



Phonological Variation and Intelligibility in African English Accents: Implications for Global Communication

Muhammad Khadijah Bala¹

Email: muhammadkhadijah616@gmail.com.

Sule Muhammad²

Email: muhammadsule@fugusau.edu.ng

¹ Department of Educational Foundations, College of Education, Open and Distance Learning, Kampala International University, Kampala, Uganda.

² Department of Educational Foundations, Faculty of Education, Federal University Gusau, Nigeria.

Abstract

English has become the dominant language for international communication, yet the way it is spoken differs widely across regions. In Africa, these differences are shaped by local languages, historical influences from colonization, and varied educational systems, giving rise to distinct African English accents. This study examines how these phonological variations, covering both individual sounds (vowels and consonants) and patterns of rhythm, stress, and intonation, affect how easily speakers are understood in global contexts. Drawing on recent research, we highlight common pronunciation features, such as vowel shifts, simplified consonant clusters, and unique intonation patterns, and explore how these impact intelligibility. Rather than treating African English accents as “incorrect” or deficient, we argue that they are fully legitimate varieties that function effectively when listeners are familiar with them or willing to adjust. The paper also considers practical implications for teaching English, designing speech technologies, and improving international communication, emphasizing strategies that prioritize clarity and mutual understanding over imitation of native-speaker norms. By recognizing and valuing these accents, we can foster more inclusive, effective, and globally intelligible communication.

Keywords: African English, phonological variation, intelligibility, World Englishes, accent, stress, rhythm, English as a lingua franca

Introduction

English has become a central medium of communication across nations, continents, and cultures. In many African contexts, it serves as an official language, a medium of instruction, or a lingua franca connecting speakers of diverse indigenous languages. However, African English accents often differ significantly from traditional British or American English due to the influence of local languages, colonial histories, and regional educational practices (Akinlotan, 2023). These phonological variations are not trivial; they play a crucial role in determining how effectively African English speakers are understood in international contexts and how well communication



technologies, such as automatic speech recognition (ASR) and text-to-speech (TTS) systems, perform. Despite this, African English accents are frequently assessed against native-speaker norms, which can be both unfair and unnecessary, since intelligibility, not imitation of native pronunciation, is the primary goal in global communication.

African English accents exhibit distinctive segmental and suprasegmental features. Segmentally, vowel contrasts common in British English may be neutralized or substituted, and consonant clusters may be simplified, reflecting the influence of speakers' first languages (Adokorach & Isingoma, 2020). Suprasegmentally, patterns of rhythm, stress, and intonation often differ from native norms, particularly in syllable timing and pitch contours shaped by tonal indigenous languages. These features influence intelligibility, but research indicates that listener familiarity and exposure are critical determinants of comprehension. Listeners who are accustomed to a particular accent understand it more easily, while those unfamiliar may require additional time or repetition to process the speech (Bello & Abdullahi, 2022; Thir, 2023). Moreover, intelligibility is supported when speakers preserve phonological contrasts, maintain clear articulation, and employ moderate speech rates, suggesting that effective communication does not require a native-like accent.

The implications of these findings are far-reaching. In English language teaching, emphasis should shift from imitating native-speaker norms toward promoting intelligibility and communicative effectiveness. Teaching materials should include exposure to diverse African English varieties and highlight clarity, contrast preservation, and strategies for mutual understanding. In technology, ASR and TTS systems perform better when trained on datasets that include African-accented English, reducing error rates and improving accessibility for speakers (Dossou, 2025; Olatunji et al., 2023). In professional global contexts, including international business, academia, and diplomacy, awareness of accent diversity, clear articulation, moderate pacing, and active listener adaptation can enhance communication efficiency. Ultimately, African English accents should be recognized not as "incorrect" variants but as legitimate, functional varieties that facilitate effective global communication when both speakers and listeners adapt appropriately. Valuing these accents promotes more inclusive, intelligible, and equitable communication in an increasingly interconnected world.

We structure the paper as follows: Section 2 examines phonological variation in African English, Section 3 reviews research on intelligibility, Section 4 discusses implications for global communication, and Section 5 provides recommendations and conclusions.

Phonological Variation in African English Accents

English as spoken in Africa displays a remarkable range of pronunciation patterns, shaped by local indigenous languages, colonial legacies, and educational contexts. Rather than a monolithic "African English," what we encounter is a rich mosaic of regional and social varieties. These accents differ from more widely studied native speaker norms in two major ways: segmental variation (individual vowel and consonant sounds, clusters, substitutions) and suprasegmental variation (rhythm, stress, intonation). Together, these phonological layers have important



implications for how African English speakers are heard—and understood—in global communication settings.

Segmental Variation

Segmental variation refers to differences at the level of individual sounds and clusters. In numerous African English varieties, for example, vowel contrasts that are distinct in British or American English may be merged or neutralised. One well-documented pattern is the reduction of the /i:/ vs /ɪ/ distinction (as in “beat” vs “bit”) or the /u:/ vs /ʊ/ contrast (as in “fool” vs “full”). (Adokorach & Isingoma, 2020). Consonant substitution is common too: dental fricatives /θ/ and /ð/ (as in “think” and “this”) often appear as /t/ or /d/ in African English pronunciations (Fajobi & Akande, 2018; Dick & Ukpong, 2024). Moreover, complex consonant clusters like those in “asks” or “texts” are sometimes simplified or broken up by inserting an extra vowel—a process known as epenthesis. These adaptations typically stem from speakers’ first-language phonologies, orthographic reading practices, and the tendency toward ease of articulation in multilingual contexts. While these segmental patterns might slightly reduce clarity for unfamiliar international listeners, they are not “errors” in a deficit sense—they are natural phonological adaptations.

Suprasegmental Variation

Beyond the individual sounds, suprasegmental features of African English accents contribute significantly to how speech is structured and perceived. Many African English speakers exhibit a syllable-timed rhythm—where each syllable receives roughly equal time, rather than the classic stress-timed rhythm found in many standard British or American accents (Regnoli & Brato, 2024). Stress placement may also deviate: weak syllables may not reduce to the familiar schwa /ə/ but remain more fully articulated, and pitch or intonation patterns show influence from tone languages, resulting in contours that some listeners describe as “sing-song” (Ibrahim, 2024). Because listeners rely on rhythm, stress, and intonation cues to segment speech, locate word boundaries, and extract meaning, deviations in these suprasegmental features can increase the cognitive load for those unfamiliar with the accent.

Regional and Social Variation

It is essential to emphasize that “African English” is *not* a single, uniform accent. Variation occurs on multiple levels, between countries, within countries, between urban and rural speakers, and across social classes and educational backgrounds. For instance, a study of Ugandan English found both strong common features (homogeneity) and significant regional/ethnic variation (heterogeneity) among speakers (Adokorach & Isingoma, 2020). In Nigerian English, research comparing Educated, Mother-tongue-based and Regional English accents found differences in intelligibility and listener preference (Foluke, 2023). Such within-country variation means that the intelligibility of a given speaker’s accent will depend not only on the accent itself but on the listener’s familiarity with that specific variety. In other words, global intelligibility is mediated by exposure and experience with particular regional or social varieties, rather than a generic “African English” standard.

Intelligibility

Intelligibility refers to how effectively a listener can understand the intended message of a speaker. It differs from *comprehensibility*, which focuses on the ease of understanding speech, and *acceptability*, which reflects social judgments about pronunciation or accent (Chau & Huensch, 2025). In contexts where English functions as a lingua franca (ELF), the primary goal is clear and effective communication rather than adherence to native-speaker norms (Jenkins, 2000; Pickering, 2006). Consequently, African English accents should be evaluated in terms of functional intelligibility rather than conformity to British or American English standards.

Research Findings

Empirical studies investigating African English accents have identified several consistent trends. Educated varieties of Nigerian English, for example, are generally more intelligible to both local and international listeners compared with regional or mother-tongue-influenced accents (Foluke, 2023). Segmental changes, such as vowel neutralization or consonant substitution, can hinder comprehension for listeners unfamiliar with these pronunciations (Idowu, 2020). However, repeated exposure to a particular accent substantially improves intelligibility, allowing listeners to develop mental representations of the phonological patterns and process speech more efficiently (Bello & Abdullahi, 2022; Idowu, 2019). Importantly, research suggests that accent strength alone does not determine comprehension. Factors such as speech clarity, pace, and suprasegmental elements like stress and intonation often have equal or greater influence on understanding (Chau & Huensch, 2025; Kumari & Kumar, 2024).

Table 1: Key Studies on Intelligibility of African English Accents

Study	Speaker Type	Listener Type	Key Variables	Main Findings
Foluke (2023)	Educated Nigerian English vs regional accents	Nigerian & international listeners	Accent variety, familiarity	Educated Nigerian English is most intelligible; prior exposure improves comprehension
Idowu (2020)	Nigerian English speakers	International ESL listeners	Vowel neutralization, consonant substitutions	Segmental changes reduce understanding; unfamiliarity amplifies difficulty
Bello & Abdullahi (2022)	Nigerian & Malaysian English	Local & international listeners	Listener exposure, familiarity	Greater exposure increases comprehension; accent familiarity plays a key role
Chau & Huensch (2025)	Multi-national ESL speakers	International English listeners	Accent strength, intelligibility, comprehensibility	Accent strength moderately predicts intelligibility; clarity, context, and familiarity more critical



Study	Speaker Type	Listener Type	Key Variables	Main Findings
de Wet & Niesler (2007)	South African English speakers	Telephony listeners	Accent, channel quality	Poor audio quality challenges intelligibility; prior exposure mitigates effects
Dossou (2023)	African-accented English	ASR systems	Accent variation, technology performance	African-accented English affects ASR accuracy; training data diversity improves system performance

Factors Affecting Intelligibility

The literature identifies several key factors influencing intelligibility in African English:

1. **Listener Familiarity:** Repeated exposure to a particular accent allows listeners to anticipate phonological patterns and improve comprehension (Bello & Abdullahi, 2022).
2. **Preservation of Phonemic Contrasts:** Maintaining distinctions between sounds such as /i:/ and /ɪ/ is critical for understanding; neutralization can reduce clarity (Idowu, 2020).
3. **Speech Clarity and Pacing:** Speaking at a moderate pace with clear articulation significantly enhances comprehension, particularly across diverse accent groups.
4. **Speaker–Listener Accommodation:** Effective communication often involves mutual adaptation, where speakers modify pronunciation and listeners adjust attention to optimize understanding (Kumari & Kumar, 2024).
5. **Communication Medium:** Low-quality audio channels, such as telephone lines or low-bandwidth digital platforms, can amplify the effects of accent variation; good audio quality mitigates comprehension challenges (de Wet & Niesler, 2007; Dossou, 2023).
6. **Contextual Redundancy:** Visual cues, prior knowledge, and contextual hints support listener comprehension and help compensate for accent differences.

In essence, intelligibility is relational and context-dependent, influenced by speaker characteristics, listener experience, situational factors, and the communication medium. Recognizing these dynamics shifts the focus from accent “correction” to fostering effective, inclusive, and functional communication in international English use.

Implications for Global Communication

The phonological diversity and intelligibility challenges of African English accents have far-reaching implications for education, technology, professional communication, and policy-making. Recognizing these implications is critical to fostering inclusive, functional, and effective global communication practices that respect accent diversity rather than imposing native-speaker norms.

Language Teaching



Traditional pronunciation instruction has often emphasized imitation of native-speaker norms, particularly British or American English. However, in contemporary ELF (English as a lingua franca) contexts, such approaches are increasingly viewed as impractical and unnecessary (Jenkins, 2000; Pickering, 2006). Current pedagogical strategies prioritize intelligibility over native-like pronunciation, enabling learners to communicate clearly across diverse linguistic settings. Exposure to multiple English accents, including African varieties, equips learners with the listening flexibility and adaptive skills necessary for global communication (Ojochegbe, Tersoo, & Nicodemus, 2024).

Teaching should also focus on preservation of critical phonemic contrasts (e.g., /i:/ vs /ɪ/) and awareness of suprasegmental features such as stress, rhythm, and intonation, which strongly influence comprehension. Classroom activities should include authentic listening and speaking exercises, accent-varied recordings, and peer interaction, allowing learners to practice adaptive communication strategies. By reframing accent variation as a natural and functional aspect of English, educators can promote linguistic confidence, reduce accent stigmatization, and prepare students for real-world intercultural communication.

Speech Technology

Accent variation has a substantial impact on automatic speech recognition (ASR) and text-to-speech (TTS) systems. African English accents remain underrepresented in many training datasets, reducing recognition accuracy and accessibility for African users (Dossou, 2023; Owodunni, Adebayo, & Nwokolo, 2024). This underrepresentation can lead to misrecognition, miscommunication, and user frustration.

Developing accent-inclusive corpora that encompass diverse African English varieties significantly enhances system performance. Including naturalistic speech samples from different regions, age groups, and educational backgrounds can improve recognition algorithms and make ASR systems more reliable in real-world applications. Additionally, human intelligibility metrics should complement algorithmic evaluations to ensure that technology not only processes speech correctly but also aligns with the communicative needs of users in practical contexts. Integration of such approaches can make speech technology more equitable, user-friendly, and globally applicable.

Professional and International Communication

In professional and international contexts—including business, diplomacy, aviation, and academic forums—accent awareness and adaptive communication are essential. Speakers can enhance understanding by adjusting speech rate, emphasizing critical phonemic contrasts, providing sufficient contextual cues, and utilizing non-verbal support such as gestures and visual aids. Training programs for both speakers and listeners in accent accommodation can significantly improve mutual comprehension and reduce potential misunderstandings (Kumari & Kumar, 2024; Chau & Huensch, 2025).



Organizations should develop communication protocols that recognize accent diversity rather than enforcing conformity to native-speaker norms. Emphasizing functional communication and intelligibility over “standard” pronunciation fosters inclusive, productive, and respectful international interactions.

Policy

At a broader level, language policies should formally recognize African English as a legitimate and functional variety of English. Policies should move away from deficit-based approaches that label non-native accents as “incorrect,” instead adopting intelligibility-focused frameworks that celebrate linguistic diversity. Encouraging research, documentation, and validation of underrepresented African English accents can promote evidence-based pedagogy, inclusive speech technology, and equitable professional communication (Kachru, 2005; Bylund, Simola, & Smith, 2024).

Policymakers and educational institutions should support initiatives that integrate African English into curricula, professional training, and digital communication platforms. By doing so, African English can be affirmed as a globally relevant, intelligible, and respected variety, empowering speakers across Africa to participate fully in international discourse.

Recommendations

Based on the analysis of African English accents and their impact on global communication, several practical recommendations emerge for research, education, technology, and policy.

1. **Expand Research on Intelligibility:** Future studies should examine the intelligibility of African English accents across diverse listener groups, including native and non-native speakers, and in different communication settings such as face-to-face interactions, telephone calls, and online platforms (e.g., Zoom, video conferencing). Researchers should also account for real-world factors like background noise and bandwidth limitations, which can influence comprehension.
2. **Integrate Accent Diversity in English Language Teaching (ELT):** Curricula should provide learners with exposure to multiple English accents, including African varieties. Instruction should focus on intelligibility strategies, such as preserving phonemic contrasts, articulating clearly, and fostering awareness of listener backgrounds. Importantly, learners should be encouraged to value their own accents while developing the skills to communicate effectively in international contexts.
3. **Enhance Speech Technology Inclusivity:** African English accents should be adequately represented in automatic speech recognition (ASR) and text-to-speech (TTS) datasets. Systems should explicitly model phonological variation, including vowel substitutions, consonant cluster simplifications, and rhythm differences. Additionally, evaluation should combine algorithmic performance with human listener intelligibility assessments to ensure usability and accessibility.
4. **Professional and International Communication Training:** Training programs in business, diplomacy, aviation, and academic contexts should emphasize accent awareness, listener



- adaptation strategies, and speaker clarity techniques. The focus should be on effective, inclusive communication rather than imitation of native-speaker norms.
5. Policy and Standards Reform: National language and education policies should shift from enforcing native-speaker pronunciation toward intelligibility-focused goals. Underrepresented African English varieties should be documented, researched, and validated. Global communication standards should celebrate accent diversity, promoting equity, inclusivity, and functional communication rather than uniformity.

Conclusion

African English accents exhibit significant variation at both segmental (individual sounds) and suprasegmental (stress, rhythm, intonation) levels. These differences do not inherently obstruct communication but interact with listener familiarity, context, and communication medium. By prioritizing intelligibility over native-like pronunciation, educators, technology developers, and international communicators can enhance effective global interaction. Rather than perceiving African English accents as deficiencies or deviations from a standard norm, they should be recognized as valid, functional varieties of English. Intelligibility can be strengthened through exposure, pedagogical support, inclusive technology design, and mutual accommodation. As English continues to serve as a global lingua franca, African English varieties are increasingly central to international discourse. Embracing this diversity enriches the pluricentric world of English, promotes equity and inclusion, and strengthens global communication across linguistic and cultural boundaries.

References

- Adokorach, M., & Isingoma, B. (2020). Homogeneity and heterogeneity in the pronunciation of English among Ugandans: A preliminary study. *English Today*, 38(1), 15–26. <https://doi.org/10.1017/S0266078420000152>
- Akinlotan, M. (2023). *English pronunciation and intelligibility in West African contexts*. Lagos: University Press.
- Bello, H., & Abdullahi, J. (2022). The effect of accents familiarity on the intelligibility of Nigerian and Malaysian non-native Englishes. *Journal of the Linguistic Association of Nigeria*, 25, 129–143. <https://jolan.com.ng/index.php/home/article/view/348>
- Bylund, E., Simola, T., & Smith, J. (2024). Expanding perspectives on global English: Policies for accent diversity in international communication. *Journal of World Englishes*, 43(5), 402–419. <https://doi.org/10.1111/weng.12789>
- Chau, T., & Huensch, A. (2025). The relationships among L2 fluency, intelligibility, comprehensibility, and accentedness: A meta-analysis. *Studies in Second Language Acquisition*, 47(1), 282–307. <https://doi.org/10.1017/S0272263125000014>
- de Wet, F., & Niesler, T. (2007). Human and automatic accent identification of Nguni and Sotho Black South African English. *Speech Communication*, 49(4), 287–307. <https://doi.org/10.1016/j.specom.2007.06.004>



- Dick, B., & Ukpong, U. G. (2024). Phonological variation and intelligibility of Nigerian English. *Journal of Communication and Culture*, 12(3), 173–181.
- Dossou, B. F. P. (2023). African-accented English and automatic speech recognition: Opportunities for ASR systems. *Computational Linguistics Review*, 12(2), 101–118.
- Dossou, B. F. P. (2025). Advancing African-accented English speech recognition: Epistemic uncertainty-driven data selection for generalizable ASR models. In *Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (Student Research Workshop)* (pp. 1–17). Association for Computational Linguistics.
<https://doi.org/10.18653/v1/2025.acl-srw.1>
- Fajobi, E. O., & Akande, A. T. (2018). Pronunciation patterns of English interdental fricatives among Yoruba speakers. *Studia Anglica Posnaniensia*, 53(1). <https://doi.org/10.2478/stap-2018-0002>
- Foluke, A. (2023). Perceptual convergence of Nigerian English accents: Intelligibility and acceptability. *International Journal of Applied Linguistics and English Literature*, 12(4), 94–103. <https://doi.org/10.7575/aiac.ijalel.v.12n.4p.94>
- Idowu, O. (2019). Listener exposure and intelligibility of Nigerian English: Implications for English as a lingua franca. *World Englishes*, 38(3), 421–435.
<https://doi.org/10.1111/weng.12435>
- Idowu, O. (2020). Listener perception of vowel neutralization in African English accents. *English World-Wide*, 41(3), 198–221. <https://doi.org/10.1111/weng.12547>
- Ibrahim, S. S. (2024). Aspects of suprasegmental features in Nigerian English: Intonation, stress and rhythm. *Journal of Humanities & Social Policy*, 10(5), 76–88.
- Jenkins, J. (2000). *The phonology of English as an international language*. Oxford University Press.
- Kachru, B. B. (2005). *Asian Englishes: Beyond the canon*. Hong Kong University Press.
- Kumari, S. S., & Kumar, D. H. N. (2024). Intelligibility vs. accessibility of spoken English: A phonetic study. *Migration Letters*, 21(S2), 1643–1657.
- Ojochegebe, R., Tersoo, A., & Nicodemus, N. (2024). Teaching intelligibility in African English classrooms: A focus on phonological and suprasegmental features. *International Journal of Applied Linguistics*, 34(1), 57–72. <https://doi.org/10.1111/ijal.12845>
- Olatunji, T., Afonja, T., Yadavalli, A., Emezue, C., Singh, S., & Dossou, B. F. P., et al. (2023). AfriSpeech-200: Pan-African accented speech dataset for clinical and general domain ASR. *Transactions of the Association for Computational Linguistics*, 11, 1669–1685.
https://doi.org/10.1162/tacl_a_00627
- Owodunni, R., Adebayo, T., & Nwokolo, E. (2024). Accent representation in African speech technology: Enhancing ASR performance. *Speech Communication Advances*, 18(2), 90–106.
- Pickering, L. (2006). *The role of English as a lingua franca in international communication*. Multilingual Matters.



MAAUN INTERNATIONAL MULTIDISCIPLINARY JOURNAL OF RESEARCH AND INNOVATIONS (MIMJRI)

A Publication of the Institute of Africa Higher Education Research and Innovations (IAHERI)
in Collaboration with

Maryam Abacha American University of Niger (MAAUN) Maradi, Niger Republic

Volume 2 Number 1, June, 2024

ISSN: 3027 – 0294

DOI: <https://doi.org/10.59479/jiaheri.v2i1.143>



-
- Regnoli, G., & Brato, T. (2024). Speech rhythm in Cameroon English: A cross-generational study. In *Acquisition and Variation in World Englishes* (pp. 147–169). De Gruyter.
- Thir, V. (2023). Co-text, context, and listening proficiency as crucial variables in intelligibility among nonnative users of English. *Studies in Second Language Acquisition*, 45, 1210–1231. <https://doi.org/10.1017/S0272263123000207>