ACCENT DIVERSITY AS A BARRIER IN LISTENING COMPREHENSION

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Abstract. *This article examines accent diversity as one of the most underestimated yet persistent barriers to second-language (L2) listening comprehension. While most language curricula expose learners almost exclusively to a single standard variety, real-world communication confronts them with a continuous spectrum of native, regional, and non-native accents. Drawing on perceptual-adaptation theory and intelligibility research, the study analyses why unfamiliar accents disrupt phonological decoding, increase cognitive load, and reduce listening accuracy. It distinguishes between intelligibility, comprehensibility, and perceived accentedness, and reviews the so-called interlanguage speech intelligibility benefit, whereby listeners sometimes understand shared-L1 accents more easily than native ones. The article argues that accent variety should be treated not as noise to be eliminated but as a teachable dimension of listening competence. It proposes a pedagogical framework based on graded exposure to multiple accents, explicit phonological awareness training, and the integration of authentic multi-accent input through digital and AI-assisted tools. The expected outcome is a measurable improvement in learners' ability to process unfamiliar speech, greater resilience in international communication, and a fairer assessment practice that does not privilege a single prestige variety.*

Keywords: *accent diversity; listening comprehension; intelligibility; comprehensibility; perceptual adaptation; multi-accent input; L2 phonology.*

Annotatsiya. *Ushbu maqolada talaffuz (aksent) xilma-xilligi ikkinchi til (L2) eshitib tushunish ko'nikmasini rivojlantirishda eng kam e'tibor qaratilgan, biroq doimiy uchraydigan to'siqlardan biri sifatida tahlil qilinadi. Aksariyat o'quv dasturlari o'quvchilarni faqat bitta standart talaffuz variantiga o'rgatadi, biroq real muloqotda ular mahalliy, milliy va xorijiy aksentlarning keng spektri bilan to'qnash keladi. Pertseptiv moslashuv nazariyasi va tushunarlilik tadqiqotlariga tayanib, notanish aksentlar nima uchun fonologik dekodlashni buzishi, kognitiv yukni oshirishi va eshitib tushunish aniqligini pasaytirishi ko'rib chiqiladi. Maqolada tushunarlilik, anglashilish va his qilinadigan aksentlilik tushunchalari farqlanadi hamda til o'rganuvchi o'zining ona tilidagi aksentni ona tili sohibinikidan oson tushunishi mumkinligini ko'rsatuvchi hodisa muhokama etiladi. Muallif aksent xilma-xilligini yo'qotilishi kerak bo'lgan shovqin emas, balki o'rgatilishi mumkin bo'lgan ko'nikma sifatida qarashni taklif etadi*

va ko‘p aksentli input, fonologik ong hamda sun’iy intellekt vositalariga asoslangan pedagogik model ilgari suriladi. Kutilayotgan natija — o‘quvchilarning notanish nutqni qayta ishlash qobiliyatini sezilarli yaxshilanishi, xalqaro muloqotda barqarorlikning ortishi va bitta nufuzli variantni ustun qo‘ymaydigan adolatli baholash amaliyotidir.

Kalit so‘zlar: *aksent xilma-xilligi; eshitib tushunish; tushunarlilik; anglashilish; pertseptiv moslashuv; ko‘p aksentli input; L2 fonologiyasi.*

Аннотация. *В статье рассматривается разнообразие акцентов как один из наиболее недооценённых, но устойчивых барьеров при восприятии иноязычной речи на слух. Большинство учебных программ знакомят учащихся только с одним стандартным вариантом произношения, тогда как реальное общение сталкивает их с широким спектром акцентов. На основе теории перцептивной адаптации анализируется, почему незнакомые акценты нарушают фонологическое декодирование и увеличивают когнитивную нагрузку. Различаются понятия разборчивости, понятности и воспринимаемой акцентности. Предлагается педагогическая модель, основанная на постепенном воздействии разных акцентов, развитии фонологической осознанности и использовании инструментов искусственного интеллекта.*

Ключевые слова: *разнообразие акцентов; восприятие на слух; разборчивость; понятность; перцептивная адаптация; многоакцентный ввод; фонология L2.*

Introduction. Listening is frequently described as the most demanding of the four language skills, precisely because it unfolds in real time and leaves the listener no opportunity to slow the incoming signal. Among the many variables that complicate this process, accent diversity remains one of the least systematically addressed in language education. Learners are routinely trained on a narrow band of model pronunciation — most often a single prestige variety such as Received Pronunciation or General American — yet the communicative reality they enter is profoundly multilingual. In international classrooms, business meetings, academic conferences, and online exchanges, English is spoken by far more non-native than native users, each carrying the phonological imprint of a first language. The mismatch between the uniform input of the classroom and the heterogeneous input of authentic communication produces a recurrent breakdown that this article identifies as the accent barrier.

The relevance of this problem has grown sharply in recent years. As global mobility, remote collaboration, and digital media expand, listeners can no longer assume that the speech they must decode will conform to the variety they studied. A learner who performs confidently on a familiar recording may struggle dramatically when the same content is delivered in an unfamiliar accent. This article therefore treats accent diversity not as a marginal complication but as a central, teachable component of listening competence. It first clarifies the theoretical distinctions that underpin the field, then explains the cognitive mechanisms through which unfamiliar accents impair

comprehension, and finally proposes evidence-informed pedagogical responses, including the use of artificial-intelligence tools for graded multi-accent exposure.[45]

Research methods. This study is conceptual and analytical in nature. It synthesises findings from second-language acquisition, applied phonetics, and the psychology of speech perception in order to construct an integrated account of how accent diversity affects listening comprehension. The method consists of three steps. First, the key constructs — intelligibility, comprehensibility, and perceived accentedness — are defined and disentangled, because their frequent conflation has obscured what exactly fails when an accent is unfamiliar. Second, empirical evidence on processing cost and perceptual adaptation is reviewed to establish the cognitive basis of the barrier. Third, this evidence is mapped onto concrete instructional practices, yielding a framework that can be tested in future classroom-based research.

Defining the constructs. A precise vocabulary is essential, because the everyday notion of a strong accent conflates several distinct phenomena. Intelligibility refers to the extent to which a listener actually recovers the words and propositions a speaker intended — operationally, how accurately the message is transcribed or understood. Comprehensibility describes the listener's subjective sense of how much effort understanding required. Perceived accentedness is the degree to which speech is judged to differ from a local norm. A crucial finding of the field is that these dimensions are partially independent: speech may be heavily accented yet remain highly intelligible, while comprehensibility may decline even when intelligibility is preserved.[46]

This independence carries an important pedagogical implication. If the instructional goal is communication rather than imitation of a prestige norm, then accentedness itself is largely irrelevant; what matters is whether speakers are understood and whether listeners can understand. The accent barrier, properly defined, is therefore a problem of intelligibility and processing effort on the listener's side, not a deficiency of the speaker's pronunciation. Reframing the issue in this way shifts attention away from eliminating accents and toward training listeners to cope with the diversity they will inevitably encounter.

Why unfamiliar accents impair comprehension. Speech perception is fundamentally a process of matching a continuous acoustic stream onto stored phonological representations. Listeners build these representations through experience, forming expectations about how particular sounds, rhythms, and intonation contours map onto words. An unfamiliar accent disturbs every level of this mapping. Vowels may be shifted, consonants substituted or deleted, word stress relocated, and the rhythmic pattern altered from stress-timed to syllable-timed or the reverse. Each deviation forces the listener to reanalyse the signal against representations that no longer fit, and these micro-failures accumulate across an utterance.

[45]Field, J. (2008). Listening in the Language Classroom. Cambridge University Press, p. 151.
[46]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.

The consequence is a measurable increase in cognitive load. Because listening operates under severe time pressure, processing capacity that is diverted to resolving phonological mismatches is no longer available for higher-order tasks such as integrating meaning, tracking discourse structure, or inferring speaker intention. Experimental comparisons consistently show that non-native and unfamiliar native accents reduce comprehension accuracy and slow response times relative to familiar speech, with the strongest effects appearing under degraded conditions such as background noise or fast delivery.[47]

Table 1

Levels of phonological disruption caused by unfamiliar accents

Linguistic level	Typical source of breakdown for the listener
Segmental (vowels / consonants)	Sound substitutions or mergers that mask lexical contrasts
Word stress	Misplaced stress that hides the word's expected acoustic shape
Rhythm and timing	Shift between stress-timed and syllable-timed patterns
Intonation	Unexpected pitch contours that obscure phrasing and intent

Source: compiled by the author on the basis of speech-perception research.

Perceptual adaptation and the limits of exposure. The barrier, however, is not fixed. A robust body of evidence demonstrates that listeners adapt rapidly to an unfamiliar accent after only brief, structured exposure: after hearing a number of utterances from a given speaker or variety, comprehension scores rise and processing effort falls. This perceptual learning is partly speaker-specific and partly generalisable — exposure to several talkers of one accent transfers better to a new talker of that accent than exposure to a single voice. The practical lesson is that adaptation can be deliberately engineered in the classroom rather than left to chance.[48]

Two further findings refine this picture. First, the interlanguage speech intelligibility benefit shows that listeners sometimes understand a non-native speaker who shares their first language more easily than they understand a native speaker, because they share predictable deviations. This challenges the assumption that the native accent is always the optimal listening target. Second, training with a single accent yields narrow gains, whereas training with multiple accents produces broader, more transferable improvements in listening robustness.[49]

Implications for testing. Accent diversity also raises a question of fairness in assessment. If a listening test presents only one accent, it measures familiarity with that variety as much as it measures listening ability, and it may disadvantage learners trained on a different norm. Research on test design indicates that including several accents can

[47]Major, R. C., Fitzmaurice, S. F., Bunta, F., & Balasubramanian, C. (2002). The effects of nonnative accents on listening comprehension. TESOL Quarterly, 36(2), 173–190.
[48]Bradlow, A. R., & Bent, T. (2008). Perceptual adaptation to non-native speech. Cognition, 106(2), 707–729.
[49]Bent, T., & Bradlow, A. R. (2003). The interlanguage speech intelligibility benefit. The Journal of the Acoustical Society of America, 114(3), 1600–1610.

improve the validity of a listening assessment, provided the accents are matched for difficulty and the test does not inadvertently penalise candidates for unfamiliarity that the syllabus never addressed. A defensible assessment policy must therefore align the accents used in testing with the accents learners have been given the chance to practise.[50]

Results and discussion. Synthesising the evidence yields a coherent account of the accent barrier and of how to dismantle it. The barrier originates in a mismatch between a learner's narrowly trained phonological expectations and the variability of authentic speech; it is amplified by the real-time, capacity-limited nature of listening; and it is reducible through structured, varied exposure. Three principles follow for instruction. The first is graded multi-accent exposure: learners should encounter a widening range of accents in a sequence that moves from more to less familiar, allowing perceptual systems to adapt without overload. The second is explicit phonological awareness: drawing learners' attention to predictable features of an accent — its characteristic vowel shifts or rhythmic profile — accelerates adaptation beyond what passive listening achieves. The third is authentic, abundant input, since the variability that causes the problem is also the raw material of the solution.

Artificial-intelligence tools are particularly well suited to delivering these principles at scale. Speech-synthesis systems can now generate the same content in a controlled range of accents, allowing a teacher to grade difficulty precisely. Automatic speech-recognition and feedback platforms can track which phonological features a learner repeatedly mishears and target practice accordingly, converting the diffuse experience of difficult listening into a diagnosable, trainable profile. Adaptive systems can sequence multi-accent input to each learner's adaptation curve, supplying more exposure where comprehension lags and less where it is already secure. In this way technology operationalises perceptual-adaptation theory rather than merely digitising traditional drills.

It is important, however, to set realistic boundaries. AI-generated accents remain approximations and cannot fully replace the richness of authentic human speech, and over-reliance on synthetic input risks teaching learners to cope only with idealised versions of accents. The most defensible model is therefore blended: AI tools handle systematic, graded, diagnostic exposure, while authentic recordings and live interaction supply the unpredictable variability that ultimately builds resilience. The expected economic and social effect of adopting such a model is substantial. Learners who can understand a wide range of accents participate more effectively in international study, employment, and trade; institutions reduce the hidden costs of communication breakdown; and assessment becomes fairer by no longer privileging a single prestige variety over the global reality of the language.

Conclusion. Accent diversity is not a defect to be corrected in speakers but a condition of real communication that listeners must be equipped to handle. This article has argued

[50]Ockey, G. J., & French, R. (2016). From one to multiple accents on a test of L2 listening comprehension. Applied Linguistics, 37(5), 693–715.

that the accent barrier arises from a mismatch between narrowly trained expectations and the variability of authentic speech, that it imposes a measurable cognitive cost under the time pressure of listening, and that it is nonetheless reducible through deliberate, graded exposure to multiple accents combined with explicit phonological awareness. By distinguishing intelligibility from accentedness, language education can stop pursuing the elimination of accents and start cultivating the more useful goal of listening flexibility. Integrating artificial-intelligence tools into this effort — while preserving authentic input and equitable assessment — offers a practical path toward learners who are not merely fluent in one variety of a language, but genuinely prepared for the many voices through which that language is actually spoken.

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