

THE IMPACT OF ACCENT BIAS ON MUTUAL INTELLIGIBILITY IN INTERCULTURAL COMMUNICATION: A CONCEPTUAL FRAMEWORK

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ABSTRACT

While English as a Lingua Franca demands intercultural competence, EFL pedagogy remains anchored in native-speaker norms, systematically placing the burden of communicative breakdown on learners' phonetic deviations. This conceptual study integrates social identity theory and cognitive load theory to illustrate how a listener's socio-cultural prejudice translates into perceived cognitive illegibility. The proposed framework delineates a three-stage cognitive processing pipeline within the listener: immediate ideological filtering via Reverse Linguistic Stereotyping, attention deficit driven by stereotype schema activation, and premature cognitive rejection leading to linguistic withdrawal. It further examines how power dynamics, cultural distance, and willingness to accommodate modulate this cognitive strain, which traditionally triggers learner anxiety and conversational avoidance. By shifting communicative responsibility from the speaker's mouth to the listener's ear, this framework decentralizes native-centric norms, providing a theoretical foundation for cultivating listening flexibility in EFL pedagogy and offering a methodological agenda for future empirical neurocognitive research.

Keywords: *accent bias, mutual intelligibility, social identity theory, cognitive load theory, intercultural communication.*

1. INTRODUCTION

As English becomes the global *lingua franca*, its spread has decentralized the language from native-speaking territories, resulting in an unprecedented diversity of non-native accents in intercultural interactions. In globalizing contexts like Vietnam, while educational reforms heavily emphasize building intercultural communicative competence (ICC) for international cooperation, English as a Foreign Language (EFL) pedagogy remains anchored in prescriptive, native-speaker norms (Chau & Truong, 2018, 2019; Truong & Tran, 2013; Vu & Dinh, 2021). Consequently, when communication breakdowns occur, responsibility is systematically placed on the speaker's phonetic deviations, triggering deep-seated anxiety, fear of negative evaluation, and conversational avoidance among learners—pressures that are typically only mitigated through structured interaction or narrative-driven empathy (Luu, 2025, 2026).

However, sociolinguistic and psychological literature indicates that mutual intelligibility is a dynamic, co-constructed process dependent on both interlocutors. Cognitive and social bias plays

a critical role here, as societies consistently accord systemic privilege to standard prestige accents while attaching social and professional stigma to non-standard or foreign varieties (Watt et al., 2023). Listeners routinely form qualitative biases regarding a speaker's intelligence, character, and professional competence based entirely on phonetic cues influenced by societal stereotypes (Shah, 2019). This institutional vulnerability is well-documented in legal settings, where minority defendants, including Black Americans and Mexican Americans, face significantly harsher judgments of negligence when speaking with stereotypical accents (Cantone et al., 2019). Known as accent bias, this phenomenon serves as a powerful psychological barrier rooted in social identity and ethnocentrism, where listeners instantly categorize speakers into social groups, binding intercultural misunderstandings fundamentally to the listener's subjective filter (Chakraborty, 2017).

Traditional paradigms in pronunciation instruction and evaluation remain heavily speaker-centric, focusing primarily on diagnosing and fixing the segmental errors of EFL students

through classroom instruction or technology like Computer-Assisted Pronunciation Training (CAPT) software (Luu & Nguyen, 2026; Nguyen & Barrot, 2026). While explicit pronunciation training remains highly valued for basic communication (Nguyen, 2018, 2024), current approaches fail to address the cognitive and social burden borne by the listener. Although accent discrimination is thoroughly proven in professional and legal domains, a critical theoretical gap remains between socio-cultural prejudice and cognitive processing mechanics. Existing frameworks do not explain the exact cognitive pathways through which a listener's social bias translates into a physical inability to decode non-native speech, and there lacks a comprehensive theoretical framework that integrates social categorization processes with cognitive load theory to illustrate how cultural stereotypes amplify mental strain during speech perception.

To address these theoretical gaps and cultivate a more balanced model of shared communicative responsibility, this study aims to systematically achieve three interconnected research objectives: identify the theoretical mechanisms linking listener bias and social stereotyping to cognitive auditory comprehension; analyze the modulating role of socio-cultural factors, such as power dynamics and cultural distance, on a listener's cognitive load and willingness to accommodate; and construct a new conceptual framework illustrating the interplay between phonetic deviation and social prejudice in intercultural misunderstandings. By achieving these objectives, the study provides a cohesive theoretical foundation to answer three central research questions regarding how listener bias affects comprehension, how socio-cultural factors modulate cognitive load, and what conceptual framework can illustrate this interplay. Strictly conceptual and theoretical in scope, this study draws on established principles from sociolinguistics, social identity theory, and cognitive load theory to decentralize native-centric norms, provide a firm foundation for moving pronunciation curricula toward cultivating listener flexibility and cognitive-affective empathy, and establish a baseline for future empirical researchers to mitigate institutional linguistic bias (Do & Phan, 2025; Ho, 2014; Vu, 2019).

2. LITERATURE REVIEW & THEORETICAL FOUNDATIONS

2.1. *Mutual intelligibility in intercultural communication*

Historically evaluated through a prescriptive structuralist lens, speech intelligibility was long treated as an absolute, inherent attribute of the speaker's phonetic output (Nair-Venugopal, 2010). However, the rise of English as a Lingua Franca (ELF) and pluricentric Englishes has rendered native-centric models functionally obsolete (Boonsuk, 2026; Wang & Jenkins, 2016). Grounded in the work of Smith and Nelson (1985), contemporary sociolinguistics reconceptualizes mutual intelligibility as a dynamic, co-constructed process jointly negotiated by both interlocutors, thereby transforming communicative success into a shared responsibility (Boonsuk, 2026; Nair-Venugopal, 2010; Luchini, 2024). Operationalizing this interactional dynamic requires distinguishing among three concentric layers: *intelligibility* (the literal acoustic decoding of words at segmental and suprasegmental levels), *comprehensibility* (the perceived ease of parsing structural and propositional meaning), and *interpretability* (the capacity to discern underlying pragmatic intent and socio-cultural nuances) (Boonsuk, 2026; Luchini, 2024).

In EFL contexts like Vietnam, pedagogy remains heavily speaker-centric, reinforcing rigid linguistic correctness and native-like standards (Luu et al., 2025; Wang & Jenkins, 2016). This fixation ignores how ELF experiences decouple nativeness from intelligibility, shifting the focus toward interactive adaptability (Wang & Jenkins, 2016). When communication is treated as a relational matrix rather than an isolated phonetic drill, intercultural willingness to communicate (IWTC) and anxiety mitigation depend primarily on emotional safety, mutual empathy, and supportive interactional scaffolding rather than absolute linguistic confidence (Luu, 2026). Thus, investigating mutual intelligibility requires shifting the analytical lens away from isolated phonetic deviations and toward the socio-cognitive filter through which the listener processes diverse speech.

2.2. *Social identity theory (SIT) and accent bias*

Because speech perception occurs within an ideological framework, Social Identity Theory (SIT) explains how listeners evaluate non-native

accents during intergroup encounters (Chakraborty, 2017; Harwood, 2020). SIT posits that individuals utilize social categorization to instantly partition people into psychologically distinct in-groups and out-groups (Brown, 2000; Harwood, 2020). Within this cognitive architecture, a speaker's accent operates as an instantaneous social marker; encountering non-standard variations triggers out-group categorization, activating ethnocentric values and socio-cultural stereotypes (Chakraborty, 2017).

This categorization process directly drives accent bias, where standard accents receive systemic privilege while non-standard or foreign varieties face social and professional stigma (Watt et al., 2023). This biased evaluation spans two primary qualitative dimensions: *status/competence* (perceptions of intelligence, education, and professional capability) and *solidarity/social attractiveness* (judgments of trustworthiness, benevolence, and moral character). Evidence shows listeners routinely extrapolate these psychosocial attributes from brief phonetic cues shaped by media representations and historical power hierarchies (Shah, 2019). Consequently, standard accents are associated with intellectual authority, while L2 accents suffer marginalized judgments regarding competence and employability (Shah, 2019; Watt et al., 2023). SIT thus reveals that accent bias functions as an ideological filter, conditioning the listener's psychological disposition before phonetic decoding begins.

2.3. Cognitive load theory (CLT) in speech perception

While sociolinguistic frameworks map the ideological dimensions of accent bias, Cognitive Load Theory (CLT) provides the mechanical foundation explaining how bias impairs speech perception. CLT posits that working memory has a strictly finite processing capacity (Wynder, 2017). In auditory comprehension, total cognitive load consists of *intrinsic load* (driven by the natural structural complexity or phonetic deviations of the acoustic signal) and *extraneous load* (generated by external, non-essential mental operations) (Christodoulides, 2016; Wynder, 2017). Mapping a variable acoustic signal onto phonemic categories demands substantial cognitive resources; hence, pronounced phonetic deviations force listeners to allocate extra intrinsic

load to execute acoustic-phonetic repairs (Christodoulides, 2016).

Crucially, speech perception is highly vulnerable to interference from concurrent tasks requiring encoding within working memory (Mitterer & Mattys, 2017). When a listener simultaneously processes speech and allocates mental resources to social categorization, stereotype activation, or affective resistance, these parallel socio-ideological operations generate substantial extraneous cognitive load. As working memory capacity is consumed by these biased processes, the cognitive resources required for basic acoustic-phonetic decoding are severely depleted (Mitterer & Mattys, 2017). This intersection suggests that accent-based misunderstandings are not merely failures of articulation, but are actively driven by the extraneous cognitive strain imposed by the listener's own biased processing mechanics.

3. THE COGNITIVE MECHANISMS OF ACCENT BIAS

Accent bias does not merely influence post-hoc evaluative judgments; it operates as an active, subjective filter that distorts real-time physical speech perception. This cognitive gatekeeping is empirically illustrated by the phenomenon of Reverse Linguistic Stereotyping (Kang & Rubin, 2009). When a listener perceives or actively attributes out-group status to a speaker, they automatically register the auditory input as inherently less intelligible, regardless of the actual objective clarity of the acoustic signal. Ideological bias thus conditions the auditory cortex to anticipate comprehension failure, preemptively altering how phonetic inputs are received.

Upon encountering a non-standard accent, the listener's cognitive architecture shifts away from systematic phonetic decoding toward the immediate activation of stereotype schemas. This structural shift triggers an acute attention deficit. Rather than devoting full attentional capacity to tracking acoustic signals, the listener allocates substantial mental bandwidth to evaluating the speaker's perceived cultural, ethnic, or socio-economic background. This parallel socio-cultural evaluation causes an immediate depletion of available Working Memory capacity, significantly undermining the processing efficiency required to parse real-time speech.

When cognitive strain meets rigid social bias, it often results in premature cognitive rejection through a process of linguistic withdrawal. Immediately upon detecting an unfamiliar accent or an out-group social marker, the listener internalizes a self-fulfilling processing deficit, colloquially operating under the assumption of "I cannot understand this speech." This rapid cognitive shutdown effectively closes the listener's auditory reception channels, prompting them to abandon active comprehension efforts long before the speaker completes their utterance.

4. THE MODULATING ROLE OF SOCIO-CULTURAL FACTORS

The socio-cognitive strain of speech processing is heavily modulated by situational power dynamics and structural hierarchies within intercultural communication. In asymmetrical relationships such as a native-speaking executive interacting with a non-native employee, or a Western examiner assessing an Asian candidate, the socio-institutional hierarchy dictates which interlocutor bears the communicative burden. Interlocutors positioned at higher statuses consistently exhibit a lower propensity to adjust their processing strategies, choosing instead to penalize the phonetic variations of lower-status speakers and shifting the blame for communicative failure entirely onto the speaker.

The magnitude of the listener's processing deficit is directly proportional to perceived cultural distance and implicit ethnocentrism. A greater cultural distance intensifies out-group stereotyping, which exponentially inflates extraneous cognitive load during interaction. Driven by ethnocentrism, listeners benchmark all speech against their own native variety as the sole standard of linguistic legitimacy. This ideological rigidity blocks the acceptance of phonetic diversity, turning minor acoustic variations into perceived functional illegibility.

Conversely, the negative effects of accent bias can be mitigated by the listener's Willingness to Accommodate (WTA), a core construct within Communication Accommodation Theory (CAT). A listener's cognitive flexibility and willingness to adjust their decoding strategies are driven by explicit economic motivations, cognitive-affective empathy, and prior exposure to diverse linguistic varieties. When WTA is high, the listener actively deploys top-down repair strategies to offset

acoustic deficiencies, ensuring communicative success across linguistic boundaries.

5. THE PROPOSED CONCEPTUAL FRAMEWORK

The proposed conceptual framework models mutual intelligibility as a dynamic, bi-directional processing pipeline dependent on both the speaker's phonetic signal and the listener's socio-cognitive state:



In this pipeline, the raw phonetic signal and contextual social markers serve as concurrent inputs. At Stage 1, the listener instantly processes these inputs through social categorization, activating entrenched stereotype schemas. At Stage 2, these schemas construct an affective and cognitive filter that dictates the listener's psychological disposition. At Stage 3, this negative filter depletes working memory capacity by generating heavy extraneous cognitive load, ultimately determining the output: either successful mutual intelligibility or an ideological communicative breakdown.

The framework demonstrates that communicative outcomes are determined by the continuous interplay between objective phonetic deviation and subjective social prejudice. If a listener possesses high social prejudice, even a negligible phonetic deviation (highly proficient speech) can result in a total communicative breakdown due to severe extraneous cognitive load and premature rejection. Conversely, if a listener exhibits low prejudice and high WTA, they can successfully navigate substantial phonetic deviations through active accommodation and cooperative meaning-making.

6. IMPLICATIONS AND FUTURE DIRECTIONS

This framework demands a fundamental shift away from the native-speakerism that dominates EFL pedagogy, particularly within expanding-circle contexts like Vietnam. Program designers must move beyond rigid native-centric standards and integrate explicit accent exposure and listening flexibility into the core curriculum. Rather than limiting instruction to isolated phonetic drills or inner-circle computer-assisted pronunciation software, training must foster Critical Language Awareness. This approach empowers learners to recognize and dismantle

their own implicit biases when operating as listeners in diverse global settings.

To validate the proposed conceptual pathways, future empirical research should employ rigorous neurocognitive and behavioral methodologies. Researchers can utilize eye-tracking to monitor visual attention allocation during accented speech perception, measure precise reaction times to evaluate phonetic decoding efficiency, or employ electroencephalography (EEG) to track real-time cognitive load variations. These empirical avenues will provide quantifiable data regarding how social prejudice transforms into physiological processing strain.

7. CONCLUSION

By integrating social identity theory with cognitive load theory, this conceptual framework demonstrates that intercultural mutual intelligibility is fundamentally bound to the listener's subjective filter. Communicative success must be redefined as a shared, bilingual responsibility, shifting the analytical focus from just the speaker's mouth to also include the listener's ear. This model serves as an initial theoretical step toward dismantling linguistic injustice and cultivating genuine, empathetic adaptability across globalized borders.

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