Accent perception by L2 speakers

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1. Introduction

1.1 Foreign and native accents

Accent perception has been a significant topic within sociolinguistics and psycholinguistics, as it plays a vital role in shaping social judgments and communicative success (Cunha de Souza et al., 2016; Gluszek & Dovidio, 2010). Research in this area consistently demonstrates that accents influence how listeners perceive not just the speech itself, but also the speaker's intelligence, competence, trustworthiness, and social status (Fuse et al., 2016; Lev-Ari & Keysar, 2010).

An accent refers to the distinctive way in which speech sounds are produced by people, typically influenced by geographic, social, or linguistic background. According to White & Johnson (2025), accent variation is a fundamental and universal feature of human language, reflecting the diverse environments in which speech is learned and used. Research now shows that even young infants can discriminate between accents. By five months, they can differentiate between familiar and unfamiliar varieties of their native language (Nazzi et al., 2000).

Foreign accents specifically emerge when speakers learn a second language (L2) through the phonological and phonetic systems of their first language (L1). This phenomenon, often referred to as accent transfer, involves multiple levels of linguistic processing, spanning both abstract phonological rules and concrete articulatory routines. At the phonological level, L2 learners tend to apply the categorical constraints of their native sound system, substituting unfamiliar phonemes with the closest approximations available in their L1. For instance, a French speaker may replace the English /θ/ with /s/ or /z/, reflecting the absence of the target category in French. On the phonetic level, prosodic features such as vowel length, intonation, and stress patterns, often deeply ingrained through early L1 acquisition, are projected onto L2 speech, influencing the temporal and spectral characteristics of the output.

The BiPhon model introduced by Boersma (2011) provides a formalized and explanatory account of these accent-related phenomena by modelling speech as a bidirectional process of mapping across multiple levels of representation. Rather than conceptualizing speech in terms of isolated phonemes, the BiPhon model proposes an integrated architecture in which underlying forms, surface phonological forms, auditory outputs, and articulatory gestures are interconnected through constraint-based evaluation. Each level interacts via Optimality Theory constraints that are ranked in a language-specific manner, shaping both production and perception. In the context of L2 acquisition, this model explains foreign-accentedness as arising from persistent L1-based constraint rankings, particularly in the mapping between surface forms and their phonetic realizations. These constraints influence coarticulatory patterns and segmental transitions, so that even when individual L2 phonemes are produced accurately, their sequential realization retains an L1 "signature." This residual influence contributes to the perceptual salience of a foreign accent, as it reflects not simply individual segmental deviations but deeper cross-level misalignments in the grammar that governs speech behaviour.

According to Tahta, Wood & Loewenthal (1981), a crucial predictor of foreign accent in second-language learners is age of acquisition. Their study of English learners

who began acquiring the language between ages 6 and 15+ found that children who began by the age of six typically exhibited native-like pronunciation with no detectable L1 accent. In contrast, those who began after age twelve to thirteen almost invariably retained a strong foreign accent. This finding has since been replicated in numerous studies and forms a cornerstone of the critical period hypothesis in L2 phonology. Beyond biological age, the extent of L2 use in daily life, particularly in informal and home settings, was also shown to influence accent retention. Learners who adopted the L2 not only as a linguistic system but also as a part of their cultural identity, often through consistent use in social interactions, were more likely to exhibit reduced foreign accent.

1.2 Standard language ideology and accent discrimination

A particularly well-documented phenomenon in the field of accent perception is the standard language ideology, as coined by Lippi-Green in 1994, a socially constructed preference for prestigious or “standard” speech varieties over non-standard or accented ones. Lippi-Green examined court cases that failed to recognize accent discrimination as illegitimate and accepted the notion that communication standards justify negative treatment. Many others have found a similar effect, such as Giles & Powesland (1975). They showed that British listeners rated speakers using Received Pronunciation (RP) as more competent and authoritative than those using regional accents such as Birmingham or Liverpool.

Beyond social preference, accents also play a role in cognitive processing speed. Research has shown that accents unfamiliar to the listener, especially non-native ones, often impose greater cognitive load. Munro & Derwing (1995), for example, found that heavily accented speech, even when fully intelligible, is perceived as more effortful to comprehend. This discrepancy arises not from reduced intelligibility per se, but from lower perceptual fluency, an increase in processing difficulty that often leads to negative social judgments, such as perceiving the speaker as less competent or trustworthy. These fluency-based evaluations persist even when linguistic content is clear, underscoring how accent functions as both a cognitive and affective filter.

However, accent perception is not innate or fixed; it is influenced by individual listener experience and sociolinguistic exposure. Clopper & Pisoni (2004) found that listeners from linguistically diverse environments were significantly better at distinguishing regional accents within American English Broader linguistic exposure supports the development of more adaptable phonological representations, reducing both perceptual difficulty and bias. Yet, accent evaluations remain entangled with social desirability rather than purely acoustic properties. McKenzie (2008), studying Japanese learners of English, found that judgments were more closely aligned with perceived prestige than with comprehensibility, reinforcing the pervasive influence of standard language ideology even among non-native speaker populations.
Gluszek and Dovidio (2010) touch upon the subject of linguistic stereotyping, referring to the tendency to judge a speaker's competence or credibility negatively based solely on their accent, regardless of their actual language proficiency. Their work illustrates that accent can serve as a proxy for other social categories, such as ethnicity, nationality, or class. Incera et al. (2016) further demonstrated that speakers with foreign accents are not only perceived more negatively but are also more likely to be interrupted or ignored, highlighting the communicative and relational consequences of these biases.

Lippi-Green (1997) again argues that accent functions as a "litmus test for exclusion," in which language-based prejudice is socially tolerated in ways that race- or gender-based discrimination are not. Through matched-guise studies, researchers have repeatedly shown that the same speaker is rated differently depending solely on the accent used. In Lambert et al.'s (1960) pioneering experiments, listeners attributed varying levels of intelligence, trustworthiness, and socio-economic status based only on perceived accent, which underscores the symbolic role of language in social categorization.

These perceptual and attitudinal biases translate into structural discrimination across multiple sectors. In employment, job applicants with foreign or non-standard regional accents are consistently rated lower in terms of hireability. Schmaus and Kristen (2021) found that accent alone, when all other variables are held constant, reduced applicants' chances of being hired, especially in roles requiring high levels of verbal communication. A meta-analysis by Nguyen (2010) suggested that accent bias disproportionately affects women, particularly when the evaluators are also female, pointing to complex patterns of intersectional discrimination. Similar trends have been observed in customer service settings, where employees with perceived "unfavourable" accents experience reduced engagement and lower satisfaction ratings from clients (Bourdin et al., 2023).

In higher education, students with regional or working-class accents report being subjected to ridicule, microaggressions, and exclusion. Levon et al. (2022) found that students from Scotland and Northern England experienced lowered confidence and reduced classroom participation due to mockery or correction of their speech. This not only affects individual well-being but also limits academic performance and broader social mobility. The justice system is also vulnerable to accent bias. In a recent study, Paver et al. (2025) showed that British listeners associated Liverpool and Bradford accents with higher criminality, while RP accents were paradoxically more often linked to crimes of a sexual nature. These findings suggest that accent bias can influence earwitness credibility, potentially leading to unequal treatment based on the way someone sounds rather than what they say.

1.3 The L2 listener

A research gap in the field of accent perception research concerns the role of the L2 listener. While much attention has been given to how native speakers respond to foreign accented speech, often with bias rooted in standard language ideology, less is known about how non-native speakers perceive such accents. One of the few comprehensive studies addressing this issue is Nejjari (2019), who explored whether a Dutch accented English speaker would be perceived differently compared to speakers of standard British and American English. Using a matched guise technique across four experimental settings, Nejjari assessed both speech comprehension and speaker evaluation. Her findings suggest that L2 listeners do not consistently favour native accents, and in many cases, they rate fellow non-native speakers just as positively, particularly when communication remains intelligible.

This clashes with the findings of McKenzie (2008), who, as stated above, found that Japanese speakers of English preferred more native accented speech to Japanese accented speech. However, McKenzie also found that participants felt more solidarity

and identification with Japanese accented speech, feeling that they were all part of an ‘in-group’. This opens up several possibilities for the outcome of research into accent perception by L2 speakers.

Furthermore, the Foreign Accent Effect and Foreign Language Effect may also play a role in the emotional response of L2 listeners compared to that of native listeners. The combined effect of listening to foreign accented speech in a second language could create such an emotional detachment that the listener let’s go of the standard language ideology. These conflicting findings and the multitude of explanations for them further reiterate the importance of research from the L2 listener and speaker perspective.

1.4 This research

This research will build off of Nejjari’s experiment, albeit to a smaller scale, to test two research questions, namely:

1. To what extent can non-native speakers of English determine the nativeness of an accent?
2. Will non-native speakers of English follow standard language ideology?

For an experiment such as this, a matched guise technique will prove most useful. The matched-guise technique is a widely used experimental method in sociolinguistics and social psychology to investigate language attitudes. Originally developed by Lambert et al. (1960), this method seeks to isolate listeners’ perceptions of a speaker's voice or accent from other social variables such as appearance or behaviour. In a typical matched-guise experiment, participants listen to recordings of one or more bilingual or bidialectal speakers reading the same content in different linguistic guises, such as a standard versus a non-standard accent, or one language versus another. Crucially, the content remains constant across guises, and the speaker is often unaware of the study’s purpose to minimize bias. Participants are then asked to evaluate the speakers on a range of personality traits or social characteristics such as intelligence, friendliness, trustworthiness, or competence, based on the speech sample. Because the same speaker provides all the guises, any systematic differences in listener evaluations can be attributed to the accent or language variety rather than the individual speaker. This design allows researchers to uncover implicit attitudes and stereotypes tied to linguistic features.

The matched-guise technique has been widely used to examine how accents influence social judgments across different communities and language contexts (e.g., Giles & Powesland, 1975; Cargile & Giles, 1998). It has proven especially useful in contexts involving language prestige, discrimination, and identity construction. An example is the work of Purnell, Idsardi, & Baugh (1999), who demonstrated that housing agents in the United States responded differently to identical voice recordings depending on whether the speaker used African American English, Chicano English, or Standard American English. The mere presence of a particular accent or dialectal feature led to differential treatment, underscoring how accent discrimination operates even in the absence of visual cues or overt prejudice. More recently, modified versions of the matched-guise method have also been used to explore language attitudes among non-native speakers, such as Nejjari, extending the scope of the method beyond its original monolingual or bilingual settings.

The only downsides to the matched-guise technique are the natural validity of scripted recordings and finding a speaker who can convincingly deliver two or more guises (Mendoza-Denton, 2002). Nonetheless, the matched-guise experiment remains a foundational tool in language attitude research. In this research, this constraint is of no matter since there will be no comparison of accents, simply a comparison of ‘native’ versus ‘foreign’.

1.5 The Dutch accent

Seeing as this paper will focus on Dutch accented English, a general introduction is in order. One prominent feature is final devoicing, a process whereby voiced obstruents such as /b/, /d/, and /g/ are pronounced voiceless in word-final position. As a result, words like “bed” and “bag” may be realized as [bɛt] or [bæk]. Another common feature is the realization of the English rhotic /r/, which is typically produced as a uvular or alveolar fricative or trill in Dutch. This leads to a noticeably different quality compared to the American English approximant [ɹ]. The use of the Dutch [ʁ] or [r] in English words such as “red” or “car” often stands out to native listeners and can serve as a salient cue of foreign accent. Additionally, Dutch speakers frequently insert a schwa-like vowel (/ə/) in complex final consonant clusters, particularly those that are marked or absent in Dutch phonology. For instance, a word like “help” may be pronounced as [ˈhɛləp]. Another characteristic is the realization of the English interdental fricatives /θ/ and /ð/, which are often replaced with /s/, /f/, or /t/, /d/ respectively. Vowel quality also frequently diverges from native norms, particularly in the case of diphthongs and tense-lax distinctions that do not exist in Dutch. For example, the English /æ/ in cat is typically realized closer to /ɛ/ or /ɑ/, and the distinction between /ɪ/ and /iː/ may be reduced. Dutch speakers also tend to exhibit syllable-timed prosody, as opposed to the stress-timed rhythm of English, leading to flatter intonation contours and more evenly timed syllables. The earlier discussed BiPhon model by Boersma (2011) helps in understanding how these features come to be. For example, the insertion of /ə/ in consonant clusters can be viewed as the activation of high-ranking Dutch phonotactic constraints that penalize marked codas, while devoicing reflects native ranking patterns favouring voiceless obstruents in final position. The persistence of these features even among advanced Dutch learners of English illustrates the difficulty of fully suppressing L1 constraints and re-ranking them in accordance with native L2 norms

These phonetic traits contrast with the American English accent that serves as the de facto standard in English language education in the Netherlands. Exposure to American media, as well as educational materials that prioritize General American pronunciation, has made it the dominant reference variety for most Dutch learners. However, the degree of alignment with this standard varies significantly depending on a speaker's proficiency level, age of acquisition, and exposure. While many advanced speakers approach near-native American pronunciation, residual features of the Dutch accent often remain and are perceptible to native listeners.

2. Methods

2.1 Participants

The participants consisted of 18 adults, all L2 speakers of English (8 women, 5 men, 5 non-binary people). Ten spoke Dutch as their native language. The other eight spoke Italian (2), Catalan (2), French (1), Bulgarian (1), Swedish (1) or German (1). All participants reported having no auditory or language processing disabilities. The age category ranged between 20 and 25, with one exception of a 58-year-old Dutch man.

2.2 Stimuli

The stimuli comprised twelve 1-minute audio recordings spoken by six native English speakers, three men and three women. Two originated from the United States, three from Great Britain, and one from Ireland. Each speaker recorded themselves reading the first ten sentences from The Rainbow Passage (Fairbanks, 1960) aloud twice: once in their natural accent and once imitating a Dutch accent. Speakers had varying experience with the Dutch language and accent: one speaker was raised in the Netherlands, two speakers have lived in the Netherlands for several years, one speaker is a foreign language learner of Dutch and the remaining two had no prior experience with the language.

When producing the Dutch-accented stimuli, it was not important for the speakers to produce a convincing accent. The most important aspect was that the speaker sounded foreign. However, since many speakers struggled emulating a Dutch accent, a short guide was composed to try and ensure that there was some hegemony in the guise condition. This guide was made using the characteristics of Dutch-accented English as described by Tops et al. in the book Leaner English (Swan & Smith, 2001).

The key characteristics that the speakers were made aware of are:

- final devoicing
- /s/ -> /ʃ/
- the Dutch ‘r’ varieties, none like the English /r/
- the insertion of the /ə/ in final consonant clusters, such as in ‘film’ and ‘milk’
- /θ/ -> /s/ or /f/, /ð/ -> /z/ or /d/

Following these instructions, all speakers exhibited some consistency in their guise accents, although a large part was still left up to personal interpretation. This resulted in a natural gradation throughout the accents. Below, key features of the speakers’ speech will be discussed.

2.2.1 Speaker Profiles and Guise Accent Features

Speaker 1.

This speaker is a native of Ireland and acquired Dutch as a foreign language. In their guise accent, several phonological features were notable. Most prominently, the speaker produced a uvular /ʁ/, fronted several vowel realizations, and consistently omitted the initial /h/ in word-initial position.

Speaker 2.

Originating from the United Kingdom, this speaker has resided in the Netherlands for several years. Their guise accent was characterized by a trilled /r/, although

occasional reversion to the native English approximant /ɹ/ occurred in word-final position. Additionally, the speaker consistently substituted /ʃ/ for /s/ and exhibited complete final devoicing of obstruents.

Speaker 3.
This speaker is a native speaker of American English, raised in the Netherlands. In their guise accent, final obstruents were consistently devoiced, and the rhotic was realized as a trilled /r/. The speaker also inserted a schwa /ə/ within final consonant clusters and systematically substituted /ɷ/ for /ɐ/.

Speaker 4.
Also a native speaker of American English, this individual has spent several years living in the Netherlands. In their guise accent, the vowel /ɐ/ was regularly replaced with /ɷ/. While the speaker retained their native rhotic /ɹ/, instances of final devoicing of obstruents were observed.

Speaker 5.
This speaker is from the United Kingdom and had no prior experience with Dutch. In the guise accent, /ð/ was uniformly replaced with /d/, all final obstruents were devoiced, and the speaker produced a trilled /r/ throughout.

Speaker 6.
Like Speaker 5, this speaker is also from the United Kingdom and had no exposure to Dutch. They followed the same phonological pattern as Speaker 5, with two notable differences: the native approximant /ɹ/ was retained rather than replaced with a trill, and this /ɹ/ was consistently produced with aspiration.

2.3 Procedure
The participants filled out an online questionnaire. They were first asked some background questions, such as their age and gender, to ensure they are adult L2 speakers of English with no hearing or language processing disabilities. They were asked further background questions to determine their level of English and their language background. After this, the experiment started.

The first recording played, and when it finished a question would pop up on the screen. By answering it, the participant moves ahead in the experiment. A progress bar was visible on the top of the screen, so the participants knew how far along they were in the experiment. After each recording, 19 questions followed to determine their views on the accentedness of the utterance, the background of the speaker, their emotional response to the accent, and their views on the personality and education level of the speaker. 14 of these questions were to see how much the participant agreed with a positive statement, such as ‘This person is ambitious’, ‘This person pronounced all words clearly and accurately’ or ‘This person is trustworthy’. Participants were also asked to rate the foreignness of the accent, the strength of the accent and their own confidence in the assessment of the accent. These answers were recorded using a 5-point Likert scale, which ranged from “strongly disagree” to “strongly agree”.

The experiment included two open ended questions: ‘Can you give an indication where this person is from?’ and ‘Were there any specific sounds or words that

seemed pronounced unusually?'. The first question was to see if participants were able to correctly locate the origins of the native accents and if they would recognize the guise condition as a Dutch accent. The second question was implemented to find out if the participants were aware of certain characteristics that make them recognize an accent as 'foreign' or 'native', and whether these correspond to the characteristics that the speakers were instructed to perform.

2.4 Data analysis

All data was first standardized per participant using a z-transformation. This compensated for the different ways participants might use the 5-point scale. From there, a mixed-effects model was created to examine the impact of speaker condition (Guise versus No-Guise) on listener perceptions, with speaker and participant included as random effects. At first, condition was implemented as a random interval over speaker and participant as random effect, but this yielded no results. In order for the model to give accurate results, the responses for question 7 ('This person sounds foreign') were multiplied by -1. This is because question 7 was the only 'negatively' phrased statement, the rest consisted of positive or neutral statements. This ensured that all the data could be analysed together without being skewed.

3. Results

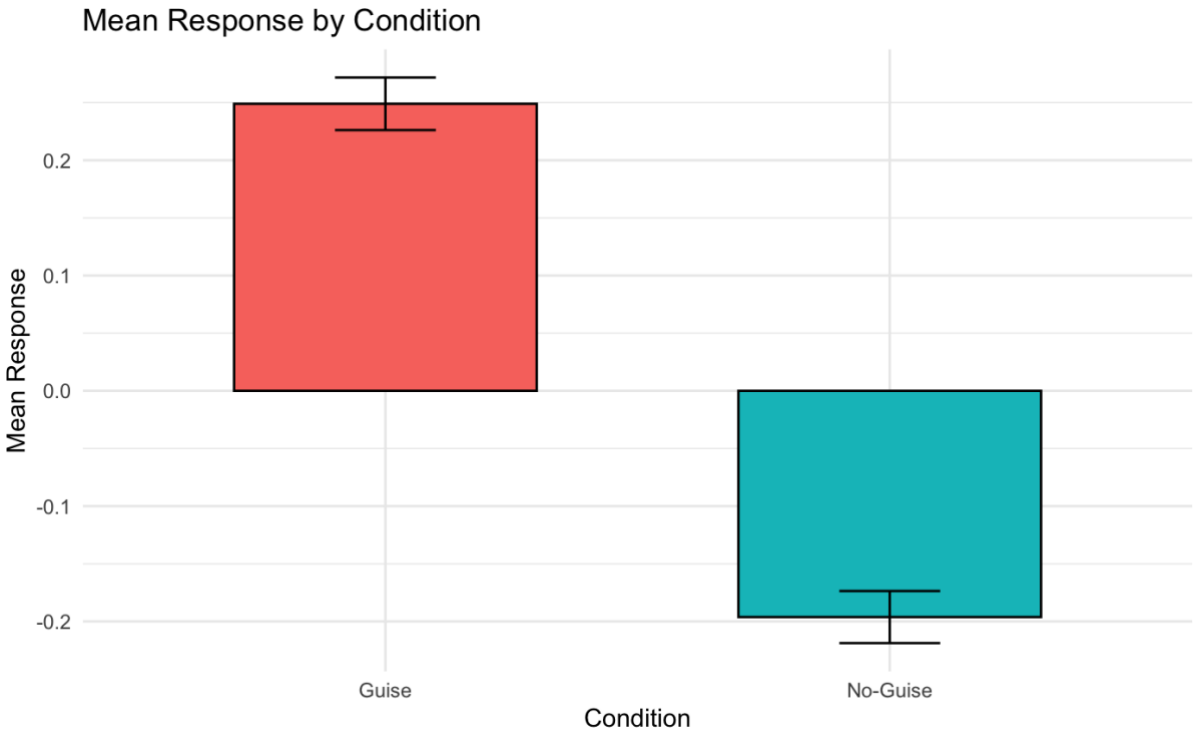

Figure 1

3.1 Mixed-effects model

Figure 1 shows the results of the mixed effects model as described in the data analysis. The model revealed a significant effect of condition, with responses being significantly higher in the "Guise" condition compared to the "No-Guise" condition with a *t*-value of 13.90 and a *p*-value < .001. This indicates that participants generally

gave more positive responses to the Guise condition than to the No-Guise. The random effects showed minimal variance attributable to participants (SD = 0.03) and speakers (SD = 0.06), suggesting that most of the variability in responses was not due to individual or speaker differences but was captured by the fixed effect of condition. Overall, the model provides strong evidence that the condition significantly affects the response variable.

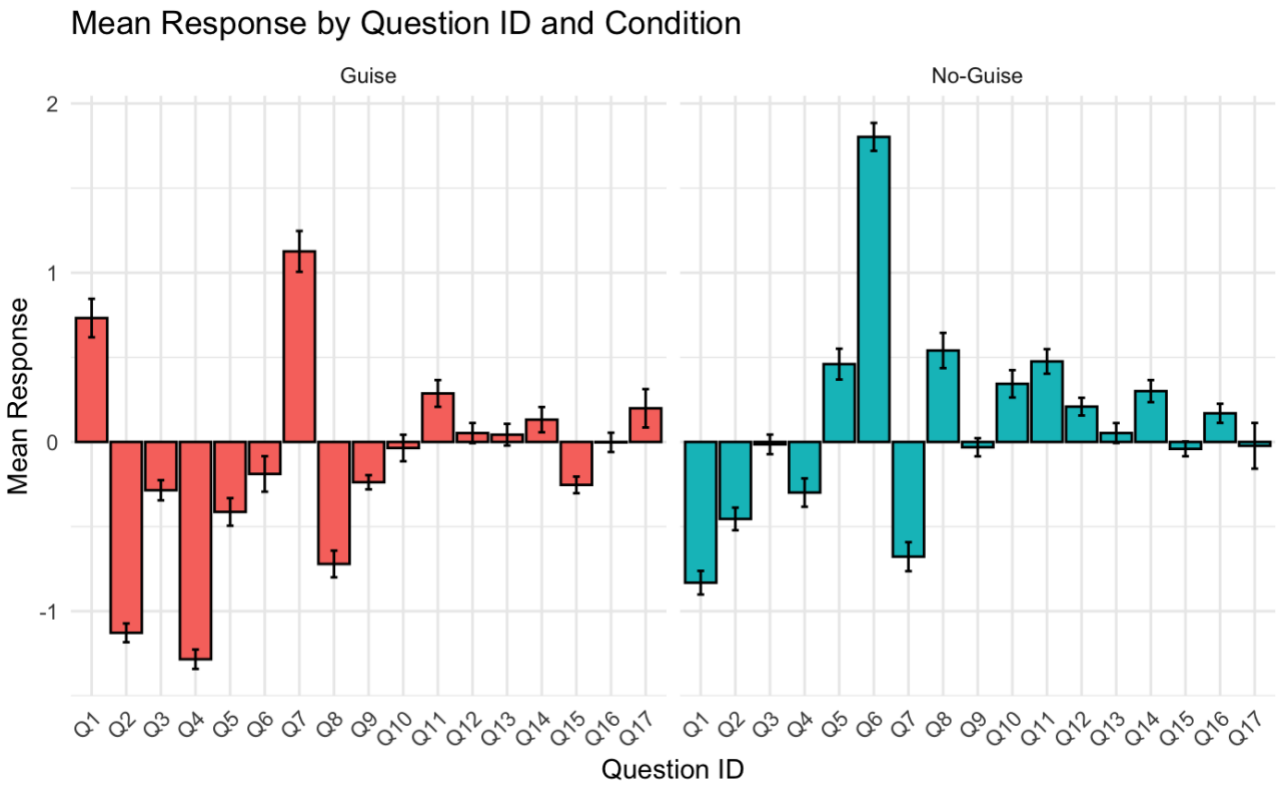

Figure 2

Questions figure 1

Q1. This person has a strong accent
Q2. I can understand this person clearly
Q3. This person is well educated
Q4. This person would be easily understood by most native English speakers
Q5. I enjoy listening to this person
Q6. This person sounds native
Q7. This person sounds foreign
Q8. This person pronounced all words clearly and accurately
Q9. This person is trustworthy
Q10. This person is confident
Q11. This person holds authority
Q12. This person is ambitious
Q13. This person is dependable
Q14. This person is entertaining
Q15. This person is intelligent
Q16. This person is social
Q17. How confident are you in your assessment of this person's nativeness?

3.2 Expanded results

Figure 2 provides a more detailed view of the results, breaking down mean responses by individual question and condition. To ensure interpretability across items, responses to question 7 were reverse-coded again, allowing for consistent comparison with other items. Notably, questions 6 and 7 show strong effects in opposite directions across conditions, suggesting that participants were indeed sensitive to cues of nativeness and could successfully distinguishing between native and non-native accents. However, for several other questions, the error bars overlap with zero, indicating that those differences are not statistically significant. One particularly notable case is question 17, which assessed participants' confidence in identifying nativeness.

3.7 Open questions

The present model does not incorporate the two open-ended questions. Question 18: "Can you give an indication where this person is from?" and question 19: "Were there any specific sounds or words that seemed pronounced unusually?". This is due to the high variability in participant responses. However, only the most consistent and recurring patterns identified in these responses will be discussed below.

For question 18, a total of 216 responses were collected. Of these, only 14 participants answered with "I don't know", while all others offered at least a tentative guess regarding the speaker's regional or national origin. In the No-Guise condition, participants tended to identify the accent with relatively high accuracy. Instances of misidentification generally involved confusion between native accents, for example, a Southern British accent was sometimes perceived as American, Canadian, or Irish. It was exceedingly rare for a native accent to be misclassified as non-native. In the few cases where this occurred, the listener was typically a Dutch speaker who misidentified the accent as Dutch. This specific misperception occurred 14 times in total, with 13 of those instances involving an American accent.

In contrast, responses in the Guise condition exhibited greater variability. Approximately 30% of participants identified the accent as Dutch, while 20% either left the question unanswered or responded with "I don't know." The remaining 50% of answers spanned a wide range of origins, though several patterns emerged. Notably, 13 participants identified the Guise accent of the Irish speaker as French. In 9 instances, the Guise accent was perceived as native, though exclusively as either Scottish or Irish. Aside from the Netherlands, the most frequently mentioned countries of origin were Germany or more broadly, "a Germanic-speaking country".

For question 19, 105 of the 216 participants left the response blank. Among the responses that were provided, a high degree of variability was observed. Nonetheless, three phonetic features were mentioned more than five times: (1) a noticeable variation in the articulation of the rhotic /r/ sound, (2) substitution of the /s/ sound with /ʃ/, and (3) alterations in vowel quality. Several participants also indicated that encountering this question prompted them to pay closer attention in future trials to the specific phonetic cues that triggered their perception of an accent.

4. Discussion

To date, the vast majority of research on accent perception has been centred around the judgments of native speakers, often highlighting their tendency to evaluate foreign-accented speakers more negatively across a range of dimensions, including perceived intelligence, credibility, and social desirability (Gluszek & Dovidio, 2010). This study aimed to extend this line of inquiry by investigating how non-native English speakers perceive variation in accent, particularly whether they exhibit similar biases against foreign-accented speech or display different evaluative patterns.

To address this question, a matched guise design was employed, in which L2 English-speaking participants were presented with recordings of native English speakers speaking in their natural accent and in their closest impersonation of a Dutch accent. This design allowed for the controlled manipulation of accent while holding speaker identity and linguistic content constant. While initially it appeared that 42 responses were collected, closer inspection revealed that only 18 participant responses were complete and usable. A significant number of participants failed to complete both conditions, making paired comparisons impossible in those cases. This resulted in the sample size being more limited than intended, which may have implications for the generalizability of the findings.

Despite these limitations, the results yield compelling insights into how listeners perceive and evaluate accented speech across different guise conditions. Participants consistently rated the guise condition (Dutch-accented speech) as sounding both more foreign and more strongly accented than the non-guise condition (native-accented speech). Responses to the open-ended prompt “Can you give an indication where this person is from?” revealed a high degree of variability. Dutch and German were the most frequently cited origins for the guise accents, although attributions ranged widely. Notably, two UK speakers using the guise accent were occasionally identified as having Indian or North African origins, suggesting that deviations from standard L1 norms are often overgeneralized to unfamiliar or racialized accent categories. An alternative explanation, however, may lie in the speaker profiles themselves. These two individuals had no prior experience with Dutch or exposure to the Dutch accent. Given the UK’s diverse sociolinguistic landscape, it is plausible that these speakers unconsciously modelled their "foreign" guise on non-native accents they had more regular contact with, possibly reflecting the speech patterns of British Asian or North African communities. This aligns with findings in sociophonetics suggesting that speakers often draw on familiar reference points when constructing unfamiliar speech styles.

Interestingly, in nine instances, guise speakers were perceived as native speakers, with specific identifications as Scottish or Irish, despite the fact that these speakers originated from other regions of the UK. One speaker, who is originally from Ireland and has lived in France, was consistently perceived as French in the guise condition. This likely reflects the preference this speaker had for phonetic cues such as a French uvular /ʁ/ and fronted vowel qualities, attributes that have been transferred from another L2 that they are more proficient in. This instance exemplifies how cross-linguistic influence from a third language can shape the perceived identity of an accent in unpredictable ways.

In the non-guise condition, most speakers were correctly identified as native speakers of English from their respective origins, although several anomalies emerged. Two American speakers, both of whom had lived in the Netherlands for extended periods, were repeatedly identified as Dutch sounding, despite using their native American English accents. This suggests that long-term exposure to Dutch phonological norms may have influenced their L1 speech production, in line with findings by Pavlenko (2000) on L2-to-L1 phonetic transfer. However, a third speaker, originating from the UK but with similar Dutch exposure, was not misidentified, pointing perhaps to another noteworthy factor: both misidentified speakers shared an American accent, the only two American accents in the mix, which may have played a role in listener perception. At the time participants heard these native recordings, they had already listened to multiple guise tokens. It is therefore plausible that a priming effect occurred: repeated exposure to Dutch-accented English may have conditioned listeners to associate particular intonation patterns, vowel qualities, or timing cues with Dutchness. Consequently, when presented with General American English, listeners may have interpreted its relative familiar sound as indicative of Dutch origin. This perceptual reclassification demonstrates how expectation-driven processing and top-down priming can override objective acoustic features, reinforcing that accent perception is not merely a bottom-up phonetic task, but a context-sensitive, cognitively dynamic process (Bermudez-Otero, 2013).

This misclassification was not limited to Dutch listeners, indicating a broader perceptual bias. If only Dutch listeners had made this mistake, the argument could be made that their L1 has inherently primed them into being on the lookout for a Dutch accent. This was not the case though, further pointing to the priming effect of the guise recordings. Repeatedly hearing a Dutch accent may have. Moreover, the results suggest a general difficulty among participants in distinguishing between regional UK and Irish accents, with Northern English, Southern English, and various Irish accents frequently conflated. At times, Southern British accents were conflated with American, Canadian or Australian accents

Participants also reported using specific phonetic cues to guide their judgments. These included the presence of hesitation markers such as “euh” and other filled pauses, commonly referred to as “thinking sounds.” Such cues, while often language-universal, were evidently interpreted as markers of foreignness or reduced fluency, reflecting how listeners map acoustic features onto social categories of nativeness and competence. This shows the importance of asking participants what features stood out to them and made them question nativeness. Several participants also indicated that, after the first time being presented with this question, they would be more aware of speech patterns that seemed irregular to them.

The above indicates that L2 listeners are sensitive to accent variation and make clear perceptual distinctions between native and non-native sounding speech, which is in line with the initial findings of Voeten & Levelt (2019). However, this heightened awareness of foreignness did not correspond to more negative evaluations. On the contrary, positive evaluation scores were higher in the guise condition than in the no-guise condition. This suggests that, in this sample of L2 speakers, foreign-accented speech was perceived more favourably, a finding that challenges assumptions derived from L1-dominant research and the standard language ideology.

These findings raise several important considerations regarding the nature of accent perception among L2 listeners. First, they suggest that bias toward non-native accents is not universal, but may instead be mediated by the listener's own linguistic experiences and background. L2 speakers, having personally encountered the complexities of second-language acquisition, may exhibit greater tolerance or positive regard toward other non-native speakers. Rather than perceiving accentedness as a marker of deficiency, they may interpret it as familiar, relatable, or even expected in international communicative settings. This orientation can lead to more favourable evaluations of accented speech than those typically recorded among native listeners, which would go directly against the standard language ideology as it has been defined before.

Second, the observed preference for the guise condition may point to a strong sense of sociolinguistic solidarity. With over half of the participants identifying Dutch as their native language, it is plausible that Dutch-accented English was not viewed as foreign or marked, but rather as an extension of their own linguistic repertoire. This would be in accordance with the findings of McKenzie (2008), who found that even though standard language ideology was prevalent in L2 speakers, they still felt an 'in-group' resonance with Japanese-accented speech. Several Dutch participants alluded to being surprised and in doubt about the number of times they were deeming accents 'Dutch sounding', saying 'it can't be this easy', and would expand their answers by offering a second, non-Dutch but still plausible, option. This solidifies the explanation that Dutch participants were quick to recognize any foreign accent as Dutch, when non-Dutch participants were more diverse in guessing the origins of the guise.

This sense of solidarity might also operate below the level of conscious reflection. Participants may not have explicitly recognized Dutch-accented English as more familiar, but their positive evaluations could be shaped by subtle cues of shared linguistic identity, such as prosodic rhythm, vowel quality, or intonation contours, that resonate with their own speech experience. These features may trigger a sense of community or linguistic belonging, leading listeners to interpret the speaker not as "foreign," but as part of a shared communicative culture.

Using native English speakers as stimuli in a matched guise test ultimately offered several methodological advantages. One key benefit is that it ensures a baseline of high proficiency and naturalness in the target language, reducing the likelihood that judgments are confounded by non-native production errors or unintentionally exaggerated features. Native speakers provided more consistent models of L1 phonology and prosody, making it possible to isolate the effects of the presence or absence of a guise without additional variation introduced by imperfect L2 production. This approach also aligns with findings from Nejjari (2019), whose results showed that listeners were sensitive to subtle variations in pronunciation even among highly proficient speakers, highlighting the importance of using native models to control for listener expectations and sociolinguistic bias. However, in future research it would be interesting to see this experiment repeated using native speakers of Dutch for the stimuli, to deeper investigate whether L2 speakers are able to correctly recognize a native or a foreign accent.

Other future work could include a predictor for trial in their data analysis. That was left out in this experiment due to the complexity of this and an insufficient knowledge of statistical analysis and the workings of R software. Furthermore, is it recommended to make the experiment more engaging to stop participants from dropping out halfway through, creating a bigger data pool. One way to do this would be to shorten the length of the stimuli. Seeing as people are so adept at picking up on accents in a short amount of time, stimuli do not need to be a full minute long, but could be shortened to 20 or even 10 seconds.

Finally, while the limited sample size and relatively homogeneous participant pool place constraints on the generalizability of the findings, the results underscore the importance of including L2 listeners in sociophonetic research. Much of the existing literature remains centred on native speaker norms and perceptions, potentially obscuring how L2 users, who make up the majority of English speakers worldwide nowadays, construct meaning from accented speech.

5. Conclusion

This study explored how non-native speakers of English evaluate accent variation, particularly comparing native English speech to Dutch-accented English within a matched-guise paradigm. The findings clearly demonstrate that while L2 listeners are able to identify differences in accentedness and perceived foreignness, this perceptual awareness did not translate into negative speaker evaluations. On the contrary, the guise (Dutch-accented) condition consistently received more favourable ratings across various personality and social judgment dimensions. This suggests that accent recognition among L2 listeners operates along different perceptual and evaluative pathways than it typically does among L1 listeners.

This research was modelled after the work of Nejjari (2019), who similarly reported that L2 English users often did not penalize foreign-accented speech, particularly when the speech remained intelligible. In both studies, accented speech was not only intelligible, but often viewed positively, suggesting that L2 listeners may employ alternative evaluative frameworks based on lived linguistic experience rather than internalized native-speaker norms. This challenges dominant assumptions grounded in standard language ideology, which has traditionally emphasized native-like pronunciation as the benchmark for competence and credibility. The findings of the current research align closely with this study.

Moreover, the results resonate with McKenzie (2008), who found that Japanese learners of English rated native speakers more highly in terms of status, but felt greater solidarity and identification with Japanese-accented speakers. This notion of in-group affiliation is strongly reflected in the current study: many Dutch-speaking participants appeared to interpret Dutch-accented English not as "foreign," but as an extension of their own speech community. This form of sociolinguistic solidarity, whether conscious or implicit, may account for the positive evaluation patterns observed in the guise condition. The emotional and perceptual proximity created by shared accentual features may lead to increased speaker likability, trust, or relatability—qualities that are especially meaningful in multilingual communicative contexts.

Such patterns further affirm that L2 listeners are not simply imitating native listener behaviour. They are instead active participants in accent interpretation, whose judgments are shaped by familiarity, exposure, and community identity. This points toward a broader sociolinguistic reality: as English becomes increasingly globalized, the majority of its interactions occur among L2 speakers. It is therefore essential to expand the analytical lens of sociophonetic research to foreground L2 listener perspectives, which reflect different ideologies, expectations, and social affiliations than those of native speakers.

These findings also contribute to the growing body of research emphasizing the importance of listener identity in shaping evaluative outcomes. The results challenge deficit-based models of accentedness that equate divergence from native norms with communicative failure or social inferiority. Instead, they support more inclusive models that understand accented speech as a socially variable, context-sensitive, and often positively connoted form of communication.

While the limited sample size of this study restricts the generalizability of its conclusions, the consistency of findings with previous research by Nejjari and McKenzie strengthens their validity and highlights key areas for future exploration. Expanding the sample to include L2 listeners from more diverse linguistic and cultural backgrounds would provide a richer understanding of how accent perception varies across global English-speaking contexts. It is also recommended to finetune the speakers and stimuli more, since there was a lot of speaker variation which caused the results to be less straightforward to interpret. In future research, another layer of analysis could be implemented to include a predictor for trial. This was not done in this research due to insufficient knowledge about the workings of R. Furthermore, integrating qualitative approaches, such as interviews or listener diaries, could yield deeper insights into the cognitive and emotional dimensions underpinning speaker evaluations.

In sum, this study adds meaningful evidence to the argument that accent perception is socially and experientially grounded, and that L2 listeners, far from being biased replicators of native norms, may play a central role in reshaping how accentedness is understood in international communication. As English continues to function as a lingua franca across diverse communities, understanding how it is heard and judged by L2 users is not only a matter of academic interest, but also of linguistic equity and representation.

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Appendix 1

Information brochure for
Accent Perception by L2 speakers

Dear participant,

You will be taking part in the Accent Perception by L2 speakers research project conducted by Alba Odufré – student under supervision of Cesko Voeten – lecturer at the University of Amsterdam, Faculty of Humanities. Before the research project can begin, it is important that you read about the procedures we will be applying. Make sure to read this brochure carefully.

Purpose of the research project
Previous research has proven that people are very good at recognizing foreign accents and that they will often have certain associations with them. However, most of this research was done from the point of view of native speakers. In this research, we are looking into the accent perception skills of non-native English speakers.

Who can take part in this research?
Any adult who speaks English as their second language can participate, as long as they have no auditory disabilities or language processing disabilities.

Instructions and procedure
You will first answer some questions about your language background and your English proficiency level. Then you will listen to several audio recordings. It is important that you pay attention to the speaker. After each audio recording, you will be asked to answer some questions about the speaker and their accent. After answering the questions, you will go on to the next recording.

The total duration of the experiment will be 20 minutes.

Voluntary participation
You will be participating in this research project on a voluntary basis. This means you are free to stop taking part at any stage. This will not have any consequences, and you will not be obliged to finish the procedures described above. You can always decide to withdraw your consent later on. If you decide to stop or withdraw your consent prior to publication of the research results, all the information gathered up until then will be permanently deleted. However, if information has been anonymised, it cannot be deleted because it is not possible to trace back the information to individual participants.

Discomfort, Risks & Insurance
The risks of participating in this research are no greater than in everyday situations at home. Previous experience in similar research has shown that no or hardly any discomfort is to be expected for participants.
For all research at the University of Amsterdam, a standard liability insurance applies.

Confidential treatment of your personal details
The information gathered over the course of this research will be used for the purpose of this research project. Your personal details will not be used in publications, and we guarantee that you will remain unidentifiable in all publications.

The data gathered during the research will be stored on a safe server provided by the University of Amsterdam.

Anonymised data will be stored for a period of 10 years.

Data subject rights according to the GDPR

Participants can request more information from the researcher at any time about their rights as data subjects under the EU privacy law, the GDPR.

Reimbursement

You will receive no reimbursement for taking part in this research. If you wish, we can send you a summary of the general research results at a later stage.

Further information

For further information on the research project, please contact Cesko Voeten, email: c.c.voeten@uva.nl; Spuistraat 134, 1012VB Amsterdam, The Netherlands).

If you have any complaints regarding this research project, you can contact the secretary of the Ethics Committee of the Faculty of Humanities of the University of Amsterdam, commissie-ethiek-fgw@uva.nl; Binnengasthuisstraat 9, 1012 ZA Amsterdam, The Netherlands.

Informed consent form

'I hereby declare that I have been clearly informed about the research project Accent Perception by L2 speakers at the University of Amsterdam, Faculty of Humanities, conducted by Alba Odufré – student under supervision of Cesko Voeten – Lecturer as described in the information brochure. My questions have been answered to my satisfaction.

I realise that participation in this research is on an entirely voluntary basis. I retain the right to revoke this consent without having to provide any reasons for my decision. I am aware that I am entitled to discontinue the research at any time, and that I can always withdraw my consent after the research has ended. If I decide to stop or withdraw my consent, all the information gathered up until then will be permanently deleted.

If my research results are used in scientific publications or made public in any other way, they will be fully anonymised. My personal information may not be viewed by third parties.

If I need any further information on the research, now or in the future, I can contact Cesko Voeten e-mail: c.c.voeten@uva.nl; Spuistraat 134, 1012 VB Amsterdam, The Netherlands.

If I have any complaints regarding this research, I can contact the secretary of the Ethics Committee of the Faculty of Humanities of the University of Amsterdam; email: commissie-ethiek-fgw@uva.nl; Binnengasthuisstraat 9, 1012 ZA Amsterdam, The Netherlands.

I consent to:
participate in this research ☐yes / ☐no

Signed in duplicate:

……	…….	……
Name participant	Date	Signature

'I have explained the research in further detail. I hereby declare my willingness to answer any further questions on the research to the best of my ability.'

……	…….	……
Name researcher	Date	Signature

Appendix 2

Full list of questions

- This person has a strong accent
- I can understand this person clearly
- This person is well educated
- This person would be easily understood by most native English speakers
- I enjoy listening to this person
- This person sounds native
- This person sounds foreign
- This person pronounced all words clearly and accurately
- This person is trustworthy
- This person is confident
- This person holds authority
- This person is ambitious
- This person is dependable
- This person is entertaining
- This person is intelligent
- This person is social
- Were there any specific sounds or words that seemed pronounced unusually? Leave N/A if not applicable
- How confident are you in your assessment of this person's nativeness?
- Can you give an indication where this person is from?

Appendix 3

The rainbow passage

When the sunlight strikes raindrops in the air, they act as a prism and form a rainbow.

The rainbow is a division of white light into many beautiful colours.

These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon.

There is, according to legend, a boiling pot of gold at one end.

People look, but no one ever finds it.

When a man looks for something beyond his reach, his friends say he is looking for the pot of gold at the end of the rainbow.

Throughout the centuries people have explained the rainbow in various ways.

Some have accepted it as a miracle without physical explanation.

To the Hebrews it was a token that there would be no more universal floods.

The Greeks used to imagine that it was a sign from the gods to foretell war or heavy rain.