

**The influence of Dutch lecturers' accent strength in English on non-native
English students' attitudes and perceptions of comprehensibility**

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Nina Usmany

Declaration of own work

The undersigned: Nina Usmany, s4509005,

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declares that the assessed thesis is entirely original and was written exclusively by himself/herself. The undersigned has indicated explicitly and in detail where all the information and ideas derived from other sources can be found. The research data presented in this thesis were collected by the undersigned himself/herself using the methods described in this thesis.

Place and date: Nijmegen, 8 January 2018

Signature:

Abstract

The increase of English as a medium of instruction has inevitably forced many non-native English (NNE) lecturers to teach in English instead of their mother tongue. Non-native lecturers often speak with a foreign accent in English. However, the impact of NNE lecturers' accent strength on evaluations by non-native students remains relatively under researched. The purpose of this study was to investigate the effects of Dutch lecturers' accent strength on NNE students with the same (i.e. Dutch) and different (i.e. 'international') linguistic background as the lecturer, in terms of intelligibility and perceived comprehensibility of the lecturers and attitudes towards the lecturers. In a verbal guise experiment, 179 Dutch and 181 international students evaluated audio fragments of speakers with a moderate Dutch, slight Dutch or native accent in English. Dutch students perceived lecturers with a moderate Dutch-English accent as less comprehensible than lecturers with a slightly Dutch or native English accent, while accent strengths did not affect international students' perceived comprehensibility. Lecturers with a moderately Dutch accent in English were evaluated more negatively (for likeability, power, competence and teaching quality) compared to lecturers with a slight Dutch or a native English accent by both Dutch and international students. Moreover, it was found that Dutch students evaluated the moderately accented lecturer more negatively compared to their international counterparts in terms of power, competence and teaching quality. This provides evidence for a so-called vicarious shame effect among listeners with the same L1 as the speaker if he or she has a strong foreign accent. In conclusion, degrees of accentedness in English affect attitudinal evaluations by non-native listener with the same and different linguistic background. Therefore, it is advisable that universities offer NNE lecturers help to reduce traces of a heavy foreign accent.

Keywords: accent strength, accentedness, English-medium instruction, comprehensibility, intelligibility, attitudes, attitudinal evaluations

Introduction

Globalization has led to an increase of daily communication between individuals with different mother tongues and linguistic backgrounds, from all over the world. English is known as the most important language of globalization and appears to be the first and most fluently spoken foreign language (European Commission, 2012). Therefore, communication in English involves many non-native speakers. Nowadays, non-native speakers of English outnumber the number of native speakers worldwide (Crystal, 2003; Stibbard & Lee, 2006). The past decade has shown a rapid increase in the use of English as a medium of instruction (EMI) in higher education throughout Europe (Bjorkman, 2011). This appears to be one of the results of the Bologna Agreement, which was established in 1999. According to Coleman (2006) “the Bologna Agreement was initiated to create a democratic and borderless European Higher Education Area” (p. 3), in which European students have the opportunity to go abroad and study in other (EU) countries. Consequently, the adoption of English as a medium of instruction in educational institutions throughout the European Union seemed inevitable. Over the last decade, there has been a tremendous growth in EMI at European universities, initially only within Master programs but nowadays in undergraduate degrees as well (Coleman, 2006).

Even though there are many advantages of English as a medium of instruction in higher education, it appears that this phenomenon also causes difficulties. In many European countries English is not the native language, which means that lecturers are often forced to teach in a foreign language (L2) instead of their first language (L1). Coleman (2006) suggests that this might be problematic due to the fact that non-native English (NNE) lecturers often have a non-native accent in English. Mai and Hoffman (2014) state that a non-native accent is often “a part of non-native speech that is highly influenced by the sound system of the speaker’s mother tongue” (p. 139). It appears that non-native accents affect communication between people on various levels, such as comprehensibility or intelligibility of speech and people’s attitudes towards a NNE speaker with a foreign accent. According to Jensen, Denver, Mees and Werther (2013), a lecturer’s non-native accent in English sometimes interferes with NNE students’ comprehension and might eventually lead to content loss of the lecture, especially when words or terms are mispronounced. Similarly, it appears that a lecturer’s foreign accent in English influences NNE students’ attitudes towards a lecturer as well.

A lecturer’s non-native accent in English might affect both native English (NE) speaking students and non-native English speaking students. Many studies have examined the effects of accented English on NE students (e.g. Bresnahan, Ohashi, Nebashi, Ying Liu & Morinaga Shearman, 2002; Eisenclas & Tsurutani, 2011; Rubin & Smith, 1990), but up to

now research into the effects of NNE lecturers' accent on NNE students seems scarce. However, it appears that NNE students tend to be more critical towards NNE lecturers with a clear non-native accent compared to those with a native-like accent (e.g. Buckingham, 2014; Butler, 2007; Evan & Morrison, 2011; Hellekjær, 2010; Jensen et al., 2013). The question is to what extent a lecturer's non-native accent in English has an influence on NNE students' perceptions of comprehensibility and their attitudes towards the lecturer.

Perceptions of comprehensibility

In general, a foreign accent might lead to loss of listeners' perceptions of comprehensibility and intelligibility of speech. Even though there may be overlap between comprehensibility and intelligibility, these terms have slightly different definitions. According to Munro and Derwing (1995), perceived comprehensibility refers to listeners' own perceptions of their ability to understand the speaker, while intelligibility refers to the extent to which a speaker's message is actually understood by a listener (Munro & Derwing, 1999). A considerable number of experimental comprehensibility studies have provided evidence on how non-native listeners evaluated non-native and native English accents outside an educational context (e.g. Hendriks, van Meurs & de Groot, 2017). These studies have shown three effects that might occur: the '*native speech intelligibility benefit*', the '*matched interlanguage speech intelligibility benefit*' and the '*mismatched interlanguage speech intelligibility detriment*'. Generally, there is evidence that native accents are easier to understand than non-native accents, which is called the '*native speech intelligibility benefit*' (Major et al., 2002; Smith & Bisazza, 1982). However, it appears that this effect not always occurs, meaning that native accents are not by definition easier to understand than non-native accents.

Several studies within an educational context have examined the effects of NNE lecturers' English proficiency on NNE students' perceptions of comprehensibility and intelligibility. Hellekjær's survey among NNE students (2010) found that a lecturer's unclear pronunciation in English negatively affects NNE students' lecture comprehension. These findings are in accordance with those of Evans and Morrison (2011) and Bolton and Kuteeva (2012), whose surveys also found that NNE students indeed face problems with understanding their lecturers when they have a foreign accent in English. However, other previous studies that have examined the effects of a NNE lecturer's accent on NNE students' perceptions of comprehensibility found contradicting effects. A study by Butler (2007) did not find any effects of a NNE lecturer's foreign accent in English on students' perceived comprehension of their lecturer. Furthermore, Ruiz-Garrido and Palmer-Silveira (2008) found that NNE (master)

students had no problems understanding the content when being taught in English by NNE lecturers.

It is important to note that the studies discussed above were all conducted with NNE students who share the same L1 as their lecturer. The '*matched interlanguage speech intelligibility benefit*' holds that a non-native listener who shares the same native language as the non-native speaker has less or no trouble understanding the speaker even though he or she speaks in a foreign language (Bent & Bradlow, 2003). This could be an explanation for the mixed effects when it comes to the influence of a NNE lecturer's accent on NNE students' perceptions of comprehensibility. However up to now, the influence of a NNE lecturer's accent on students' perceptions of comprehensibility and intelligibility has yet to be tested with students who do not share the same L1 as their lecturers. Interestingly the '*mismatched interlanguage speech intelligibility detriment*' could occur in this setting, meaning that non-native listeners find non-native speakers with a different L1 more difficult to understand than non-native speakers with whom they share an L1 (Hendriks et al., 2017; Stibbard & Lee, 2006). The present study aims to provide further insights into the effects of a NNE lecturer's accent on NNE students with the same L1 background as well as NNE students with a different L1 background as their lecturer in terms of perceptions of comprehensibility and intelligibility.

Attitudes towards non-native English accents

With regards to attitudinal evaluations, previous studies have found that NNE students evaluated a lecturer with a non-native accent in English more negatively and as less competent compared to a lecturer with a native accent in English (Buckingham, 2014; Dalton-Puffer, Kaltenboeck & Smit, 1997; Jensen et al., 2013; Kelch & Santana-Williamson, 2002). Furthermore, Butler (2007) found that NNE students showed more favorable attitudes towards a NNE lecturer with a native English accent and preferred a native accent.

Interestingly, findings of Grift, Meijer and van der Salm (2012) showed that NNE students with the same linguistic background as their lecturer tend to be more critical towards the English of their lecturer compared to NNE students with a different linguistic background. Grift et al. (2012) suggest that NNE students who do not share the same L1 as their NNE lecturer find a foreign accent charming as long as it is still intelligible. Therefore, NNE students with a different L1 background might be less critical towards their lecturer's English compared to NNE students who share the same linguistic background as their lecturer. Simultaneously, it appears that NNE students who share the same L1 as their lecturer are biased when it comes to evaluating their lecturers' foreign accent in English. This appears to be in line with Schmader

and Lickels' (2006) *vicarious shame effect*, which holds that listeners feel ashamed when people with the same nationality (i.e. members of their in-group) speak with an accent in a foreign language that is easy to distinguish and not desirable. Since Grift et al. (2012) have not specifically examined NNE students with the same and different linguistic background as their lecturer in terms of attitudes towards the lecturer or their perceptions of comprehensibility and intelligibility, it would be interesting to provide further insights into these effects.

Accent strengths

Although numerous studies have examined the influence of both perceptions of comprehensibility and intelligibility and attitudes towards the accents of NNE lecturer, there is another important aspect that remains relatively underresearched. This aspect is the *strength* of the lecturer's non-native accent in English. Non-native speakers generally vary in the strength of their accent in a foreign language (Munro & Derwing, 1995). According to Dragojevic, Giles, Beck and Tatum (2017), "the heavier a speakers' foreign accent is, the more negatively the speaker tends to be evaluated" (p. 3.).

Over the years, previous studies have investigated responses towards various degrees of accentedness. For example, findings of Nejjari, Gerritsen, van der Haagen and Korzilius (2012) showed that non-native speakers with a slight and moderate accent in English were evaluated as less powerful and speakers with a moderate Dutch accent in English were evaluated as less likeable by native English listeners. These findings are partly in accordance with other previous studies, which also found that a strong foreign accent in English leads to less positive attitudes compared to a native or slight English accent (e.g. Brennan & Brennan, 1981; Cargile & Giles, 1998). It is important to note that these studies were also conducted with native English listeners.

There are only a limited number of studies that have examined the effects of varying accent strengths among non-native English listeners. For example, Hendriks, van Meurs and de Groot (2017) found that a moderate foreign accent results in less favorable evaluations compared to speakers with a slight or native accent among non-native English listeners. Additionally, findings of Stibbard and Lee (2006) showed that NNE listeners evaluated NNE speakers with a strong accent as more difficult to understand compared to NNE speakers with a weak foreign accent.

Altogether, it appears that the strength of a non-native accent in English is an important factor to take into consideration. However, to date there appears to be a lack in studies regarding EMI that take the strength of a NNE lecturer's accent into account. The first study to date that

examined the impact of various levels of accentedness in English within an educational context was one by Hendriks, van Meurs and Hogervorst (2016). The study investigated the effects of varying degrees of Dutch lecturers' English accentedness on Dutch students in terms of perceived comprehensibility and attitudes towards the lecturer. An important finding was that NNE students evaluated NNE lecturers with a moderate Dutch-English accent as less comprehensible and less positive compared to a lecturer with a slight Dutch or native accent in English. Again it seems that the strength of a non-native accent in English is an important factor to take into consideration, especially within an educational context since the degree of a non-native accent might interfere with students' comprehension or the transfer of knowledge (Hendriks et al., 2016).

Research questions

Up to now, it remains unknown how NNE students with different L1 backgrounds evaluate various strengths (moderate, slight or native) of a non-native lecturer's accent in English in terms of perceptions of comprehensibility and their attitudes towards the lecturer. It is suggested by Hendriks et al. (2016) that EMI involves many students with a different L1 background as well. This appears to be a logical result of the Bologna Declaration; the number of international students attending European universities is increasing. Hence, it is important to keep in mind that NNE university lecturers do not only teach NNE students with the same L1, but also with a different L1 background on a regular basis.

To our knowledge, no specific study to date has focused on the effects of a NNE lecturer's accent strength on both NNE students with the same L1 or a different L1 as the lecturer. Therefore, the present study aims to examine and compare the effects of the strength of Dutch lecturers' accent (moderate/slight/native) in English on evaluations by NNE Dutch and non-Dutch students in terms of perceived comprehensibility and attitudes towards the lecturer. Therefore, the research questions of this study are as follows:

- 1) To what extent does Dutch lecturers' accent strength (i.e. a moderate Dutch accent, a slight Dutch accent or native English accent) in English influence Dutch and NNE non-Dutch students' perceptions of the lecturer in terms of comprehensibility and intelligibility?
- 2) To what extent does Dutch lecturers' accent strength (i.e. a moderate Dutch accent, a slight Dutch accent or native English accent) in English influence Dutch and NNE non-Dutch students' attitudes towards the lecturer in terms of power, competence, likeability and perceived teaching quality?

Method

Materials

The stimulus material of this study consisted of audio fragments of a lecture about a marketing related topic. The audio fragments had three versions with different degrees of accentedness, i.e., a native English accent, a slight Dutch accent in English and a moderate Dutch accent in English. The fragments that were used for this experiment were materials from a study by Hendriks et al. (2016). These fragments were recorded by two male speakers per degree of accentedness. The text of the audio sample is presented in Appendix A.

Preliminary analyses were conducted to examine if there were significant differences between the two male speakers of each degree of accentedness on the dependent variables of this study. The independent samples t-tests that were conducted showed no significant differences between the two male speakers of each category on all dependent variables (all p 's $> .100$). Therefore, both speakers of each degree of accentedness were merged into one accentedness category, i.e.: 'native speaker', 'slight speaker' or 'moderate speaker'.

Subjects

A total of 173 Dutch students (age: $M = 24$, $SD = 2.48$; range 19-32; 68,2% female) and 181 international students (age: $M = 24$, $SD = 3.40$; range 18-36; 72,4% female) participated in this study. The nationalities of the international students varied. The background characteristics gender ($\chi^2(2) = .47$, $p = .792$), age ($F(2, 348) < 1$) and educational level ($\chi^2(2) = 2.47$, $p = .291$), age ($F(2, 348) < 1$) were equally distributed over the three conditions of accentedness. Gender ($\chi^2(1) = .74$, $p = .391$) and educational level ($\chi^2(1) = 2.13$, $p = .145$), age ($F(2, 348) < 1$) were also equally distributed over the student nationalities. However, Dutch participants were slightly younger ($M = 23.90$, $SD = 2.48$) than the international participants ($M = 24.46$, $SD = 3.40$; $F(1, 348) = 3.66$, $p = .056$, $\eta^2 = .010$).

Moreover, participants' self-assessed proficiency level of English and actual proficiency level of English according to LexTALE were measured. A two-way analysis of variance with degree of accentedness (accent strength) and student nationality (group) as factors showed a significant main effect of student nationality ($F(1, 348) = 34.98$, $p < .001$, $\eta^2 = .091$), but no significant main effect of degree of accentedness ($F(2, 348) < 1$) or an interaction effect between degree of accentedness and student nationality ($F(2, 348) < 1$) on participants' self-assessed proficiency level of English. International students ($M = 6.09$, $SD = 0.83$) rated their English proficiency level higher than Dutch students ($M = 5.56$, $SD = 0.84$). A two-way analysis of variance with degree of accentedness (accent strength) and student nationality (group) as factors

showed a significant main effect of student nationality ($F(1, 348) = 12.60, p < .001, \eta^2 = .035$), but no significant main effect of degree of accentedness ($F(2, 348) < 1$) or an interaction effect between degree of accentedness and student nationality ($F(2, 348) = 1.35, p = .262, \eta^2 = .008$) on participants' actual proficiency level of English. International students ($M = 80.77, SD = 12.73$) were shown to have a higher proficiency level of English than Dutch students ($M = 76.22, SD = 11.46$). The average LexTALE score is usually about 70% (Lemhöfer & Broersma, 2012). International participants had an average score of 80% and Dutch participants had an average score of 76%. Single samples t-tests showed significant differences between the average LexTALE score and the scores of Dutch ($t(172) = 7.14, p < .001$) and international ($t(181) = 11.39, p < .001$) students. Therefore, it should be noted that both participant groups scored above the average proficiency level of English.

Design

This study was conducted by means of a verbal guise experiment. The experiment had a 3 (degree of accentedness: moderate/slight/native) x 2 (student nationality: Dutch/International) between subjects design. The independent variable of this study was accentedness, divided in three levels: native English, slight Dutch accented English and moderate Dutch accented English. The participants of this study were divided into two groups, i.e., Dutch and international students. All participants were randomly assigned to one of the three versions of the audio fragment.

Instruments

Participants listened to and evaluated an audio fragment of a speaker with a native English accent, a slight or a moderate Dutch accent in English by means of an online questionnaire. This study investigated three dependent variables: intelligibility of the lecturer, perceived comprehensibility of the lecturer and attitudes towards the lecturer.

Intelligibility of the lecturer

The intelligibility task of this study consisted of four sentences in which eight keywords were left out. These eight missing keywords were: (1) relationship marketing, (2) maintaining, (3) profitable, (4) overemphasized, (5) benefits, (6) forge, (7) long term and (8) existing. After listening to the audio fragment, participants were asked to fill in the gaps. Intelligibility was measured by counting the number of correct words. For each correctly filled in word, participants could receive a point. Words that were partly misspelled were counted as correct,

e.g. 'long-term' instead of 'long term'. Participants did not get a point if a word was incorrect or replaced with other words, e.g. 'underestimated' instead of 'overemphasized' or 'relation management' instead of 'relationship marketing'. Participants could get 8 points in total. This method was based on Nejjari et al. (2012).

Perceived comprehensibility of the lecturer

Perceived comprehensibility was measured with the statements 'I have to listen very carefully to be able to understand the lecturer'; 'The lecturer speaks clearly'; 'The lecturer is barely intelligible'; 'The lecturer is difficult to comprehend'; 'I have problems understanding what the lecturer is talking about' and 'I do not understand what the lecturer means', followed by seven-point Likert scales anchored by 'completely disagree – completely agree' (scales based on Hendriks et al., 2016). The reliability of the six items measuring perceived comprehensibility of the speaker was good: $\alpha = .84$.

Attitudes towards the lecturer

The dependent variable attitudes towards the lecturer consisted of four aspects: power, competence, likeability and teaching quality of the lecturer. Power, competence and likeability were measured with seven-point Likert scales introduced by the statement 'In my opinion, this lecturer sounds' anchored by 'completely disagree – completely agree' (scales based on Bayard et al, 2001; Hendriks et al., 2014; Hendriks et al., 2016 and Nejjari et al., 2012).

Power of the lecturer was measured with the items: authoritative, trustworthy, self-confident, influential and has a powerful voice. The reliability of the five items measuring power of the speaker was good: $\alpha = .88$.

Competence of the lecturer was measured with the items: reliable, intelligent, competent, hardworking and educated. The reliability of the five items measuring competence of the speaker was good: $\alpha = .94$.

Likeability of the lecturer was measured with the items: credible, sympathetic, warm, humorous, tactful, polite, irritating and unfriendly. The reliability of the eight items measuring likeability of the speaker was good: $\alpha = .84$.

Perceived teaching quality of the lecturer was measured with seven-point Likert scales introduced by the statement 'In my opinion' anchored by 'completely disagree – completely agree' (scales based on Hellekjaer, 2010): 'This lecturer's subject knowledge is excellent'; 'The lecturer can clearly communicate the content of the lecture'; 'This lecturer is a good teacher'; 'This lecturer's English is excellent'; 'This lecturer contributes positively to the reputation of

his college/university' and 'This lecturer has excellent didactic abilities'. The reliability of the six items measuring perceived teaching quality of the lecturer was good: $\alpha = .92$.

Manipulation checks

Two manipulation checks were conducted in order to test whether the participants were able to distinguish the degree of accentedness in the audio fragment and the origin of the speaker. The degree of accentedness was measured with seven-point Likert scales introduced by the statements 'This speaker sounds like a native speaker of English' and 'This speaker has a strong foreign accent in English' anchored by 'completely disagree – completely agree' (scales based on Jesney, 2004). The reliability of the two items was good: $\alpha = .88$. Moreover, participants were asked to fill out the origin of the speaker by the question 'Which country do you think this speaker is from?' followed by a list of 267 countries, from which participants were asked to choose one country.

Background characteristics

The questionnaire contained some items about background characteristics, to check whether these particular characteristics might affect the main results. These characteristics were: interest in the topic of the audio fragment (topic interest), familiarity with Dutch-accented English (familiarity), program language in English, participants' self-assessed proficiency level of English and participants' actual proficiency level in English (LexTALE).

Topic interest was measured by the statement 'Please indicate how interesting the topic of the audio sample is to you' followed by a seven-point Likert scale anchored by 'not interesting – very interesting' (item was constructed for this specific study).

Familiarity was measured by seven-point Likert scales introduced by the statements 'I am familiar with a Dutch accent in English', 'I am often exposed to people with a Dutch accent in English' and 'I regularly talk to people with a Dutch accent in English' anchored by 'completely disagree – completely agree' (items were constructed for this specific study). The reliability of the three items measuring accent familiarity was good: $\alpha = .95$.

Program language in English was measured by participants dragging a slider bar to the percentage of English in their degree program.

Self-assessed proficiency level of English was measured by the statement 'Please indicate how fluent your English is in the following areas: (1) speaking, (2) writing, (3) reading and (4) listening' followed by seven-point Likert scales anchored by 'very bad – very good'

(based on Krishna & Alhuwalia, 2009). The reliability of the four items measuring students' self-assessed proficiency level of English was good $\alpha = .87$.

Actual proficiency level of English was measured by a LexTALE proficiency test. During this test, all participants were shown a list of 60 English words (40 existing words and 20 non-existing words). Their task was to indicate for each word whether it was an existing word or not, by clicking yes or no. The average percentage score per participant was calculated by a specifically designed formula (based on Lemhöfer and Broersma, 2012), which indicated the participant's proficiency level of English.

At the end of the questionnaire, participants were asked to fill in a few background questions about other characteristics, such as age, gender, nationality, mother tongue, educational level and degree program.

Procedure

The questionnaire of this experiment was administered with the online program Qualtrics. All participants, regardless of their nationality (Dutch or international), filled in an English questionnaire. The participants were approached via social media and e-mail.

The introduction page was used to welcome participants and to briefly inform them about the audio fragment and the questionnaire. A consent form was included on the introduction page, in which participants were asked to give their consent to use their data for this study by clicking 'I Agree'. Next, participants were randomly assigned to one of the six audio fragments. The questionnaire started with the intelligibility task. Afterwards, participants filled in questions regarding the perceived comprehension of the lecturer and attitudes towards the lecturer. Subsequently, participants had to fill in the manipulation checks and the control variables topic interest, familiarity with Dutch-accented English, self-assessed English proficiency and actual English proficiency respectively. The final page of the questionnaire was used for filling in background questions. Altogether, it took participants approximately 15 minutes to complete the questionnaire. The questionnaire is presented in Appendix B.

Statistical treatment

Various statistical tests were used in order to test the data of this study. The main effects of the independent variables on the dependent variables were tested by chi-square tests, one-way analyses of variance, two-way analyses of variance and two-way analyses of covariance.

Results

The aim of the present study was to investigate and compare the effects of the strength of lecturers' accent (moderate Dutch accent, slight Dutch accent or native accent) in English on evaluations by NNE Dutch and international students in terms of (1) intelligibility and perceived comprehensibility of the lecturer and (2) attitudes towards the lecturer.

Preliminary analysis

The present study contained five background characteristics, which were topic interest, familiarity, program language in English and participants' self-assessed proficiency level of English and participants' actual proficiency level of English. These characteristics might cause potential differences between the two participant groups and might influence the main results of this study.

A one-way MANCOVA for all dependent variables with student nationality (group) as factor, found significant multivariate effects of topic interest ($F(6, 342) = 6.58, p < .001, \eta^2 = .103$), familiarity ($F(6, 342) = 3.91, p < .001, \eta^2 = .064$), self-assessed English proficiency level ($F(6, 342) = 2.19, p = .044, \eta^2 = .037$) and actual English proficiency level ($F(6, 342) = 4.22, p < .001, \eta^2 = .069$). Topic interest was the only characteristic that influenced all dependent variables (all p 's $< .035$), indicating that this potentially might have caused differences between the groups. Therefore, topic interest was added as a covariate in the main analyses of this study to eliminate its influence on the main analysis of the study.

Manipulation checks

Evaluation of the speaker's accent strength A two-way analysis of variance with degree of accentedness (accent strength) and student nationality (group) as factors showed significant main effects of degree of accentedness ($F(2, 348) = 183.03, p < .001, \eta^2 = .517$) and student nationality ($F(1, 348) = 17.19, p < .001, \eta^2 = .047$) on evaluations of the speakers' accent strength. The interaction effect between degree of accentedness and student nationality was not statistically significant ($F(2, 348) < 1$). All participants evaluated the native speakers ($M = 6.26, SD = 0.93$) as sounding more native than the slightly Dutch-accented speakers ($M = 5.59, SD = 1.34$) and moderately Dutch-accented speakers of English ($M = 3.00, SD = 1.72$) (Bonferroni; all p 's $< .001$). Additionally, international ($M = 5.28, SD = 1.87$) students evaluated the overall accent strength of the speakers as more native accented compared to Dutch students ($M = 4.41, SD = 2.02$). All means and standard deviations with regards to evaluations of the speakers' accent strength are presented in Table 1.

Table 1. Manipulation check regarding accent strength of the speaker in function of accent strength and group (1 = foreign accent in English, 7 = native accent in English)

	Group								
	Dutch			International			Total		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Accent strength									
Native	6.00	1.07	50	6.47	0.75	61	6.26	0.93	111
Slight	5.26	1.27	52	5.87	1.34	62	5.59	1.34	114
Moderate	2.68	1.64	71	3.41	1.74	58	3.00	1.72	129
Total	4.41	2.02	173	5.28	1.87	181	4.86	1.99	354

Origin of the speaker To check whether participants were able to distinguish the right accent of the speaker, Chi-square tests were conducted. A Chi-square test showed a significant relation between origin of the speaker and accent strength ($\chi^2(4) = 146.00, p < .001$). The majority of the participants correctly identified the accents of the native English speakers (90.1%) and the moderately Dutch accented speakers (62.8%). However, only 24.6% of the participants were able to correctly identify the slightly Dutch accented speakers. The majority of the participants (63.2%) perceived the slightly Dutch accented speakers as native speakers of English.

Chi-square tests showed a significant relation between origin of the speaker and accent strength for Dutch participants ($\chi^2(4) = 90.54, p < .001$) and for international participants ($\chi^2(4) = 72.56, p < .001$). The majority of the Dutch participants correctly identified the accents of the native English speakers (86%) and the moderately Dutch accented speakers (88.7%). However, only 28.8% were able to correctly identify the slightly Dutch accented speakers. The majority of the international participants correctly identified the accents of the native English speakers (93.4%). However, only a minority correctly recognized the accents of the slightly Dutch accented speakers (21%) and the moderately Dutch accented speakers (31%). The slightly Dutch accented speakers were identified as native English speakers by 57.7% of the Dutch participants and 67.7% of the international participants. The observed counts and column percentages are presented in Table 2.

Table 2. Identification of the speakers' origin in function of accent strength (number and percentages)

Accent strength	Group	Identification of origin of the speaker							
		Dutch		Native English		Other		Total	
		n	%	n	%	n	%	n	%
Native	Dutch	5	10.0	43	86.0	2	4	50	100
	International	2	3.3	57	94.4	2	3.3	61	100
	Total	7	6.3	100	90.1	4	3.6	111	100
Slight	Dutch	15	28.8	30	57.7	7	13.5	52	100
	International	13	21.0	42	67.7	7	11.3	62	100
	Total	28	24.6	72	63.2	14	12.3	114	100
Moderate	Dutch	63	88.7	6	8.5	2	2.8	71	100
	International	18	31.0	12	20.7	28	48.3	58	100
	Total	81	62.8	18	14	30	23.3	129	100

Intelligibility of the lecturer

A two-way ANCOVA with degree of accentedness (accent strength) and student nationality (group) as factors showed no significant main effects of both degree of accentedness ($F(2, 347) < 1$) and student nationality ($F(1, 347) < 1$) on intelligibility of the lecturer. The interaction effect between degree of accentedness and student nationality was not statistically significant ($F(2, 347) < 1$). All means and standard deviations with regards to intelligibility of the lecturer are presented in Table 3.

Table 3. Intelligibility of the lecturer in function of accent strength and group (0 = 0% correct, 4 = 50% correct, 8 = 100% correct)

Accent strength	Group								
	Dutch			International			Total		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Native	3.24	2.05	50	3.23	1.75	61	3.23	1.88	111
Slight	3.17	1.88	52	3.00	1.70	62	3.08	1.78	114
Moderate	3.03	1.94	71	2.84	1.47	58	2.95	1.74	129
Total	3.13	1.94	173	3.03	1.64	181	3.08	1.80	354

Comprehensibility of the lecturer

A two-way ANCOVA with degree of accentedness (accent strength) and student nationality (group) as factors showed significant main effects of both degree of accentedness ($F(2, 347) = 15.32, p < .001, \eta^2 = .081$) and student nationality ($F(1, 347) = 11.74, p = .001, \eta^2 = .033$) on perceived comprehensibility of the lecturer. These main effects were qualified by a significant interaction effect between degree of accentedness and student nationality ($F(2, 347) = 4.94, p = .008, \eta^2 = .028$). All means and standard deviations with regards to perceived comprehensibility of the lecturer are presented in Table 4.

A difference in comprehensibility between the three degrees of accentedness was only found for Dutch students ($F(2, 170) = 19.64, p < .001, \eta^2 = .188$): the moderately Dutch-accented speaker of English ($M = 4.77, SD = 1.25$) was evaluated as less comprehensible compared to the slightly Dutch-accented speaker ($M = 5.61, SD = 0.89$) and the native speaker of English ($M = 5.92, SD = 0.91$) (Bonferroni; all p 's $< .001$). There was no difference between the slightly Dutch-accented speaker and the native English speaker (Bonferroni; $p = .394$). Furthermore, no differences were found for international students with regards to the three degrees of accentedness ($F(2, 178) = 1.82, p = .165, \eta^2 = .020$).

A difference in comprehensibility between the two participant groups was only found for the moderately Dutch-accented speaker of English ($F(1, 127) = 14.14, p < .001, \eta^2 = .100$): Dutch students ($M = 4.77, SD = 1.25$) evaluated the moderately Dutch-accented speaker of English as less comprehensible compared to the international students ($M = 5.60, SD = 1.24$). No differences were found between the Dutch and international students for the slight Dutch-accented ($F(1, 112) = 3.07, p < .083, \eta^2 = .027$) or native speaker of English ($F(1, 109) < 1$).

Table 4. Perceived comprehensibility of the lecturer in function of accent strength and group (1 = not comprehensible, 7 = very comprehensible)

	Group								
	Dutch			International			Total		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Accent strength									
Native	5.92	0.91	50	5.93	1.00	61	5.93	0.95	111
Slight	5.61	0.89	52	5.92	0.99	62	5.77	0.95	114
Moderate	4.77	1.25	71	5.60	1.24	58	5.14	1.31	129

Attitudes towards the lecturer

A two-way MANCOVA for power, competence, likeability and perceived teaching quality of the lecturer, with degree of accentedness (accent strength) and student nationality (group) as factors, found a significant multivariate effect of both degree of accentedness ($F(8, 688) = 14.83, p < .001, \eta^2 = .147$) and student nationality ($F(4, 344) = 5.03, p = .001, \eta^2 = .055$). These main effects were qualified by a significant interaction effect between degree of accentedness and student nationality ($F(8, 688) = 2.92, p = .003, \eta^2 = .033$). All means and standard deviations with regards to attitudes towards the lecturer are presented in Table 5.

Likeability

The univariate analyses showed a main effect of degree of accentedness ($F(2, 347) = 20.57, p < .001, \eta^2 = .106$) on likeability. There was no main effect of student nationality on likeability ($F(1, 347) < 1$) or an interaction effect between degree of accentedness and student nationality ($F(2, 347) = 2.33, p = .099, \eta^2 = .013$). Participants evaluated the moderately Dutch-accented speaker of English ($M = 4.43, SD = 1.05$) as less likeable compared to the slightly Dutch-accented speaker ($M = 5.22, SD = 0.89$) and the native speaker of English ($M = 4.94, SD = 0.89$) (Bonferroni; p 's $< .001$). No differences were found between the slightly Dutch-accented and the native speaker of English (Bonferroni; $p = .075$).

Power

The univariate analyses showed a main effect of degree of accentedness ($F(2, 347) = 38.97, p < .001, \eta^2 = .183$) on power. There was no main effect of student nationality on power ($F(1, 347) < 1, \eta^2 = .001$). A significant interaction effect was found between degree of accentedness and student nationality ($F(2, 347) = 5.30, p = .005, \eta^2 = .030$).

A difference in power of the speaker between the three degrees of accentedness was found for both the Dutch students ($F(2, 170) = 30.07, p < .001, \eta^2 = .261$) and the international students ($F(2, 178) = 10.97, p < .001, \eta^2 = .110$). The moderately Dutch-accented speaker of English ($M = 3.75, SD = 1.53$) was evaluated as less powerful compared to the slightly Dutch-accented speaker ($M = 5.03, SD = 1.07$) and the native speaker of English ($M = 5.47, SD = 1.07$) by the Dutch students (Bonferroni; all p 's $< .001$). International students also evaluated the moderately Dutch-accented speaker of English ($M = 4.33, SD = 1.22$) as less powerful than the slightly Dutch-accented speaker ($p = .002$, Bonferroni-correction; $M = 4.97, SD = 0.91$) and the native speaker of English ($p < .001$, Bonferroni-correction; $M = 5.18, SD = 0.96$). Dutch students

(Bonferroni; $p = .251$) and international students (Bonferroni; $p = .768$) did not evaluate the slightly Dutch-accented speaker of English differently than the native English speaker.

A difference in power of the speaker between the two student nationalities was only found for the moderately Dutch-accented speaker of English ($F(1, 127) = 5.41, p = .022, \eta^2 = .041$): Dutch students ($M = 3.75, SD = 1.53$) evaluated the moderately Dutch-accented speaker of English as less powerful than did the international students ($M = 4.33, SD = 1.22$). No differences were found between the Dutch and international students for the slight Dutch-accented ($F(1, 112) < 1$) or native speaker of English ($F(1, 109) = 2.24, p = .138, \eta^2 = .020$).

Competence

The univariate analyses showed a main effect of degree of accentedness ($F(2, 347) = 35.97, p < .001, \eta^2 = .172$) and student nationality ($F(1, 347) = 6.80, p = .010, \eta^2 = .019$) on competence. Additionally, these main effects were qualified by a significant interaction effect between degree of accentedness and student nationality ($F(2, 347) = 3.55, p = .030, \eta^2 = .020$).

A difference in competence of the speaker between the three degrees of accentedness was found for Dutch students ($F(2, 170) = 24.75, p < .001, \eta^2 = .226$) and international students ($F(2, 178) = 13.28, p < .001, \eta^2 = .130$). The moderately Dutch-accented speaker of English ($M = 4.26, SD = 1.65$) was evaluated as less competent compared to the slightly Dutch-accented speaker ($M = 5.49, SD = 0.81$) and the native speaker of English ($M = 5.73, SD = 0.91$) by Dutch students (Bonferroni; all p 's $< .001$). International students also evaluated the moderately Dutch-accented speaker of English ($M = 4.92, SD = 0.18$) as less competent than the slightly Dutch-accented speaker ($M = 5.81, SD = 0.80$) and the native speaker of English ($M = 5.66, SD = 0.78$). Both Dutch students and international students did not evaluate the slightly Dutch-accented speaker of English differently than the native English speaker (Bonferroni; p 's = 1).

A difference in competence of the speaker between the two student nationalities was found for the moderately Dutch-accented speaker of English ($F(1, 127) = 5.95, p = .016, \eta^2 = .045$) and the slightly Dutch-accented speaker of English ($F(1, 112) = 4.33, p = .040, \eta^2 = .037$). Dutch students ($M = 4.26, SD = 1.65$) evaluated the moderately Dutch-accented speaker of English as less competent than did the international students ($M = 4.92, SD = 1.35$). Additionally, Dutch students ($M = 5.49, SD = 0.81$) evaluated the slightly Dutch-accented speaker of English as less competent than did the international students ($M = 5.81, SD = 0.80$). No differences were found between Dutch and international students for the native speaker of English ($F(1, 109) < 1$).

Perceived teaching quality of the lecturer

The univariate analyses showed a main effect of degree of accentedness ($F(2, 347) = 38.18, p < .001, \eta^2 = .180$) and student nationality ($F(1, 347) = 10.19, p = .002, \eta^2 = .029$) on perceived teaching quality. These main effects were qualified by a significant interaction effect between degree of accentedness and student nationality ($F(2, 347) = 8.07, p < .001, \eta^2 = .044$).

A difference in perceived teaching quality between the three degrees of accentedness was found for Dutch students ($F(2, 170) = 39.31, p < .001, \eta^2 = .316$) and international students ($F(2, 178) = 6.69, p = .002, \eta^2 = .070$). The native ($M = 5.64, SD = 0.86$) and slightly Dutch-accented ($M = 5.21, SD = 0.85$) speakers of English were evaluated as better teachers compared to the moderately Dutch-accented speaker of English ($M = 3.99, SD = 1.31$) by Dutch students (Bonferroni; all p 's $< .001$). International students also evaluated the native ($p = .001$, Bonferroni-correction; $M = 5.59, SD = 0.86$) and slightly Dutch-accented ($p = .035$, Bonferroni-correction; $M = 5.39, SD = 1.06$) speakers of English as better teachers than the moderately Dutch-accented speaker of English ($M = 4.89, SD = 1.27$). Both Dutch students (Bonferroni; $p = .139$) and international students (Bonferroni; $p = .903$) did not evaluate the slightly Dutch-accented speaker of English differently than the native English speaker.

A difference in perceived teaching quality between the two student nationalities was only found for the moderately Dutch-accented speaker of English ($F(1, 127) = 15.32, p < .001, \eta^2 = .108$). Dutch students ($M = 3.99, SD = 1.31$) evaluated the teaching quality of the moderately Dutch-accented speaker of English more negatively than did the international students ($M = 4.89, SD = 1.27$). No differences were found between Dutch and international students for the slight Dutch-accented ($F(1, 112) < 1$) or native speaker of English ($F(1, 109) < 1$).

Table 5. Power, competence, likeability and teaching quality in function of accent strength and group (1 = negative, 7 = positive)

Accent	Group	Power		Competence		Likeability		Teaching Quality		<i>n</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Native	Dutch	5.47	1.07	5.73	0.91	5.07	0.85	5.64	0.86	50
	Intl.	5.18	0.96	5.66	0.78	4.84	0.90	5.59	0.86	61
	Total	5.31	1.02	5.69	0.84	4.94	0.89	5.61	0.86	111
Slight	Dutch	5.03	1.07	5.49	0.81	5.10	0.83	5.21	0.85	52
	Intl.	4.97	0.91	5.81	0.80	5.33	0.93	5.39	1.06	62
	Total	4.80	0.98	5.66	0.81	5.22	0.89	5.31	0.97	114
Moderate	Dutch	3.75	1.53	4.26	1.65	4.34	1.10	3.99	1.31	71
	Intl.	4.33	1.22	4.92	1.35	4.53	0.98	4.89	1.27	58
	Total	4.01	1.42	4.56	1.56	4.43	1.05	4.40	1.36	129

Conclusion and discussion

The purpose of this study was to examine and compare the effects of the strength of Dutch lecturers' accent (moderate/slight/native) in English on evaluations by NNE Dutch and international students in terms of (1) intelligibility and perceived comprehensibility of the lecturer and (2) attitudes towards the lecturer.

Recognition of the accent strengths and identification of the speaker's origin

Findings of the present study show that NNE students with the same and different linguistic background as the NNE lecturer were able to distinguish all three accents. Lecturers with a native English accent were evaluated as sounding the most native compared to slightly and moderately Dutch-accented lecturers. Students were also able to distinguish the degree of accentedness between lecturers with a slight and moderate Dutch accent in English.

The findings of the present study are in contrast with those of previous studies which showed mixed findings regarding non-native listeners' ability to distinguish various degrees of accentedness in English for NNE speakers with a slight foreign accent. Studies of Hendriks et al. (2014) and Hendriks et al. (2017) found that non-native listeners with a different linguistic background than the non-native speaker were able to distinguish a moderately Dutch-accented speaker from a native speaker of English, but were not able to distinguish the degree of accentedness between a slight and moderate Dutch accent or a slight Dutch and native English accent. A possible explanation for these contrasting findings might be the fact that the present study incorporated non-native speakers with the same and different linguistic background. However, this can be nuanced by the fact that only a minority of the Dutch and international participants in the present study were able to correctly identify the slightly Dutch-accented speaker. It appears to be difficult to fully explain these mixed findings about non-native listeners' ability to distinguish various accent strengths in English.

The finding that listeners were able to distinguish the difference between speakers with a slight Dutch and native accent in English seems striking. As discussed above, only a minority of the participants identified the slightly Dutch-accented speaker correctly. The majority of the participants were able to correctly identify the speaker with a native English accent. Furthermore, many Dutch students correctly identified the moderately Dutch-accented speaker. However, only a minority of the international students thought the moderately Dutch-accented speaker was from the Netherlands. Hendriks et al. (2016), whose audio fragments were reused in the present study, also found that Dutch listeners correctly identified non-native speakers with a moderately Dutch and native English accent. However, only a minority of these

participants were able to correctly identify the slightly Dutch-accented speaker, which is in line with findings of the present study. The finding that slightly Dutch-accented speakers in both studies are often identified as native speakers of English might be explained by the fact that the degrees of accentedness in the present study were categorized by expert judges, as mentioned by Hendriks et al. (2016).

Intelligibility and perceived comprehensibility

The first research question of this study focused on the intelligibility and perceived comprehensibility of the lecturer, i.e., to what extent does Dutch lecturers' accent strength in English influence Dutch and international students' perceptions of comprehensibility and intelligibility of the lecturer?

The present study did not find an effect of accent strength on participants' evaluations of the intelligibility of the speaker, which is in line with findings of Nejari et al. (2012). Simultaneously, the present study did find an effect of accent strength on participants' evaluations in terms of perceived comprehensibility. These findings showed that Dutch students perceived moderately Dutch accented lecturers as less comprehensible compared to their international counterparts. Dutch students also evaluated lecturers with a moderate Dutch-English accent as less comprehensible than lecturers with a slightly Dutch or native English accent. International students did not evaluate the moderate, slight and native accented English-speaking lecturer differently in terms of comprehensibility. Therefore, accent strength did not seem to affect international students' perceptions of comprehensibility.

The finding that various degrees of accentedness did not affect international students' perceptions of comprehensibility provides evidence against Stibbard and Lee's (2006) mismatched speech intelligibility detriment. This effect holds that non-native listeners find non-native speakers with a different linguistic background more difficult to understand than non-native speakers with the same L1. This is in accordance with previous studies that did not find evidence for a detriment either (e.g. Bent & Bradlow, 2003).

The present study partly found evidence for the native speech intelligibility benefit (Major et al., 2002; Smith & Bisazza, 1982), as moderately Dutch accented lecturers were evaluated as less comprehensible compared to lecturers with a native English accent. However, this interpretation should be made with some caution for two reasons. This benefit only holds in comparison with a heavy foreign accent and not with a slight foreign accent, which is in line with findings of Hendriks et al. (2016). Moreover, in the current study this benefit only holds

for students with the same L1 background as the lecturer. Evidence for the native speech intelligibility benefit was not found among students with a different L1 background.

Furthermore, no support was found for Bent and Bradlow's (2003) matched interlanguage speech intelligibility benefit (MISIB). This is in line with previous studies (e.g. Hayes-Harb, Smith, Bent & Bradlow, 2008; Munro et al., 2006) that also found that a MISIB does not always occur. The MISIB holds that non-native listeners find non-native speakers with the same linguistic background easier to understand than speakers with a native accent (Bent & Bradlow, 2003) However, findings of the present study showed a contrasting effect: Dutch students perceived lecturers with a moderately Dutch accent in English as less comprehensible compared to their international counterparts. Additionally, moderately Dutch-accented lecturers were evaluated as less comprehensible than lecturers with a slightly Dutch and native English accent by Dutch students. This is in accordance Hendriks et al. (2016), who also found that Dutch students evaluated moderately Dutch-accented lecturers as less comprehensible compared to lecturers with a slight Dutch or native English accent.

Previous studies found that listeners' prejudices about foreign accents often influence their beliefs that they cannot understand accented speakers, while these listeners actually do understand the accented speech (Derwing & Munro, 1997; Gluszek & Dovidio, 2010; Munro & Derwing, 1995). A suggestion for the contrasting findings of the present study might be that Dutch students feel a sense of vicarious shame (Schmader & Lickel, 2006) when they are exposed to lecturers with a strong Dutch accent in English, which leads them to believe that they cannot fully understand the lecturer. Therefore, it can be assumed that these feelings might have influenced their perceived comprehensibility of the lecturer, but perhaps not their actual understanding of the lecturer.

Attitudes towards NNE lecturers

The second research question of this study focused on students' attitudes towards the lecturer, i.e., to what extent does Dutch lecturers' accent strength in English influence Dutch and international students' attitudes towards the lecturer in terms of likeability, power, competence and teaching quality?

A general pattern emerged from findings with regards to attitudes towards the lecturer. Lecturers with a moderately Dutch accent in English were evaluated more negatively compared to lecturers with a slight Dutch or a native English accent by both Dutch and international students. These findings are in line with previous studies on accentedness, which also found that a moderately foreign accent leads to more negative evaluations compared to slight non-

native or native accents in English (e.g. Brennan & Brennan, 1981; Cargile & Giles, 1998; Dragojevic et al., 2017; Hendriks et al., 2017; Hendriks et al., 2016; Nejjari et al., 2012). The present study also found that Dutch students evaluated the moderately Dutch-accented lecturer more negatively compared to the international students in terms of power and teaching quality. Furthermore, Dutch students also evaluated the moderately and slightly Dutch-accented lecturers as less competent than their international counterparts. The last finding contrasts with findings of Hendriks et al. (2016), who found that Dutch students evaluated lecturer with a slight Dutch accent as equally competent as lecturers with a native English accent.

The finding that lecturers with a moderately Dutch accent were evaluated more negatively than lecturers with a slight Dutch or a native English accent by students with the same and different linguistic background adds to the finding of Grift et al (2012), which showed that NNE students with the same L1 background as their lecturer were more critical towards the English of their lecturer compared to NNE students with a different linguistic background. The present study also found that lecturers with a slight Dutch or native accent in English were evaluated equally by students with a different L1 than the lecturer. On the one hand, this finding might lend support to the suggestion of Grift et al. (2012) that NNE students with a different L1 than the lecturer find a foreign accent charming as long as it is still intelligible. On the other hand, this finding might also be explained by the fact that the majority of the international students (i.e. students with a different linguistic background) identified the slightly Dutch accented lecturer as a native speaker of English.

Findings of the present study did provide evidence for Schmader and Lickel's (2006) vicarious shame effect, which holds that listeners feel ashamed when members of their in-group speak with an accent in a foreign language that is easy to distinguish and not desirable. As discussed above, students with the same L1 as the lecturer evaluated lecturers with a moderately Dutch accent (on power, competence and teaching quality) and a slight Dutch accent (on competence) more negatively compared to students with a different linguistic background. This finding can partly be explained by the fact that the majority of the Dutch students correctly identified the accent of the moderately Dutch accented speakers. This leads to believe that Dutch students (students with the same linguistic background as the lecturer) could have felt a sense of vicarious shame for lecturers with a strong accent in English. It should be noted that evidence for the vicarious shame effect holds in comparison with a moderately Dutch accent, but does not always hold in comparison with a slight Dutch accent.

Limitations and suggestions for further research

The present study was limited in some ways. As discussed earlier, a few background characteristics (i.e. familiarity, language of instruction and English proficiency level) were not added as covariates to the analysis of this study, because they did not have a full influence on differences between the two groups. However, this does not imply that they are not worth investigating further. For example, previous studies already pointed out that familiarity with a foreign accent influences listeners' comprehensibility of and attitudes toward non-native speakers (e.g. Derwing et al., 2002; Nejjari et al., 2012). Hence, it might be interesting to shed more light on the influence of participants' background characteristics on evaluations of accent strengths.

The present study focused on non-native students with the same and different linguistic background as the non-native lecturer. However, it did not take students' field of study into consideration. For example, Derwing, Rossiter and Ehrensberger-Dow (2002) found that people whose occupation required a sensitivity to linguistic form tend to be more critical towards sentences with grammatical errors than people whose occupations does not require a sensitivity to linguistic form. It might appear that students of arts (e.g. communication) tend to be more sensitive to language compared to students of natural sciences (e.g. biology). Communication students might be more critical towards non-native accents of lecturers than biology students. Therefore, it might be relevant to further explore the effects of accentedness on evaluations by students with different fields of study.

Furthermore, the present study found evidence for a vicarious shame effect. However, participants' feelings towards the accent strength were not measured in this study. Grift et al. (2012) suggested that listeners with a different linguistic background as the speaker might find a foreign accent of a non-native speaker charming, while listeners with the same linguistic background might feel embarrassed. Therefore, it might be relevant to gain further insights into feelings of the participants towards non-native accents. For example, by asking participants to write down which feelings they've experienced while listening to speakers with a non-native accent.

Contribution to theory and practical implications

This study is one of the first studies that has examined the effects of the strength of non-native lecturers' accent in English on evaluations by students with the same and different linguistic background, especially within an educational context. Findings of this study provide new insights into the effects of foreign accented speech.

The present study found that non-native listeners with the same and different linguistic background as the non-native speaker have the ability to distinguish various degrees of accentedness in English. This new insight contrasts previous studies (e.g. Hendriks et al., 2014; Hendriks et al., 2017), which found that non-native listeners with a different L1 background were not always able to distinguish various non-native accent strengths.

In terms of intelligibility and comprehensibility, findings of this study provided evidence against the matched speech intelligibility benefit (Bent & Bradlow, 2003) and the mismatched speech intelligibility detriment (Stibbard & Lee, 2006), as students with the same linguistic background as their lecturers perceive lecturers with a strong foreign accent as less comprehensible compared to lecturers with a slight or native English accent, while students with a different linguistic background do not necessarily perceive those lecturers as less comprehensible. The present study found that the native speech intelligibility benefit (Major et al 2002, Smith & Bisazza 1982) only holds among students with the same linguistic background and only in comparison with a strong foreign accent and not with a slight foreign accent. Evidence for the native speech intelligibility benefit was also nuanced by the finding that non-native listeners with a different L1 than the speaker were not affected by accent strength.

With regards to attitudinal evaluations, this study confirms findings of previous studies (e.g. Dragojevic et al., 2017; Hendriks et al., 2006; Hendriks et al., 2017) by showing that strong foreign accents in English are evaluated more negatively than slight foreign accents and native accents. Another contribution of this study is that students perceive lecturers with a strong foreign accent in English as poorer teachers, which is highly relevant in an educational context. Furthermore, this study provided evidence for a vicarious shame effect (Schmader & Lickel, 2006), as students with the same linguistic background often evaluate lecturers with a moderately non-native accent more negatively compared to students with a different linguistic background. However, evidence for the vicarious shame effect holds in comparison with a moderately Dutch accent, but does not always hold with a slight Dutch accent.

In general, the present study found that speakers with a slight non-native accent were (often) evaluated equally positive as a speakers with a native English accent. This seems to support Jenkins' (2000) suggestion that non-native speakers of English do not need to adhere to native English norms in. On the contrary, findings that speakers with a moderate non-native accent were evaluated more negatively than speakers with a slight non-native or native English accent lead to believe that non-native listeners actually do judge non-native speakers against native speaker norms.

Lastly, the findings of this study have some practical implications within an educational setting. It appears that non-native students do not seem to mind a slight non-native accent, which implicates that non-native lecturers do not necessarily have to adopt a native-like accent in order to be evaluated positively. However, stronger non-native accents decreased students' evaluations of the lecturer in terms of perceived comprehensibility and attitudes towards the lecturer. On the one hand, students might need some guiding in order to get used to various non-native accent strengths. For example, by offering (audio) study materials that involves various non-native accents (c.f. Jenkins, 2006). On the other hand, it is recommended that non-native lecturers reduce traces of a moderate foreign accent in English. Considering the increasing use of English as a medium of instruction, it could be helpful to offer pronunciation training to lecturers involved in EMI.

References

- Bayard, D., Weatherall, A., Gallois, C., & Pittam, J. (2001). Pax Americana? Accent attitudinal evaluations in New Zealand, Australia and America. *Journal of Sociolinguistics*, 5(1), 22–49. doi: 10.1111/1467-9481.00136
- Bent, T., & Bradlow, A.R. (2003). The interlanguage speech intelligibility benefit. *The Journal of the Acoustical Society of America*, 114(3), 1600–1610. doi: 10.1121/1.1603234
- Björkman, B. (2011). English as a lingua franca in higher education: Implications for EAP. *Ibérica: Revista de la Asociación Europea de Lenguas para Fines Específicos (AELFE)* (22), 79-100.
- Bolton, K., & Kuteeva, M. (2012). English as an academic language at a Swedish university: Parallel language use and the ‘threat’ of English. *Journal of Multilingual and Multicultural Development*, 33(5), 429–447. doi: 10.1080/01434632.2012.670241
- Brennan, E.M., & Brennan, J.S. (1981). Accent scaling and language attitudes: Reactions to Mexican American English speech. *Language and Speech*, 24(3), 207–221. doi: 10.1177/002383098102400301
- Bresnahan, M. J., Ohashi, R., Nebashi, R., Liu, W. Y., & Morinaga Shearman, S. (2002). Attitudinal and affective response toward accented English. *Language & Communication*, 22(2), 171-185. doi: 10.1016/S0271-5309(01)00025-8
- Buckingham, L. (2014). Attitudes to English teachers’ accents in the Arabian Gulf. *International Journal of Applied Linguistics*, 24(1), 50–73. doi: 10.1111/ijal.12058
- Butler, Y.G. (2007). How are nonnative - English - speaking teachers perceived by young learners? *TESOL Quarterly*, 41(4), 731–755. doi: 10.1002/j.1545-7249.2007.tb00101.x
- Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.
- Cargile, A.C., & Giles, H. (1998). Language attitudes toward varieties of English: An American Japanese context. *Journal of Applied Communication Research*, 26(3), 338–356. doi: 10.1080/00909889809365511
- Crystal, D. (2003). *English as a Global Language*. Cambridge: Cambridge University Press.
- Giles, H. (1970). Evaluative reactions to accents. *Educational Review*, 22, 211-227.
- Coleman, J. (2006). English-medium teaching in European higher education. *Language Teaching*, 39 (01), 1-14.
- Dalton-Puffer, C., Kaltenböck, G., & Smit, U. (1997). Learner attitudes and L2 pronunciation in Austria. *World Englishes*, 16(1), 115-128.

- Derwing, T.M. & Munro, M.J. (1997). Accent, intelligibility, and comprehensibility: Evidence from four L1s. *Studies in Second Language Acquisition*, 20, 1-16.
- Derwing, T.M., Rossiter, M.J., & Ehrensberger-Dow, M. (2002). They spoke and wrote real good: Judgements of Non-native and Native Grammar. *Language awareness*, 11(2) 84-99. doi: 10.1080/09658410208667048
- Deprez-Sims, A.-S., & Morris, S.B. (2010). Accents in the workplace: Their effects during a job interview. *International Journal of Psychology*, 45(6), 417-426. doi: 10.1080/00207594.2010.499950
- Dragojevic, M., Giles, H., Beck, A., & Tatum, T. (2017). The fluency principle: Why foreign accent strength negatively biases language attitudes. *Communication monographs*, 2017, 1-21. doi:10.1080/03637751.2017.1322213
- Eisenclas, S. A., & Tsurutani, C. (2011). You sound attractive! Perceptions of accented English in a multi-lingual environment. *Australian Review of Applied Linguistics*, 34(2), 216.
- European Commission. (2012). *Europeans and their languages*. Retrieved from http://ec.europa.eu/public_opinion/archives/ebs/ebs_386_en.pdf
- Evans, S., & Morrison, B. (2011). Meeting the challenges of English-medium higher education: The first-year experience in Hong Kong. *English for Specific Purposes*, 30(3), 198-208. doi:10.1016/j.esp.2011.01.001
- Fayer, J. M., & Krasinski, E. (1987). Native and nonnative judgments of intelligibility and irritation. *Language Learning*, 37(3), 313-326.
- Gluszek, A., & Dovidio, J. F. (2010). The way they speak: A social psychological perspective on the stigma of nonnative accents in communication. *Personality and Social Psychology Review*, 14(2), 214-237. doi: 10.1177/1088868309359288
- Grift, Y., Meijer, A. & van der Salm, F. (2012). The impact of the language of instruction: How economics students in the Netherlands evaluate an English-taught undergraduate programme. *Tjalling C. Koopmans Institute Discussion Paper Series*, 12 (02), 1-21.
- Hayes-Harb, R., Smith, B. L., Bent, T., & Bradlow, A. R. (2008). The interlanguage speech intelligibility benefit for native speakers of Mandarin: Production and perception of English word-final voicing contrasts. *Journal of Phonetics*, 36(4), 664-679. doi: 10.1016/j.wocn.2008.04.002
- Hellekjær, G.O. (2010). Lecture comprehension in English-medium higher education. *Hermes-Journal of Language and Communication Studies*, 45, 11-34.

- Hendriks, B., Van Meurs, W., Van Mulken, M., & Van Hoof, K. (2014). Pardon my French? Mother-tongue French listeners' evaluations of Dutch accents in French and English. In R. van den Doel & L. M. Rupp (Eds.), *Pronunciation matters* (pp. 159–173). Amsterdam: VU University Press.
- Hendriks, B., van Meurs, F. & de Groot, E. (2017). The effects of degrees of Dutch accentedness in ELF and in French, German and Spanish. *International Journal of Applied Linguistics*, 27, 44–66. doi: [10.1111/ijal.12101](https://doi.org/10.1111/ijal.12101).
- Hendriks, B., van Meurs, F., & Hogervorst, N. (2016). Effects of degree of accentedness in lecturers' Dutch-English pronunciation on Dutch students' attitudes and perceptions of comprehensibility. *Dutch Journal of Applied Linguistics* 5(1), 1-17. doi: 10.1075/dujal.5.1.01hen
- Jenkins, J. (2000). *The phonology of English as an international language*: Oxford University Press.
- Jenkins, J. (2006). Current perspectives on teaching world Englishes and English as a lingua franca. *TESOL Quarterly*, 40(1), 157-181
- Jenkins, J. (2009). English as a lingua franca: interpretations and attitudes. *World Englishes*, 28(2), 200-207.
- Jesney, K. (2004). *The use of global foreign accent rating in studies of L2 acquisition: Research Centre, University of Calgary*. Retrieved 22 May 2015 from <http://www-bcf.usc.edu/~jesney/Jesney2004GlobalAccent.pdf>
- Kelch, K., & Santana-Williamson, E. (2002). ESL students' attitudes toward native- and nonnative-speaking instructors' accents. *CATESOL Journal*, 14(1), 57–72.
- Krishna, A., & Alhuwalia, R. (2008). Language choice in advertising to bilinguals: Asymmetric effects for multinationals versus local firms. *Journal of Consumer Research*, 35, 692-705.
- Mai, R., & Hoffmann, S. (2014). Accents in Business Communication: An integrative model and propositions for future research. *Journal of Consumer Psychology*, 24(1), 137-158. doi:10.1016/j.jcps.2013.09.004
- Major, R.C., Fitzmaurice, S.F., Bunta, F., & Balasubramanian, C. (2002). The effects of nonnative accents on listening comprehension: Implications for ESL assessment. *TESOL Quarterly*, 36(2), 173–190. doi: 10.2307/3588329
- Munro, M.J., & Derwing, T.M. (1995). Foreign accent, comprehensibility, and intelligibility in the speech of second language learners. *Language Learning*, 45(1), 73–97. doi: 10.1111/j.1467-1770.1995.tb00963.x

- Munro, M. J., & Derwing, T. M. (1999). Foreign accent, comprehensibility, and intelligibility in the speech of second language learners. *Language Learning*, 49, 285-310.
- Nejjari, W., Gerritsen, M., Haagen, M. v. d., & Korzilius, H. (2012). Responses to Dutch-accented English. *World Englishes*, 31(2), 248-267. doi: 10.1111/j.1467-971X.2012.01754.x
- Rubin, D. L., & Smith, K. A. (1990). Effects of accent, ethnicity, and lecture topic on undergraduates' perceptions of nonnative English-speaking teaching assistants. *International Journal of Intercultural Relations*, 14(3), 337-353. doi: 10.1016/0147-17
- Ruiz-Garrido, M. F., & Palmer-Silveira, J. C. (2008). Content learning in business communication: a teaching experience within the new European framework. In I. Fortanet-Gómez, & C. Räisänen (Eds.), *ESP in European higher education: Integrating language and content*. AILA Applied Linguistics Series, Vol. 4, p-p 147–164.
- Schmader, T., & Lickel, B. (2006). Stigma and shame: Emotional responses to the stereotypic actions of one's ethnic ingroup. In S. Levin & C. v. Laar (Eds.), *Stigma and group inequality: Social psychological perspectives* (pp. 261-285). Mahwah, NJ: Erlbaum.
- Stibbard, R.M., & Lee, J.-I. (2006). Evidence against the mismatched interlanguage speech intelligibility benefit hypothesis. *The Journal of the Acoustical Society of America*, 120, 433–442. doi: 10.1121/1.2203595

Appendix A

Text of the audio fragment

In its most basic sense, relationship marketing is all about attracting customers and building and maintaining long term profitable relationships between the company and its customers. The importance of relationship marketing cannot be overemphasized. In fact, there are many benefits that organizations can gain by trying to forge and maintain long term relationships with their customers. For example, it is said that it is seven times cheaper to maintain your existing customers than attract new ones. Your existing customers or your loyal customers, tend to spend more money, tend to be insensitive to price, and they can even act as brand advocates by recommending the brand to other people or actually defending the brand in public without the organizations knowledge. Another very important reason to practice relationship marketing is the fact that 80% of a company's profit comes from 20% of their customers.

Appendix B

Questionnaire of the experiment

1. Introduction

Dear participant,

Thank you for your willingness to participate in this study carried out at the Radboud University Nijmegen about the evaluation of English-taught classes.

The procedure of this research study involves filling out an online questionnaire. First, you will hear a short audio sample from a marketing lecture. Therefore, it is important that the volume on your computer or telephone is working. After you have listened to the audio sample, you will be asked a number of questions. Filling out this questionnaire will take approximately 10 minutes.

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. Clicking on the 'I Agree' button below indicates that:

- You have read the above information\
- You voluntarily agree to participate

- You are at least 18 years of age

If you do not wish to participate in this study, please decline participation by leaving this webpage.

Should you want more information on this study, please contact n.usmany@student.ru.nl.

Thank you again for your participation.

Nina Usmany

2. Intelligibility

You have just listened to the audio sample. Below you will read sentences you have just heard in the fragment. Some words are missing and have been replaced by numbers. Please read carefully and fill in the correct words that should be in the gap of the correct number. In its most basic sense, (1)_____ is all about attracting customers and building and (2) _____ long-term (3) _____ relationships between the company and its customers. The importance of relationship marketing cannot be (4) _____. In fact, there are many (5) _____ that organizations can gain by trying to (6) _____ and maintain (7) _____ relationships with their customers. For example, it is said that it is seven times cheaper to maintain your (8) _____ customers than attract new ones.

Answer the questions by marking the bullet that best reflects your opinion. It is important that you answer all questions. Please remember that we are interested in your first impressions: your answers can never be wrong.

3. Comprehensibility

I have to listen very carefully to be able to understand the lecturer

Completely disagree 0 0 0 0 0 0 0 Completely agree

The lecturer speaks clearly

Completely disagree 0 0 0 0 0 0 0 Completely agree

The lecturer is barely intelligible

Completely disagree 0 0 0 0 0 0 0 Completely agree

The lecturer is difficult to comprehend

Completely disagree 0 0 0 0 0 0 0 Completely agree

I have problems understanding what the lecturer is talking about

Completely disagree 0 0 0 0 0 0 0 Completely agree

I do not understand what the lecturer means

Completely disagree 0 0 0 0 0 0 0 Completely agree

4. Attitudes

In my opinion, this lecturer sounds..

	Completely disagree						Completely agree
Authoritative	0	0	0	0	0	0	0
Trustworthy	0	0	0	0	0	0	0
Self-confident	0	0	0	0	0	0	0
Influential	0	0	0	0	0	0	0
Reliable	0	0	0	0	0	0	0
Intelligent	0	0	0	0	0	0	0
Competent	0	0	0	0	0	0	0
Hardworking	0	0	0	0	0	0	0
Educated	0	0	0	0	0	0	0
Credible	0	0	0	0	0	0	0
Sympathetic	0	0	0	0	0	0	0
Warm	0	0	0	0	0	0	0
Humoristic	0	0	0	0	0	0	0
Has a powerful voice	0	0	0	0	0	0	0
Tactful	0	0	0	0	0	0	0
Polite	0	0	0	0	0	0	0
Irritating	0	0	0	0	0	0	0
Unfriendly	0	0	0	0	0	0	0

5. Teaching quality

In my opinion...

This lecturer's subject knowledge is excellent

Completely disagree 0 0 0 0 0 0 0 Completely agree

The lecturer can clearly communicate the content of the lecture

Completely disagree 0 0 0 0 0 0 0 Completely agree

This lecturer is a good teacher

Completely disagree 0 0 0 0 0 0 0 Completely agree

This lecturer's English is excellent

Completely disagree 0 0 0 0 0 0 0 Completely agree

This lecturer contributes positively to the reputation of his college/university

Completely disagree 0 0 0 0 0 0 0 Completely agree

This lecturer has excellent didactic abilities

Completely disagree 0 0 0 0 0 0 0 Completely agree

6. Recognition accent strength

This speaker sounds like a native speaker of English

Completely disagree 0 0 0 0 0 0 0 Completely agree

This speaker has a strong foreign accent in his English

Completely disagree 0 0 0 0 0 0 0 Completely agree

7. Origin of the speaker

Which country do you think this speaker is from?

(dropdown list: 1 = Afghanistan – 264 = Zimbabwe)

8. Topic interest

Please indicate how interesting the topic of the audio sample is to you

Not interesting 0 0 0 0 0 0 0 Very interesting

9. Familiarity

I am familiar with Dutch-accented English

Completely disagree 0 0 0 0 0 0 0 Completely agree

I often meet people who have a Dutch accent in their English

Completely disagree 0 0 0 0 0 0 0 Completely agree

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

Completely disagree 0 0 0 0 0 0 0 Completely agree

10. Self-assessed English proficiency

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

	Poor							Excellent
Speaking	0	0	0	0	0	0	0	0
Writing	0	0	0	0	0	0	0	0
Reading	0	0	0	0	0	0	0	0
Listening	0	0	0	0	0	0	0	0

11. Actual English proficiency (LexTALE)

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.

List of words:

platory (practice item; n), denial (practice item; y), generic (practice item; y), mensible (n), scornful (y), stoutly (y), ablaze (y), kermshaw (n), moonlit (y), lofty (y), hurricane (y), flaw (y), alberation (n), unkempt (y), breeding (y), festivity (y), screech (y), savoury (y), plaudate (n), shin (y), fluid (y), spaunch (n), allied (y), slain (y), recipient (y), exprate (n), eloquence (y), cleanliness (y), dispatch (y), rebondicate (n), ingenious (y), bewitch (y), skave (n), plaintively (y), kilp (n), interfate (n), hasty (y), lengthy (y), fray (y), crumper (n), upkeep (y), majestic (y), magrity (n), nourishment (y), abergy (n), proom (n), turmoil (y), carbohydrate (y), scholar (y), turtle (y), fellick (n), destription (n), cylinder (y), censorship (y), celestial (y), rascal (y), purrage (n), pulsh (n), muddy (y), quirky (n), pudour (n), listless (y), wrought (y)

Finally, you will be asked to answer some personal background questions. This information is strictly confidential.

What is your age?

[open]

What is your gender?

Male

Female

What is your nationality?

Dutch

Other, [open]

What is your native language?

Dutch [0]

Other, ... [open]

What is your educational level?

Bachelor

Master

In which study program are you enrolled?

[open]

What is the main language used in your study program?

Dutch

English

Other, ... [open]

Thank you very much for your cooperation!

If you have any questions regarding this study, please feel free to contact n.usmany@student.ru.nl