

The Influence of Accent on English Listening Comprehension Among Second Language Learners

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Abstract. As English continues to globalize, the variation in accents of English has become a noteworthy factor affecting listening comprehension for second language learners. Drawing on the Chinese-speaking university students, this paper seeks to explore the major mediating process of English accents that exert direct and indirect influences on L2 listening comprehension with a view to find pedagogical implications. The results suggest that phonetic differences between accents raise the phonetic processing demands, disturb lexical access and reduce subjective intelligibility. and the crucial moderating roles of learners' English proficiency and comprehension of the accent; high-level learners with multi-alker exposure show more coping ability with new accents. Further studies demonstrate that the systematic application of mixed-accent input, explicit phonemic discrimination/comprehension and context scaffolded practice in L2 listening training, together with stressing intelligibility more than accent 'purity' in assessment can contribute to students' ability to listen well in a variety of English settings. The paper argues that a 'multiple accents, intelligibility-oriented' teaching and examining approach serves as a happy compromise between these two extremes, constituting a realistic alternative for the reform of English listening education and testing at China's HEPS.

Keywords: English accents; listening comprehension; second language acquisition; accent familiarity; teaching and assessment.

1. Introduction

The worldwide spread of English has generated many varieties, and diversification in accents is an irreversible trend. The contemporary 'World English' reflects the various pronunciations, intonation, rhythm and articulation by speakers from different geographical regions and linguistic backgrounds. For English-speaking college students, this variety provides a lot of possibilities as well as challenges of using them in real human communication and examination situations. Unfamiliar or pronounced accents significantly increase auditory processing load, requiring listeners to expend greater cognitive resources during lexical recognition and semantic integration [1].

Whether accent variation results in unfair testing on standardised tests have also been a source of focus in recent years. Research into using multiple accents in international tests suggests that this is not necessarily unfair, provided design checks are maintained on the intelligibility of accent recordings [2]. In addition, path analysis research has shown that the so-called shared mother tongue advantage is essentially an indirect effect of increasing listener familiarity with a given accent, rather than direct comprehension benefits deriving from 'nativist' identity [3].

In accent studies, intelligibility and comprehensibility are two key measures. The former is concerned with the true perception of speech presented to listeners regarding how well they derive the spoken content, while the latter concentrates on their subjective perception of difficulty. Initial research has shown that neither is related to 'accentedness' (degree of deviation from a 'standard pronunciation' [4,5]. Recent empirical evidence based on accented speech suggests that accent strength and the phonetic distance between accents can largely account for differences in listeners' understanding of accents [6]. From the Chinese perspective, there is a strong positive correlation between accent familiarity and university students' listening comprehension: the more familiar the accent, the smoother understanding becomes for them, whereas unfamiliar accents bring about significant interpretative difficulties [7]. On the whole, the literature converges on two fronts: firstly, that nonnative or heavily accented speech imposes cognitive load at various levels during processing;

secondly, learners' English proficiency and degree of exposure to accentedness act as significant protective intermediaries against these negative effects. In addition, teaching and assessment need to evolve away from a single model of 'standard accent' towards a multi-accented model where intelligibility is paramount.

In light of this, the present study targeted the Chinese-college group and attempted to answer three related questions: First, what is the mechanism behind how phonetic properties of different English accents affect second language listening comprehension on both phonetic and lexical levels? Second, to what extent do learners' linguistic background, proficiency in English, and accent exposure experience moderate these effects of the accent? Third, how to establish an English teaching and assessment model with multiple accents in university, which is also the balance between authenticity and fairness? Against this background, the present article firstly examines the theoretical framework for and empirical studies of accent degree, intelligibility and comprehensibility in the earlier two-thirds of this paper: then it will discuss these issues using 'phonetic and lexical influences of accent' as well as 'moderating effects from learner characteristics' on accents in the last one-third, followed by some teaching/assessment level countermeasures proposed based upon above discussion, and an account taken on future direction.

2. Literature Review

2.1. Theoretical Foundations: Accentuation, Intelligibility and Comprehensibility

Early research on the intelligibility of International English highlighted that 'whether it can be understood' is more crucial than 'whether it is standard' [4]. Building upon this, accent studies gradually developed a three-part framework: accentuation-intelligibility-comprehensibility. Accentedness denotes the degree to which speech deviates from the listener's familiar pronunciation paradigm; intelligibility refers to the listener's objective ability to recognise the heard content; comprehensibility, however, represents the listener's subjective assessment of whether the speech is 'difficult or easy to understand' [5]. These three are interrelated but not identical: some strongly accented speech may be highly intelligible when delivered in a contextually rich and clear manner, while less-accented speech may be unintelligible under certain conditions (e.g., background noise, fast rate of speech). Mechanistically, the accent effect is generally accounted for at two levels: phonemic and suprasegmental. The phonemic route stresses that if the vowels and consonants are realised and combined in ways different from the learners' acquired phonetic patterns, speech signals will not correspond sufficiently with lexical representations, which would soon lead to misperception or delays of recognition. The suprasegmental route reveals that when learners encounter stress, rhythmic, and intonation patterns other than what they were used to acquiring in their L1, it is difficult for them to identify information focus and sentence boundaries; as a result, the mapping of discourse structure and pragmatic functions also becomes problematic [5]. Recent online processing research, with measures as pupil dilation and reaction times, now shows that listeners experience a considerable load when switching between familiar and unfamiliar accents. The differences in processing are apparent even when one looks at the final comprehension time course, which as noted is not different between conditions [1].

Related to assessment, accents present questions of construct representation and fairness as well. Construct representativeness is the degree to which a measure represents the underlying ability construction of interest (e.g., being able 'to comprehend auditory material within a multilingual environment'). Monolingual listening tests tend to underestimate the multilingually mediated listening demand of examinees, if there is only one standard accent included in the test (e.g. Davies 1987); including more than one standardized variety, better approximates practical usage situations but also raises issues of fairness. There is no denying that Differential Item Functioning (DIF) has come to play a significant role in evaluating whether test fairness, the extent to which items become more difficult for certain groups. The literature has shown that incorporating multiple accents is not

necessarily a threat to test fairness if the items are pre-tested for intelligibility and excessive DIF risks can be screened out by simple statistical analysis [2,8].

It is commonly assumed that listeners sometimes perceive accents more comprehensible when speakers and listeners have the same mother tongue, as an effect of mutual familiarity with pronunciation deviations [9]. Recently, however, it has been found in path analysis that the proposed 'shared L1 advantage' is statistically mediated by accent familiarity. That is, shared L1 itself is not the source of integration but arises as a result of increased exposure and hence familiarity with the accent [3]. This indicates that when considering accent effects, familiarity should be explicitly considered as a critical variable rather than simply by the category of 'same L1'.

2.2. Recent Empirical Research: Processing Load, Familiarity and Fairness

In the past 5 years, we have continued to gain a clearer understanding of the role of accent in auditory comprehension as measured by measures of processing load, familiarity and fairness. Online processing studies show that when listeners of an accent contrast switch from a familiar to an unfamiliar accent on auditory tasks, they display significant pupillary dilation and longer reaction times relative to baseline, reflecting more effortful cognitive processes. Even when finally providing the right answer, processing itself becomes far more arduous [1]. In realistic acoustic conditions such as typical classrooms and examination halls, both the effects of accent and acoustic adversities, like noise and reverberation, results in further degradation of speech recognition performance.

Direct evidence is available from studies examining familiarity and proficiency in the Chinese case. Sun and Chen concluded that high frequency material (AmE, Chinese English) is better understood and comprehended among Chinese EFL learning university students in this research than low frequency Peripheral English accent materials, supporting the correlation between exposure, familiarity within a language variety and phonetic perception or comprehension [7]. Miao indicated by training experiments that systematically exposing to dialectal accent of multi input and conducted the explicit phonemic discrimination training is able to help the learners who adapt for a unfamiliar accent in 24 hours period better than others [6]. Li and Zhao studied Chinese English learners, which found that when the sentence context were strong supported, the recognition rate was still high for accented target words if there was enough listening proficiency in learners. In poor support and time pressure conditions, conversely, the negative effect of accent on lexical access was seriously exacerbated [10]. Liu and Zeng focusing upon the South Asian variety of English, have found that trainee Chinese teachers can experience considerable difficulty in comprehending them due to a lack of systematic exposure [11].

Regarding fairness and attitudes, Jeong, Elgemark, and Thorén discovered that students' subjective acceptance of different English accents correlates with their self-perceived comprehensibility, though this does not correspond linearly with objective listening scores [12]. High-stakes testing research shows that variety of accents does not systematically disadvantage candidate groups with intelligibility and statistical control². The results of this study indicate that multi-accent testing can be achieved when sufficiently controlled by test design and quality.

2.3. Summary

In conclusion, the review reveals that accent degree, intelligibility, and comprehensibility are three critical constructs that need to be separated when examining accent effects; accents impose extra listening processing load in both segmental and suprasegmental modes; learners' proficiency levels of English and of an elicited accent are key moderating factors; relative to assessment practice, utilizing variety types of speaking accents is tenable when intelligibility and fairness could be controlled well enough. On this basis, the following sections will focus on the paths for interfering in Chinese learners' English listening of university's students, identifying accent features and language learner characteristics.

3. Pathway Analysis of Listening Comprehension Impact

3.1. Influence of Accent Characteristics

3.1.1. Impact at the phonetic level

Variations in accent are most visible at the phonetic level. With respect to phonemes, different accents show systematic differences in vowels and consonants realization. For example, some dialects will pronounce /v/ as close to a /w/, replace /θ/ with either a /t/ or an /s/, or drop final /rse) add extra vowels. These variants interfere with learners' already created phoneme-word mappings and thus preclude a prompt matching between the auditory input and internal lexical representations when they encounter such variants. This results in mishearing and late recognition.

Differences in sentence stress, rhythm and intonation patterns are well known at the suprasegmental level between various accents. Some of them will give heavy stress to nearly every syllable and fewer weak forms with sentences that have no relief passage. Sometimes, second language learners use either rising or falling tone in declarative sentences that lead the listeners to be unable to distinguish sentence breaking. These variations block the listener's understanding of underlying meaning and discourses. Measurements of pupil diameter and reaction time in an online experiment show that this process is accompanied by substantial changes, reflecting a heightened demand on cognitive resources during comprehension [1].

In general, the phonetic effects can be characterized as follows: the less native-like and the more unfamiliar an accent is, the more demanding it is for learners to discriminate between 'hearing clearly' and 'understanding meaningfully'. This makes listening to comprehension more difficult and further adds to the burden of lexical processing and syntactic processing as a listener.

3.1.2. Impact at the lexical comprehension level

At the lexical level, accented speech mainly disrupts comprehension via affecting the mapping relationship between phoneme and word. The efficient and accurate mapping of incoming sound to particular lexical items underpins successful listening comprehension. When accent alters the shape of pronunciation forms, listeners could find it difficult to match sounds with word identities. With no intrinsic familiarity underaccent conditions, learners show notoriously high rates of failures and overt errors in dictations, multiple-choice items or other tasks calling for repetition [7].

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3.2. Modulating Effects of Learner Characteristics

3.2.1. Linguistic background

A learner's linguistic experience (including L1 phonological systems, dialect exposure and input types of early English) influences their perception and accommodation towards a new accent. Final consonant devoicing and tonal influences on stress are some of the characteristics of Chinese-accented English learning that also reflect their own production habits when speaking in English. As a result, they often infer the meaning of words more easily if an accent is similar to others that they have encountered than is the case for native English speakers [7]. On the other hand, Indian English and some African English dialects have substantial contrasts in consonant clusters, vowel quality, and rhythm patterns. These, along with infrequent exposure, are frequently heard by students as 'foreign accents' and thus present greater comprehensibility challenges [11].

More so, Chinese institutions of higher learning have been extensively using British or American English as the main source of accent in textbooks, classes and exams. This input system leads to the fact that students, in general, know more about the British and American accent and their ability to

adapt naturally to other accents, namely, Australian or Indian English, is relatively low. Liu and Zeng discovered that the challenges facing Chinese teacher training students in their understanding of South Asian English are directly related to the fact that they do not have the exposure they require [11]. It proves that the linguistic background does not only result in variations in the native phonological system, but in the input preferences that are developed in the long-term within the learning process.

3.2.2. English proficiency

English fluency is one of the background variables that affect the cross-accent listening performance. Studies show that high level learners display much less performance defeats when faced by foreign accents than low level learners and this implies, they hold some form of resistance to accent interference to some extent [2]. This process is in line with what we can observe in the classroom: high-quality students usually have a higher level of vocabulary and grammar and can deduce the words that were not fully heard by using the contextues and logical connections. On the other hand, less competent speakers tend to work close to their understanding threshold despite using standard accents; with added accented speech, they tend to shed off all the meaning strategies.

Cognitively, the superior phonetic discrimination and tolerance to phonetic variation are exhibited by advanced learners who are also more skilled in correcting with context in situations when faced with unfamiliar pronunciation. Lower-level learners, on the contrary, count on memorising the accurate pronunciation of words more and the lack of flexible adjustment possibilities.

3.2.3. Accent experience and strategies

Cross-accent adaptation is directly related to exposure of learners to various accents and their strategies of listening to these accents. This research has been observed by Sun and Chen who noted that, when students are constantly exposed to a specific accent, they are more likely to show a consistent understanding of that accent and have a significant keep up with other accents that are not known to them. This goes to show that it is possible to negatively influence the effect of accent on comprehension as a result of familiarity [7]. This training study by Miao also shows that systematic multi-accent training with explicit training in phonemic discrimination can be used effectively in developing learner assimilation to a foreign accent, even in short durations [6].

Conscious shadowing, contrastive listening training, and exercises in imitation can be trained in a strategic way so that learners acquire more subtle phonetic discrimination. In the meantime, methods like predicting the content prior to listening, capturing words during listening as well as using context to provide information missing after listening benefit in keeping continual understanding where incomplete information is vague. According to research conducted by Jeong et al, students with the open attitude toward multiple accents with acceptance of accent diversities tend more to actively use this kind of strategies and gain out of them [12].

4. Recommendations for Action

4.1. Teaching Level

On the teaching level, to promote the listening comprehension of students in multi-accent context, the systematic presentation of multi-accent input must be of primary importance. It does not mean loading the learners with the hard accent content at the beginning, but developing slowly though surely, familiar to unfamiliar: first, get the students to understand more of the British and American English, then introduce Australian English, Indian English, etc. The practice can be used by the learners to expand the existing bases so that they can adjust to a wider range of accents. The recordings of multiple speakers should be made in case of each accent to avoid the familiarity being tied to one person.

Secondly, explicit phonemic discrimination and contrastive training is to be established. Instructors can choose those phonemes that are not easily differentiated by learners (e.g., /v/ -/w/ or /-s/ and use minimal pairs to make students listen, recognize, and shadow these phonemes in a variety

of accents. At the same time, give the guide learners an opportunity to notice the variation in stress, rhythm, and intonation among accents. As an example, the playing versions of the same text read by the speakers with various accents, the students are encouraged to compare the text versions that reveal the main points in the most effective way and point out where the differences are. Expanding on this, plan some scheduled shadowing activities in which the students use a recording to closely match the rhythm and intonation of the recording, as opposed to only imitating the individual syllable.

Thirdly, training in contextual scaffolding and listening strategies. Teachers should use titles, pictures, keywords, pre-established questions to make students pick out the general outlay of the content before listening to it. When listening, remind students to pay importance to specific bits of information which include time, location, character relations, and plot development, as opposed to being constantly preoccupied with understanding individual words. After listening, use tools like summarising, writing outlines, or mind maps to have students construct an overall picture of the information, and consider what they heard that they were able to understand by hearing and what they needed to deduce by looking. Such training can eventually lead to the students adopting the habit of understanding the key idea first before going to details when faced with new accents, as opposed to giving up whole passages as they cannot understand a single word or two words.

Lastly, educators are supposed to focus on leading attitudes and perceptions. Give real-life examples in the classroom to show that practically everyone who speaks in international communication has some form of accent, but conversation works every time a common ground is established. By encouraging students to reflect on their experience of encountering speakers of different accents, and discussing their experience of becoming comfortable with it despite considerable discomfort at first, one will make them understand that the process of learning to adapt to the accent is a skill that they can learn, and that it is not an inherent and innate ability that cannot be trained.

4.2. Assessment

At the assessment level, incorporating accent diversity serves both authenticity and fairness. Firstly, pre-testing can screen listening materials for intelligibility. Prior to formal use, a representative sample of students should complete test papers containing materials with diverse accents. Record the accuracy rates for each question alongside students' subjective feedback. Filter out recordings deemed insufficiently clear or those where the majority of students report being 'almost unable to understand'. Retain materials that, while accented, remain generally comprehensible.

Secondly, simple group comparisons can achieve effects similar to differential item functioning analysis. Examination board members may group candidates by school type, region, or exposure to multiple accents, comparing question accuracy rates across these cohorts. Should certain accents prove particularly challenging for specific groups while remaining relatively accessible to others, it becomes necessary to review whether such questions introduce potential unfairness due to accent characteristics. Adjustments to their weighting or proportion within the final paper should follow accordingly.

Furthermore, transparent disclosure of accent information should feature in examination specifications and sample papers. For instance, the syllabus should specify the range of accents likely encountered in listening materials (e.g., British, American, Australian), while sample papers should include audio examples of diverse accents to aid students' preparatory adaptation. Teachers may then arrange corresponding multi-accent exercises to alleviate psychological pressure when students encounter unfamiliar accents.

Finally, the marking criteria must distinguish between the natural variation of a candidate's own accent and the clarity and intelligibility of their expression. Particularly in tasks such as oral interviews and listening-based summarisation, substantial mark deductions should not be imposed solely due to a pronounced native accent; comprehensibility should remain the primary evaluation benchmark. This aligns with the rationale behind employing multi-accented listening materials: the

purpose of teaching and assessment is to enhance and evaluate authentic communication skills, not to uphold a single “correct” accent.

5. Conclusion

Based on an analysis of some of the existing theories and results of the recent empirical studies in the pertinent field, this study examined the channels within which English accents determine or affect the second language listening comprehension, by using Chinese speaking university students as the subjects. In general, the variation between the English accents (phonetic level and suprasegment level) makes the process of auditory processing demanding (enhancing the phonetic perception difficulty, disrupting the lexical recognition, and disrupting discourse integration), hence, decreasing the understanding performance. At the same time, the linguistic experience (English and accent exposure) and the achievement of higher levels of proficiency in English and greater experience in accent familiarity among the learners play a huge role in moderating this process: the higher the proficiency and the greater the experience in accent familiarity, the more the stability in comprehending with multi-accent input.

Based on this realization, this paper suggests that there is a gradual development of a holistic vision based on multiple accents and intelligibility-focused approaches in teaching English and listening assessment in the university. The pedagogical stage of working with different accents and the ability to explicitly train phonemic discrimination is necessary to make students slowly adapt to the phonetic features of other accents and, as a result, understand the important information despite the multilingual situation. On the assessment level, although the clarity of recording and the use of balanced difficulty are to be achieved, several accents need to be represented. The risks of potential unfairness are to be reduced by pilot testing and by comparing groups, where multi-accent comprehension should not be viewed as the meaning of the process of listening but as a part of a group.

In the case of learners, exposure to different accents is critical to be encouraged. Such strategies as shadowing, contrastive listening, and contextual inference are to be used to gradually improve the tolerance of cross-accent listening. Strategies should also be applied during practical listening so that overall meaning is not lost because of the inability to hear individual words. Based on the prediction, identification of keywords and similar strategies should be applied. Among teachers and curriculum developers, there is the necessity to actively break the supremacy of single standard accents as input. Gradually introduce the elements of multi-accent into teaching and assessment, facilitating students to consider the differences in the accents as the manifestation of intelligibility, but not as a total of standardness.

To conclude, the effect of accent on second language listening comprehension is a multidisciplinary phenomenon that cuts across phonetics, psycholinguistics, and educational testing, that needs concerted action on both the pedagogical practice and test systems. Theoretical clarification of how far accents get to be accent, how far accents get to be intelligible, and how far accents get to be comprehensible; the empirical rise in understanding the relationship between accents and the learning features of learners; the ad-hoc practical application of various reforms in teaching and testing intelligibility on a multi accent basis can help Chinese speaking university students to have smoother and more accurate reading comprehension amid varying forms of English expression. The latter will make them more empowered to interact with more confidence in academic and professional interactions in global terms.

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