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INTONATIONAL PROFICIENCY OF PASHTO – SPEAKING BS ENGLISH STUDENTS AN ANALYSIS OF THEIR SPOKEN ENGLISH

Muhammad Ahmad
BS in English Literature and Linguistics, University of Malakand, KP Pakistan
muhammadahmad11434@gmail.com

Dr. Gul Zamin Khan
Assistant Professor of English Literature and Linguistics, University of Malakand, KP Pakistan
gulzaminkhanuom@gmail.com

Abstract

This study explores the intonational proficiency of Pashto-speaking BS English students in spoken English, focusing on pitch accents, phrase accents, and final boundary tones across declarative, assertive, interrogative, and exclamatory sentences. Grounded in Autosegmental-Metrical theory and using the ToBI framework, it employs Praat software for acoustic analysis. Five final-semester students were recorded and compared with a native English speaker. The results show that while most participants correctly placed pitch accents, especially in declarative and assertive sentences, their use of standard pitch accent types was inconsistent. They performed better on expressive sentence forms like interrogatives and exclamatory sentences. However, the final boundary tones were largely inaccurate, particularly in less expressive contexts. The study also shows that most of the participants cannot realise phrase accents. The findings highlight learners' reliance on salient intonation patterns and difficulty with subtle prosodic features. The study recommends explicit instruction in English intonation and integrating acoustic tools like Praat into ESL teaching for better prosodic awareness.

Keywords: *English intonational proficiency, BS English Pashto-speaking learners, ToBI, Praat, second language prosody.*

1. Introduction

Intonational proficiency, a crucial component of prosodic competence, refers to a speaker's ability to accurately perceive, produce, and interpret the pitch contours, stress patterns, and rhythmic structures of a target language (Gut, 2009). It is not only about correct melody in speech but also about appropriately signaling communicative functions such as indicating statements, questions, contrast, and emphasis (Wennerstrom, 2001). In the context of second language acquisition (henceforth SLA), intonational proficiency plays a key role in determining both the intelligibility and comprehensibility of non-native speech (Munro & Derwing, 1995). Research consistently shows that learners who struggle to acquire native-like intonation often sound unnatural or unclear to native listeners, even if they pronounce individual segments correctly. This makes intonation a critical aspect of communicative competence (Celce-Murcia et al. 2010).

Intonation refers to the variation in pitch while speaking, and it conveys different meanings, emotions, or grammatical functions. Intonation involves the rise and fall of pitch across larger units of speech, such as phrases or sentences, rather than individual sounds (Roach, 2009). Roach (2009) further describes various functions of intonation. These include:
I. Attitudinal Function: It helps speakers express emotions and attitudes, thereby adding additional meaning to what they say.
II. Accentual Function: It highlights the main meaning-carrying bits in utterances by placing stress on key syllables, thereby enabling listeners to concentrate on the most parts in terms of communication.

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JALT

III. Grammatical Function: It assists listeners in identifying phrase, clause and sentence boundaries, thereby determining their structural patterns, (i.e. whether a sentence is a question or a statement.)

IV. Discourse Function: Intonation helps the interlocutors determine the nature of the information (whether the information is new or already known), highlights contrasts, and hints at the kind of response expected in conversation.

Thus intonation, through the use of such supra-segmental features as pitch, stress, and rhythm, plays a crucial role in conveying meaning. However, Pashto-speaking learners (henceforth PSL) often struggle to produce native-like intonation when speaking English, a difficulty that stems from the phonological differences between the two languages (Ali, et al. 2022). They concluded that segmental difficulties faced by speakers of English with Pashto as their first language (henceforth L1) have a cascading effect on suprasegmental aspects like intonation (Ali et al., 2022). Similarly, Rahman (2016) emphasizes that the absence of several English consonants in Pashto, including the dental fricatives /θ/ and /ð/, forces learners to substitute these sounds with phonetically closest sounds from their native inventory, further contributing to pronunciation difficulties. These segmental difficulties, however, extend beyond individual sounds, influencing higher-level prosodic features such as intonation. They, along with differences in prosodic structures between Pashto and English, lead to non-native-like intonation patterns among Pashto English as a second language (henceforth ESL) learners.

Ullah (2011) argues that learner residing in non-native English environments, such as Khyber Pakhtunkhwa, demonstrate more prominent difficulties compared to those who are immersed in a native English-speaking context. This supports the argument that limited exposure to accurate intonation models, combined with phonological transfer from Pashto, results in systematic deviations in intonation patterns when speaking the English language. Therefore, understanding the intonational deviations of PSL requires attention to the broader phonological gap between English and Pashto, which influences both segmental accuracy and prosodic fluency (Rahman, 2016; Ali et al., 2022).

Much of the existing research on Pashto speakers' pronunciation challenges (e.g. Ullah, 2011; Rahman, 2016; Ali et al., 2022; Bux et al., 2024, etc.) has centered on segmental difficulties, those related to the consonantal and vowel systems. However, research on how PSL acquire and use English intonation patterns remains scarce, despite the fact that intonation plays a crucial role in meaning making, discourse organization, and effective communication in English (Roach, 2009).

As Munro and Derwing (1995) suggested, even if individual segments (consonants and vowels) are correctly produced, inaccurate intonation can still affect how comprehensible, intelligible, and natural the speech sounds to native listeners is.

This study focuses on analyzing the intonational proficiency of Pashto-speaking BS English learners (henceforth PSBEL) enrolled at the Department of English Literature and Linguistics, University of Malakand. By closely examining their spoken English, this study aims to identify patterns of intonation used by these students and assessed how these patterns align with, or deviate from, the intonational norms of native English speakers. For a structured and comprehensive analysis, this study focused on the core components of intonation, such as pitch accent, phrase accent and boundary tones. To ensure data consistency, controlled speech samples were collected, where participants read aloud different sentence types.

Two software tools, Praat and Super Sound, were used for data collection and acoustic analysis. Super Sound was mostly used to record and convert the recordings of

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JALT

samples into Wav form and Praat was used to innotate the intonation pattern with Tones and Break Indices (ToBI) model.

The theoretical lens for this analysis was provided by Pierrehumbert's Auto-segmental Metrical (henceforth AM) Theory of Intonation (Pierrehumbert, 1980), and ToBI model of intonation transcription. This theory and the model, an implication of Pierrehumbert's theory, conceptualizes intonation as a sequence of discrete tonal events that are composed of high and low tones are aligned with particular prominence points, stress placement and boundaries of utterances.

2. Significance of the Study

Although considerable research exists on pronunciation errors made by Pashto-speaking individuals learning English, there is a clear research gap when it comes to the suprasegmental features, particularly intonation patterns. By conducting an acoustic analysis of intonation in the speech of PSBEL, this study contributes new empirical data to the field of second language phonology, offering valuable insights into how these students manage the intonation of English, a language typologically different from Pashto.

Secondly, the findings of this study are valuable for university instructors who teach oral communication, presentation skills, or linguistics-related courses in English programs across Pashto-speaking regions. By identifying specific intonation errors, the study can inform instructional strategies aimed at improving students' spoken proficiency and intonational accuracy. This is particularly important for BS English programs where students are expected to participate in communicative and expressive activities.

Thirdly, this study can highlight the urgent need for integrating pronunciation-focused training into the BS English curriculum, especially focusing on suprasegmental features like intonation, stress, and rhythm. These elements are essential for achieving natural and effective spoken communication in academic and professional contexts.

Finally, this study also contributes to the broader field of Applied Linguistics and SLA research in Pakistan, with a particular focus on students from a Pashto-speaking background

3. Research Objectives

This study aims at achieving the following objectives:

1. To analyze the English intonation patterns used by Pashto-speaking BS English learners (PSBEL).
2. To assess and compare the intonational proficiency of PSBEL with native English speakers, focusing on pitch accent, stress placement, and boundary tones.

4. Research Questions

The study seeks answers to the following questions:

1. What intonation patterns are commonly used by PSBEL when speaking English?
2. How do these students demonstrate intonational proficiency compared to the native English speakers in their use of pitch accent, stress placement, and boundary tones?

5. Literature Review

While a growing body of research has explored the segmental pronunciation errors of ESL learners, suprasegmental aspects such as intonation remain comparatively underexplored, especially within the Pakistani and broader South Asian contexts. Among the few relevant studies, Lu (2010), did a brief comparison of Vietnamese intonation and English intonation and its implications for teaching English intonation to Vietnamese English as a foreign language (henceforth EFL) learners. The study compared several intonational features of Vietnamese and those of English and provided some implications for teaching English

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intonation to Vietnamese EFL learners. It also concluded that tones and intonation are important discourse strategies to communicate effectively. Simply, it is not what you say, it is how you say it. Therefore, proficiency in intonation is a requirement for non-native learners of English for better communicative discourse with both native and non-native speakers of English. The study lakes a practical model like ToBI to compare, a software like Praat and the study is based on Vietnamese language contextually different to Pashto speaking context.

Another study is conducted by Nursyamsu and Munif (2013), in which they examined the patterns of intonation and kinds of information structure that occur in EFL learners. This study employed a qualitative method, used Halliday's theory and Praat to analyze the intonation patterns of English debaters whose mother tongue was Indonesian. However, the study does not mention the reasons behind intonational deviations.

Jun and Oh (2000) examined the intonation structure of Seoul Korean and its realization by American English speakers using the Praat software. The study concluded that phonological properties of intonation are acquired earlier than phonetic properties.

Another study in this regard is that of Jayasundara et al. (2020). The aim of this study was to investigate the difficulties encountered by the Higher National Diploma English students at the Advanced Technological Institute (Trincomalee) in using stress and intonation and to identify the errors in speaking and loud reading. The use of stress and intonation were fundamental to this research. This study was descriptive in nature , and data was collected and analysed quantitatively. The research instruments used in this study were oral pronunciation test and audio recording. The oral pronunciation test was used to collect data regarding the difficulties the students encounter in using stress and intonation, whereas oral performance of the participants were audio-recorded. The main factors underlying the errors in intonation and stress placement, the study concluded, were age of the participants, their insufficient phonetic knowledge and lack of pronunciation practice on their part. The study suggested the inclusion of explicit pronunciation teaching as an integral part of English language curriculum. The study, however, does not use a theoretical lens like ToBI, neither does it employ Praat for obtaining an accurate description of the intonational contours of the participants.

Adawiyah et al. (2023), analysed the intonation patterns of university students using the reading-aloud technique. The participants were asked to read paragraphs aloud from a newspaper article. Although the study highlighted certain intonational errors, using a descriptive qualitative method, yet it does not make use of such applications as Praat for an objective analysis.

Eghlidi (2016) studied the intonation patterns of the Persian undergraduate students of English. They collected data from thirty participants using the reading-aloud technique. The study concluded that the participants committed more errors in using the rise-fall pattern, especially in sentences containing two clauses.

Um (2004) investigated the errors in the intonation patterns of second language learners of English whose first language was Korean. The study employed Pierrehumber's AM model to compare the intonation patterns of the study participants with those of the native speakers', using Praat for acoustic analysis. The study revealed that Korean learners of English demonstrated adequate use of phrase accents and boundary tones, effectively marking phrase and clause boundaries; However they showed notable difficulties with pitch accents, specifically in placing them correctly and selecting appropriate types to signal new or contrastive information.

Jabeen (2012) also contributed to this field by acoustically analyzing how Urdu, the national language of Pakistan, affects the intonation of English spoken by Urdu speakers. She

ISSN E: 2709-8273
ISSN P:2709-8265
JOURNAL OF APPLIED LINGUISTICS AND TESOL
JALT

situates her research within the broader tradition of second language (henceforth L2) phonological studies, arguing that intonation, involving pitch, stress, and rhythm, is one of the last aspects of language to be fully mastered by second-language learners. Earlier research in similar contexts, such as that by Wells (2006) and Cruttenden (1997), emphasizes that L2 speakers often transfer prosodic features from their native language into English, leading to recognizable patterns of "foreign accent." Building upon these foundations, Jabeen (2012) argues that Urdu intonation, characterized by relatively flat pitch movement and distinct rising patterns in declarative sentences, heavily influences English intonation among Pakistani speakers. Her review of existing literature also notes that Urdu's syllable-timed rhythm, as opposed to English's stress-timed rhythm, impacts not only the melody of English speech but also its naturalness and intelligibility. The study draws upon earlier findings that tonal languages (like Urdu, to a limited extent) can imprint their melodic characteristics on learners of English, a phenomenon discussed by researchers such as Ladd (1996). Jabeen (2012) asserts that in Pakistani English, statements often have a rising intonation typically associated with questions in native English varieties, suggesting deep rooted L1 interference. Through acoustic analysis and comparative studies with native English intonation models, Jabeen (2012) provides empirical support for the claims made in previous literature: that intonation in English among Urdu speakers is systematically patterned and is an identifiable product of cross-linguistic influence. Her work thus confirms the critical role of L1 prosodic systems in shaping L2 spoken performance, a conclusion that aligns closely with the established scholarship in phonetics and sociolinguistics.

Mustafayeva (2020) conducted a comparative phonetic analysis of discourse intonation in English and Azerbaijani, aiming to identify how different prosodic features function across the two languages. The study focused on adult Azerbaijani EFL learners as the population, drawing speech samples from formal and informal contexts. Using the Praat software as the primary analytic tool, Mustafayeva examined four prosodic components: prominence, tone, melodicity, and termination. The analysis reveal that English intonation is characterized by dynamic pitch variation and melodic movement, while Azerbaijani depends on temporal features such as stress and syllable time to convey prominence. These results suggested that Azerbaijani learners may struggle with acquiring the more melody-driven intonation patterns of English due to L1 prosodic influence. While the study provides valuable insight into L1 interference in intonation acquisition, it does not address learners from South Asian linguistic backgrounds, particularly Pashto speakers, whose phonological systems and intonational structures differ significantly from Turkic languages like Azerbaijani.

Ullah (2011) examined the influence of Pashto phonology on English pronunciation, providing a valuable foundation for understanding segmental transfer. Yet this study too, omitted suprasegmental features, offering no data or interpretation regarding how Pashto intonation patterns may interfere with the production of English intonation. Their analysis stops short of identifying how such transfer might affect sentence modality, pragmatic intent, or intelligibility in L2 communication.

The above brief survey reveals a notable gap in the literature which the present study aims to fill. This study responds directly to the lacuna in current phonological research by systematically examining intonational interference in the L2 speech of PSL at BS (English) level, a subject that is unique to the works of all the researchers discussed above.

6. Research Methodology

This study uses qualitative research design to obtain varied data on pronunciation deviations, particularly intonation patterns. The participant group consisted of five

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JALT

undergraduate students at the department of English, University of Malakand. They constituted a homogeneous group in the sense that all of them had Pashto as their mother-tongue.

The data collection process began with speech recordings using Super Sound mobile application, where participants were asked to read aloud four types of sentences, declarative, assertive, exclamatory, and interrogative, that were originally spoken by a native speaker in a publicly available YouTube video. The native recordings were also extracted for comparison. All the participants and native recordings were then transferred to a laptop to be further analyzed acoustically through Praat.

As theoretical lens, the study employed the AM Theory of Intonation, originally developed by Janet Pierrehumbert (1980). According to AM theory, intonation is composed of discrete tonal elements, pitch accents, phrase accents, and boundary tones, each contributing to the overall meaning and prosodic structure of an utterance. These tonal elements are labeled using combinations of high (H) and low (L) tones.

The study also uses the ToBI system, which practically uses the AM theory in the annotation of speech data, and which provides a standardized way to mark intonational events on recorded speech. The ToBI system helps in providing symbols for different speech contours and in turn text grid the sound waves into different symbolic representations. The statistical comparison of the pitch movements in learners' and native speech allowed for the classification and categorization of intonational errors. These errors were analyzed according to their type (e.g., incorrect pitch accent type and placement, absence of boundary tones, etc.) and mapped onto the theoretical categories of AM and ToBI, thus revealing key areas where learners struggle.

6.1 Data Analysis Procedures

To systematically analyze intonation patterns, this study selected four sentences, each representing one of the major sentence types in English: declarative, imperative, exclamatory, and interrogative. These sentences were drawn from authentic spoken English used in language learning videos on YouTube, specifically from the channel *ETJ English*, run by Eliot a British pronunciation coach and native speaker of Received Pronunciation (RP) English. To ensure precision in the data collection process, the exact audio segments containing the target sentences were extracted and trimmed using the *Super Sound* mobile application. This allowed for high-quality, sentence-specific audio material, suitable for acoustic and perceptual analysis of intonation patterns. The selected sentences reflect natural, conversational British RP speech and were chosen for their common usage, clarity of intonation, and suprasegmental richness. Their natural delivery makes them suitable benchmarks for assessing learners' intonation patterns in various sentence types. The final selection of sentences is as follows:

Table 1
Standard Sentences

Sentence Type	Selected Sentence	Source
Declarative	"Well, I've been working in sales for about five years now."	ETJ English. *How to Answer, "Tell me about Yourself" | Interview Question* [Video]. YouTube. https://youtu.be/Pra9WkCbyN8?t=211
Assertive	"You need to add some stress into your speech."	ETJ English. *How to Speak English Confidently | British Pronunciation Tips* [Video]. YouTube. https://youtu.be/NZ8dqjeHZQo?t=161

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JOURNAL OF APPLIED LINGUISTICS AND TESOL
JALT

Table 1 (Continued)		
Sentence Type	**Selected Sentence**	**Source**
Exclamatory	"Oh wow, really!"	ETJ English. *How to Talk in Work like a Pro* [Video]. YouTube. https://youtu.be/cGSBNIsPwz8?t=115
Interrogative	"What do you do?"	ETJ English. *How to Talk in Work like a Pro* [Video]. YouTube. https://youtu.be/cGSBNIsPwz8?t=85

The processed audio files were then imported into Praat for acoustic analysis. Within Praat, each sentence was examined for its pitch contour, intensity, and duration, and a corresponding spectrogram was generated. These visual-acoustic representations were annotated using the ToBI system, which draws directly from the AM Theory of Intonation. Each spectrogram was labeled for pitch accents, phrase accents, and boundary tones (e.g. H*, L-, L%), establishing a reference model for each sentence type.

In the data collection phase, each participant was requested to read the same four sentences aloud. Their speech was recorded individually in a sound minimized environment using a digital voice recorder. The resulting files were saved in WAV format and transferred to a laptop for Praat based analysis.

The following figures show Praat demonstration of all the four sentences by Native speakers:

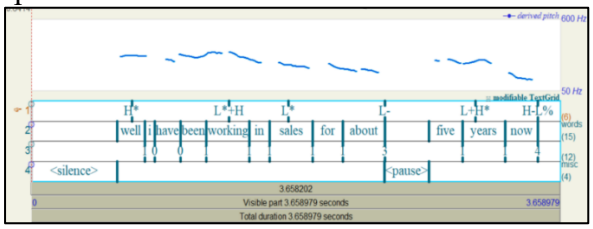

Figure 1 Declarative

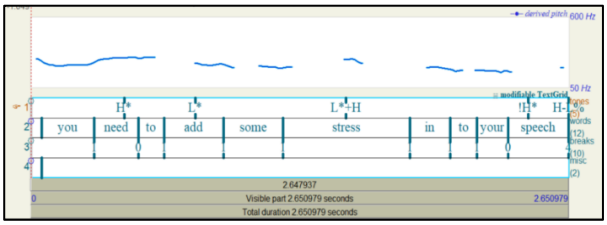

Figure 2 Assertive

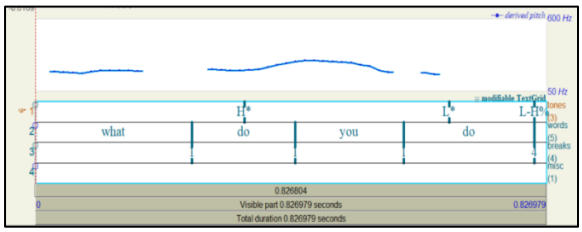

Figure 3 Interrogative

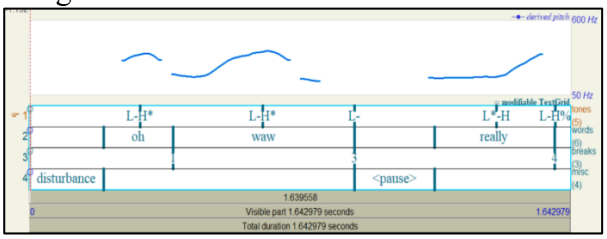

Figure 4 Exclamatory

Participant utterances were subjected to the same process as the native speaker's samples, pitch contours were extracted, spectrograms generated, and ToBI annotations applied. This ensured a consistent and theoretically grounded approach to analyzing intonation across all data sets. A comparative analysis was then conducted between the native speaker's intonational patterns and those of each participant. For example, the ToBI labeled (intonational transcription) pitch contour of the declarative sentence "Well, I've been working in sales for about five years now" spoken by the native speaker was compared with the intonational transcription of the participants that is transcribed from the same declarative sentence. The same process was done with the remaining types of sentences and the collected samples from all of the five participants.

ISSN E: 2709-8273
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JOURNAL OF APPLIED LINGUISTICS AND TESOL
JALT

7. Data Analysis

7.1 Declarative Sentence

In declarative sentences, all five participants successfully placed pitch accents in appropriate positions. It indicated a strong awareness of where prosodic emphasis typically occurs. Only two participants used the correct type of pitch accent, suggesting a gap in accurately reproducing native-like tonal patterns. None of the participants matched the final boundary tone, which is typically a low or falling tone in case of declarative sentence intonation. This shortfall pointed to a common challenge in perceiving or producing subtle pitch movements that are not as perceptually salient. The absence of intermediate boundaries in this sentence type limits the analysis to pitch accents and final tones. The participants displayed partial competence, with stronger performance in accent placement but weakness in tonal realization.

Below are the Praat illustrations of all the five participants for declarative sentence:

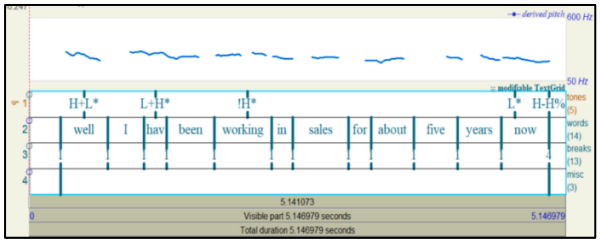

Figure 5 Participant A

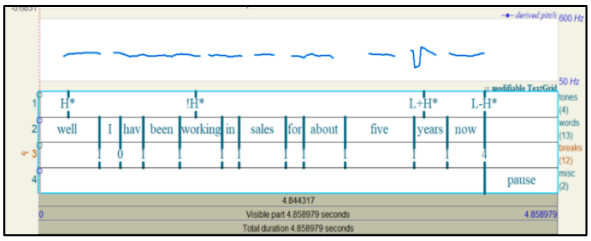

Figure 6 Participant B

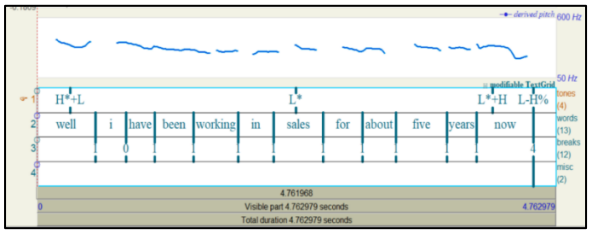

Figure 7 Participant C

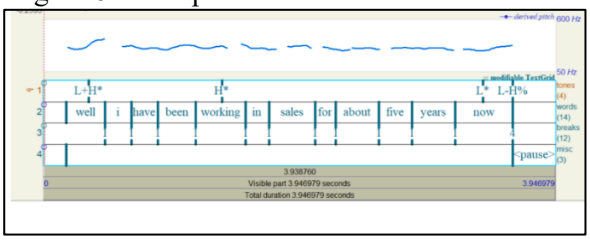

Figure 8 Participant D

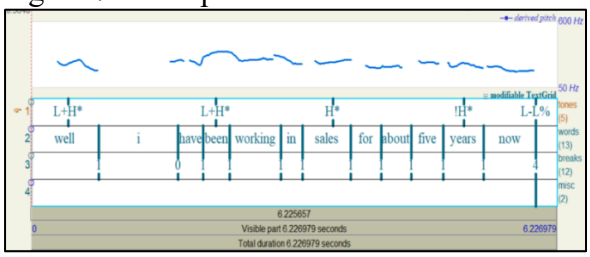

Figure 9 Participant E

7.2 Assertive Sentence

Assertive sentences followed a similar pattern to declaratives. All participants placed pitch accents correctly (5/5), and a slightly higher number (3/5) used an appropriate pitch accent type. Despite this improvement, none of the participants produced the correct final boundary tone (0/5), again reflecting difficulty with sentence-final prosodic cues in more neutral or factual utterances. As with declaratives, no intermediate boundaries were observed or required. The consistent issue with boundary tone realization across assertive and declarative forms suggests that learners may need targeted training in sentence-final intonation, especially when tonal movement is minimal or level rather than rising or falling dramatically.

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JOURNAL OF APPLIED LINGUISTICS AND TESOL
JALT

Below are the Praat illustrations of all the five participants for assertive sentence:

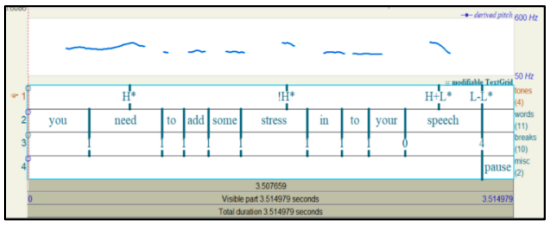

Figure 10 Participatant A

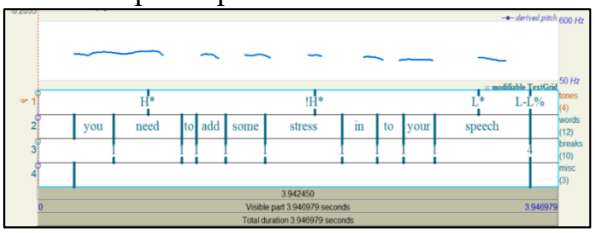

Figure 11 Participant B

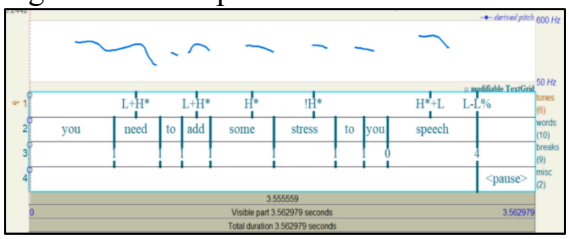

Figure 12 Participant C

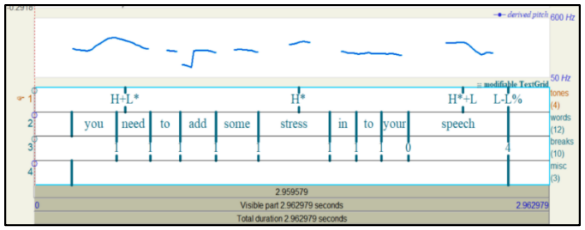

Figure 13 Participant D

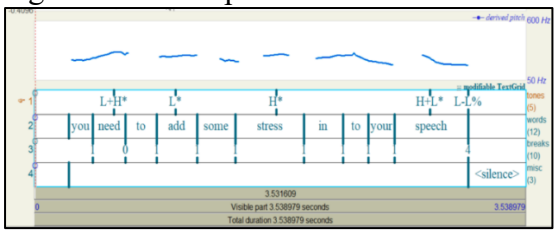

Figure 14 Participant E

7.3 Interrogative Sentence

Interrogative sentences showed the strongest overall performance across participants. Four out of five successfully matched both the pitch accent type (4/5) and placement (4/5), demonstrating an advanced level of awareness and replication of question intonation. Furthermore, three participants (3/5) reproduced the correct final boundary tone, typically a rising pattern in yes-no questions. Intermediate boundaries or phrase accents were not present in this sentence type. It limited the range of prosodic features examined. All the data suggests that interrogative prosody is more intuitively grasped by non-native speakers, which may be due to its universal features and communicative salience.

Below are the Praat illustrations of all the five participants for interrogative sentence:

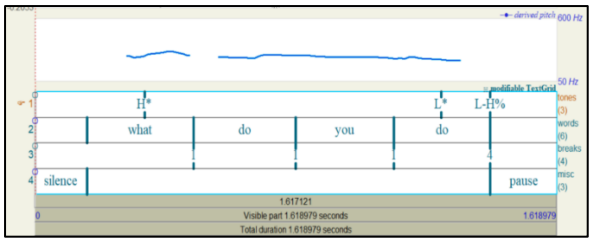

Figure 15 Participant A

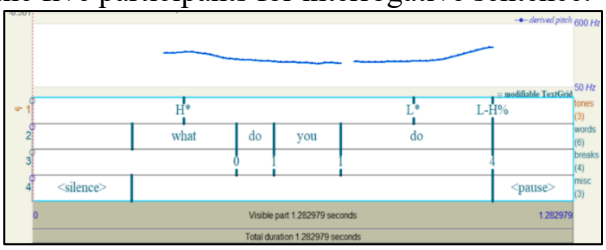

Figure 16 Participant B

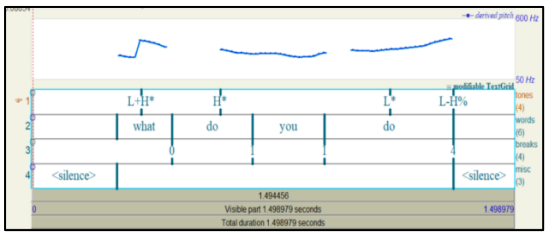

Figure 17 Participant C

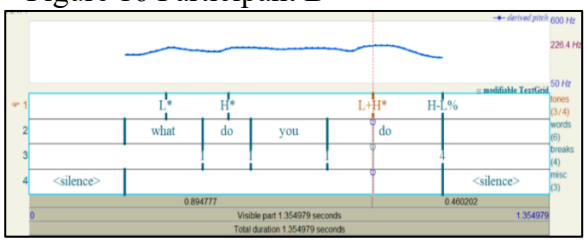

Figure 18 Participant D

ISSN E: 2709-8273
ISSN P:2709-8265
JOURNAL OF APPLIED LINGUISTICS AND TESOL
JALT

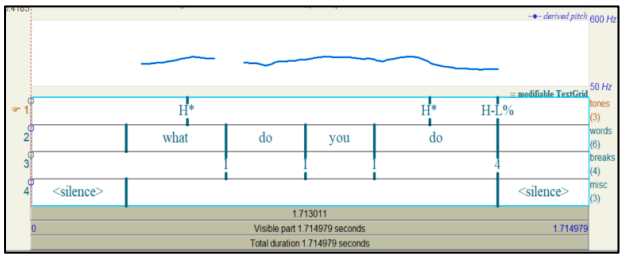

Figure 19 Participant E

7.4 Exclamatory Sentence

Exclamatory sentences presented a more complex prosodic structure, and participant performance was mixed. Three participants successfully matched the native speaker in both pitch accent type and placement, indicating moderate proficiency in conveying emotional emphasis. The correct final boundary tone was also reproduced by three participants, reflecting a reasonable understanding of expressive sentence-end intonation. Exclamatory sentence was the only sentence type where intermediate boundaries were present and analyzed, and only two participants correctly used and placed them. The relatively low success rate here underscores the added difficulty of phrasing and expressiveness in exclamatory speech. These patterns imply that learners can copy certain aspects of emotional intonation but the more complex structuring of such sentences make additional challenges.

Below are the Praat illustrations of all the five participants for interrogative sentence:

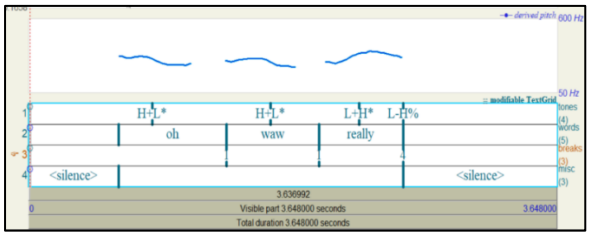

Figure 20 Participant A

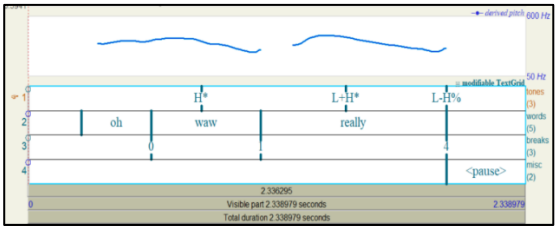

Figure 21 Participant B

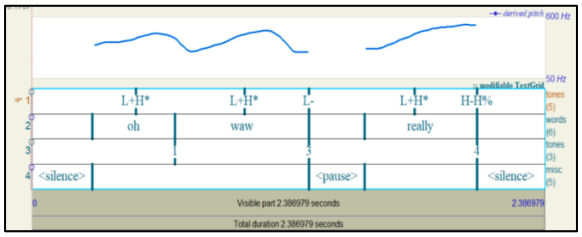

Figure 22 Participant C

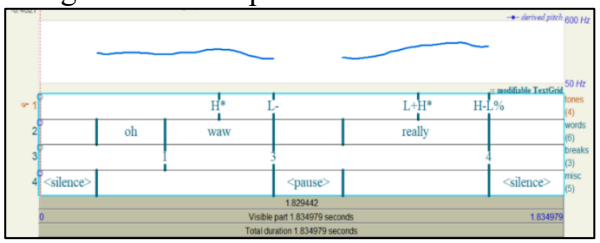

Figure 23 Participant D

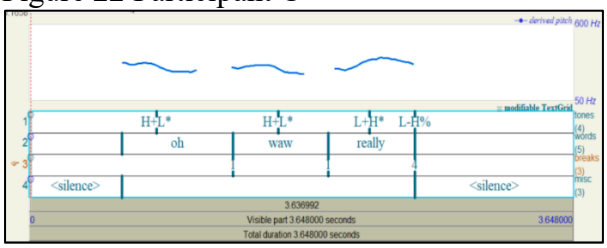

Figure Participant E

7.5 Discussion

The findings of the study demonstrate varying levels of intonational proficiency among the five Pashto-speaking participants across the four sentence types. All five participants successfully placed pitch accents correctly in declarative and assertive sentences

ISSN E: 2709-8273
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JOURNAL OF APPLIED LINGUISTICS AND TESOL
JALT

(5/5), while slightly fewer did so in interrogative (4/5) and exclamatory (3/5) sentences. Regarding the use of the standard type of pitch accent, performance improved from declarative (2/5) and assertive (3/5) to interrogative and exclamatory (4/5 and 3/5 respectively), suggesting better recognition and reproduction of marked or expressive pitch patterns. However, final boundary tone usage remained a consistent challenge, with none of the participants successfully producing it in declarative or assertive sentences (0/5), while a moderate success was observed in interrogative and exclamatory sentences (3/5 each). This indicates that sentence-final tonal control is particularly weak in neutral or factual contexts. Intermediate boundaries, which were only present in exclamatory sentences, were correctly used by 2/5 participants, both in type and placement, showing that this complex prosodic feature poses difficulties even when perceptually present. Overall, the participants showed stronger command over accent placement than tonal realization and demonstrated greater proficiency in more salient and expressive intonational patterns such as those in interrogatives and exclamatories, while struggling with the subtler features of declarative and assertive intonation. These results can be observed in the following table.

Table 2
Overall Intonational Proficiency Results

	Declarative	**Assertive**	**Interrogative**	**Exclamatory**
No of Participants successful in using standard type of pitch accent. (At least in one accent)	2/5	3/5	4/5	3/5
No of Participants successful in correct placement of pitch accent. (At least in one accent)	5/5	5/5	4/5	3/5
No of Participants successful in using standard type of intermediate boundary.	Not present	Not present	Not present	2/5
No of Participants successful in correct placement of intermediate boundary.	NA	NA	NA	2/5
No of Participants successful in using standard type of final boundary tone.	0/5	0/5	3/5	3/5

Furthermore, the findings of this study align with several previous works that highlight L2 learners' greater proficiency in producing marked intonation patterns like those in interrogative and exclamatory sentences, while struggling with more neutral forms such as declaratives and assertive. Similar challenges with final boundary tones and complex prosodic features were reported by Eghlidi (2016), where Persian-speaking EFL learners showed better control over rising tones in questions but frequent errors in flat or falling tones of statements. Similarly, Jun and Oh (2000) found that more advanced L2 Korean learners were better at producing phrase-final tones that mark boundaries, yet struggled with finer phonetic details like surface pitch accents. This supports the observation in the current study that participants more easily managed perceptually prominent prosodic features (e.g., rising tones in questions) than subtler tonal elements (e.g., boundary tones in declaratives). Um (2004) further supports this pattern, revealing that although Korean learners of English successfully marked intonational boundaries, they had difficulty selecting and using appropriate pitch accent types to express contrast or new information, mirroring the

ISSN E: 2709-8273
ISSN P:2709-8265
JOURNAL OF APPLIED LINGUISTICS AND TESOL
JALT

difficulties seen in the Pashto-speaking participants of this study. Mustafayeva (2020), in her study on Azerbaijani learners, also found that English intonation's melodic and dynamic pitch movements were challenging for learners whose L1 relies more heavily on stress timing and syllable duration, highlighting how fundamental differences in native prosodic systems can hinder accurate L2 intonation. These parallels suggest that learners find perceptually salient or frequently encountered patterns easier to replicate, whereas subtle or less communicatively emphasized intonational features remain difficult, likely due to limited exposure, lack of explicit instruction, and interference from L1 prosodic norms as concluded by Mustafayeva (2020), Nwokedi (2023) and Taefi (2024).

8. Conclusion

This study evaluated the intonational proficiency of Pashto-speaking BS English students using AM framework and ToBI transcription system across four sentence types: declarative, assertive, interrogative, and exclamatory. The results revealed that while participants demonstrated some proficiency in pitch accent placement, particularly in declarative and assertive sentences, their control over intonational features remained limited. Difficulties were especially pronounced in the consistent use of standard pitch accent types and the accurate realization of final boundary tones, with no participant producing correct terminal contours in declarative and assertive contexts. Intermediate boundaries, assessed only in exclamatory utterances, were also inconsistently marked.

These findings suggest that although learners can identify and place pitch accents with some accuracy, they face notable challenges in tonal realization, particularly in less affective or subtle sentence types. This partial mastery indicates a need for pedagogical intervention.

The study recommends explicit instruction in intonation, beginning with more expressive sentence types to build learner confidence, and using tools like Praat to improve awareness and analysis of prosodic features. Future research should consider larger participant samples, account for regional variation among Pashto speakers, and include spontaneous speech data to deepen our understanding of ESL intonation challenges.

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