degree of accentedness conditions (all p's > .117) and disarmer strategy conditions (all p's > .162). The self-assessed listener's accent was equally distributed across the disarmer conditions (p = .325) but unequally distributed across the degree of accentedness conditions ($F(1, 809) = 8.33$, p = .004, η^2 = .01) with participants in the slight accent condition (M = 4.24, SD = 1.68) rating their foreign accent as significantly stronger than participants in the strong accent condition (M = 3.91, SD = 1.64). However, it is worth noting that the question about the listeners' accent strength was asked after they had listened to the recording. It is thus possible that they subconsciously rated their accent strength compared to the speaker's accent strength and perceived their accent as stronger than the speaker's weak accent and vice versa, resulting in the unequal distribution across the accentedness conditions.

Chi-square tests found an equal distribution of work experience, hiring experience, and student status across the degree of accentedness conditions (all p's > .229) and the disarmer strategy conditions (all p's > .374). The variables gender and education violated the Chi-square assumption of expected frequencies for the degree of accentedness condition. As combining groups could not be done logically, Fisher's exact test was utilised as an alternative to Pearson's Chi-square. Fisher's exact tests found equal distributions of gender and education level across the degree of accentedness conditions (all p's > .459) and disarmer strategy conditions (all p's > .463).

2.5. Procedure

The experiment was conducted employing a Qualtrics questionnaire. Participants were recruited and paid via the Qualtrics platform. After receiving a short introduction and privacy statement, they were asked to consent to taking part in the survey voluntarily. They filled in several selection demographic questions before being presented with the stimulus material. As such, their age had to be between 25 and 45, their education at least at a Bachelor's degree level, their nationality either Danish, Dutch, Finnish, German, Norwegian, or Swedish, and their self-assessed English skills between 4-7 on a 7-point Likert scale ranging from poor to excellent. If the participants did not meet the selection criteria, they were redirected to the end of the survey.

After completing the selection demographic section, all participants were informed that they would be shown a job application fragment for a junior position in the Human Resources department of an international company in which a candidate would describe their previous work experience. They were then asked to carefully watch the fragment only once and were randomly presented with one of the six fragments (slight/strong accent x apology/effort/control). A timer ensured they watched at least 75% before proceeding.

The respondents were then given the opportunity to share their first impression of the candidate. This also investigated whether they caught onto the fact that the speaker was faking their accent strength. Following this open question, the main variables comprehensibility, status, competence, likeability, dynamism, and hirability were measured. After the main variables, the respondents were asked to indicate the speaker's country of origin and accent strength, as well as their self-assessed English skills and accent strength. These questions were followed by the LexTALE test and their familiarity with German-accented English. Subsequently, the demographic questions were asked. Lastly, their prejudice towards non-native accentedness was measured. The average duration was $M = 13.09$ ($SD = 18.67$) minutes.

2.6. Statistical Treatment

A multivariate analysis of variance (MANOVA) was conducted to test the effects of disarmer strategy, degree of accentedness, and listener L1 on the speaker's comprehensibility, status, competence, likeability, dynamism, and hirability. Significant two-way interaction effects were analysed with independent samples t-tests. Simple main effects were analysed with Bonferroni-corrected pairwise comparisons. This choice was made due to pairwise comparisons (unlike multiple comparisons) being based on the estimated marginal means instead of the observed means. Estimated marginal means essentially control for unequal sample sizes, which was the case in the current study. The pairwise comparisons were Bonferroni-corrected to adjust for the presence of multiple comparisons, which can increase the likelihood of a Type I error. To test whether comprehensibility mediated the effect of the disarmer strategy on the main dependent variables, mediation model 4 in PROCESS by Andrew F. Hayes was utilised. All data was processed in IBM SPSS 29.

Levene's Test identified that the assumption of homogeneity of variances was violated for the MANOVA concerning the variables comprehensibility, likeability, and hirability (all p's $< .033$). This is relevant for the current study, as the sample sizes across groups were unequal, thus decreasing the robustness to such violations. However, Levene's test is sensitive to the total sample size and will yield a smaller p-value for larger samples; it is thus likely to overstate homogeneity assumption issues (Grace-Martin, 2023). To check whether the assumption of homogeneity of variances was indeed violated, I examined the distribution of the variances by plotting the relationship between the standardized predicted values of the model and the standardized residuals in a scatterplot. Despite being slightly more slanted, which triggered the significant Levene's, there were no severe deviations from a regular distribution for any of the three possibly affected variables. Therefore, no adjustments were made to compensate for homoskedasticity.

3. Results

This experiment aimed to investigate the effect of a slightly and strongly German-accented English speaker utilising a show effort, apology, or no disarmer strategy on German, Dutch, and Scandinavian listeners' perceptions of their comprehensibility, status, competence, likeability, dynamism, and hirability. Additionally, the mediating role of comprehensibility was investigated for the effect of the disarmer strategies on the attitudinal evaluations. For all variables discussed in the following sections, higher scores indicated higher levels of the construct.

3.1. Manipulation Checks

3.1.1. Perceived Accentedness

A two-way ANOVA with degree of accentedness and listener L1 found no significant interaction effect on perceived accentedness ($F(2, 805) = 1.07$, $p = .345$). However, there was a significant main effect of degree of accentedness ($F(1, 805) = 221.97$, $p < .001$, $\eta_p^2 = .22$). Pairwise comparisons showed that, as intended, the strongly accented speaker ($M = 5.90$, $SE = .08$) was perceived as having a stronger foreign accent than the slightly accented speaker ($M = 4.27$, $SE = .08$). There was no significant main effect of listener L1 on perceived accentedness ($F(2, 805) < 1$). The results for the two-way ANOVA can be found in Table 3.

Table 3. The means, standard deviations (between round brackets), and number of observations [between square brackets] for the perceived degree of accentedness (1 = low, 7 = high) in function of accentedness and listener L1.

Accentedness	Listener L1			
	German *M* (*SD*) [*n*]	Dutch *M* (*SD*) [*n*]	Scandinavian *M* (*SD*) [*n*]	Total *M* (*SD*) [*n*]
Slight	4.09 (1.66) [101]	4.39 (1.54) [98]	4.33 (1.63) [184]	4.28 (1.62) [383]
Strong	5.94 (1.35) [108]	5.93 (1.30) [107]	5.83 (1.38) [213]	5.88 (1.35) [428]
Total	5.05 (1.77) [209]	5.19 (1.61) [205]	5.13 (1.68) [397]	5.13 (1.68) [811]

3.1.2. Speaker's Country of Origin

The participants' answers concerning their perceptions of the speakers' country of origin were coded into four categories: "correct (German)", "incorrect (native English)", "incorrect (miscellaneous)" and "I don't know". A Chi-square test (see table 4) showed a significant relation between the country-of-origin indications and the speaker's degree of accentedness ($\chi^2(3) = 78.40$, $p < .001$). The strongly accented speaker (59.6%) was more likely to be correctly identified as German than the slightly accented speaker (28.7%). Vice versa, the slightly accented speaker was more likely than the strongly accented speaker to be incorrectly identified as native English (slight = 50.1%, strong = 29.7%), incorrectly identified as something other than native English (miscellaneous) (slight = 8.6%, strong = 4.0%), or participants not knowing the country of origin (slight = 12.5%, strong = 6.8%).

Another Chi-square test (see Table 5) showed a significant relation between the country-of-origin indications and the listeners' L1 ($\chi^2(6) = 65.21$, $p < .001$). Germans (60.8%) were more likely than the Dutch (40.0%) and Scandinavians (39.3%) to identify the speakers' country of origin. There was no difference between Scandinavian and Dutch listeners for the correct guesses. The German (11.5%) and Scandinavian (6.0%) listeners were more likely than the Dutch listeners (1.0%) to make an incorrect (native English) country of origin guess, while the Scandinavians and Germans did not differ. Both the Dutch (51.2%) and Scandinavian

(43.1%) listeners were more likely than the German listeners (20.6%) to make an incorrect (miscellaneous) country of origin guess, while the Dutch and Scandinavians did not differ. None of the three listener groups differed in terms of not knowing the country of origin.

To investigate whether correctly identifying the speakers' country of origin influenced the attitudinal evaluations, a one-way ANOVA with country of origin (correct/incorrect(native English)/incorrect(miscellaneous)/I don't know) was conducted for all main dependent variables (see Table 6). Significant effects of the correctness of the country of origin indications were found for status ($F(3,807) = 6.74$, $p < .001$, $\eta^2 = .02$) and dynamism ($F(3,807) = 3.43$, $p = .017$, $\eta^2 = .01$). No significant effects for comprehensibility, competence, likeability, and hirability were found (all p's >.332). Multiple comparisons with Bonferroni corrections showed that listeners who perceived the speakers as native English ($M = 5.35$, $SD = 0.93$) rated them as significantly more dynamic than listeners who did not know the speakers' origin ($M = 4.77$, $SD = 0.92$; $p = .014$). None of the other groups differed significantly (all p's > .069). The same effect was found for status where native English country of origin indications ($M = 5.44$, $SD = 0.88$) resulted in significantly higher status perceptions than "I don't know" indications ($M = 4.82$, $SD = 0.93$; $p = .003$) as well as incorrect (miscellaneous) indications ($M = 4.91$, $SD = 0.93$; $p = .002$) and correct (German) indications ($M = 4.80$, $SD = 1.01$; $p < .001$). The other groups did not differ significantly from each other (all p's > .785)

Table 4. Observed count and column percentages of the Chi-square test for accentedness by correct, incorrect-NE, incorrect-miscellaneous, and "I don't know" country of origin indications.

Country of Origin Guesses		Accentedness Condition		
		Slight	Strong	Total
Correct (German)	Count	110_a	255_b	365
	Column %	28.7	59.6	45.0
Incorrect (Native English)	Count	192_a	127_b	319
	Column %	50.1	29.7	39.3
Incorrect (Miscellaneous)	Count	33_a	17_b	50
	Column %	8.6	4.0	6.2
I don't know	Count	48_a	29_b	77
	Column %	12.5	6.8	9.5
Total	Count	383	428	811
	Column %	100	100	100

Note: Each subscript letter denotes a subset of the prejudice control condition whose column proportions do not differ significantly from each other at the .05 level

Table 5. Observed count and column percentages of the Chi-square test for listener L1 by correct, incorrect-NE, incorrect-miscellaneous, and "I don't know" country of origin indications.

Country of Origin Guesses		Listener L1 Condition			
		German	Dutch	Scandinavian	Total
Correct (German)	Count	127_a	82_b	156_b	365
	Column %	60.8	40.0	39.3	45.0
Incorrect (Native English)	Count	24_a	2_b	24_a	50
	Column %	11.5	1.0	6.0	6.2
Incorrect (Miscellaneous)	Count	43_a	105_b	171_b	319

	Column %	20.6	51.2	43.1	39.3
I don't know	Count	15_a	16_a	46_a	77
	Column %	7.2	7.8	11.6	9.5
Total	Count	209	205	397	811
	Column %	100	100	100	100

Note: Each subscript letter denotes a subset of the prejudice control condition whose column proportions do not differ significantly from each other at the .05 level

Table 6. The means, standard deviations (between round brackets), and number of observations [between square brackets] for comprehensibility, status, competence, likeability, dynamism, and hirability (1 = low, 7 = high) in function of country-of-origin indications (correct/Native English/miscellaneous/I don't know).

Dependent Variables	Country of Origin Indications				
	Correct (GER) *M* (*SD*) [*n*]	Native English *M* (*SD*) [*n*]	Miscellaneous *M* (*SD*) [*n*]	I don't know *M* (*SD*) [*n*]	Total *M* (*SD*) [*n*]
Comprehensibility	5.52 (1.13) [365]	5.69 (0.90) [50]	5.58 (1.02) [319]	5.52 (0.92) [77]	5.56 (1.06) [811]
Status	4.80 (1.02) [365]	5.44 (0.88) [50]	4.91 (0.93) [319]	4.82 (0.93) [77]	4.88 (0.98) [811]
Competence	5.55 (1.00) [365]	5.55 (0.94) [50]	5.56 (0.89) [319]	5.38 (1.03) [77]	5.54 (0.96) [811]
Likeability	5.22 (0.96) [365]	5.32 (0.92) [50]	5.27 (0.83) [319]	5.07 (0.91) [77]	5.23 (0.91) [811]
Dynamism	5.07 (1.07) [365]	5.35 (0.93) [50]	5.10 (1.06) [319]	4.77 (0.92) [77]	4.77 (0.92) [811]
Hirability	5.14 (1.25) [365]	5.34 (1.06) [50]	5.20 (1.05) [319]	5.17 (1.11) [77]	5.18 (1.15) [811]

3.2. Speaker Evaluations

The speaker evaluations were comprehensibility, status, competence, likeability, dynamism, and hirability, with higher scores indicating higher levels for all variables. The means and standard deviations for the MANOVA conducted for these six variables are located in Table 7.

3.2.1. MANOVA Three-Way Interactions

A MANOVA with disarmer strategy, degree of accentedness, and listener L1 as factors showed no significant interaction effect of all three factors on comprehensibility ($F(4, 793) = 1.40$, $p = .233$), status ($F(4, 793) < 1$), competence $F(4, 793) < 1$), likeability ($F(4, 793) = 1.84$, $p = .119$), dynamism ($F(4, 793) < 1$), and hirability ($F(4, 793) = 1.18$, $p = .321$).

3.2.2. MANOVA Two-Way Interactions

The two-way interaction between disarmer strategy and accentedness was not significant for comprehensibility ($F(2, 793) = 1.88$, $p = .153$), status ($F(2, 793) = 1.26$, $p = .283$), competence ($F(2, 793) < 1$), likeability ($F(2, 793) < 1$), dynamism ($F(2, 793) < 1$), and hirability ($F(2, 793) < 1$). The two-way interaction between disarmer strategy and listener L1 was not significant for comprehensibility ($F(4, 793) < 1$), status ($F(4, 793) = 1.96$, $p = .099$), competence ($F(4, 793) < 1$), likeability ($F(4, 793) < 1$), dynamism ($F(4, 793) < 1$), and hirability ($F(4, 793) < 1$). For the interaction between degree of accentedness and listener L1, a significant effect was found on status ($F(2, 793) = 3.03$, $p = .049$, $\eta_p^2 = .01$) and hirability ($F(2, 793) = 4.78$, $p = .009$, $\eta_p^2 = .01$) but not for comprehensibility ($F(2, 793) < 1$), competence ($F(2, 793) = 2.44$, $p = .088$), likeability ($F(2, 793) = 1.92$, $p = .147$), and dynamism ($F(2, 793) = 1.87$, $p = .155$).

Independent-sample t-tests found that for **status**, German listeners perceived the slightly accented speaker ($M = 5.07$, $SD = 0.89$) as having significantly more status than the strongly accented speaker ($M = 4.60$, $SD = 0.98$), $t(206.78) = 3.64$, $p < .001$, 95% CI [.22, .73], Cohen's $d = .50$. The Dutch listeners did not differentiate between the slightly accented ($M = 4.86$, SD

= 0.91) and strongly accented (M = 4.81, *SD* = 0.96) speakers in terms of status *t*(202.77) = .40, *p* = .693, 95% CI [-.21, .31]. The Scandinavian listeners also did not rate the slightly accented (*M* = 4.97, *SD* = 1.01) and strongly accented (*M* = 4.91, *SD* = 0.95) speakers differently on status *t*(367.09) = .60, *p* = .547, 95% CI [-.14, .26].

For **hirability**, German listeners perceived the slightly accented speaker (*M* = 5.42, *SE* = 1.00) as significantly more hirable than the strongly accented speaker (*M* = 4.71, *SE* = 1.35), *t*(196.88) = 4.34, *p* < .001, 95% CI [.39, 1.03], Cohen's *d* = 60. The Dutch listeners also rated the slightly accented speaker (*M* = 5.22, *SE* = 1.05) as significantly more hirable than the strongly accented speaker (*M* = 4.92, *SE* = 1.11), *t*(202.78) = 1.99, *p* = .048, 95% CI [.00, .60], Cohen's *d* = .28. The Scandinavian listeners did not rate the slightly accented speaker (*M* = 5.36, *SE* = 1.11) and the strongly accented speaker (*M* = 5.25, *SE* = 1.12) differently in terms of their hirability *t*(387.84) = 1.03, *p* = .302, 95% CI [-.11, .34].

3.2.3. MANOVA Main Effects

3.2.3.1. Disarmer Strategy

A significant main effect of the disarmer strategy was found on comprehensibility (*F*(2, 793) = 4.48, *p* = .012, η_p^2 = .01), status (*F*(2, 793) = 6.89, *p* = .001, η_p^2 = .02), competence (*F*(2, 793) = 5.73, *p* = .003, η_p^2 = .01), likeability (*F*(2, 793) = 7.42, *p* < .001, η_p^2 = .02), dynamism (*F*(2, 793) = 8.95, *p* < .001, η_p^2 = .022), and hirability (*F*(2, 793) = 5.39, *p* = .005, η_p^2 = .01).

Bonferroni-corrected pairwise comparisons showed that for **comprehensibility**, the show effort disarmer (*M* = 5.68, *SE* = 0.07) resulted in significantly higher ratings than no disarmer strategy (*p* = .013; *M* = 5.41, *SE* = 0.07). There were no significant differences between the apology disarmer (*M* = 5.61, *SE* = 0.07) and the show effort disarmer (*p* = 1) or no disarmer (*p* = .089). For **status**, the show effort disarmer (*M* = 4.98, *SE* = 0.06) yielded significantly higher ratings than no disarmer (*p* = .003; M = 4.69, *SE* = 0.06). The apology disarmer (*M* = 4.95, *SE* = 0.06) also resulted in significantly higher status perceptions of the NNS than no disarmer (*p* = .007). There was no difference between the apology and the show effort disarmer strategies (*p* = 1). For **competence**, the show effort disarmer (*M* = 5.65, *SE* = 0.06) resulted in significantly higher ratings than no disarmer (*p* = .003; *M* = 5.37, *SE* = 0.06). There were no significant differences between the apology disarmer (*M* = 5.56, *SE* = 0.06) and the show effort disarmer (*p* = .806) or no disarmer (*p* = .075). For **likeability**, the show effort strategy (*M* = 5.38, *SE* = 0.06) led to significantly higher perceptions than no disarmer strategy (*p* < .001; *M* = 5.07, *SE* = 0.06). The apology strategy (*M* = 5.26, *SE* = 0.06) also yielded significantly higher likeability scores than no disarmer strategy (*p* = .041). The show effort and apology strategies did not differ significantly (*p* = .516). For **dynamism**, the show effort disarmer (*M* = 5.25, *SE* = 0.07) resulted in significantly higher scores than no disarmer (*p* < .001; *M* = 4.85, *SE* = 0.07). There were no significant differences between the apology disarmer (*M* = 5.06, *SE* = 0.07) and the show effort disarmer (*p* = .140) and no disarmer (*p* = .069). For **hirability**, the show effort disarmer (*M* = 5.29, *SE* = 0.08) yielded significantly higher ratings than no disarmer strategy (*p* = .005; *M* = 4.97, *SE* = 0.07). The apology disarmer (*M* = 5.21, *SE* = 0.07) did not differ significantly from the show effort disarmer (*p* = 1) nor no disarmer strategy (*p* = .052).

3.2.3.2. Degree of Accentedness

A significant main effect of degree of accentedness was found on comprehensibility (*F*(1, 793) = 36.23, *p* < .001, η_p^2 = .04), competence (*F*(1, 793) = 20.75, *p* < .001, η_p^2 = .03), and likeability (*F*(1, 793) = 7.86, *p* = .005, η_p^2 = .01). There was no significant main effect of the degree of accentedness on dynamism (*F*(1, 793) < 1). For status and hirability, the effect of accentedness interacted with listener L1 (see section 3.2.2).

Bonferroni-corrected pairwise comparisons showed that for **comprehensibility**, the slightly accented speaker (*M* = 5.80, *SE* = 0.06) was rated as significantly more comprehensible

than the strongly accented speaker ($p < .001$; $M = 5.34$, $SE = 0.05$). For **competence**, the slightly accented speaker ($M = 5.68$, $SE = 0.05$) received significantly higher ratings than the strongly accented speaker ($p < .001$; $M = 5.37$, $SE = 0.05$). For **likeability**, the slightly accented speaker ($M = 5.33$, $SE = 0.05$) was rated as significantly more likeable than the strongly accented speaker ($p = .005$; $M = 5.14$, $SE = 0.05$).

3.2.3.3. Listener L1

A significant main effect of listener L1 was found on competence ($F(2, 793) = 5.69$, $p = .004$, $\eta_p^2 = .01$) and dynamism ($F(2, 793) = 3.07$, $p = .047$, $\eta_p^2 = .01$). No significant effect was found on comprehensibility ($F(2, 793) < 1$) and likeability ($F(1, 793) = 1.57$, $p = .208$). For status and hirability, the effect of listener L1 interacted with accentedness (see section 3.2.2).

Bonferroni-corrected pairwise comparisons showed that for **competence**, German listeners ($p = .003$; $M = 5.39$, $SE = 0.07$) rated the speakers as significantly less competent than the Scandinavian listeners ($M = 5.66$, $SE = 0.05$) did. There were no significant differences between Dutch ($M = 5.52$, $SE = 0.07$) and German ($p = .454$) or Scandinavian ($p = .289$) listeners. For **dynamism**, the comparisons did not find significant differences between the three listener L1 groups (all p's > .139).

Table 7. The means, standard deviations (between round brackets), and number of observations [between square brackets] for comprehensibility, status, competence, likeability, dynamism, and hirability (1 = low, 7 = high) in function of disarmer strategy, accentedness, and listener L1).

Speaker Evaluations Accentedness | Listener L1		Disarmer Strategies			
		Apology *M* (*SD*) [*n*]	Show Effort *M* (*SD*) [*n*]	Control *M* (*SD*) [*n*]	Total *M* (*SD*) [*n*]
Comprehensibility					
Slight	German	5.57 (0.93) [37]	5.91 (0.86) [35]	5.95 (0.71) [29]	5.80 (0.86) [101]
	Dutch	5.71 (0.95) [32]	6.07 (0.73) [28]	5.53 (0.89) [38]	5.74 (0.89) [98]
	Scandinavian	5.95 (0.93) [64]	5.79 (1.15) [52]	5.68 (1.00) [68]	5.80 (1.02) [184]
	Total	5.79 (0.94) [133]	5.89 (0.98) [115]	5.70 (0.92) [135]	5.79 (0.95) [383]
Strong	German	5.56 (1.05) [45]	5.45 (1.11) [30]	5.09 (1.20) [33]	5.39 (1.12) [108]
	Dutch	5.34 (1.08) [30]	5.31 (0.69) [35]	5.02 (1.23) [42]	5.21 (1.04) [107]
	Scandinavian	5.52 (1.17) [64]	5.53 (1.13) [71]	5.18 (1.08) [78]	5.40 (1.13) [213]
	Total	5.50 (1.11) [139]	5.46 (1.02) [136]	5.12 (1.14) [153]	5.35 (1.11) [428]
Total	German	5.57 (0.99) [82]	5.70 (1.00) [65]	5.49 (1.08) [62]	5.58 (1.02) [209]
	Dutch	5.53 (1.02) [62]	5.65 (0.80) [63]	5.26 (1.10) [80]	5.46 (1.00) [205]
	Scandinavian	5.74 (1.07) [128]	5.64 (1.14) [123]	5.41 (1.07) [146]	5.59 (1.10) [397]
	Total	5.64 (1.04) [272]	5.66 (1.02) [251]	5.39 (1.08) [288]	5.56 (1.06) [811]
Status					
Slight	German	5.13 (0.90) [37]	5.23 (0.90) [35]	4.81 (0.84) [29]	5.07 (0.89) [101]
	Dutch	4.86 (0.90) [32]	5.15 (0.84) [28]	4.64 (0.91) [38]	4.86 (0.91) [98]
	Scandinavian	5.30 (0.94) [64]	4.95 (1.19) [52]	4.68 (1.04) [68]	4.97 (1.08) [184]
	Total	5.15 (0.93) [133]	5.08 (1.03) [115]	4.69 (0.96) [135]	4.97 (0.99) [383]
Strong	German	4.65 (0.94) [45]	4.87 (0.80) [30]	4.28 (1.12) [33]	4.60 (0.98) [108]
	Dutch	4.74 (0.92) [30]	4.80 (0.94) [35]	4.86 (1.02) [42]	4.81 (0.96) [107]
	Scandinavian	5.02 (0.92) [64]	4.88 (1.02) [71]	4.85 (0.90) [78]	4.91 (0.94) [213]
	Total	4.84 (0.94) [139]	4.86 (0.95) [136]	4.73 (1.00) [153]	4.81 (0.94) [428]
Total	German	4.87 (0.95) [82]	5.06 (0.87) [65]	4.53 (1.02) [62]	4.83 (0.97) [209]
	Dutch	4.80 (0.91) [62]	4.96 (0.91) [63]	4.75 (0.97) [80]	4.83 (0.93) [205]
	Scandinavian	5.16 (0.94) [128]	4.91 (1.09) [123]	4.77 (0.97) [146]	4.94 (1.01) [397]
	Total	4.99 (0.94) [272]	4.96 (0.99) [251]	4.71 (0.98) [288]	4.88 (0.98) [811]

Competence					
Slight	German	5.61 (1.03) [37]	5.77 (1.04) [35]	5.60 (0.61) [29]	5.66 (0.93) [101]
	Dutch	5.49 (0.97) [32]	5.83 (0.82) [28]	5.59 (0.76) [38]	5.63 (0.85) [98]
	Scandinavian	5.85 (0.91) [64]	5.88 (0.89) [52]	5.53 (0.88) [68]	5.74 (0.90) [184]
	Total	5.70 (0.96) [133]	5.83 (0.92) [115]	5.56 (0.79) [135]	5.69 (0.89) [383]
Strong	German	5.18 (0.99) [45]	5.40 (0.88) [30]	4.79 (1.36) [33]	5.12 (1.11) [108]
	Dutch	5.54 (0.94) [30]	5.43 (0.79) [35]	5.26 (0.89) [42]	5.39 (0.87) [107]
	Scandinavian	5.67 (0.93) [64]	5.60 (0.92) [71]	5.43 (0.99) [78]	5.56 (0.95) [213]
	Total	5.48 (0.97) [139]	5.51 (0.88) [136]	5.25 (1.01) [153]	5.41 (0.99) [428]
Total	German	5.37 (1.02) [82]	5.60 (0.98) [65]	5.17 (1.14) [62]	5.38 (1.06) [209]
	Dutch	5.51 (0.95) [62]	5.61 (0.82) [63]	5.42 (0.84) [80]	5.51 (0.87) [205]
	Scandinavian	5.76 (0.92) [128]	5.72 (0.91) [123]	5.47 (0.94) [146]	5.64 (0.93) [397]
	Total	5.59 (0.97) [272]	5.66 (0.91) [251]	5.39 (0.96) [288]	5.54 (0.96) [811]
Likeability					
Slight	German	5.41 (0.97) [37]	5.50 (0.86) [35]	5.52 (0.51) [29]	5.47 (0.82) [101]
	Dutch	5.16 (1.00) [32]	5.50 (0.65) [28]	4.97 (0.78) [38]	5.18 (0.84) [98]
	Scandinavian	5.43 (0.84) [64]	5.49 (0.91) [52]	4.98 (0.82) [68]	5.28 (0.88) [184]
	Total	5.36 (0.92) [133]	5.49 (0.83) [115]	5.09 (0.78) [135]	5.31 (0.86) [383]
Strong	German	5.17 (1.01) [45]	5.33 (0.65) [30]	4.81 (1.24) [33]	5.11 (1.02) [108]
	Dutch	5.13 (0.83) [30]	5.14 (0.96) [35]	4.99 (0.76) [42]	5.08 (0.84) [107]
	Scandinavian	5.28 (0.90) [64]	5.29 (0.98) [71]	5.13 (0.94) [78]	5.23 (0.94) [213]
	Total	5.21 (0.92) [139]	5.26 (0.91) [136]	5.02 (0.97) [153]	5.16 (0.94) [428]
Total	German	5.28 (0.99) [82]	5.42 (0.77) [65]	5.14 (1.03) [62]	5.28 (0.94) [209]
	Dutch	5.15 (0.91) [62]	5.30 (0.85) [63]	4.98 (0.76) [80]	5.13 (0.84) [205]
	Scandinavian	5.35 (0.87) [128]	5.38 (0.95) [123]	5.06 (0.89) [146]	5.25 (0.92) [397]
	Total	5.28 (0.92) [272]	5.37 (0.88) [251]	5.05 (0.89) [288]	5.23 (0.95) [811]
Dynamism					
Slight	German	5.07 (0.94) [37]	5.34 (0.86) [35]	4.91 (0.92) [29]	5.12 (0.92) [101]
	Dutch	4.93 (1.13) [32]	5.16 (1.01) [28]	4.65 (0.89) [38]	4.89 (1.02) [98]
	Scandinavian	5.16 (0.93) [64]	5.36 (1.05) [52]	4.92 (1.07) [68]	5.13 (1.03) [184]
	Total	5.08 (0.98) [133]	5.30 (0.98) [115]	4.84 (0.99) [135]	5.06 (0.99) [383]
Strong	German	4.91 (1.01) [45]	5.23 (1.07) [30]	4.49 (1.08) [33]	4.87 (1.08) [108]
	Dutch	5.13 (1.05) [30]	5.11 (1.19) [35]	4.93 (1.06) [42]	5.05 (1.10) [107]
	Scandinavian	5.14 (1.03) [64]	5.28 (1.10) [71]	5.18 (1.14) [78]	5.20 (1.09) [213]
	Total	5.06 (1.03) [139]	5.23 (1.11) [136]	4.96 (1.13) [153]	5.08 (1.09) [428]
Total	German	4.98 (0.98) [82]	5.29 (0.96) [65]	4.69 (1.02) [62]	4.99 (1.01) [209]
	Dutch	5.03 (1.08) [62]	5.13 (1.11) [63]	4.80 (0.99) [80]	4.97 (1.06) [205]
	Scandinavian	5.15 (0.98) [128]	5.31 (1.08) [123]	5.06 (1.11) [146]	5.17 (1.06) [397]
	Total	5.07 (1.00) [272]	5.26 (1.05) [251]	4.91 (1.07) [288]	5.07 (1.05) [811]
Hirability					
Slight	German	5.28 (1.13) [37]	5.59 (1.01) [35]	5.38 (0.78) [29]	5.42 (1.00) [101]
	Dutch	5.22 (1.06) [32]	5.54 (0.89) [28]	4.99 (1.12) [38]	5.22 (1.05) [98]
	Scandinavian	5.53 (1.14) [64]	5.49 (1.06) [52]	5.10 (1.08) [68]	5.36 (1.11) [184]
	Total	5.39 (1.12) [133]	5.54 (1.00) [115]	5.13 (1.04) [135]	5.34 (1.07) [383]
Strong	German	4.87 (1.16) [45]	4.83 (1.17) [30]	4.37 (1.68) [33]	4.71 (1.35) [108]
	Dutch	5.03 (0.90) [30]	5.09 (1.04) [35]	4.70 (1.29) [42]	4.92 (1.11) [107]
	Scandinavian	5.31 (0.94) [64]	5.18 (1.23) [71]	5.26 (1.17) [78]	5.25 (1.12) [213]
	Total	5.11 (1.02) [139]	5.08 (1.17) [136]	4.91 (1.37) [153]	5.03 (1.20) [428]
Total	German	5.06 (1.16) [82]	5.24 (1.15) [65]	4.84 (1.42) [62]	5.05 (1.24) [209]
	Dutch	5.13 (0.98) [62]	5.29 (0.99) [63]	4.84 (1.21) [80]	5.07 (1.09) [205]
	Scandinavian	5.42 (1.05) [128]	5.13 (1.16) [123]	5.18 (1.13) [146]	5.30 (1.12) [397]
	Total	5.24 (1.08) [272]	5.29 (1.11) [251]	5.02 (1.23) [288]	5.18 (1.15) [811]

3.3. The Mediating Effect of Comprehensibility

To investigate whether the significant main effects of the disarmer strategy on the dependent variables (see section 3.2.3.1.) were mediated by comprehensibility, mediation model 4 in PROCESS by Andrew F. Hayes was utilised. As the disarmer strategy is a multi-categorical independent variable, dummy coding was used with no disarmer strategy as the reference group (Hayes & Preacher, 2014). A bootstrapping procedure (5,000 samples) was selected, meaning that the indirect effect of the predictor variable (disarmer strategy) is significant if the 95% confidence interval does not include 0 (Preacher & Hayes, 2008). As model 4 does not allow multiple outcome variables to be entered simultaneously, they were analysed individually and thus no correction for multiple comparisons was necessary.

For the **show effort disarmer strategy**, comprehensibility acted as a mediator for status (b = .11, BCa SE = .04, BCa 95% CI [.03; .19]), competence (b = .13, BCa SE = .04, BCa 95% CI [.04; .21]), likeability (b = .11, BCa SE = .04, BCa 95% CI [.03; .18]), dynamism (b = .08, BCa SE = .03, BCa 95% CI [.03; .14]), and hirability (b = .15, BCa SE = .05, BCa 95% CI [.05; .25]). This indirect effect of the disarmer strategy on the dependent variable through comprehensibility can be divided into two paths. Path A describes the effect of the disarmer strategy on comprehensibility and is thus irrespective of the outcome variable. Path B describes the effect of comprehensibility on the dependent variable and is thus irrespective of the predictor variable. With the disarmer strategies being compared to the baseline of no disarmer strategy for Path A and the mean of both strategies being higher than that of no disarmer (see Table 7), a positive b value indicates that comprehensibility was significantly higher when the show effort disarmer strategy was used (b = .27, SE = .09, t(808) = 2.96, p = .003, 95% CI [.09; .45]). Concerning Path B, the effect of comprehensibility on the outcome variables, the mediation analysis showed a positive relation; as comprehensibility increased, all dependent variables increased significantly (status (b = .40, t(807) = 13.72, p < .001, 95% CI [.35; .46]), competence (b = .47, SE = .03, t(807) = 17.23, p < .001, 95% CI [.42; .52]), likeability (b = .40, SE = .03, t(807) = 15.00, p < .001, 95% CI [.35; .45]), dynamism (b = .31, SE = .03, t(807) = 9.18, p < .001, 95% CI [.24; .37]), hirability (b = .54, SE = .03, t(807) = 16.31, p < .001, 95% CI [.48; .61]).

Without considering the mediating effect of comprehensibility and thus measuring the total effect of disarmer strategy on the dependent variables (Path C), the use of the show effort strategy significantly predicted status (b = .24, t(808) = 2.92, p = .004, 95% CI [.08; .41]), competence (b = .26, SE = .08, t(808) = 3.23, p = .001, 95% CI [.10; .43]), likeability (b = .31, SE = .08, t(808) = 4.06, p < .001, 95% CI [.16; .47]), dynamism (b = .36, SE = .90, t(808) = 3.98, p < .001, 95% CI [.18; .53], and hirability (b = .27, SE = .10, t(808) = 2.77, p = .006, 95% CI [.08; .47]). When including comprehensibility as a mediator in the model and measuring the direct effect of the show effort strategy on the dependent variables (Path C'), it was found that the effect was still significant for competence (b = .14, SE = .07, t(807) = 1.96, p = .050, 95% CI [.00; .28]), likeability (b = .21, SE = .07, t(807) = 3.01, p = .003, 95% CI [.07; .34]), and dynamism (b = .28, SE = .07, t(807) = 3.20, p = .001, 95% CI [.11; .44]). The direct effect of the show effort strategy on status (b = .14, t(807) = 1.80, p = .073, 95% CI [-.01; .29) and hirability (b = .13, SE = .09, t(807) = 1.49, p = .138, 95% CI [-.04; .30]) became insignificant. An overview of all results for the show effort disarmer can be found in Figure 1.

For the **apology disarmer strategy**, comprehensibility acted as a mediator for status (b =.10, BCa SE = .04, BCa 95% CI [.03; .17]) and likeability (b =.10, BCa SE = .04, BCa 95% CI [.03; .17]) which happen to have identical output. For Path A, the mediation analysis showed that comprehensibility was significantly higher when the apology disarmer strategy was used (b = .25, SE = .09, t(808) = 2.81, p = .005, 95% CI [.08; .42]). Path B showed that as comprehensibility increased, both status (b = .40, t(807) = 13.72, p < .001, 95% CI [.35; .46])

and likeability (b = .40, SE = .03, t(807) = 15.00, p < .001, 95% CI [.35; .45]) increased significantly.

Without considering the mediating effect of comprehensibility and thus measuring the total effect of disarmer strategy on the dependent variables (Path C), the use of the apology strategy significantly predicted status (b = .28, t(808) = 3.35, p = .001, 95% CI [.11; .44]) and likeability (b = .23, SE = .08, t(808) = 3.03, p = .003, 95% CI [.08; .38]). When including comprehensibility as a mediator in the model and measuring the direct effect of the apology strategy on the dependent variables (Path C'), it was found that the effect on status was still significant (b = .17, t(807) = 2.34, p = .019, 95% CI [.03; .32]). The effect of the apology strategy on likeability disappeared (b = .13, SE = .07, t(807) = 1.93, p = .055, 95% CI [-.00; .26]). An overview of all results for the apology disarmer can be found in Figure 2.

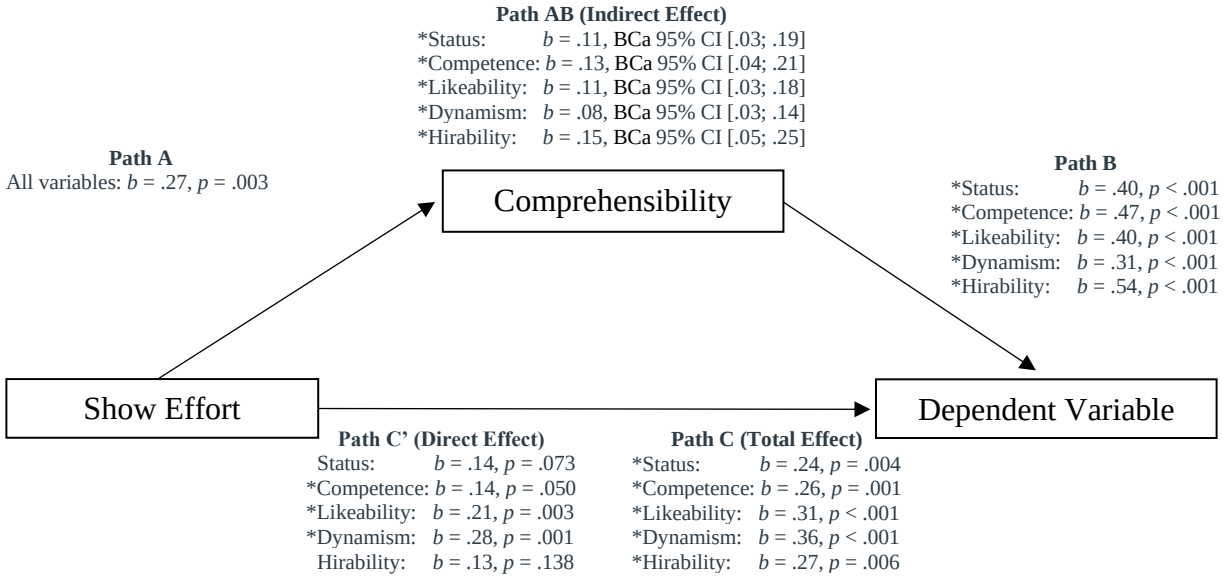

Figure 1. Mediation model with show effort disarmer as the predictor (baseline = no disarmer), comprehensibility as the mediator, and the dependent variables status competence, likeability, dynamism, and hirability as the outcome. The confidence interval for the indirect effect is a BCa bootstrapped CI based on 5000 samples. Significant effects are marked with an asterisk.

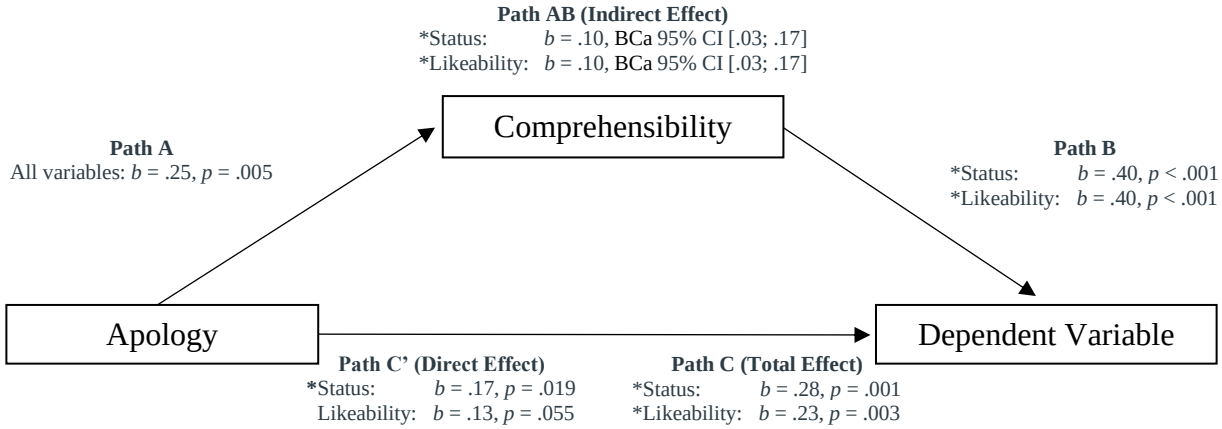

Figure 2. Mediation model with apology disarmer as the predictor (baseline = no disarmer), comprehensibility as the mediator, and the dependent variables status and likeability as the outcome. The confidence interval for the indirect effect is a BCa bootstrapped CI based on 5000 samples. Significant effects are marked with an asterisk.

4. Discussion and Conclusion

The purpose of this study was to test the effects of a show effort and an apology disarmer strategy on the comprehensibility, status, competence, likeability, dynamism, and hirability perceptions that German, Dutch, and Scandinavian listeners had of slightly and strongly German-accented speakers in a job application context. The results showed significant main effects of disarmer strategy on all variables, of the degree of accentedness on comprehensibility, competence, and likeability, and of listener L1 on competence and dynamism. There was a significant interaction effect of accentedness and listener L1 on status and hirability. A mediation analysis showed that all main effects of disarmer strategy were mediated by comprehensibility.

4.1. Comparison with the Literature and Explanation of Findings

4.1.1. Disarmer Strategy

The main finding of the current study is that compared to no disarmer, the show effort disarmer strategy resulted in significantly higher comprehensibility, status, competence, likeability, dynamism, and hirability perceptions of both the slightly and strongly German-accented speaker. Introducing the apology disarmer strategy only increased the status and likeability perceptions. While there is no previous literature on these two strategies for accentedness, Hosoda et al. (2023) found that *acknowledging* a foreign accent improves hiring recommendations during job interviews. An apology strategy has been found to result in more positive hiring recommendations for ex-offenders (Ali, Lyons, & Ryan, 2017). Thus, the effectiveness of the two disarmer strategies aligns with previous research on stigmatised people addressing the stigma based on which they are likely to be discriminated against. The theory behind the effectiveness of acknowledging an accent presumes that both the stigmatised and non-stigmatised individuals are aware of the presence of the stigma and can feel the resulting tension while interacting (Hebl & Skorinko, 2005). Due to social norms, the non-stigmatised individual will not mention the stigma and thus constantly suppress their thoughts about it. If the stigmatised individual addresses the stigma, it is theorised to alleviate the tension and thought suppression in the interaction (Davis, 1961). This breakthrough is said to result in the non-stigmatised person seeing past the stigma and judging the other person based on their qualities (Hebl & Kleck, 2002).

A suggestion in Hendriks et al. (2016) might aid in explaining the difference in effectiveness between the show effort and apology strategy. They propose that listeners believe that NNSs can weaken their accent and downgrade them for not succeeding in this. If this is the case, apologising might have been interpreted as the NNS believing that their accent is an unchangeable fact that is unnecessary to improve. The listeners could have seen this as a confirmation of their belief that if speakers truly wanted to weaken their accent, they would try to do so. Thus, due to this underlying belief, an apology (instead of showing an effort) might not have been seen as a good enough reason to be more lenient regarding attitudinal evaluations towards the NNS. On the other hand, showing an effort might have been more appreciated as it shows the listeners that the NNS is aware of the potential inconvenience of their foreign accent and is willing to accommodate the listener. The difference between these two disarmer strategies also aligns with the pre-test results (see section 2.1.2.). These indicated that the show effort disarmer is significantly preferred over the apology disarmer in terms of advice for others and non-significantly in terms of realism, own usage, usefulness, and general effectiveness and that it caused less resistance, which is reflected in the higher effectiveness of the show effort disarmer.

Furthermore, the second research question explored whether the disarmer strategies directly impacted the main dependent variables or whether the effect might have been mediated by comprehensibility. It was found that all main effects of the disarmer strategy mentioned

above were mediated by comprehensibility. More specifically, compared to no disarmer strategy, the presence of both the show effort and apology strategies predicted the presence of higher comprehensibility ratings. In turn, the higher comprehensibility predicted higher status, competence, likeability, dynamism, and hirability ratings for the show effort disarmer and higher status and likeability ratings for the apology disarmer. Previous studies on the mediating effect of comprehensibility all used degree of accentedness as a predictor variable and found that stronger accents resulted in lower comprehensibility which, in turn, lead to lower attitudinal evaluations (Dragojevic et al., 2017; Dragojevic, 2020; Hendriks et al., 2021; Roessel et al., 2019). While weaker accents might objectively be more intelligible than stronger accents, leading to increased comprehensibility ratings, the mere presence of a disarmer strategy cannot increase the objective intelligibility of speakers. This reiterates the subjectivity of comprehensibility as well as its key role in reducing attitudinal evaluations of NNSs (e.g., Reber, Schwarz, & Winkielman, 2004). In addition, the finding that comprehensibility was a mediator in the current study supports the fluency principle: that something which influences the listeners' processing fluency will have the same effect on the attitudinal evaluations (Dragojevic, 2020). The apparent importance of increasing listeners' comprehensibility perceptions when wanting to reduce accent-based discrimination offers another potential piece of evidence for why the show effort disarmer was more effective than the apology disarmer. As the NNSs stated that they would make an effort to be *comprehensible*, this targeted the exact perception that seems to be the key variable in influencing other attitudinal evaluations.

4.1.2. Degree of Accentedness

Besides the effects of the two disarmer strategies, the current study also found that the slightly German-accented speaker was rated higher than the strongly German-accented speaker on comprehensibility, competence, and likeability, as well as on hirability (only by the German and Dutch listeners) and status (only by the German listeners). This is in line with the consensus that the stronger the foreign accent, the stronger the prejudiced reactions (Brennan & Brennan, 1981; Cargile & Giles, 1998; Carlson & McHenry, 2006; Hendriks et al., 2015; Hendriks et al., 2018; Hendriks et al., 2021; McKenzie, 2008; Munro & Derwing, 1995; Munro & Derwing, 1999; Nejjari et al., 2012; Nesdale & Rooney, 1996; Ryan et al., 1977). There was no significant difference in dynamism perceptions of the two speakers. However, the MANOVA indicated a significant difference between the speakers for this variable, which only disappeared with the conservative Bonferroni correction. Thus, the trend of the strongly accented speaker being downgraded compared to the slightly accented speaker is still present, albeit not significant.

4.1.3. Listener L1

Out of the three listener groups, the Germans differentiated between the two speakers for most variables (all besides dynamism), followed by the Dutch listeners (all besides dynamism and status). Finally, the Scandinavian listeners were most lenient (all besides dynamism, status, and hirability). For competence, both NNSs were judged significantly more negatively by the German listeners than by the Scandinavian listeners. According to the literature, listeners who share an L1 with the NNS (equivalent to the German listeners in the current study) judge NNSs more harshly than listeners whose L1 is neither that of the NNS nor of the target language (the Dutch and Scandinavian listeners in the current study) (Hendriks et al., 2021). This is explained by the vicarious shame that listeners might feel for people with the same L1 with an undesirable accent (Schmander & Lickel, 2006). This theory is supported by the current study's finding that the German listeners were more likely than the Dutch and Scandinavian listeners to identify the speakers as German. According to DuBois (2018) and Kristiansen (2001), this correct identification leads to the attribution of stereotypical traits and the expression of accent-based discrimination. However, the current study found no significant difference in competence

ratings between participants who identified the speaker as German and participants who did not. It is thus likely that in addition to correctly identifying the speakers' origin, the fact that Germans shared a mother tongue with the speaker and felt vicarious shame made them even harsher in their judgement.

The fact that the Dutch listeners downgraded the strongly accented speaker on hirabilty while the Scandinavians did not might be explained by a finding from Edward and Fuchs (2019) that Dutch listeners tend to be critical towards NNSs. Additionally, Oudenhoven et al. (2009) found that in the combination of a small nation (Dutch) and a large nation (German), the small one tends to be more critical towards the NNSs of the large one. Another possible explanation for the fact that Scandinavian listeners were less harsh than the Dutch listeners is that they were more likely to incorrectly identify the speaker's country of origin as an English-speaking country, which could result in less accent-based discrimination. This theory is supported by the finding that participants who identified the speakers' origin as an English-speaking country also rated them significantly higher on status (compared to all other groups) and dynamism (compared to listeners who did not know the origin). It is also possible that the participant groups who did not differentiate between the two speakers on some of the variables experienced a conflict between the negative effect of foreign accentedness and the positive impact of specific attributes connected to Germans (Mai & Hoffmann, 2014).

4.2. Theoretical Contributions and Practical Implications

The current study can offer several theoretical insights. Initial evidence for the effectiveness of a show effort and apology disarmer strategy is provided for both slightly- and strongly accented NNSs. The finding that the effect of the disarmer strategies was mediated by comprehensibility supports the fluency principle stating that processing fluency positively influences attitudinal evaluations (Dragojevic, 2020). The theory that listeners who share an L1 with the speakers rate them more harshly than other listeners due to vicarious shame (Schmander & Lickel, 2006) was supported by the current findings, as German listeners were the only ones who differentiated between the two degrees of accentedness in terms of status. Furthermore, compared to the Scandinavian listeners, the German listeners rated both speakers more negatively on their competence. Another contribution is the support for the idea that the stronger the foreign accent, the more negative the attitudinal evaluations are.

Besides the theoretical contributions of this experiment, there are also some practical implications. As the speaker who stated that she would do her best to be comprehensible received significantly higher ratings on all measured dependent variables, NNSs of any accent strength can be advised to implement this show effort strategy to reduce biased judgements from others. Strictly speaking, these effects were only found in the context of job applications in the current study. However, it is likely that the show effort disarmer strategy also works in other contexts and can thus be implemented by speakers in various settings, such as non-native lecturers who use English as a medium of instruction. To verify this potential generalisability, more research is needed on the effectiveness of disarmer strategies in contexts other than job applications. Apologising for one's accent was less effective as it only increased the status and likeability perceptions. In practice, it is thus advised to show the listener that an effort is being made to accommodate the listener instead of only apologising for the accent and its possible accompanying inconvenience.

Despite the current study's focus on what listeners can do to reduce prejudiced reactions towards them, it is essential to note that speakers are not to blame nor responsible for accent-based discrimination. Disarmer strategies, such as those experimented with in this research, can give speakers some control over how they are perceived, as it is challenging to change one's accent (Birner, n.d.; Georgie, 2022). However, the listeners need to be aware of the presence and consequences of their prejudices. To date, most research on employment discrimination

has focused on the role of gender or skin colour in hiring decisions (Spence et al., 2022). Consequently, companies worldwide have implemented anti-discrimination policies for these two types of discrimination (Nkomo & Kinahan, 2015) and pledged to increase gender and racial diversity (Barak, 2022). Accent-based discrimination has not yet reached the same degree of awareness and urgency (Giles & Watson, 2013; Ng, 2007), but the current study confirms that at least strongly accented NNSs are downgraded in employment settings (Fuertes et al., 2012; Gluszek & Dovidio, 2010; Gluszek & Hansen, 2013). Recruiters and interviewers should thus be made aware that their perception of the candidate is likely to be negatively tainted by the candidate's accent strength, possibly resulting in an unfavourable hiring decision. This holds especially true for job positions with high communication demands and high-status perceptions (Deprez-Sims & Morris, 2010; Hosoda & Stone-Romero, 2010; Kalin & Rayko, 1978; Spence et al., 2022; Timming, 2017).

4.3. Limitations and Recommendations for Future Research

Despite the aim of the experimental design to represent a job application scenario as convincingly as possible, the experimental setting of this study required the speaker to read out a pre-scripted text. This was necessary to prevent factors such as vocabulary, grammar, or fluency from possibly causing third-variable problems and damaging the internal validity. However, this decision lowered the ecological validity of the experiment due to these factors typically being present in real-life job applications. Future research could manipulate these specific factors to investigate their possible effect on accent-based discrimination and thus disentangle its possible underlying mechanisms.

Furthermore, studies on accent-based discrimination usually utilise audio recordings of the accented speakers. The current study introduced a video recording to raise the experiment's ecological validity. However, no direct comparison was made between listeners' perceptions of audio and video recordings. Thus, it is unclear what the consequences were of introducing this new form of stimulus material, and this could be tested by future studies. Additionally, as in real life, listeners will almost always see the accented speaker, it is interesting to investigate the extent to which such visual information influences accent-based discrimination. Rakić, Steffens and Mummendey (2011) found that accents were used over appearance for social categorisation (e.g., an Italian-looking man speaking fluent German), and a similar study could be conducted that measures accent-based discrimination instead of categorisation. Despite an accent seemingly being more salient than appearance, there is evidence that more attractive applicants receive more job interview invitations (Baert, 2017), higher performance evaluations in jobs (Drogosz & Levy, 1996), and better hiring recommendations (Stevenage & McKay, 2010). These studies only investigated appearance, which could be combined with accentedness in the future. This would lead to more clarity on whether and to what extent the added visual information in the current study influenced the results, ranging from the speaker being identified as German more easily due to her appearance to her being perceived as, for instance, more likeable due to smiling in the video.

In the speaker pre-test of the current study, voice quality, speech rate, and confidence were measured, originally to ensure that the speaker was comparable in the slight and strong accent conditions. This was not the case, which initially seemed like a limitation. However, in hindsight, this can be explained by the downgrading of more strongly accented speakers; thus, it makes sense that the speaker was perceived as less confident. This opens the door to suggest more in-depth analyses of the underlying mechanisms that cause accent-based discrimination. It is well-established that foreign accents cause downgrading (for a meta-analysis see Fuertes et al., 2012) and that stronger accents are perceived more negatively than weaker accents (Brennan & Brennan, 1981; Cargile & Giles, 1998; Carlson & McHenry, 2006; Hendriks et al., 2015; Hendriks et al., 2018; Hendriks et al., 2021; McKenzie, 2008; Nejjari et al., 2012; Nesdale

& Rooney, 1996; Ryan et al., 1977). However, the exact reason for this and, thus, which characteristics of foreign accentedness cause (stronger) prejudiced reactions has not been investigated in much detail. An improved understanding of this could lead to the design of more targeted prejudice control interventions that will, hopefully, contribute to reducing accent-based discrimination both in an experimental setting and in real-life scenarios.

An unavoidable limitation of this study was that it could not compare its findings for the disarmer strategies to much previous literature, as these strategies are novel. Thus, replication studies are needed to test the current results regarding the disarmer strategies. Future research could additionally compare the effectiveness of speaker-based interventions, such as the disarmer strategies from the present study and listener-based interventions, such as perspective-taking (e.g., Galinsky & Moskowitz, 2000), awareness-raising (e.g. Roessel et al., 2017), or intergroup contact (e.g., Kang, Rubin, & Lindemann, 2015). At this stage, due to the lack of studies on speaker-based prejudice control interventions and of studies comparing them to listener-based interventions, it is difficult to conclude whether speaker- or listener-based interventions are more effective in reducing accent-based discrimination.

As the disarmer strategies were successful in this first study, it is interesting to investigate the underlying mechanisms of why they were effective and which disarmer strategies could yield similar effects. As it is proposed that the show effort disarmer's higher effectiveness than the apology disarmer could be due to the listeners believing that a foreign accent can be weakened, this belief could be measured as a possible underlying mechanism. Future research could also test the disarmer strategies for different listener L1s and speaker accents. This would shed light on whether the effectiveness of disarmer strategies is limited to specific speaker and/or listener L1's (and specific combinations thereof) or more generalisable and not (as) affected by these two variables as long as the speaker has a foreign accent. Furthermore, as studies have found that not only foreign accents but also regional accents are affected by downgrading (e.g., Rakić et al., 2011), future experiments could be conducted with regional accents. As accent-based discrimination is not only a problem in employment settings, the effectiveness of the measured disarmer strategies could be tested in other contexts such as English Medium Instruction. Future studies could also longitudinally investigate whether the effect of disarmer strategies lasts beyond the timeframe of a short experiment such as the one in the current study (see Devine, Forscher, Austin, & Cox, 2012 for a longitudinal study on reducing race bias). Although the present findings are promising and indicate that disarmer strategies could be used to reduce accent-based discrimination on a short-term basis, long-term effectiveness is required for the strategies to make a substantial societal difference.

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Appendix 1: Interview Script

Control Condition Introduction:
Hello, my name is Julia, and I am applying for your open position in the human resource department. Thank you so much for considering me.

Apology Condition Introduction:
Hello, my name is Julia, and I am applying for your open position in the human resource department. Thank you so much for considering me. Before I tell you about my study and internship, I wanted to inform you that I am not a native speaker of English, so I would like to apologise for my non-native accent. I hope that this will not be an issue

Effort Condition Introduction:
Hello, my name is Julia, and I am applying for your open position in the human resource department. Thank you so much for considering me. Before I tell you about my study and internship, I wanted to inform you that I am not a native speaker of English. So I have a non-native accent, but I will try my best to be comprehensible.

Interview Script (following the respective introduction):
I chose to study human resource management because I find solving problems of how to best utilise workers to the company's advantage a challenge that I am capable of meeting. I believe that human resource management is the area that will determine the success of a company and the satisfaction of workers. The combination of opportunities is large and very challenging, and these are not only challenges that I want, but challenges I feel I am capable of handling.

For example, while doing an internship at Unideen I worked with two human resource managers designing a training program for entry-level machine operators. Typically, new operators would receive a verbal description of the operation from the supervisor, and then place the new operator on a designated slow line to practice. However, prior to my start date, some new equipment had been purchased. While we were discussing ways to improve productivity, it was suggested that the older machinery could be used to train new operators. I felt this would result in savings in waste and downtime, as well as provide more effective training.

We thought that we had come up with a very good idea. We worked hard at it, and after meeting several times with various supervisors and operators, the training program was implemented. The results were positive, saving Unideen a large amount of money. Knowing that we were responsible for the success of the training program, I felt really good about the impact my efforts had on the project's success. This experience was extremely valuable, in that it provided me with the opportunity to supplement my knowledge with the realities that human resource professionals are faced with on a day-to-day basis. I also felt that this work allowed me to utilise my skills and abilities at a level where they should be used.

Appendix 2: Speaker Pre-Test Qualtrics Questionnaire

Note: The bold headings (e.g., "Introduction", "Consent", etc.) are included here for clarity but were not in the Qualtrics questionnaire that was distributed to the participants.

Introduction & Consent

Dear participant,

Thank you for taking part in this study, carried out by researchers at Radboud University. Please read the following instructions carefully, as they provide information about the upcoming materials and questions. If something is unclear or if you have any questions, please contact Dr. Berna Hendriks (berna.hendriks@ru.nl), Dr. Frank van Meurs (frank.vanmeurs@ru.nl), or Luisa Wolf (luisa.wolf@ru.nl).

In this pre-test, you will be asked to listen to and evaluate several audio samples from a job interview to help us decide which one is most suitable for our main experiment. It is important that the volume on your computer or smartphone is working. After you have listened to each audio sample, you will be asked a number of questions. These will be repeated for all audio fragments to help us compare the recordings on the same parameters. Filling out this questionnaire will take approximately 10 minutes. You have the option of entering a raffle for a 20€ VVV-voucher at the end of the questionnaire.

Your participation in this study is voluntary and you may withdraw at any time. All your answers will remain confidential, are processed anonymously, and will only be used for this study.

The research data we collect during this study will be used by scientists as part of data sets, articles and presentations. The anonymised research data is accessible to other scientists for a period of at least 10 years. When we share data with other researchers, it cannot be traced back to you. All research and personal data are safely stored following the Radboud University guidelines.

Consent

By clicking on the 'I agree to participate in this study' button below you indicate that:

- You have read the above information
- You voluntarily agree to participate
- You are at least 18 years of age

If based on this information you cannot or do not wish to participate in this study, please decline participation by clicking on the 'I do not want to participate in this study' button.

- o I agree to participate in this study
- o I do not agree to participate in this study

Selection Demographics

Gender

What is your gender?

- Male
- Female
- Non-binary / third gender
- Prefer not to say

Age

What is your age?

Education

What is your current or highest completed level of education?

- Secondary Education
- University of Applied Sciences
- University (Research)
- Other, namely:

Mother Tongue

What is your mother tongue?

English Proficiency

How would you rate your English proficiency?

1	2	3	4	5	6	7
Poor						Excellent

➔ *In a randomised order, all eight recordings (4 speakers x two accent strengths each) will be presented to the participant, followed by the Linguistic Background Questions and the Quality, Speech Rate, and Confidence Questions after each recording.*

Stimulus Material

Please listen to the following audio fragment and answer the questions below:

Linguistic Background Questions

Please indicate to what extent you agree or disagree with the following statements:

This speaker sounds like a native speaker of English.

1	2	3	4	5	6	7
Completely disagree						Completely agree

This speaker has a strong foreign accent in her English.

1	2	3	4	5	6	7
Completely disagree						Completely agree

Nationality

Where do you think this person is from?

Quality, Speech Rate, and Confidence Questions

Please indicate to what extent you (dis)agree with the following statements:

This speaker sounds natural

1	2	3	4	5	6	7
Completely disagree						Completely agree

This speaker has a pleasant voice

1	2	3	4	5	6	7
Completely disagree						Completely agree

This speaker sounds monotonous

1	2	3	4	5	6	7
Completely disagree						Completely agree

This speaker sounds lively

1	2	3	4	5	6	7
Completely disagree						Completely agree

This speaker speaks fast

1	2	3	4	5	6	7
Completely disagree						Completely agree

This speaker speaks hesitantly

1	2	3	4	5	6	7
Completely disagree						Completely agree

This speaker speaks with confidence

1	2	3	4	5	6	7
Completely disagree						Completely agree

This speaker has a powerful voice

1	2	3	4	5	6	7
Completely disagree						Completely agree

Remarks
Do you have any comments about this questionnaire and/or about the audio fragments you evaluated?

Voucher
To thank you for your participation, we would like to give you the opportunity to win a 20€ VVV-voucher. If you would like to enter the raffle, please leave your email adress below:

End-Of-Survey Message
We thank you for your time spent taking this survey. Your response has been recorded.

Appendix 3: Disarmer Strategies Pre-Test Qualtrics Questionnaire

Note: The bold headings (e.g., "Introduction", "Consent", etc.) are included here for clarity but were not in the Qualtrics questionnaire that was distributed to the participants.

Introduction & Consent

Beste deelnemer,

U wordt uitgenodigd om mee te doen aan een onderzoek over het spreken met een accent. Allereerst bedankt voor uw deelname aan dit onderzoek. Voor deelname is uw toestemming nodig. Neem de tijd om de volgende informatie aandachtig door te lezen. Is er iets niet duidelijk of wilt u graag meer informatie, neem dan contact op met de onderzoekers door een mail te sturen naar dr. Berna Hendriks (berna.hendriks@ru.nl) of dr. Frank van Meurs (frank.vanmeurs@ru.nl).

Deelname is geheel vrijwillig. Dit betekent dat u op ieder gewenst moment tijdens het onderzoek uw deelname kunt stopzetten en uw toestemming kunt intrekken. U hoeft hier geen reden voor op te geven. De data die verzameld worden tijdens dit onderzoek worden door de onderzoekers gebruikt als onderdeel van datasets, artikelen en presentaties. Alle verzamelde gegevens worden volledig geanonimiseerd. Dit betekent dat de gegevens niet naar u te herleiden zijn.

Let op: wanneer u in de vragenlijst doorklikt naar een volgende pagina is het niet mogelijk om terug te gaan naar een eerdere pagina.

Ik ga akkoord met deelname aan het onderzoek zoals hierboven is beschreven:

- Ja, ik ga akkoord met deelname aan het onderzoek
- Nee, ik ga niet akkoord en doe niet mee aan het onderzoek

Information

Het doel van dit onderzoek is manieren te onderzoeken hoe mensen omgaan met het hebben van een accent. Ten eerste vragen wij u over uw eigen omgang hiermee voordat u wordt gevraagd om manieren van andere mensen te evalueren.
Uiteindelijk willen wij graag weten welke omgang u het meest effectief vindt om mogelijke discriminatie op basis van accent te bestrijden.

Er zijn geen goede of foute antwoorden. Het invullen van deze vragenlijst kost u ongeveer 10 minuten van uw tijd.

Demographics

Mother Tongue

Is uw modertaal Nederlands?

- Ja
- Nee

Gender

Wat is uw geslacht?

- Vrouwelijk
- Mannelijk
- Niet-binair
- Zeg ik liever niet

Age

Wat is uw leeftijd?

Education

Wat is uw huidige of hoogst afgeronde opleidingsniveau?

- Voortgezet onderwijs
- MBO
- HBO
- WO
- Anders, namelijk:

Presence of Accent and Disarmer Strategy Usage

Accent Presence

Heeft u een Nederlands accent wanneer u een vreemde taal spreekt? Bijvoorbeeld, klinkt u een beetje Nederlands wanneer u Engels spreekt?

- Ja
- Nee
- Ik spreek geen vreemde talen

Strategy Usage

Zegt u wel eens iets over uw accent wanneer u in een vreemde taal met iemand spreekt? Bijvoorbeeld wanneer u zich opeens bewust wordt van uw Nederlandse accent of u zich zelfs schaamt voor uw accent?

- Ja
- Nee

Own Strategies
Misschien herkent u de volgende situatie. Zo niet, stelt u zich deze situatie eens voor:

U spreekt in een vreemde taal met een moedertaalspreker van die taal en u wordt zich bewust van uw Nederlandse accent of u schaamt zich misschien zelfs voor uw Nederlandse accent. Hoe gaat u (of zou u) dit aankaarten bij uw gesprekspartner?

Other's Strategies
Heeft u ooit meegemaakt dat andere mensen, wanneer ze een vreemde taal spraken, iets zeiden over hun Nederlandse accent? Kunt u hier voorbeelden van geven?

Strategy Advice
Stel: iemand met een Nederlands accent in een vreemde taal vraagt u om advies over wat hij/zij tijdens een gesprek in die vreemde taal zou kunnen zeggen over zijn/haar accent. Wat zou uw advies zijn?

Explanation
Een ander voorbeeld van een accent in een vreemde taal is wanneer buitenlanders Nederlands praten. Bijvoorbeeld: Duitsers die een Duits accent hebben in hun Nederlands.

U krijgt nu een voor een **vier verschillende voorbeelden** te zien van niet-moedertaalsprekers Nederlands die iets zeggen over hun accent in het Nederlands. Lees het voorbeeld aandachtig door en beantwoord de vragen. Daarna verschijnt het volgende voorbeeld.

➔ *In a randomised order, all four disarmer strategy texts will be presented to the participants, followed by the main dependent variable questions (with the corresponding wording, as shown in the tables).*

Stimulus Material

Apology	Imposition Denial	Show Effort	Acceptance Request
Ik zou willen opmerken dat ik geen moedertaalspreker ben van het Nederlands, dus ik wil me verontschuldigen voor mijn buitenlandse accent. Ik hoop dat dit geen probleem zal zijn	Ik zou willen opmerken dat ik geen moedertaalspreker van het Nederlands ben, dus ik heb een buitenlands accent. Maar ik weet zeker dat dit geen probleem zal zijn.	Ik zou willen opmerken dat ik geen moedertaalspreker ben van het Nederlands, dus ik heb een buitenlands accent, maar ik zal mijn best doen om me verstaanbaar te maken.	Ik zou willen opmerken dat ik geen moedertaalspreker ben van het Nederlands, dus ik heb een buitenlands accent. Ik hoop dat u geduld met mij zult hebben.

Main Dependent Variables

Realism

Deze tekst is…

vergezocht

1	2	3	4	5	6	7
Helemaal mee oneens						Helemaal mee eens

realistisch

1	2	3	4	5	6	7
Helemaal mee oneens						Helemaal mee eens

authentiek

1	2	3	4	5	6	7
Helemaal mee oneens						Helemaal mee eens

geloofwaardig

1	2	3	4	5	6	7
Helemaal mee oneens						Helemaal mee eens

Own Usage

Apology	Imposition Denial	Show Effort	Acceptance Request
Verontschuldigingen aanbieden voor mijn accent, zoals in dit voorbeeld, is iets wat ik zelf ook zou doen.	Mijn accent benoemen maar toevoegen dat het geen probleem zal zijn, zoals in dit voorbeeld, is iets wat ik zelf ook zou doen.	Laten zien dat ik ondanks mijn accent mijn best doe om me verstaanbaar te maken, zoals in dit voorbeeld, is iets wat ik zelf ook zou doen.	Vragen om geduld, zoals in dit voorbeeld, is iets wat ik zelf ook zou doen

- Helemaal mee oneens
- Me oneens
- Enigszins mee oneens
- Noch een noch oneens
- Mee eens
- Helemaal mee eens

Advice

Apology	Imposition Denial	Show Effort	Acceptance Request
Ik zou mensen die met een buitenlands accent spreken, adviseren om zich te verontschuldigen voor hun accent om te voorkomen dat ze negatief beoordeeld	Ik zou mensen die met een buitenlands accent spreken, adviseren om te zeggen dat hun accent geen probleem zal zijn om te voorkomen dat ze	Ik zou mensen die met een buitenlands accent spreken, adviseren om te zeggen dat ze hun best doen om zich, ondanks hun accent, verstaanbaar maken,	Ik zou mensen die met een buitenlands accent spreken, adviseren om hun gesprekspartner te vragen geduld te hebben, om te voorkomen dat ze

worden door hun gesprekspartner.	negatief beoordeeld worden door hun gesprekspartner.	om te voorkomen dat ze negatief beoordeeld worden door hun gesprekspartner.	negatief beoordeeld worden door hun gesprekspartner.

- Helemaal mee oneens
- Me oneens
- Enigszins mee oneens
- Noch een noch oneens
- Mee eens
- Helemaal mee eens

Resistance

Apology	**Imposition Denial**	**Show Effort**	**Acceptance Request**
Ik vind het aanbieden van verontschuldigingen voor een accent:	Ik vind het zeggen dat een buitenlands accent geen probleem zal zijn:	Ik vind het zeggen dat je je best doet om, ondanks een buitenlands accent, verstaanbaar te zijn:	Ik vind vragen om geduld te hebben met een buitenlands accent:

schadelijk

1	2	3	4	5	6	7
Helemaal mee oneens						Helemaal mee eens

nuttig

1	2	3	4	5	6	7
Helemaal mee oneens						Helemaal mee eens

Strategy Comparison

Hieronder ziet u nog een keer alle vier teksten. Welke tekst is volgens u het meest effectief om te voorkomen dat de gesprekspartner de persoon met een buitenlands accent negatief beoordeelt op basis van dit buitenlandse accent? Geef uw voorkeur aan door de teksten op volgorde te zetten van 1 tot 4 (waarbij 1 de meest effectieve tekst is).

Ik zou willen opmerken dat ik geen moedertaalspreker ben van het Nederlands, dus ik wil me verontschuldigen voor mijn buitenlandse accent. Ik hoop dat dit geen probleem zal zijn. [1]

Ik zou willen opmerken dat ik geen moedertaalspreker van het Nederlands ben, dus ik heb een buitenlands accent. Maar ik weet zeker dat dit geen probleem zal zijn. [2]

Ik zou willen opmerken dat ik geen moedertaalspreker ben van het Nederlands, dus ik heb een buitenlands accent, maar ik zal mijn best doen om me verstaanbaar te maken. [3]

Ik zou willen opmerken dat ik geen moedertaalspreker ben van het Nederlands, dus ik heb een buitenlands accent. Ik hoop dat u geduld met mij zult hebben. [4]

Remarks
Heeft u nog opmerkingen, suggesties of vragen?

VVV-bon
Als dank voor uw deelname verloten wij een 20€ VVV-bon. Als u kans wilt maken om deze te winnen kunt u hier uw e-mailadres invullen.

End-Of-Survey Message
We thank you for your time spent taking this survey. Your response has been recorded.

Appendix 4: Main Experiment Qualtrics Questionnaire

Note: The bold headings (e.g., "Introduction", "Consent", etc.) are included here for clarity but were not in the Qualtrics questionnaire that was distributed to the participants.

Introduction

Dear participant,

Thank you for taking part in this 10-minute study, carried out by researchers at Radboud University. Your participation is highly appreciated.

Study Description

In this study, you will be evaluating a short application video.

Privacy Statement

Your participation in this study is voluntary and you may withdraw at any time. All your answers will remain confidential, are processed anonymously, and will only be used for this study. The research data we collect during this study will be used by scientists as part of data sets, articles and presentations. The anonymised research data is accessible to other scientists for a period of at least 10 years. When we share data with other researchers, these data cannot be traced back to you. All research and personal data are safely stored following the Radboud University guidelines.

For questions, please contact the researchers Dr. Berna Hendriks (berna.hendriks@ru.nl) or Dr. Frank van Meurs (frank.vanmeurs@ru.nl).

Consent

By clicking on the "I agree to participate in this study" button below you indicate that:

- ✓ You read the above information
- ✓ You voluntarily agree to participate
- ✓ You are between 25-45 years of age

- o I agree to participate in this study
- o I do not agree to participate in this study

Selection Demographics

Age

What is your age (in numbers)?

[ ]

Educational Level

What is your current or highest completed level of education?

- o Secondary education
- o Bachelor's degree
- o Master's degree
- o Doctorate
- o Other, namely

[ ]

Nationality
What is your nationality?

- Danish
- Dutch
- Finnish
- French
- German
- Italian
- Norwegian
- Spanish
- Swedish
- Other

Mother Tongue
What is your mother tongue?

- Danish
- Dutch
- Finnish
- French
- German
- Italian
- Norwegian
- Spanish
- Swedish
- Other

English Proficiency
How would you rate your English proficiency?

1	2	3	4	5	6	7
Poor						Excellent

Explanation

On the next page, you will be presented with a fragment of a job candidate's video application in which they describe their previous work experience. The job they are applying for is a junior position in the Human Resources department of an international company. Please watch this fragment carefully.

➔ *In a randomised order, one of the six video recordings will be presented to the participant (slight accent+apology, slight accent+effort, slight accent+control, strong accent+apology, strong accent+effort, strong accent+control)*

Stimulus Material

Please watch this video only once:

First Impression

What is your first impression of this candidate?

Main Variables

Comprehensibility

Please answer the questions by marking the bullet that best reflects your opinion. Since we are interested in your first impression, there are no wrong answers.

I am able to understand the candidate.

1	2	3	4	5	6	7
Completely disagree						Completely agree

The candidate speaks clearly.

1	2	3	4	5	6	7
Completely disagree						Completely agree

The candidate is intelligible.

1	2	3	4	5	6	7
Completely disagree						Completely agree

The candidate is easy to comprehend.

1	2	3	4	5	6	7
Completely disagree						Completely agree

I have no problems understanding what the candidate is talking about.

1	2	3	4	5	6	7
Completely disagree						Completely agree

I understand what the candidate means.

1	2	3	4	5	6	7
Completely disagree						Completely agree

Status

In my opinion, the candidate sounds…

authoritative

1	2	3	4	5	6	7
Completely disagree						Completely agree

trustworthy

1	2	3	4	5	6	7
Completely disagree						Completely agree

self-confident

1	2	3	4	5	6	7
Completely disagree						Completely agree

influential

1	2	3	4	5	6	7
Completely disagree						Completely agree

has a powerful voice

1	2	3	4	5	6	7
Completely disagree						Completely agree

Competence

In my opinion, the candidate sounds…

reliable

1	2	3	4	5	6	7
Completely disagree						Completely agree

intelligent

1	2	3	4	5	6	7
Completely disagree						Completely agree

competent

1	2	3	4	5	6	7
Completely disagree						Completely agree

hardworking

1	2	3	4	5	6	7
Completely disagree						Completely agree

educated

1	2	3	4	5	6	7
Completely disagree						Completely agree

Likeability

In my opinion, the candidate sounds…

credible

1	2	3	4	5	6	7
Completely disagree						Completely agree

sympathetic

1	2	3	4	5	6	7
Completely disagree						Completely agree

warm

1	2	3	4	5	6	7
Completely disagree						Completely agree

humorous

1	2	3	4	5	6	7
Completely disagree						Completely agree

tactful

1	2	3	4	5	6	7
Completely disagree						Completely agree

polite

1	2	3	4	5	6	7
Completely disagree						Completely agree

pleasant

1	2	3	4	5	6	7
Completely disagree						Completely agree

friendly

1	2	3	4	5	6	7
Completely disagree						Completely agree

Dynamism

In my opinion, the candidate sounds…

energetic

1	2	3	4	5	6	7
Completely disagree						Completely agree

talkative

1	2	3	4	5	6	7
Completely disagree						Completely agree

cheerful

1	2	3	4	5	6	7
Completely disagree						Completely agree

hardworking

1	2	3	4	5	6	7
Completely disagree						Completely agree

active

1	2	3	4	5	6	7
Completely disagree						Completely agree

Hirability

Please indicate to what extent you agree with the following statements:

I would recommend employing this candidate.

1	2	3	4	5	6	7
Completely disagree						Completely agree

I would feel satisfied if this candidate would be hired.

1	2	3	4	5	6	7
Completely disagree						Completely agree

I feel favourably towards this candidate.

1	2	3	4	5	6	7
Completely disagree						Completely agree

This candidate would be an asset to the company.

1	2	3	4	5	6	7
Completely disagree						Completely agree

There is a high likelihood of this candidate being hired.

1	2	3	4	5	6	7
Completely disagree						Completely agree

Manipulation Check

Country of Origin Speaker

Which country do you think this speaker is from?

<drop-down menu with all countries>

Degree of Accentedness Speaker

This speaker sounds like a native speaker of English.

1	2	3	4	5	6	7
Completely disagree						Completely agree

This speaker has a strong foreign accent in her English.

1	2	3	4	5	6	7
Completely disagree						Completely agree

Background Questions

Self-Assessed English Skills

Please indicate how you would assess your English for the following skills:

Speaking

1	2	3	4	5	6	7
Poor						Excellent

Writing

1	2	3	4	5	6	7
Poor						Excellent

Reading

1	2	3	4	5	6	7
Poor						Excellent

Listening

1	2	3	4	5	6	7
Poor						Excellent

Degree of Accentedness Listener

I sound like a native speaker of English.

1	2	3	4	5	6	7
Completely disagree						Completely agree

I have a strong foreign accent in her English.

1	2	3	4	5	6	7
Completely disagree						Completely agree

LexTALE Test

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.

	no	yes
platery	○	○
denial	○	○
generic	○	○
mensible	○	○
scornful	○	○
stoutly	○	○
ablaze	○	○
kermshaw	○	○
moonlit	○	○
lofty	○	○
hurricane	○	○
flaw	○	○
alberation	○	○
unkempt	○	○
breeding	○	○
festivity	○	○
screech	○	○
savoury	○	○
plaudate	○	○
shin	○	○
fluid	○	○
spaunch	○	○
allied	○	○
slain	○	○
recipient	○	○
exprate	○	○
eloquence	○	○
cleanliness	○	○
dispatch	○	○
rebondicate	○	○
ingeniouos	○	○
bewitch	○	○
skave	○	○
plaintively	○	○
kilp	○	○
interfate	○	○
hasty	○	○
lenthy	○	○
fray	○	○
crumper	○	○
upkeep	○	○
majestic	○	○
magrity	○	○
nourishment	○	○
abergy	○	○
proom	○	○
turmoil	○	○
carbohydrate	○	○

scholar	○	○
turtle	○	○
fellick	○	○
destription	○	○
cylinder	○	○
censorship	○	○
celestial	○	○
rascal	○	○
purrage	○	○
pulsh	○	○
muddy	○	○
quirty	○	○
pudour	○	○
listless	○	○
wrought	○	○

Familiarity

I am familiar with German-accented English.

1	2	3	4	5	6	7
Completely disagree						Completely agree

I often meet people who have a German accent in their English.

1	2	3	4	5	6	7
Completely disagree						Completely agree

I regularly talk to people who have a German accent in their English.

1	2	3	4	5	6	7
Completely disagree						Completely agree

Demographics

Gender

What is your gender?

- o Male
- o Female
- o Non-binary / third gender
- o Prefer not to say

Nationality

What is your nationality?

Mother Tongue

What is your mother tongue?

Student Status
Are you a student?
- o No
- o Yes

Work Experience
Do you have any other work experience?
- o No
- o Yes, namely, … years

Hiring Experience
Have you ever worked as a member of a hiring panel?
- o No
- o Yes

Prejudice Measure
Please indicate to what extent you agree with the following statements:

1	2	3	4	5	6	7
Completely disagree						Completely agree

Speakers with non-native English accents should learn to speak English better.

1	2	3	4	5	6	7
Completely disagree						Completely agree

Speakers with a non-native accent in English is less effective than a speaker with a native English accent.

1	2	3	4	5	6	7
Completely disagree						Completely agree

It is irritating when a speaker has a non-native accent in English.

1	2	3	4	5	6	7
Completely disagree						Completely agree

Speakers with non-native English accents are less intelligent than native English speakers.

1	2	3	4	5	6	7
Completely disagree						Completely agree

Speakers with non-native English accents cannot express their opinions in English as well as native English speakers.

1	2	3	4	5	6	7
Completely disagree						Completely agree

In my country, speakers are evaluated less positively if they have a non-native accent in their English.

1	2	3	4	5	6	7
Completely disagree						Completely agree

End-Of-Survey Message

We thank you for your time spent taking this survey. Your response has been recorded.