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Research Article

Code-Switching and Emotion in Podcasts: A Paralinguistic and Structural Analysis

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Abstract

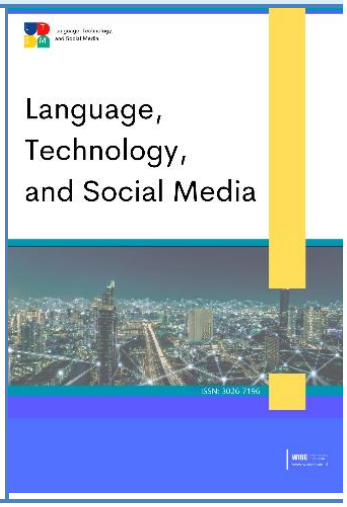
In an era where digital media redefines how people express themselves, podcasts serve as platforms for emotionally nuanced bilingual interaction. This study examines how Arabic–English speakers in ABtalks, an interview podcast, employ code-switching (CS) and paralinguistic features to convey emotion, identity, and social meaning. Drawing on the typology of CS, paralinguistic framework, and bilingual emotion, four episodes were analyzed using qualitative discourse analysis. Findings reveal that intra-sentential CS dominates (accounting for 92–97% of instances), functioning as an expressive and affective strategy, while inter-sentential and tag-switching occur selectively for emphasis, narrative effect, or authenticity. Paralinguistic cues including pauses, rising and falling intonation, vocal stress, laughter, and speech rate consistently align with CS to signal hesitation, emotional intensity, reflection, or psychological regulation. English insertions often universalize or soften emotionally charged content, whereas Arabic anchors intimate, culturally contextualized expressions. The interaction between language choice and vocal delivery demonstrates that speakers deliberately use CS and paralinguistics to perform identity, regulate emotions, and enhance narrative engagement. Future research could examine other podcast genres or bilingual contexts and employ acoustic analysis to explore how prosody and CS jointly shape emotional meaning and digital self-expression.

Keywords: Code-Switching, Paralinguistics, Bilingualism, Podcast Discourse, Emotion, Abtalks.

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INTRODUCTION

Multilingual communication has become an increasingly prominent feature of contemporary social interaction, particularly in digital media environments where speakers negotiate meaning, identity, and affect through flexible linguistic practices. In such contexts, code-switching (CS) is not merely a spontaneous alternation between languages but a socially meaningful communicative resource. CS is commonly defined as the alternation between two or more languages within a conversation, sentence, or clause [1]. Earlier sociolinguistic research has shown that bilingual speakers employ CS to construct identity, manage interpersonal relationships, index social roles, and signal contextual meanings that may not be fully captured through a single linguistic code [2], [3]. As digital communication expands beyond written and visual platforms into audio-based media, the study of CS requires broader analytical attention, particularly in contexts where voice, emotion, and narrative performance are central to meaning-making.

Podcast discourse offers a distinctive site for examining CS because it combines spontaneous conversation, mediated performance, and intimate storytelling. Unlike text-based social media or visually supported platforms, podcasts rely primarily on voice. As a result, paralinguistic features such as pauses, pitch movement, intonation, stress, rhythm, speech rate, laughter, sighing, and voice quality become crucial elements in the interpretation of meaning. These vocal cues do not simply accompany speech; they shape how utterances are received, how emotions are inferred, and how speakers position themselves in relation to their audiences. Scherer [9] emphasizes that vocal features are central to the communication of emotion, while phonological and prosodic studies demonstrate that intonation, pitch, and rhythm organize discourse, interactional stance, and affective meaning [10], [11], [12], [13]. In audio-only digital contexts, therefore, linguistic choice and vocal delivery must be examined as interconnected dimensions of communication rather than as separate phenomena.

Although CS has been widely investigated in conversational, educational, political, and social media settings, podcast-based CS remains relatively underexplored. Existing studies on podcast discourse have provided important insights into the structural distribution and pragmatic functions of CS, particularly by identifying common patterns such as intra-sentential, inter-sentential, and tag-switching [4], [5], [6], [7]. However, much of this scholarship remains focused on classification, frequency, and general communicative function. Less attention has been paid to how CS operates in relation to paralinguistic features or how bilingual speakers use vocal delivery to manage emotional intensity, vulnerability, authority, or identity in real time. This limitation is significant because podcasts, especially interview-based and emotionally oriented programs, often depend on the interaction between what speakers say, which language they choose, and how their voices carry affective meaning.

The gap becomes especially relevant in emotionally driven podcast contexts such as ABtalks, a long-form interview platform in which guests frequently narrate personal experiences, emotional struggles, memories, relationships, and identity-related reflections. In such discourse, Arabic–English bilingual speakers may shift between Arabic and English not only for lexical convenience or stylistic variation but also to regulate affect, frame sensitive experiences, perform cosmopolitan or professional identities, and create psychological distance from emotionally charged content. Research on bilingual emotion supports this assumption. Pavlenko [18] argues that bilingual speakers often experience and express emotions differently across languages, with the first language frequently associated with intimacy and emotional depth, while a second

language may allow distance, abstraction, or social re-framing. Dewaele [19] and Dewaele and Pavlenko [20] further show that emotional expression in bilingualism is shaped by proficiency, context, personality, and lived experience. These perspectives suggest that language alternation in podcast discourse may reflect not only sociolinguistic positioning but also psychological and affective regulation.

At the same time, studies of prosody and paralinguistics indicate that emotion is strongly mediated through vocal expression. Rising intonation may indicate uncertainty, involvement, or heightened affect; falling intonation may signal closure, certainty, or emotional finality; pauses may index hesitation, reflection, or psychological processing; and laughter may soften vulnerability or reframe discomfort [9], [10], [11], [12], [13], [14], [15], [16]. In bilingual discourse, these cues may become even more meaningful when they occur at or around switching points. Auer [8] highlights the interactional role of CS in organizing conversational meaning, while Gumperz [2] conceptualizes language choice and prosodic cues as contextualization resources that guide interpretation. More recent work has also shown that CS may be linked to emotional activation, reported speech, identity performance, and listener engagement [21], [22], [23], [24], [25]. However, the combined analysis of CS, paralinguistic behaviour, and emotional meaning in podcast discourse remains limited.

The present study addresses this gap by examining how Arabic–English speakers in the ABtalks podcast use CS and paralinguistic features together to convey emotion, construct identity, and shape interpersonal meaning. Rather than treating CS as a purely structural phenomenon, this study approaches language alternation as part of a broader vocal and psychological performance. It integrates Poplack's [1] typology of CS, Scherer's [9] framework of vocal emotion, and Pavlenko's [18] account of bilingual affect to develop a multidimensional analysis of spoken bilingual interaction. Through this integrated perspective, the study seeks to show how structural switching patterns, vocal delivery, and emotional positioning work together in digital interview discourse.

Specifically, this research examines the types of CS used by speakers in ABtalks, the paralinguistic features that accompany switching instances, and the communicative and emotional functions served by CS in emotionally charged podcast segments. By focusing on Arabic–English bilingual speakers in a highly personal and voice-centered media environment, this study contributes to sociolinguistics, discourse analysis, bilingualism studies, and digital media research. Its main contribution lies in demonstrating that CS in podcast discourse is not merely a matter of language alternation but a complex affective and interactional practice through which speakers negotiate emotional exposure, cultural belonging, self-presentation, and audience engagement.

LITERATURE REVIEW

Code-Switching as a Structural and Interactional Resource

Code-switching has long been a central concern in sociolinguistics because it reveals how bilingual and multilingual speakers organize language choice in relation to grammar, interaction, identity, and social meaning. Poplack's [1] typology remains one of the most influential structural models for classifying code-switching. This model distinguishes three major types: inter-sentential switching, which occurs between sentences or clauses; intra-sentential switching, which occurs within the same sentence or clause; and tag-switching, which involves the insertion of

tags, fillers, or fixed expressions from one language into another. This typology is particularly useful because it provides a systematic framework for identifying the formal distribution of switching in bilingual discourse. Intra-sentential switching is often considered the most structurally complex type because it requires speakers to integrate two linguistic systems within a single syntactic unit, while inter-sentential switching tends to occur at clearer sentence boundaries. Tag-switching, by contrast, usually involves brief discourse markers or formulaic expressions that do not substantially affect sentence structure.

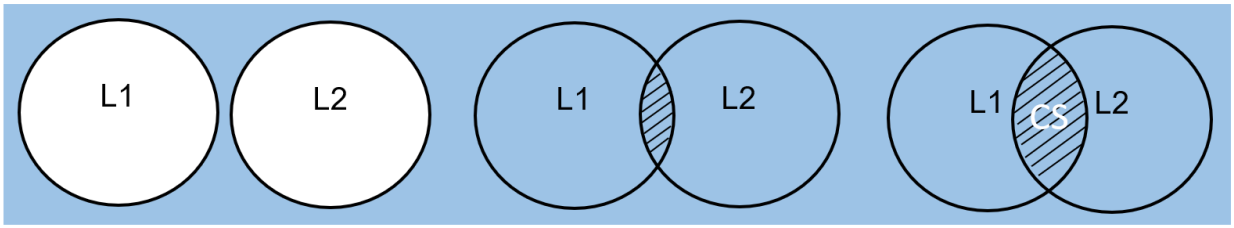


Figure 1. The type and degree of code-switching (Adapted from [1], p. 615).

While Poplack's [1] framework provides a strong grammatical foundation, later sociolinguistic approaches have shifted attention from structure to function. Gumperz [2] argues that code-switching functions as a contextualization cue through which speakers guide listeners in interpreting social meaning, stance, and conversational intention. From this perspective, switching is not simply an alternation between two linguistic codes but a resource for framing meaning in interaction. Similarly, Myers-Scotton's [3] Markedness Model emphasizes the strategic nature of language choice, suggesting that speakers select particular codes to index social relationships, negotiate rights and obligations, and project specific identities. Auer [8] further develops an interactional perspective by showing that code-switching can organize conversational sequences, mark changes in footing, introduce reported speech, or signal shifts in topic and participant alignment. Together, these perspectives demonstrate that code-switching should be understood as both a structural and interactional phenomenon.

Recent studies on code-switching in digital and media contexts confirm that bilingual speakers use switching for more than linguistic convenience. In podcast discourse, Pradina [4] shows that code-switching can create liveliness, emphasis, and audience engagement, while Maghfirah [5] identifies the occurrence of Poplack's three code-switching types in English-learning podcast conversations. Dewi and Selviana [6] further report that intra-sentential switching frequently dominates podcast interaction, suggesting that bilingual speakers often embed English lexical items or phrases within the matrix language. Qodriyati et al. [7] extend this discussion by showing that public figures use code-switching strategically in podcast interviews to construct public identity and communicative appeal. Beyond podcasts, Bratcher and Cabosky [22] demonstrate that political figures use code-switching for audience positioning and persuasive communication, while Derrick [17] illustrates how switching in radio advertisements can index audience identity and commercial intention. These studies collectively establish that code-switching in media discourse is purposeful, patterned, and socially meaningful.

However, much of the existing research remains concentrated on structural frequency and general pragmatic function. Studies of podcast code-switching often identify whether switching is

intra-sentential, inter-sentential, or tag-based, but they rarely examine how switching interacts with vocal delivery, affective intensity, and emotional self-presentation. This limitation is important because podcast discourse is not only linguistic but also acoustic and performative. Speakers do not merely choose words; they also shape meaning through pitch, rhythm, stress, silence, laughter, and tone. Therefore, a more comprehensive account of podcast code-switching requires attention to both linguistic form and paralinguistic realization.

Paralinguistic Features and Emotional Meaning in Podcast Discourse

Paralinguistic features refer to vocal elements that accompany verbal language and contribute to the interpretation of meaning. These include pitch, intonation, stress, tempo, rhythm, pauses, laughter, sighing, voice quality, and other non-verbal vocalizations. Scherer [9] argues that such vocal cues are central to emotional communication because they allow listeners to infer affective states beyond lexical content. A speaker may express hesitation through pauses, certainty through falling intonation, excitement through rising pitch, seriousness through low tone, or vulnerability through softened voice. Thus, paralinguistic cues function as interpretive signals that shape how utterances are understood.

The importance of paralinguistics is particularly pronounced in podcast discourse. Unlike face-to-face interaction, podcasts often lack visual cues such as facial expressions, gestures, and body movement. Consequently, vocal delivery becomes the primary channel through which speakers express emotion, stance, intimacy, and credibility. Crystal [16] emphasizes that tone, pitch, rhythm, and related features play a significant role in shaping message interpretation. Ladd [10] and Gussenhoven [11] further show that intonation and pitch movement structure discourse and contribute to the pragmatic interpretation of utterances. Couper-Kuhlen and Selting [12] demonstrate that prosody organizes turn-taking and interactional action, while Juslin and Laukka [13] show that vocal expression is strongly linked to the communication of emotion across different modalities. More recent reviews also affirm the relevance of prosody in linguistic, neurological, and affective processing [14], [15].

In podcast communication, paralinguistic cues do more than decorate speech; they help produce narrative engagement. Reddy et al. [23] demonstrate that delivery style, including tone, rhythm, and lexical variation, affects listener engagement in podcasts. This suggests that audience perception is shaped not only by what is said but also by how it is vocally delivered. Melikuziev [24] similarly highlights the role of paralinguistic cues in clarifying intention and emotion, especially in spoken interaction where meaning may depend on vocal nuance. Scherer's work [9], [25] is especially relevant to the present study because it provides a framework for connecting vocal features with emotional expression. For instance, rising intonation may indicate involvement, uncertainty, or heightened affect; falling intonation may signal closure or finality; stress may mark emphasis or evaluative stance; and pauses may indicate reflection, hesitation, or emotional processing.

Despite these contributions, research on paralinguistics has rarely been integrated with research on code-switching in podcast discourse. Many studies examine prosody, voice, and listener engagement without considering bilingual language alternation, while studies of code-switching often focus on linguistic form without systematically analyzing vocal features. This separation limits understanding of how bilingual speakers produce emotional meaning in audio-based media. In naturally occurring podcast conversations, code-switching and paralinguistic cues

often occur together. An English lexical insertion may be accompanied by stress, a shift in pitch, a pause, laughter, or a lowered voice. Such co-occurrences may reveal how speakers regulate emotion, emphasize identity, soften sensitive content, or dramatize personal narratives. Therefore, examining the interaction between code-switching and paralinguistic features is essential for understanding the affective and performative dimensions of bilingual podcast discourse.

Bilingual Emotion, Identity, and Research Gap in Digital Spoken Media

The psychological dimension of bilingualism provides another important basis for understanding code-switching in emotionally charged discourse. Pavlenko [18] argues that bilingual speakers often experience their languages differently in relation to emotion, memory, identity, and self-expression. The first language is frequently associated with intimacy, personal history, and emotional depth, whereas a second language may allow speakers to create psychological distance, express sensitive topics more neutrally, or adopt a socially recognizable identity. This does not mean that one language is always emotional and the other always detached; rather, emotional meaning is shaped by biography, context, proficiency, and communicative purpose. Dewaele [19] and Dewaele and Pavlenko [20] further show that bilingual emotional expression varies according to language dominance, personality, social setting, and the emotional value attached to each language.

This psychological perspective is particularly relevant to Arabic–English podcast discourse. Arabic may function as the language of intimacy, cultural grounding, and personal memory, while English may function as a language of abstraction, modernity, professional discourse, therapeutic vocabulary, or global accessibility. In emotionally sensitive interviews, speakers may use English terms to discuss mental health, trauma, success, anxiety, depression, or self-evaluation because these concepts circulate widely in global media and psychological discourse. At the same time, Arabic may remain central for culturally embedded emotional experience, relational intimacy, and personal storytelling. The movement between Arabic and English can therefore reflect both identity negotiation and emotional regulation.

Empirical studies support the link between emotion and code-switching. Williams et al. [21] show that heightened emotional states may increase the likelihood of switching, particularly when speakers move between languages during affectively intense interaction. Their findings suggest that code-switching can be triggered not only by topic or audience but also by emotional activation and cognitive regulation. This is consistent with broader sociolinguistic work showing that bilingual speakers use switching to index stance, manage interpersonal relationships, and position themselves within social contexts [2], [3], [8]. In media settings, code-switching may also function as a performance of cosmopolitan identity, professional competence, or cultural hybridity. For public figures and podcast guests, language choice can become part of self-presentation, allowing speakers to appear authentic, emotionally articulate, globally oriented, or socially relatable.

Nevertheless, existing literature still leaves a significant gap. Studies on code-switching in podcasts have generally emphasized types and functions [4], [5], [6], [7], while studies on bilingual emotion have mostly focused on psychological experience rather than mediated spoken performance [18], [19], [20], [21]. Similarly, studies on paralinguistics have explored vocal emotion and listener engagement [9], [23], [24], [25], but they have not sufficiently addressed how vocal features interact with bilingual switching in digital interview contexts. As a result, the

relationship among code-switching, paralinguistic delivery, and emotional meaning remains underdeveloped.

The present study responds to this gap by integrating structural, paralinguistic, and psychological perspectives. Poplack's [1] typology is used to identify the formal types of code-switching; Scherer's [9] paralinguistic framework is used to interpret vocal features such as pauses, pitch, intonation, stress, laughter, and speech rate; and Pavlenko's [18] theory of bilingual emotion is used to explain how language choice may reflect affective distance, identity construction, and emotional regulation. By combining these perspectives, the study provides a more comprehensive understanding of Arabic–English code-switching in ABtalks. It argues that code-switching in podcast discourse is not simply a structural alternation between languages, but a layered communicative practice through which speakers manage emotion, perform identity, construct authenticity, and engage audiences through the combined force of language choice and vocal expression.

METHODS

Research Design

This study adopts a qualitative discourse-analytic approach supported by descriptive quantitative measures. In this, it aims to explore the interplay between code-switching and paralinguistic features in naturally occurring speech. Qualitative approaches are particularly appropriate for linguistic research because they allow for in-depth, context-sensitive examination of how meaning is constructed through both verbal and non-verbal cues [26], [27]. Discourse analysis further facilitates the study of language as social action, capturing how bilingual speakers draw on code-switching and paralinguistic cues to perform identities, manage interpersonal relationships, and convey emotional states [2], [28].

Data

The data consist of a group of four bilingual speakers selected from episodes of the *ABtalks* podcast. The group includes two Egyptians, Ahmed Helmy (male, actor), referred to as M1, and Zeena (female, actress), referred to as F1, as well as two Lebanese participants, Nicolas Mouawad (male, actor), referred to as M2, and Maguy Abo Ghoson (female, actress/comedian), referred to as F2. All participants are adults between the ages of 46 – 55 and are active professionals in the film industry.

All four participants are native Arabic speakers who later became bilingual through sustained exposure to English (L2) during their educational and professional experiences. For the Egyptian participants, exposure to English occurred primarily through formal schooling and international film and media engagement, which encouraged functional fluency alongside Arabic. The Lebanese participants similarly developed bilingual proficiency within Lebanon's multilingual environment, where Arabic, English, and French commonly coexist in education and media, with English becoming a prominent second language in their professional lives.

The participants were purposefully selected due to their frequent and spontaneous use of Arabic–English code-switching during conversational interaction. Their bilingual trajectories, beginning with Arabic as L1 and English acquired through education, media exposure, and

professional practice, make them suitable representatives for examining how language alternation intersects with paralinguistic features in podcast discourse.

Data Collection

The researcher downloaded four episodes of the *ABtalks* podcast and extracted 106 excerpts from these episodes. *ABtalks* is a long-form interview program in which speakers discuss a wide range of social, cultural, and personal topics. The episodes were retrieved from the YouTube platform, with each episode comprising approximately two hours of recorded conversation. Data collection involved identifying all utterances containing Arabic–English code-switching, which were then transcribed, translated, and compiled into a Word document entitled *Podcast Excerpts*. This compilation served as the primary dataset for analysis.

The translation of excerpts followed House's [29] model of functional equivalence, which prioritizes the preservation of pragmatic meaning and communicative intent rather than word-for-word correspondence. This framework was particularly suitable for the present study, as it allowed the retention of English insertions within Arabic discourse, thereby maintaining the authenticity and analytical value of the code-switching instances.

The selection of four episodes was guided by the principle of thematic saturation in qualitative research Guest et al. [30], which suggests that a manageable yet diverse dataset can yield recurring patterns without unnecessary repetition. In this study, four episodes were considered sufficient to capture consistent patterns of Arabic–English code-switching across different speakers while maintaining analytical depth and feasibility.

Frameworks of Analysis

This study employs a triangular framework of analysis, integrating three well-established models to examine the structural, paralinguistic, and psychological dimensions of bilingual speech in the *ABtalks* podcast. First, Poplack's [1] model of code-switching is used to classify instances of inter-sentential, intra-sentential, and tag switching. This typology provides a systematic approach for identifying and categorizing the structural forms of language alternation, allowing the researcher to capture patterns of code-switching across different speakers and conversational contexts. Second, Scherer's [9] paralinguistic model guides the analysis of non-verbal vocal features, including intonation, pitch, pauses, stress, and other vocalizations. These features are key indicators of the speakers' emotional and psychological states and are annotated using a set of standardized symbols, as illustrated in Table 1.

Table 1. Demonstrates the symbols used to annotate paralinguistic cues

Paralinguistic Features	The Symbols	Defenitions
Pause	//	A temporary silence that structures speech, marking hesitation, emphasis, or cognitive processing [16].
ising IntinationR	↗	A pitch rise at the end of a phrase, typically signalling a question, incompletion, or uncertainty [10].
Falling Intonation	↘	A pitch fall at the end of an utterance, often indicating finality, certainty, or closure [10].
Fast Speech Rate	→	The production of spoken language at a higher-

Paralinguistic Features	The Symbols	Defenitions
		than-averge number of syllables or words per minute, associated with emotional states such as excitment, nervousness, or urgency [9], [10], [31].
Low Pitch	↓	An elevated fundamental frequency used to convey excitement, stress, or heightened emotion [9].
High Pitch	↑	A lowered fundamental frequency associated with seriousness, sadness, or calmness [9].
Emphasis	**word**	Greater loudness, duration, or pitch on a syllable or word to highlight importance [32].
Non-verbal Vocalization	(Crying), (laughing), (sighing).	Vocal expressions beyond words that convey affective states such as joy, sadness, or relief [9].
Soft Voice	~	Reduced vocal intensity that signals intimacy, shyness, or uncertainty [9].
Assertive Tone	^	A firm, strong delivery expressing confidence, authority, or determination [11].

Finally, Pavlenko's [18] framework on emotion and bilingualism is applied to explore the psychological motivations underlying code-switching. This model highlights how bilingual speakers' language choices are influenced by identity, emotional expression, and social context, particularly in sensitive or affectively charged situations. By combining this framework with the structural and paralinguistic analyses, the study gains a more nuanced understanding of why speakers switch languages and how these switches are shaped by emotional and social factors.

Data Analysis

Data analysis followed a thematic procedure guided by the three analytical models. Each code-switched utterance was treated as a unit of analysis. The process began with repeated familiarization with the transcripts to identify patterns of language alternation and vocal expression.

Next, all code-switching instances were manually coded according to Poplack's [1] typology, while paralinguistic features were annotated using Scherer's [9] categories and the established symbolic system. These codes were then grouped into broader themes reflecting communicative function, emotional expression, and identity construction.

Thematic patterns were identified by examining the co-occurrence of code-switching and paralinguistic cues. For example, intra-sentential switching combined with stress or pitch rise was interpreted as emphasis, while pauses and softer voice accompanying switching were associated with reflection or emotional sensitivity. This stage ensured that verbal and non-verbal cues were analyzed as interconnected components of meaning-making.

Results of Pilot Study (Inter-rater Reliability)

A pilot study was conducted using one *ABtalks* episode to test the clarity and reliability of the coding procedures. The pilot analysis confirmed the presence of all three types of code-switching

and their consistent alignment with paralinguistic features such as pitch variation, pauses, and stress.

To ensure reliability, an experienced linguistics professor from Al-Zahraa University independently coded the same excerpts using the same criteria for both code-switching categories and paralinguistic features. The results showed a high level of agreement, yielding an inter-rater reliability score of 87%. Any discrepancies were discussed and resolved through consensus, leading to refinement of coding guidelines.

Based on this validation process, ten paralinguistic features were confirmed as the most salient cues co-occurring with code-switching. These features were subsequently applied consistently in the main analysis.

RESULTS AND DISCUSSION

Results

The code-switching patterns observed across the four participants reveal a strong and consistent preference for intra-sentential switching, indicating that English is predominantly embedded within Arabic sentence structures rather than produced as independent units. Quantitative analysis shows that intra-sentential code-switching accounts for approximately 92% to 97% of all recorded switches across speakers, confirming its dominance in this dataset. This pattern reflects a high level of bilingual proficiency, where speakers are able to integrate English lexical items, phrases, and short clauses smoothly into Arabic discourse without disrupting syntactic flow.

The English items inserted intra-sententially are not random but cluster around specific semantic domains. Psychological and emotional terms such as *anxiety*, *depression*, *positive*, and *energy* recur frequently, as do evaluative and everyday expressions like *I am good*, *healthy*, and *social media*. This distribution suggests that English functions as a preferred resource for articulating abstract, technical, or globally circulated concepts, particularly those linked to mental health, self-evaluation, and contemporary social life. This finding aligns with previous research showing that bilingual speakers often rely on English for concepts associated with modernity, professional discourse, and psychological self-description [19], [18].

In contrast, inter-sentential code-switching is comparatively rare, constituting between 0% and 9% of instances across participants. These switches typically occur when a full English sentence is produced independently, often for emphasis, narrative climax, or reported speech. Examples such as *"It is something way worse"* or *"And it is the hardest thing ever"* illustrate how inter-sentential switches function as rhetorical devices rather than default modes of expression. This selective use supports Poplack's [1] claim that inter-sentential switching requires greater processing effort and is therefore employed more strategically.

Tag-switching appears only marginally in the data, accounting for roughly 3% or less of total instances. When present, it typically involves fixed expressions such as *"never say never"*, which serve stylistic or pragmatic purposes rather than syntactic integration. This low frequency mirrors findings from Rahmat et al. [33] and Habtoor and Almutlagah [34], who report that tag-switching is least common in semi-formal spoken contexts where speakers aim for narrative coherence rather than conversational fillers.

Overall, the quantitative distribution confirms that English is primarily used to complement Arabic within a single sentence, especially when speakers engage with abstract, evaluative, or socially salient content. This pattern is consistent with research on bilingual

discourse in podcasts, where speakers balance intimacy with public accessibility by selectively switching languages [35].

Table 2. Distribution of Code-Switching Types across Participants

Participants	Inter-sentential	Intra-sentential	Tag-switching
M1	0 %	100 %	0 %
F1	9 %	86 %	5 %
M2	9 %	91 %	0 %
F2	0%	97%	3%

The findings of M1

The analysis of M1's excerpts reveals a systematic interaction between code-switching and paralinguistic features, particularly intonation, pitch movement, and pausing. English code-switching frequently co-occurs with ↗ rising intonation, which functions to amplify emotional intensity, assert stance, and project identity. In Excerpts 1, 10, and 13, rising pitch accompanies English lexical items, transforming them into focal points of emotional expression. For instance, in Excerpt 1, the stressed English adjective *"extreme"* combined with rising intonation signals heightened emotional arousal. This pattern is consistent with Wang, et al.'s [36] findings that emotional activation increases the likelihood of language switching and pitch elevation. Excerpt 10 similarly employs rising pitch to reinforce insistence, while English frames abstract evaluation. Torres Cacoullos [35] demonstrates that bilingual speakers align prosodic cues with switching points to signal social meaning, supporting the interpretation that M1 strategically synchronizes pitch and language choice.

In Excerpt 13, the English word *"peace"* is delivered with rising intonation, projecting joy and a cosmopolitan identity. Pattichis et al. [37] show that code-switching frequently aligns with intonation units, indicating that prosody is integral to bilingual speech organization rather than an ornamental feature. Conversely, ↘ falling intonation in Excerpts 5, 6, and 14 marks emotional closure, certainty, or grief. In Excerpt 5, the English term *"minimum"* is delivered with falling pitch, conveying institutional precision and emotional detachment. In Excerpts 6 and 14, English lexical choices function as emotional buffers, while falling intonation and long pauses signal sadness and finality. This pattern reflects Pavlenko's [18] observation that bilingual speakers often use L2 to manage emotionally heavy topics.

Long pauses and hesitation markers in Excerpts 1, 2, 3, 4, 9, and 15 indicate cognitive effort and self-monitoring. For example, the // pause preceding *"taste"* in Excerpt 2 highlights uncertainty and introspection. These pauses function as contextualization cues in Gumperz's [2] sense, guiding listeners toward the speaker's psychological stance. Together, M1's data show that code-switching operates in tandem with paralinguistic cues to express emotion, negotiate identity, and regulate psychological exposure.

The findings of F1

Excerpts 16, 17, 20, and 26 show that → fast speech, heightened tempo, and stressed delivery work with English code-switching (CS) to convey emotion and perform identity. In Excerpt 16, repetition and rapid pace dramatize action, reflecting excitement and cosmopolitan dynamism.

This aligns with findings that bilinguals increase speech rate during CS in socially or narratively intense contexts (e.g., PubMed, 2021). Excerpt 17 combines laughter, pride, and English markers of professional ambition. This supports sociolinguistic research showing that CS is shaped by social and identity goals, allowing speakers to perform aspirational or authoritative selves. In Excerpt 20, humor and ↗ rising pitch frame self-perception as excessive yet playful. Neurocognitive evidence suggests that prosodic cues like pitch modulation strongly convey affect, supporting your interpretation that laughter and ↗ rising pitch mitigate arrogance [38]. Excerpt 26 shows nervous → fast tempo with "flirt" situating the exchange in a Westernized register. This aligns with findings that CS can serve strategic social and emotional purposes, including identity and relational framing [39].

Overall, these excerpts suggest that CS combined with prosodic features is a multifunctional resource: it amplifies emotion, communicates social or aspirational identity, and strategically manages listener perception, confirming and extending prior findings on prosody and bilingual identity performance. Excerpts 23, 27, 30, 31, and 32 share ↘ falling intonation that conveys closure, seriousness, or rejection. Excerpt 23 "bravoooo" dramatizes mockery with elongated vowels and a sarcastic fall in tone, signaling disgust at hypocrisy. Excerpt 27 "case" uses laughter as a coping device, but ↘ falling pitch still indicates unease at being medicalized. Excerpt 30 "already" adopts a ~ soft, ↓ low delivery, where ↘ falling tone reinforces acceptance and detachment from emotional strain. Excerpt 31 "Wisam, I do not speak Arabic" shows ↘ falling pitch to highlight power imbalance with the therapist, aligning with Auer [8] and Frick & Riionheimo [40] on CS as authenticity in quoted speech. Excerpt 32 "aggressive… tough mammy" reflects embarrassment, with ↘ falling pitch marking defensive admission. Together, these excerpts reveal how ↘ falling intonation in bilingual speech marks emotional finality whether grief, sarcasm, shame, or acceptance, while CS provides distancing or quotational authenticity.

Excerpts 19, 21, 24, and 36 demonstrate ~ soft or lowered tone combined with reflective // pauses, signaling sincerity and vulnerability. Excerpt 19 "small family… big family" uses ~ soft tone to express affection while CS clarifies kinship categories into globalized nuclear vs extended family. Excerpt 21 "equal" uses ↓ low pitch to underline fairness in relationships, with English framing equality in personal contexts. Excerpt 24 "self-defense" frames coping with vulnerability in therapeutic discourse, where English softens stigma. Finally, Excerpt 36 "fighter", preceded by a // long pause, uses ↓ low tone and emphasis to deliver an emotionally cathartic identity label. Here, CS is not only a linguistic choice but the condensation of selfhood into a global archetype. Across these examples, ~ soft delivery and pauses highlight sincerity, reflection, and identity construction, while English lexical choices add rationality, therapeutic framing, or universal recognition.

Excerpts 22 and 25 display ↗ rising intonation that dramatizes imaginative or playful self-expression. Excerpt 22 medicalizes intuition, with ↗ rising pitch underscoring vivid storytelling. Excerpt 25 "drama queen" combines whispering ↓ with ↗ rising intonation, creating playful disclosure that blends shame with humour. In both, CS imports metaphors from Western pop culture or medical discourse, giving performative flair to bilingual identity construction.

Excerpts 18, 27, 33, 34, and 35 show the use of English for institutional, medical, or structural authority. Excerpt 18 "rules" conveys discipline with stress and seriousness, while Excerpt 33 repeats the same word to signal frustration in bureaucratic contexts. Excerpt 27 "case"

frames the speaker within a clinical register, softened by laughter as self-protection. Excerpt 34 expands this theme: “case”, “charge nurse”, “She is a star? No way!”, and “Google it” combine intra- and inter-sentential switches to reproduce external authority and scepticism authentically [8]. Finally, Excerpt 35 “private” signals privilege and relief through English institutional framing. Here, English imports systemic, medical, or bureaucratic authority, while paralinguistic cues mark seriousness, frustration, or relief.

Excerpts 24 and 28 demonstrate how intra-sentential code-switching (CS) interacts with paralinguistic features to construct nuanced stances toward vulnerability and aggression. In Excerpt 24, the use of English “self-defence” combined with a ~ soft tone conveys vulnerability and confessional intent. This aligns with previous research indicating that bilingual speakers often employ CS to modulate emotion or signal intimacy in socially sensitive contexts. The ~ soft paralinguistic delivery emphasizes the speaker’s affective state, suggesting that CS functions not merely as a linguistic choice but as an affective and interpersonal strategy. Conversely, Excerpt 28 illustrates “self-defence” articulated with assertive tone and emphatic stress, dramatized metaphorically as a “gorilla.” This finding resonates with the notion of CS as a communicative “toolkit,” where speakers strategically deploy lexical and prosodic choices to achieve rhetorical goals [41]. The assertive paralinguistics amplify the sense of justified aggression, positioning the speaker as powerful and defensive. Moreover, the metaphorical framing reflects the concept of metaphorical CS, in which language switching conveys social meaning beyond situational necessity [42]. In this case, English not only emphasizes the lexical item but also lends it authority and global resonance, framing aggression as socially and morally sanctioned. Excerpt 29 further extends this pattern by demonstrating the use of English “virus” to convey moral judgment through a globalized scientific metaphor. Stressed syllables highlight evaluative stance, suggesting that CS can function to encode critique or social evaluation. This aligns with sociolinguistic research showing that bilingual speakers exploit CS to mark argument, criticism, or evaluative stances [43], while simultaneously leveraging prosody to reinforce the intended meaning. The choice of English in this context may additionally reflect its association with scientific discourse and universal legitimacy, providing the speaker with a resource to project moral authority. Collectively, these examples show that CS interacts with paralinguistic cues to construct affective, moral, and identity-oriented meanings. The data align with prior research on the emotional and pragmatic functions of CS [41] while extending it by demonstrating how tone and metaphorical framing dynamically modulate the interpretation of the same lexical item “self-defence” in different contexts.

The findings of M2

Excerpts 37, 44, 48, 59, and 70 illustrate a consistent interaction between ↘ falling intonation, ↓ low pitch, and calm or serious paralinguistic delivery in conjunction with English CS. These prosodic features signal finality, acceptance, and emotional regulation, while English provides a globalized register that softens the weight of the affective content. In Excerpt 37, the repeated phrase “I am good,” delivered with ↘ falling intonation, functions as a self-soothing mechanism. The combination of repetition and downward pitch supports the speaker’s internal regulation of emotional intensity, consistent with findings in Myers-Scotton’s [3] Markedness Model, which posits that bilingual speakers choose a language to optimize social and psychological alignment. Using English here allows the speaker to express reassurance in a register perceived as less

emotionally burdened than Arabic. Similarly, Excerpt 44 employs ↘ falling intonation to frame nostalgia "that longs for the past… the past" as a settled aspect of identity, where English softens and universalizes the reflection on memory. This aligns with research by Dewaele [19], who notes that bilingual speakers often select L2 to express affective content in a more distanced, neutral, or socially accepted manner. Excerpts 48 and 59 demonstrate ↘ falling intonation paired with ↓low voice to convey resignation or acceptance of past struggles "I don't plan" and "it wasn't a proper career". In these instances, the downward pitch contours provide closure and dramatize the finality of the speaker's emotional state, while English functions to carry the emotional burden externally. This use resonates with studies on CS as a mechanism for emotional distancing, where speakers exploit L2 to manage affective intensity or negotiate complex experiences [40]. ↘ Falling intonation here enhances the perception of settled judgment or resignation, illustrating how prosody and CS operate in tandem to structure discourse and emotion. Excerpt 70 similarly combines ~ soft tone, ↘ falling pitch, and English terms "treatment," "to prevent cancer…" to convey grief and medically framed detachment. The ↘ falling intonation signals acceptance, while English frames the narrative within a globalized, objective register. This finding aligns with prior observations by Pavlenko [18], who noted that bilinguals often select L2 when discussing topics that require emotional containment, social neutrality, or factual framing, particularly in contexts of personal loss or distress. Collectively, these examples demonstrate that ↘ falling intonation and ↓ low pitch serve as prosodic markers of closure, certainty, and emotional regulation, while English CS provides a register that mitigates affective intensity and projects a globalized perspective. The findings are consistent with prior sociolinguistic and psycholinguistic research [3], [19], [18] while extending these frameworks by illustrating the combined effect of prosody and language choice on affective management. Importantly, the data highlight how bilingual speakers strategically integrate prosody and CS to regulate emotional burden, mark finality, and frame personal experience in socially and emotionally calibrated ways.

Excerpts 38, 40, 50, 51, 57, and 58 use audible sighs, elongated // pauses, or ↓ low tone to convey emotional exhaustion, shame, or guilt. In Excerpt 38, the sigh before "my character" signals fatigue, with English helping the speaker detach and treat the self as a role. Excerpt 40 emphasizes "drained" and "energy," framed in therapeutic English, legitimizing burnout. Excerpt 50 "introvert" and Excerpt 51 "insecurity around people" both rely on // pauses and ↓ low pitch to disclose stigmatized traits, softened through English psychological discourse. Excerpt 57 "weak… I think" adds hesitation markers, while Excerpt 58 "I'm the one who's causing… struggle" uses // pauses and ↓ low tone to externalize guilt. Here, paralinguistic heaviness (sighs, low pitch, hesitation) indexes emotional struggle, while English terms provide psychological distance, reframing pain as manageable or clinical [2].

Excerpts 39, 41, 45, 46, 52, and 71 share ↗ rising intonation and rhythmically open delivery, often linked to reflection, justification, or hopeful transcendence. In Excerpt 39 "but I can't do it otherwise", ↗ rising pitch dramatizes surrender, with English framing inevitability. Excerpt 41 "peace" stresses the word while ↘ falling on "distraction," showing a contrast between aspirational English and grounded Arabic. Excerpt 45 "negative" uses ↗ rising intonation to challenge the listener, linking Arabic experience with globalized psychology. Excerpt 46 contrasts "nostalgic" with "crave for change," where English typologies identities with ↗ rising on "change." In Excerpt 52, ↗ rising intonation on "financially" universalizes Lebanese trauma. Finally, Excerpt 71 "reminder from God… change sadness to happiness" uses ↗ rising tone to

signal hope, with English universalizing religious reflection. Across these, ↗ rising intonation indexes openness and continuation, while English universalizes psychological and spiritual reflections [8].

Excerpts 40, 41, 47, 49, 55, 61, and 63 emphasize English keywords “drained”, “peace”, “attachment”, “floating”, “fluid”, “pure”, “passion”, and “success”. Stress highlights the salience of borrowed terms, which often carry psychological, therapeutic, or symbolic weight. For instance, Excerpt 47 emphasizes “attachment” to assert intellectual authority in psychological framing. Excerpt 49 highlights “floating,” “fluid,” and “attracted” to craft a poetic metaphor of identity fluidity. Excerpt 55 “pure” conveys admiration, with English softening Arabic’s religious undertones. Excerpt 61 “passion” embodies motivational force, while Excerpt 63 uses “success” cautiously, and hedged by “kinda.” This cluster shows how emphasis on English borrowings allows speakers to anchor emotional, moral, or poetic meaning in globalized discourse, often avoiding Arabic’s heavier or more stigmatizing connotations.

Excerpts 42, 53, 54, 61, 64, and 65 use ~ soft delivery, smooth rhythm, or calm pitch to project warmth, reassurance, or authority. Excerpt 42 “I am very friendly” is delivered in ↓ low, affiliative tone, with English marking an internationally legible self-image. Excerpt 53 “all is good” adopts mantra-like delivery, softening harsh realities. Excerpt 54 “better future… education-wise” uses calm ↓ low tone to express gratitude for sacrifice. Excerpt 61 “passion… fine” projects motivation and resilience through soft, emotional salience. Excerpt 64 “platform… mental health” uses ↗ rising intonation with enthusiasm, reinforcing legitimacy. Finally, Excerpt 65 “which is very important” uses ^ assertive but measured tone to project credibility. In this group, ~ soft delivery and English framing create sincerity, warmth, and credibility in identity projection [40].

Excerpts 66, and parts of 65, emphasize ^ assertive tone and universalizing English maxims. In Excerpt 66, “we can never control… but we can control” is delivered with firm pitch, elevating personal philosophy into global wisdom. Similarly, Excerpt 65 “which is very important” uses ^ assertive tone to emphasize authority. These excerpts show how English is recruited for generalizable life lessons, supported by paralinguistic firmness that signals universality rather than personal detail.

Excerpts 43, 60, 67, 68, and 69 show how CS in storytelling, reported speech, and // pauses interacts with prosody to create authenticity and emotional distance. In Excerpt 43, English “let’s say” with a // pause softens the narrative, marking hypothetical or reflective stance, aligning with Auer [8], who notes that CS often occurs in reported speech or role shifts to signal footing change. In Excerpt 60, alternating English and Arabic during a Shakespeare audition highlights emotional tension; stressing “stressed” in English intensifies psychological impact, echoing findings that bilinguals switch to L2 to express complex or culturally framed emotions [44]. Excerpt 67’s English quote of a doctor signals authority, while Excerpts 68 and 69 use ↘ falling intonation, // pauses, and English to manage grief and emotional heaviness. These examples support prior research showing that CS can regulate affect, create distancing, and convey authenticity in narrative [8, 44]. Together, these excerpts demonstrate that English CS, combined with prosodic features, enables speakers to negotiate emotion, authority, and stance. While these findings align with previous studies on reported speech and emotional expression, they extend them by showing how prosody and CS jointly structure storytelling, enhancing both authenticity and emotional management.

The findings of F2

Excerpts 73, 78, and 100 show that ↗ rising intonation combined with English CS signals positive affect, motivation, and emotional uplift. In Excerpt 73, "boost" with upward pitch amplifies energy; in Excerpt 78, "positive" with laughter and ↗ rising tone conveys optimism; and in Excerpt 100, "positivity" projects mental well-being. These findings suggest that ↗ rising pitch is a deliberate prosodic strategy enhancing the emotional and social meaning of CS. Recent research supports this interpretation. Zeng [45], [46] found that English switches in Mandarin–English bilinguals are associated with raised pitch range, confirming that ↗ rising intonation is a systematic prosodic resource in CS. Wang et al. [36] showed that emotion priming affects language choice, highlighting the interaction between affect and CS. Fang et al. [47] demonstrated that bilinguals' prosodic sensitivity mediates pitch modulation in L2, suggesting speakers actively use intonation to enhance affect. Together, these studies align with your findings and refine existing models: ↗ rising intonation in English CS does not simply distance emotion but can amplify positive affect, signal resilience, and project self-efficacy. This supports a hybrid affective-prosodic model, where prosody and language choice jointly construct emotional stance and social identity, with pitch modulation shaped by both cognitive skill and cross-linguistic prosodic affordances.

A particularly rich example appears in Excerpt 102, where the speaker uses "energy" with pronounced ↑ high pitch, conveying vitality and self-renewal after personal hardship. The same pattern recurs in Excerpt 103 with the English term "denial", where ↗ rising intonation marks disbelief or critical distance. Here, the speaker's prosody transforms the word into an evaluative comment on collective behaviour, showing a blend of emotional arousal and judgment. Across these cases, ↗ rising intonation operates as a paralinguistic intensifier, heightening the emotional salience of English lexical insertions that often represent psychological or affective concepts. These prosodic peaks confirm Gumperz's [2] view that pitch ↗ rise can express involvement and personal engagement, particularly when combined with code-switching for emotional expression.

↘ Falling intonation predominated in moments of finality, acceptance, or evaluative closure. In Excerpt 77, the stress and ↘ falling tone on "ready" signify decisiveness and emotional resolution, transforming a linguistic insertion into an assertion of control. Likewise, Excerpt 85 demonstrates a clear fall on the word "shock", signalling the conclusion of a narrative sequence and marking the emotional endpoint of surprise or disbelief. ↘ Falling intonation also appears in Excerpts 97 and 101, where English words such as "healthy" and "secret" are delivered with terminal intonation that conveys moral or reflective certainty. These prosodic cues function as emotional punctuation, signalling that the speaker has reached an interpretive conclusion. The consistent use of ↘ falling tones reflects the speaker's effort to regulate affect and reassert composure, reinforcing Pavlenko's [18] argument that bilinguals use prosody as an effective management strategy during emotional narration.

Across excerpts 72, 74, 82, 95, and 98, // pauses are closely linked to cognitive processing and the regulation of emotional exposure. In Excerpt 72, the speaker's sigh and brief // pause before describing a distressing experience create an acoustic buffer, signalling internal processing and hesitation. Excerpt 74 features a similar // pause before the word "anxiety", suggesting the psychological difficulty of naming the emotion. The insertion of a clinical English term after a hesitation mirrors self-diagnosis and an attempt to externalize emotion within a medicalized

discourse. Excerpt 82's long // pause preceding "anorexia" carries notable emotional weight, showing reluctance before articulating a sensitive condition. The same paralinguistic hesitation is observed in Excerpt 95, where the // pause before a descriptive English term underscores thoughtful recollection, and in Excerpt 98, where the speaker delays before "tumour", dramatizing the emotional gravity of her health narrative. Collectively, these instances confirm that pauses act as performative markers of introspection, helping the speaker manage emotional intensity and construct a coherent narrative self through measured disclosure.

↓ Low pitch and slow speech rate appear consistently in emotionally delicate moments where the speaker conveys sadness, fatigue, or vulnerability. Excerpt 72 presents a lowered tone combined with a sigh, expressing emotional exhaustion. The subdued delivery not only reflects sadness but also functions as a protective mechanism, allowing the speaker to reveal distress indirectly. Excerpt 74 also maintains a slow tempo as the speaker utters "anxiety", emphasizing the seriousness of the topic. Similarly, Excerpt 82 employs ↓ low pitch to dramatize emotional sincerity when discussing "anorexia", while Excerpt 101 mirrors the same subdued delivery pattern in the recounting of secrecy surrounding illness. These examples demonstrate that ↓ low pitch and slower pacing are affective strategies for expressing fragility while maintaining composure. This aligns with Scherer's [9] model of emotional prosody, which associates lower frequencies with subdued or introspective affective states.

Laughter recurs as a paralinguistic device of emotional reframing, often softening heavy or self-critical disclosures. In Excerpt 78, laughter accompanies the discussion of being "positive" amid life pressures, reframing the statement as both humorous and resilient. Excerpt 84 shows similar laughter following the mention of "stress", serving as self-protection against perceived weakness. In Excerpt 97, laughter emerges after describing "healthy" attitudes, introducing irony that questions societal norms of wellness. Laughter also appears in Excerpt 98 when the speaker discusses her "tumour", transforming potential despair into humorous resilience. Across these moments, laughter allows the speaker to manage emotional exposure, recast vulnerability as strength, and navigate cultural expectations around emotional restraint

The data show that stress on English words "reaction", "ready", "shock", "healthy", and "secret" functions as an evaluative cue, signaling stance, emotion, or moral positioning. In Excerpts 75 and 77, stress on *reaction* and *ready* conveys authority and certainty, supporting Gumperz's [2] idea that prosody and code-switching serve as contextualization cues. Excerpt 85's stress on *shock* amplifies emotional realism, while Excerpt 97's "healthy" and Excerpt 101's "secret" mark moral approval and relational tension, respectively. Recent studies reinforce this interpretation. Sarri [48] emphasizes that stress in code-switched speech conveys interpersonal meaning, extending beyond lexical content. Rayo et al. [39] highlight the multifunctional role of code-switching in expressing evaluation and social meaning. These findings align with your results, showing that stress and CS amplifies evaluative, emotional, and moral dimensions. At the same time, your data extend prior work by demonstrating that English stress can strategically highlight evaluation, not just serve as a structural cue. Speakers actively deploy prosody to frame narratives, assert judgment, or dramatize tension. This suggests that code-switching is a multifunctional resource, integrating stress, lexical choice, and social stance to communicate complex meanings.

Discussion

The findings of this study demonstrate that Arabic–English code-switching in the ABtalks podcast operates as a complex communicative practice in which linguistic alternation, paralinguistic cues, emotional expression, and identity performance are closely intertwined. Across the four analyzed speakers, intra-sentential code-switching emerged as the dominant pattern, accounting for the vast majority of switching instances, while inter-sentential switching and tag-switching appeared only selectively. This distribution supports Poplack's [1] typology, particularly the view that intra-sentential switching reflects a high level of bilingual competence because speakers are able to integrate lexical items, phrases, and short clauses from one language into the grammatical structure of another without disrupting syntactic flow. The dominance of intra-sentential switching is also consistent with prior studies on podcast discourse, which have found that bilingual speakers frequently embed English expressions within the matrix language to achieve emphasis, stylistic variation, or conceptual precision [4], [5], [6], [7]. However, the present findings extend these studies by showing that intra-sentential switching is not merely a structural preference but also an affective and performative resource, especially when it occurs alongside pitch movement, stress, pauses, laughter, and shifts in voice quality.

The analysis further shows that English insertions were frequently used to express psychological, evaluative, institutional, and globally circulated concepts such as anxiety, depression, energy, positive, healthy, success, passion, self-defense, and mental health. This pattern aligns with Pavlenko's [18] argument that bilingual speakers may experience their languages differently in relation to emotion, identity, and psychological distance. In the present study, Arabic often functioned as the language of intimate narration, cultural grounding, and personal memory, whereas English frequently served to abstract, soften, universalize, or professionalize emotionally charged content. This finding is also consistent with Dewaele [19] and Dewaele and Pavlenko [20], who argue that emotional expression in bilinguals is shaped by context, proficiency, social experience, and the affective value attached to each language. In ABtalks, English does not replace Arabic as the primary language of emotional expression; rather, it allows speakers to frame sensitive experiences through therapeutic, institutional, cosmopolitan, or globally recognizable registers. Thus, code-switching becomes a way of negotiating the tension between emotional intimacy and public self-presentation.

The relationship between code-switching and paralinguistic features is one of the most important findings of this study. Rising intonation frequently accompanied English insertions in moments of excitement, emphasis, hope, disbelief, or affective intensity. This supports Scherer's [9] claim that pitch movement is a central cue in vocal emotion and is consistent with studies showing that prosodic patterns contribute to how listeners interpret speakers' affective states [10], [11], [12], [13]. In the analyzed podcast excerpts, rising pitch did not simply indicate grammatical incompletion or questioning; it often amplified the emotional force of English words and transformed them into focal points of identity or stance. This finding resonates with more recent research on prosody and code-switching, which suggests that pitch and intonation units are systematically aligned with switching points in bilingual speech [35], [37], [45], [46]. The present study therefore confirms that prosody is not peripheral to code-switching but is part of the mechanism through which bilingual speakers organize emotional meaning.

Falling intonation, by contrast, was frequently associated with closure, resignation, acceptance, seriousness, or emotional finality. English words delivered with falling pitch often

marked the endpoint of a reflective or emotionally difficult narrative. This pattern supports Scherer's [9] framework of vocal emotion and aligns with Pavlenko's [18] view that bilingual speakers may use a second language to regulate emotionally intense content. In several excerpts, English terms related to illness, grief, mental health, or past struggle were accompanied by lowered pitch, falling intonation, and slower delivery. These paralinguistic features created a sense of composure and psychological containment. This suggests that code-switching and falling intonation jointly function as emotional regulation strategies, enabling speakers to narrate vulnerability without becoming fully overwhelmed by it. Such findings extend previous work on bilingual emotion by demonstrating that affective distance is not produced by language choice alone, but by the combined operation of language choice and vocal delivery.

Pauses, hesitation, sighing, and soft voice also played a significant role in shaping the meaning of code-switched segments. Long pauses often appeared before emotionally sensitive English terms, especially those related to psychological struggle, illness, trauma, or self-description. These pauses functioned as markers of cognitive processing and emotional self-monitoring. This interpretation is consistent with Gumperz's [2] concept of contextualization cues, because pauses helped guide listeners toward the speaker's psychological stance. It also aligns with discourse-analytic accounts that view prosody as central to interactional organization [12]. In the present study, pauses did not merely reflect hesitation; they often created an acoustic space in which speakers prepared to disclose emotionally difficult experiences. When followed by English lexical items, pauses intensified the interpretive weight of the switch and made the English insertion appear more deliberate, reflective, or psychologically loaded.

Laughter emerged as another important paralinguistic cue, particularly in excerpts involving vulnerability, self-criticism, medical experience, or social discomfort. Rather than functioning only as a sign of amusement, laughter often operated as a coping mechanism that softened emotional exposure and reframed potentially painful experiences as manageable or narratively acceptable. This supports previous findings that emotional arousal can influence bilingual language choice and switching behaviour [21], [36]. It also extends studies on podcast engagement by showing that laughter, when combined with code-switching, contributes to affective accessibility and audience connection [23]. In ABtalks, laughter allowed speakers to present vulnerability without losing composure, while English expressions helped distance or stylize the content. This interaction between laughter and code-switching reveals how bilingual speakers manage the emotional risks of public self-disclosure.

The findings also confirm the relevance of Myers-Scotton's [3] Markedness Model and Auer's [8] interactional approach. English was often selected not randomly but strategically to index authority, modernity, professionalism, therapeutic discourse, institutional legitimacy, or cosmopolitan identity. For example, English was frequently used in references to mental health, media, medical institutions, professional success, and self-development. This reflects Myers-Scotton's [3] claim that language choice carries social meaning and allows speakers to negotiate relationships, identities, and situational expectations. At the same time, Auer's [8] perspective is supported by the occurrence of code-switching in reported speech, narrative shifts, and stance-taking moments. In several excerpts, full English sentences were used to quote others, dramatize disbelief, reproduce institutional authority, or create narrative authenticity. Although inter-sentential switching occurred less frequently than intra-sentential switching, its selective use made it interactionally powerful.

The results are also consistent with research on code-switching in media and political communication, where language alternation is used to address audiences, build credibility, and signal identity [17], [22]. However, the ABtalks data show a more intimate and affective dimension of this process. Unlike scripted advertisements or political communication, the podcast context allows speakers to move fluidly between emotional confession, public performance, and identity negotiation. This makes code-switching in ABtalks both interpersonal and performative. Speakers use English not only to appear modern or globally oriented but also to narrate pain, regulate shame, express resilience, and present themselves as emotionally reflective individuals. In this sense, podcast code-switching differs from many other media contexts because it is deeply embedded in personal storytelling and vocal vulnerability.

The study's findings further contribute to research on paralinguistics and listener engagement. Reddy et al. [23] emphasize that vocal delivery influences podcast engagement, while Melikuziev [24] highlights the role of paralinguistic features in clarifying intention and emotion. The present study strengthens these arguments by showing that paralinguistic features are especially meaningful when examined together with code-switching. Stress on English words often marked evaluative stance, moral judgment, or emotional emphasis. Rising pitch intensified affective involvement, falling pitch signaled closure, pauses indexed reflection, and laughter softened vulnerability. These patterns suggest that listeners' interpretation of bilingual podcast discourse depends not only on lexical meaning but also on the acoustic packaging of switched items. Therefore, podcast discourse should be studied as a vocal performance in which linguistic and paralinguistic resources jointly construct meaning.

One of the most significant contributions of this study is its demonstration that the same English word or phrase can perform different emotional functions depending on its paralinguistic realization. For instance, a word delivered with soft voice and pauses may signal vulnerability, while the same or similar lexical item delivered with assertive tone and stress may signal authority or resistance. This finding challenges purely lexical or structural approaches to code-switching and supports a more integrated model of bilingual discourse. It shows that meaning is not located only in the act of switching, but in the interaction between switching, prosody, emotional context, and narrative positioning. This is particularly important for digital spoken media, where the absence of visual cues makes voice the primary medium of affective expression.

The novelty of this study lies in its integration of three analytical dimensions that are often treated separately: structural code-switching, paralinguistic expression, and bilingual emotion. Previous podcast studies have largely focused on identifying types and functions of code-switching [4], [5], [6], [7], while studies on bilingual emotion have emphasized psychological experience across languages [18], [19], [20], [21], and studies on paralinguistics have examined vocal emotion and listener engagement [9], [23], [24], [25]. The present study brings these strands together by showing how Arabic–English speakers in a podcast setting coordinate language alternation with vocal cues to manage emotion, construct identity, and sustain audience engagement. This integrated approach offers a more comprehensive account of bilingual communication in digital spoken discourse.

The theoretical implication of this study is that code-switching should not be understood solely as a grammatical or sociolinguistic phenomenon, but as a multimodal and affective practice. Poplack's [1] typology remains useful for classifying the structural form of switching, but it becomes more analytically powerful when combined with Scherer's [9] model of vocal

emotion and Pavlenko's [18] theory of bilingual affect. The findings suggest that future models of code-switching should account for prosodic structuring, emotional regulation, and identity performance, especially in mediated spoken contexts. This study therefore supports a more integrated framework in which language choice, vocal delivery, and psychological stance operate simultaneously.

Practically, the findings have implications for podcast creators, media practitioners, language educators, and discourse analysts. For podcast creators and interviewers, the study shows that bilingual language choice and vocal delivery can enhance emotional resonance, authenticity, and audience engagement. Strategic code-switching, when supported by appropriate tone, pacing, and emphasis, can make narratives more relatable and emotionally nuanced. For language educators, the findings suggest that code-switching should not automatically be viewed as linguistic deficiency; rather, it can be understood as a sophisticated communicative skill that reflects bilingual competence, identity negotiation, and affective awareness. For discourse analysts and sociolinguists, the study demonstrates the need to examine digital spoken media through an integrated lens that includes structure, interaction, prosody, and emotion.

Overall, this study shows that code-switching in ABtalks is not simply an alternation between Arabic and English, but a layered communicative strategy through which speakers organize emotional experience, regulate vulnerability, perform identity, and connect with audiences. The interaction between English insertions and paralinguistic cues reveals that bilingual speakers use their full linguistic and vocal repertoires to construct meaning. By positioning code-switching as both an affective and paralinguistic practice, this study contributes to a deeper understanding of bilingual discourse in contemporary digital media and opens new directions for research on podcasts, multilingual identity, and emotional communication.

CONCLUSION

This study concludes that Arabic–English code-switching in the ABtalks podcast functions as a multidimensional communicative practice that connects language choice, emotional expression, paralinguistic delivery, and identity performance. The findings show that intra-sentential code-switching is the most dominant pattern, indicating that speakers frequently embed English words or phrases within Arabic discourse to express psychological, evaluative, institutional, and globally recognizable meanings. The study also reveals that code-switching becomes more meaningful when it is accompanied by paralinguistic features such as pauses, rising and falling intonation, pitch movement, stress, laughter, sighing, soft voice, and speech rate. These vocal cues help speakers intensify emotion, signal hesitation, soften vulnerability, create emphasis, mark closure, and regulate sensitive personal narratives. English is often used to universalize, professionalize, or emotionally distance certain experiences, while Arabic remains closely connected to intimacy, cultural grounding, and personal storytelling. The main contribution of this study lies in showing that code-switching in podcast discourse cannot be understood only as a structural alternation between languages, but should be interpreted as an affective and performative strategy shaped by voice, emotion, and audience engagement. The findings offer theoretical implications for bilingual discourse studies by highlighting the need to integrate linguistic, paralinguistic, and emotional dimensions in analyzing spoken digital media. Practically, the study provides insights for podcast creators, media practitioners, language educators, and discourse analysts regarding

how bilingual speakers use language and voice to construct authenticity, emotional resonance, and meaningful interaction in contemporary digital communication.

LIMITATIONS

This study has several limitations that should be acknowledged despite its contribution to understanding code-switching, paralinguistic features, and bilingual emotion in podcast discourse. First, the analysis was limited to four selected episodes of the ABtalks podcast and involved only four Arabic–English bilingual speakers. Although the selected data provided rich and emotionally nuanced examples of bilingual interaction, the relatively small dataset limits the generalizability of the findings to broader podcast genres, larger speaker populations, or other Arabic-speaking communities. Second, this study focused specifically on Arabic–English code-switching; therefore, the findings may not fully represent code-switching practices in other language pairs or sociocultural contexts where emotional expression, language hierarchy, and media performance may operate differently. Third, the identification and interpretation of paralinguistic features such as pitch movement, pauses, stress, laughter, and voice quality were conducted through qualitative discourse analysis. Although the coding process was guided by established theoretical frameworks and supported by inter-rater checking, the interpretation of vocal emotion remains partly inferential and may be influenced by researcher judgment. Fourth, this study relied on publicly available podcast recordings; consequently, it did not include direct interviews with the speakers to confirm their intentions, emotional states, or motivations for switching languages. This means that claims about psychological distancing, emotional regulation, and identity construction were interpreted from discourse patterns rather than verified through participant self-reports. Fifth, this study did not employ instrumental acoustic analysis, such as pitch tracking, intensity measurement, speech-rate calculation, or spectrographic analysis, which could have provided more precise evidence for prosodic variation. Finally, because ABtalks is a mediated and semi-public interview setting, speakers may consciously perform identity and emotion for an audience, making it difficult to distinguish spontaneous bilingual behaviour from strategic self-presentation. Future research should therefore examine larger and more diverse podcast datasets, compare different podcast genres, include other bilingual communities, combine qualitative discourse analysis with acoustic measurements, and incorporate speaker interviews to gain a more comprehensive understanding of how code-switching and paralinguistic features jointly shape emotional meaning in digital spoken media.

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AUTHOR CONTRIBUTION

H.S.A. conceptualized the study, designed the methodology, and analyzed the results. Y.B.J.A. supervised the analysis of data, and drafted the manuscript. Both authors contributed to the revision and final approval of the manuscript.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

DECLARATION OF USE OF AI IN SCIENTIFIC WRITING

The author used AI-assisted technology solely to support language refinement and clarity in the writing process. The author takes full responsibility for the content of the manuscript, including its accuracy, integrity, and originality

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