

Ethnicity and Interjections: Relation of American Origin to Everyday Speech

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Abstract

The article explores the influence of ethnicity on the prosody of interjections. The authors focus on the prosodic characteristics of interjections of two ethnic groups (European Americans and African Americans) using the multifunctional computer program PRAAT. Prosodic characteristics such as the fundamental frequency range, tempo, and intensity of speech are considered. The main focus is on the prosodic illustration of interjections of two ethnic groups, as well as on experimental analysis with the help of the multifunctional computer program PRAAT. The authors have defined intensity as a component of prosody. The average maximum and minimum values of the main frequencies, tempo, and intensity of speech are clearly shown. Future research perspectives will concern linguistic and cultural factors that influence the use of vocal cues and refining to better account for the balance between inherent mechanisms and culturally conditioned processes in how people authenticate emotion from vocal expression.

Keywords: ethnic features, interjections, fundamental frequency, speakers, influence, formant

1. Introduction

1.1 Introduce the Problem

The spread of cross-cultural contacts, continuous migration of the population, and some other historical and sociocultural factors have determined the relevance of explorations in the direction of intercultural communication. Intercultural communication in the context of growing ethnic diversity, driven by migration and other demographic changes, creates both opportunities and challenges.

1.2 Explore the Importance of the Problem

On the one hand, intercultural communication implies a greater openness to different perspectives, ideas, and cultural practices, which can foster creativity, innovation, and mutual understanding by providing opportunities to interact with people from different backgrounds, allowing them to develop more advanced cross-cultural skills and empathy. Diverse groups can bring a variety of talents and approaches to problem-solving. In addition, greater diversity can stimulate the development of more inclusive institutions, policies, norms, language borrowings, etc.

On the other hand, language barriers and differences in communication styles can impede effective information exchange and collaboration. Unconscious biases, stereotypes, and lack of cultural competence can lead to confusion and tension. In addition, alleged threats to cultural identity or economic status can fuel resentment and intergroup conflict, and navigating different cultural frames of reference requires additional effort that can be psychologically draining.

Progress is being made around the world to reduce open discrimination and promote greater mutual respect between different ethnic groups. However, tensions and inequalities often persist, fueled by factors such as historical grievances, socioeconomic disparities, and political conflicts.

1.3 Describe Relevant Scholarship

Interethnic relations, the nature of which is most vividly revealed in speech, are the object of careful research by scientists (Selivanova, 2005; Huber 1993; Kim, 2006; Kim, & Sumner, 2017). The diversity of ethnic groups in the United States and the relationship between them, in our view, should be the focus of researchers.

With increasing interest in the problems of intercultural communication, there is a need to study more precisely the interrelationship of culture, mentality, traditions, values, and world views of different peoples (Marcizash, 2010, p.44). Among the modern scientific paradigms of linguistic research, the ethnolinguistic and linguo-culturological directions should be identified, which reflect the direct relationship of language phenomena with culture. The study of many aspects of the ethno-language vision and language picture of the world is paid attention to both domestic and foreign scientists. Linguistic studies of recent years note the fact that the main prerequisite for successful communication is not so much the common language code of the interlocutors as the commonness of their linguistic worldview.

Language worldview is identified as an important element of cultural identity and social interaction. The linguistic worldview can determine which words are considered polite or obscene, which grammar forms are considered standard or dialectical, which speech styles are considered relevant in certain situations, etc. Thus, it should be emphasized that linguistic worldview is an important element of cultural identity and social interaction. Within the framework of the ethno-society lies a system of objective values, social stereotypes, and cognitive schemes that reflect one or another type of culture and form the linguistic knowledge of the representatives of this linguistic-cultural society.

2. Rationale

The subject of this study is the everyday speech of two ethnic groups Afro-Americans and European Americans.

The study aimed to determine the prosodic characteristics of interjections of the two different ethnic groups.

Historically, white Americans, feeling themselves not only dominant but also more promising communities, tend to treat Afro-speaking ethnic groups as biased. In particular, quite steady and widespread stereotypes about people from Africa are associated with the idea of a low level of English proficiency, and hence biases about the “alienity” of the African population in the US, and lack of career prospects (Yunatska, 2005). Among the most offensive stereotypes, prejudice about the under-mental abilities of these communities should be noted (Losh, 2003).

This study builds on existing research that highlights subtle differences in prosody among ethnic groups, addressing a critical gap in the literature. By examining how cultural factors influence the use of interjections, we enhance our understanding of the implications these differences have for social interaction. Recognizing these dynamics is crucial not only for developing multilingual education and translation services but also for fostering open dialogue and conflict resolution in an increasingly diverse society. Ultimately, this study amplifies diverse voices and perspectives in public discourse and encourages individuals to move beyond their own cultural frame of reference, challenging prevailing stereotypes and prejudices.

3. Results: Ethnic Differences in Interjections

3.1 Exploring Linguistic Bias: Interjections in Ethnic Speech

Communicative cognition combines universal hypercategories, namely linguistic competence (the ability to understand and use language by grammatical, lexical, phonetic, and semantic rules), communication strategies (choice of language forms, speech styles, use of non-verbal means of communication, adaptation to the context of communication), socio-cultural context (understanding of social norms, relations and hierarchies, cultural values, stereotypes and norms of politeness), cognitive processes (perception, attention, memory, thinking and other cognitive functions) – and nationally labeled ones that are relevant in one society and lunar ones in another. It should be noted, however, that despite their universal nature, hypercategories are also characterized by ethno-cultural specificity.

Ethnicity is our social identity, which includes factors such as cultural practices, nationality, language, religious beliefs, and family ties. Ethnicity is an important social factor for many people. Our ethnic background influences both our cultural and language practices, meaning that it can become a big part of our identity. Language is, therefore, a way of expressing our ethnicity and identity (Holmes, J., & Wilson, 2017). When a group of people share a common culture, language, ancestry, etc., they are called members of the same ethnic group. There are thousands of ethnic groups in the world, each with its own unique identity and diverse languages.

Nationality has a strong link with ethnicity, as citizens of a country often share the same social factors related to ethnicity (culture, languages, religion, etc.). However, there can be multiple ethnicities within one nationality. Race and ethnicity are closely linked terms that can sometimes get confused. The main difference is that race refers to the distinctive physical characteristics of a person whereas ethnicity refers to social factors such as culture, tradition, and language (Holmes, J., & Wilson, 2017).

Holmes, J., & Wilson (2017) describe the so-called ethnolect as a type of language characteristic of a particular ethnic group. Since ethnolects are spoken by an ethnic community, they are an important expression of ethnic identity. An example of an ethnolect is African American Vernacular English (AAVE). They claim that AAVE can also be considered a folk language, dialect, colanguage, and even a language itself.

According to them, AAVE is a variety of English (or “ethnolect”) linked to African American speakers. It is a non-standard dialect spoken predominantly by black Americans and has its features in terms of grammar, accent, lexis, etc. For example, contractions (e.g. “y’all”) and double negatives (e.g. “I ain’t gonna do that”). It is important to remember many vernacular varieties of English, including AAVE, are no less “correct” than any other form of English. Language creates a sense of community and belonging for many people, and these varieties have rich cultural backgrounds, becoming a big part of a person's identity. (Holmes, J., & Wilson, 2017).

Algerian researcher S. Hamidi (2023) argues that language, culture, and identity are deeply embedded and interdependent concepts due to the way a person is brought up and the language they learn. She considers them key factors that shape distinctive cultural and linguistic identities. In her opinion, language is not just a tool for communication, but a means of transmitting cultural reality. It expresses the perspectives, understanding, and identity of a nation and its people. Language and culture are inseparably linked and influence each other. Understanding this connection can help in communicating across ethnic differences and improve intercultural understanding. She argues that language, identity, and culture are not mutually exclusive but stem from a sense of belonging to a particular social context and ethnic community. Her main idea is that language is not just a functional tool but an important element that is interwoven with a person's cultural identity and worldview. Recognizing and understanding this relationship is key to effective intercultural communication and respect for diversity.

J. Sui (2023) recognizes the importance of integrating both the target language culture (Portuguese culture) and the students' home culture (Chinese culture) in foreign language teaching, particularly in oral Portuguese as a foreign language class in the Guangdong-Hong Kong-Macao Greater Bay Area. She argues that students are generally positive about learning Portuguese linguistic culture and see the benefits of integrating it into their learning of Portuguese as a foreign language. They also recognize the importance of incorporating Chinese culture and facilitating intercultural communication. Through classroom observation, Sui concluded that in practice, the integration of Portuguese language culture is more salient than the integration of Chinese culture and the development of intercultural communication skills in oral PFL classes. Her research recognizes the need to address the imbalance between focusing on different cultural variants of Portuguese, with Portuguese culture being the most prominent. In addition, pedagogical practices that encourage genuine intercultural communication and interaction between the culture of the target language and the student's home culture are important, going beyond just superficial or material aspects of culture. In general, the article's key ideas related to ethnicity focus on the need for a more balanced and interactive approach to integrating both the culture of the target language and the student's home culture to promote genuine intercultural understanding and communication skills.

K. Kenney (2009) provides a thorough overview of the so-called “organizational culture” and the various elements that shape it, such as artifacts, symbols, rituals, assumptions, and values that form its basis. From his perspective, organizational culture is essentially shaped by the cultural background of the organization's members. He notes that the concept of organizational culture gained popularity in the 1980s when American businesses studied the success of Japanese companies. This shows that organizational culture can have distinct ethnic influences. K. Kenney uses the metaphor of a “spider web” to describe organizational culture and emphasizes that culture is deeply intertwined and unique to each organization. This means that organizational cultures can differ significantly even within the same broad ethnic context. Focusing on artifacts and symbols, such as verbal symbols (stories, metaphors), action symbols (rituals, ceremonies), and material symbols, emphasizes how cultural elements are manifested and communicated within an organization. These symbolic features may have different connotations and interpretations in various ethnic groups. The concept of “tacit knowledge” – deeply rooted, taken-for-granted ideas and emotions – suggests that the cultural assumptions and norms that underlie an organization may not be articulated or obvious to outsiders. This can create difficulties in understanding and navigating organizational culture, especially across ethnic/cultural boundaries. Overall, Kenney emphasizes the complex, multifaceted, and often implicit nature of organizational culture, which can be strongly influenced by the ethnic and cultural backgrounds of organizational members. Understanding these cultural nuances is essential for effective functioning and communication in different organizational contexts.

Holubnycha L. et al. (2021) believe that a comprehensive understanding of the linguistic and cultural nuances of different ethnic groups is crucial for effective intercultural communication and collaboration, as acquiring language and cultural skills specific to different ethnic communities can help people better navigate and understand the unique perspectives and communication styles of these groups. They argue that contextualizing the cultural background of different ethnic communities can help people identify and address potential sources of misunderstanding or conflict in intercultural interactions. In addition, the development of universal soft skills, such as tolerance, empathy, and the ability to understand the differences and similarities between one's own culture and that of others, may be particularly relevant in addressing ethnic issues.

The heterospecific perception of the world determines the peculiarities of the linguistic worldviews of different communities, which in turn determines the phenomena of "national character" and "ethnic stereotype", which are closely correlated. Partly, ethnic stereotype comes from the national character because the latter, as a set of objective characteristics, determines a certain hyperbolization of them in the process of formation of ethical stereotypes in the consciousness of ethnic groups. In addition, the ethnic stereotype is based on some subjective and prejudiced ideas about the other ethnoses of the representatives of a particular ethnoses as the carriers of subjectional meanings

(Yunatska, 2005).

Considering the ethnic characteristics of speakers, they should be identified as a set of distinct physical and spiritual characteristics inherent in a particular ethnicity, in this case, American (Selivanova, 2005). The belonging of a person to a particular ethnic group is determined, in particular, by cultural parameters of identification, that is, ethnicity is directly related to cultural and linguistic competence (Sokolovska, 2009, p. 159). Each ethnic group has its perceptions of the world, and of the representatives of other cultures, which have formed over a long period and exhibit a great influence on the nature of perception, the evaluation of reality, and interpersonal relations. Clear awareness of the rules of behavior and thinking occurs in the process of communication with other speakers of their language and representatives of other linguistic cultures.

In the conditions of communication in each society, there are certain typical stereotypical ideas about themselves, behavior, and customs within their cultural space, and about carriers of other ethnic cultures (Hrubok, 2009). Cultural and linguistic competence presupposes the ability of carriers of a particular ethnic culture and language to recognize in language units and speech products culturally significant attitudes and norms, value guidelines, and cultural codes (Selivanova, 2005). For the sake of effective communication results, the speaker can often adjust to the specifics of the address's language, giving up his communication habits (Sokolovska, 2009, p. 159).

There is a large number of definitions of such a concept as culture. Culture encompasses a set of values, ideas, norms, traditions, customs, art, religion, language, social structures, and other manifestations of human life, which are transmitted from generation to generation and determine the way of life and communication of people in a certain group or society, therefore it defines the lifestyle of a group of people and shapes their identity, worldview and way of perception of the world.

One of the most important elements of culture is mentioned: our thoughts, which reflect our perception of the world, our beliefs, and ideas, which influence our understanding of ourselves, other people, and the environment, language (represents values, norms, traditions, social relations and other aspects of culture), actions (includes various forms of behavior, rituals, tradition, customs, and social norms that are characteristic of a particular culture), beliefs (defines a system of values and moral principles, sanctities and other aspect of the spiritual life of people in a certain culture). These elements interact with each other and form a cultural context that has a significant influence on people's emotions and is always accompanied by emotions – explicitly or implicitly, consciously or unconsciously, verbally or non-verbally. It has long been established that people of all cultures are simultaneously linguistic animals. In *The Expression of the Emotions in Man and Animals*, Darwin (1872/1998) noted that the “emission of sounds” was “efficient in the highest degree as a means of expression,” and although the book was largely about facial expression, he made some passing observations about vocal expression (Goddard, 2014). This means that speech, thoughts, and emotions merge in the process of human communication and that the balance between ratio and emotion in human behavior is quite often disrupted and the emotion prevails. This thesis is true about the entire linguistic and cultural community, as well as concerning the individual linguistic personality. Since each of the linguistic personalities, regardless of their cultural differences, dominate the same basic emotions, it unites people.

Given the finding that indicates cross-cultural similarities and differences in emotion recognition by vocal tone, researchers have developed theories of emotion recognition to explain both universality as well as linguistic and cultural differences (Elfenbein & Ambady, 2002). These theories are based primarily on data originating from studies that investigated facial emotion recognition. In comparison, much fewer studies have explored cross-cultural vocal emotion recognition. The limited amount of research on the vocal channel is surprising given the increasing importance of spoken communication between members of different cultures in organizations. In addition, as seen in a meta-analysis comparing voice and facial emotion recognition, cross-cultural emotion recognition accuracy is generally lower in studies using voice materials (Elfenbein & Ambady, 2002). Thus, further research exploring cross-cultural emotional prosody recognition is needed to help develop present accounts of how emotions are communicated (vocally) across cultures.

Culture can influence how emotions are expressed in language, gestures, and facial expressions. Emotions expressed through interjections are the central part that makes people of different cultures more / less similar to each other.

These display rules are culture-specific social norms that regulate how emotions are expressed in socially appropriate ways. For example, in a comparison of Western cultures versus East-Asian cultures, Western cultures tend to be more individualistic while East Asian cultures tend to be more collective (Liu, Rigoulot, Pell, 2014). In behavior, these cultural norms are manifested in actions such as indirect speech and avoidance of eye contact in East Asian cultures, while Western cultures encourage open expression of emotion and interaction such as eye contact. Thus, it can be assumed that rules of display have a central role in the perception of emotions (Liu, Rigoulot, Pell, 2014).

Interjections as verbal components play a leading role in interpersonal communication because they are the main carriers of messages. Screams are one of the most important linguistic markers of the emotional competence of a person. The main function of screams in English is the verbalization of emotions, the specificity of the manifestation of which reflects the national-cultural markedness of interjections.

Any live speech, regardless of the language used, is characterized by intense emotional coloring of sentences, which can be achieved, including through interjections. Interjection is a part of speech that allows you to express feelings, and emotions without resorting to specification. In English, interjections are more common in spoken language, and in written communication, they are used far more rarely (Nurmatova, 2019, p. 42).

Interjections are important elements of non-verbal communication, and therefore unprepared speech reflects the emotional state and

attitude of the speaker to the interlocutor.

Światkowska notes that any features of the interjection's usage to express the emotions of a linguistic personality should not be considered absolute markers of male or female speech (Światkowska, 2006, p. 50). The obtained data confirm the existence of male and female priorities in the use of certain units of the lexical level.

From the perspective of Neil Norrick (2007), the large and potentially infinitely expandable class of interjections suggests that they may have a more universal, cross-cultural nature than the more limited classes of other pragmatic markers. This may mean that the use of interjections as expressions of effect may be a more fundamental and common feature of human communication across different ethnic and cultural backgrounds. The argument that the pragmatic functions of interjections go beyond simply registering effect and can signal contrast, continuation, transition, etc., indicates that interjections can serve as a flexible, adaptive form of linguistic expression that can be shaped to meet a variety of communicative needs in different cultural contexts. Norrick treats interjections as a distinct class, not just as pragmatic markers, which suggests that interjections may have unique properties that go beyond other grammatical or functional linguistic categories. This may indicate that interjections are shaped by universal, cross-cultural cognitive and affective processes, rather than being tied to a particular linguistic or cultural tradition.

However, interjections can have different meanings in different cultures and contexts: to express joy, admiration, wonder or surprise, fascination, interest or instantaneousness, disgust, dissatisfaction, anger, etc. In unprepared speech, interjections express the attitude of the speaker to the interlocutor, increase the emotionality of statements, directly affect the listener, and give the speech emotional expressiveness, brightness, and color.

In the course of our study, we consider the ethnic characteristics of representatives of American ethnicity, namely African Americans and Americans of European origin, and their influence on the use of interjections in spontaneous communication.

3.2 *Interjections as Markers of Identity and Connection*

In our theoretical background of the research, complex methods were applied, which include analytical, especially the methods of linguistic supervision, analysis, synthesis, and the experiment. During the experimental part of our research, the following methods were established: special method (descriptive), experimentally-phonetic method (acoustic using multifunctional computer program PRAAT). We analyzed the interjections in a speech signal using PRAAT software (Boersma & Weenink, 2018).

The comparative method and method of data correlation were applied. The elements of mathematical statistics and counting of results were used. With the help of authentic material, the methodology of the experiment provides a detailed analysis of the prosodic characteristics of the interjections and the influence of ethnicity on them.

With the help of the Speech Analyzer program, an experimental and phonetic study of the use of individual interjections by different ethnic groups was carried out. To study the prosodic characteristics of unprepared speech, we took the maximum and minimum mean values of the base tone frequency, measured in hertz to determine the range of fundamental frequency (% , St) and the average maximum intensity (dB), which we studied using the Auto Pitch and Intensity graphs respectively. To obtain percentage values of frequency ranges, we used the calculation method. As a result of the analysis of this method, we get the formula:

$$R = ((F_{\max} - F_{\min}) * 100) / F_{\min},$$

where R – word range, expressed as a percentage;

F_{max} - the maximum value of the word, expressed in hertz;

F_{min} - the minimum value of a word expressed in hertz.

The value of the interval in semitones is calculated with the formula:

$$I = F_{\max} - F_{\min},$$

where I is the frequency interval expressed in semitones;

F_{max} is the maximum value of the fundamental frequency of a word expressed in semitones;

F_{min} is the minimum value of the fundamental frequency of the word, expressed in semitone.

The processed and calculated data are summarized in Table 1.

Table 1. Average values and intensity usage of interjections by ethnicity

Ethnic group	Max average values Fo, Hz	Max average values Fo, st	Min average values Fo, Hz	Min average values Fo, st	FO range, %	FO range, st	Average max intensity, dB
Afro-Americans	271,1	59,1	196,4	53,1	38,0	6,0	-18,80
Americans of European origin	225,3	55,9	177,5	51,5	26,9	4,4	-19,57

4. Comparative Analysis of Interjection Use in African American and European American Speech

As can be seen from the table, there is a fairly expected tendency in the use of interjections between Americans of African and European origins, namely, in all indicators, the average values of the base tone frequency and intensity are of greater significance in representatives of African Americans than in European Americans. The maximum and average values are higher by approximately forty and twenty points, respectively. The range of fundamental frequency in African Americans is significantly wider, and the average maximum intensity is almost 1 dB higher.

The maximum average values are approximately 4 points higher. African Americans have a more extensive fundamental frequency range of 11.1%, and the average maximum intensity is almost 1 dB lower. African Americans, unlike Americans of European origin, pronounce interjections with an intensity that approaches the level of loud pronunciation. The results indicate that the narrow range of fundamental frequency in Americans of European origin emphasizes the unchanging of their speech and the more comprehensive – about sudden change in the melody of African Americans. The higher intensity of speeches by Americans of African origin reflects somewhat greater expressiveness and uncertainty in their speech.

Considering the absolute values of intensity, the highest and lowest indicators we observe in representatives belonging to African Americans, respectively -10.8 dB and -32.7 dB (Fig. 1 and Fig. 2). Absolute intensity indicators show us even more clearly that the language of Americans of European origin is smoother, calmer, but the African Americans, on the contrary, more expressive and insecure.

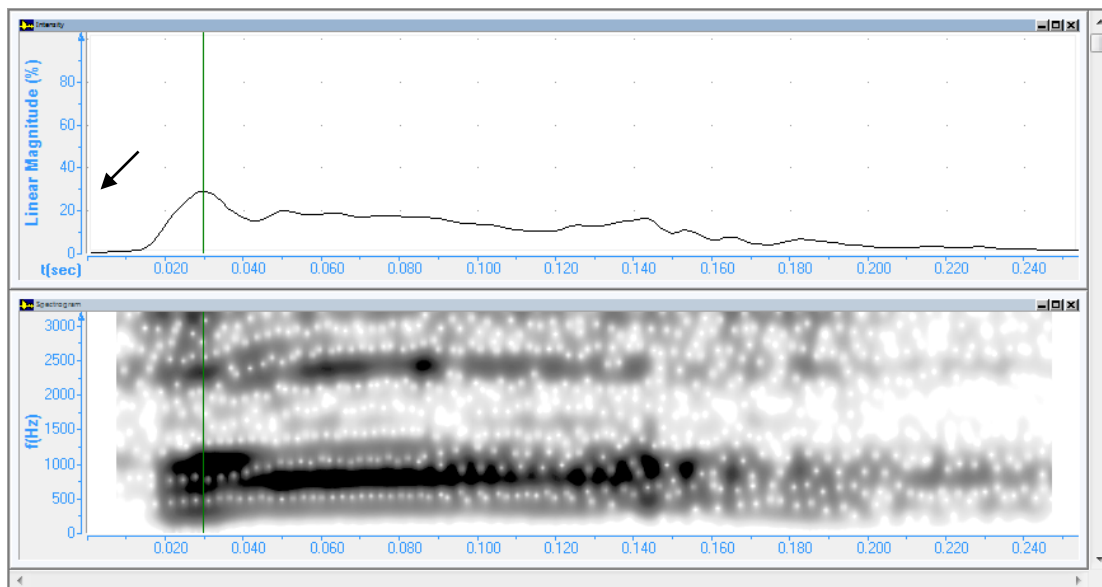


Figure 1. The maximum absolute value of the intensity of interjections in representatives of Americans of African origin

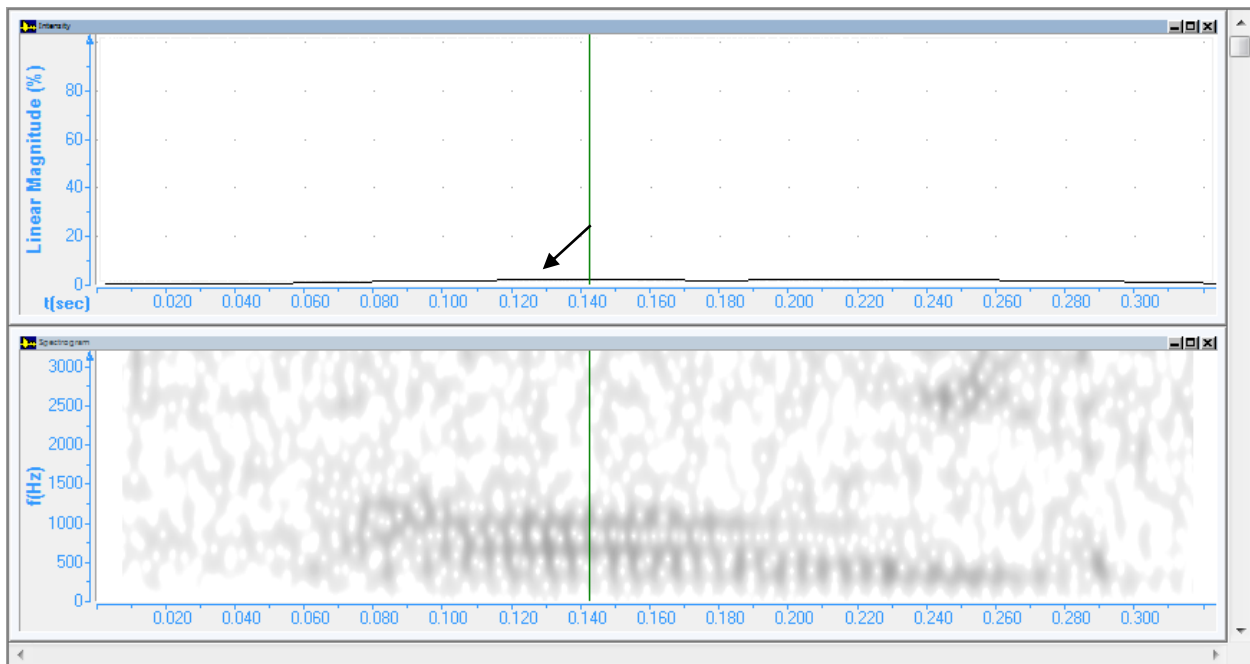


Figure 2. The minimum absolute value of the intensity of interjections in representatives of Americans of African origin

5. Correlation and Deviations from Previous Studies

The methodology employed in this study used acoustic analysis to examine the prosodic characteristics of interjections among African American and European American speakers. This approach involved measuring parameters such as frequency, and intensity of interjections, which provided a better understanding of how these characteristics vary between the two ethnic groups.

Several previous studies (Holliday, 2020; McLarty, 2018) have examined the role of prosody in ethnic speech patterns, emphasizing how cultural context shapes linguistic expression. For example, studies have shown that African American Vernacular English (AAVE) often features greater emotional expressiveness and pitch variation compared to Standard American English, which is consistent with our findings that African Americans use interjections with a broader pitch range and higher intensity. Such studies suggest that these prosodic characteristics are not simply individual traits but reflect broader cultural practices related to emotional expression.

In addition, previous research has shown that interjections serve as important markers of identity and emotional engagement in communication. The results of the current study further support this thesis by demonstrating that the use of interjections among African Americans is often characterized by a more dynamic and expressive quality that can enhance interpersonal connections and convey emotional depth.

However, in comparison to previous studies, some deviations were found. For example, while previous studies have often emphasized the smoothness and calmness of speech among Americans of European descent, our results showed a narrower range of fundamental frequencies, indicating more muted emotional expression. This deviation may indicate the evolution of communication styles under the influence of changing social dynamics, where European Americans may increasingly use more expressive forms of speech in multicultural contexts.

Being aware of differences in the use of interjections can lead to improved intercultural communication skills. For example, an awareness of the increased expressiveness of African Americans' speech can help European Americans better interpret emotional cues and respond appropriately, promoting mutual understanding.

The study's results challenge existing stereotypes about emotional expressiveness in different ethnic groups. By highlighting the complexity and richness of African American exclamations, the study can help break down preconceived notions that associate emotional expression with negative traits such as instability or lack of professionalism.

The identified deviations emphasize the need for further research on the evolution of interjections in different ethnic groups. Future research could examine how generational change or exposure to multicultural environments affect prosodic features of interjections, providing a more complete understanding of linguistic evolution in the Americas.

The methodology of this study not only confirms previous findings on ethnic differences in interjection use but also reveals significant deviations that prompt a reassessment of existing assumptions in intercultural communication. These findings have important implications for fostering mutual understanding and respect between different ethnic groups, which will ultimately contribute to more effective communication in increasingly multicultural societies.

6. Conclusion

The importance of studying intercultural communication has intensified in light of the growing intercultural interactions and migration, which bring both opportunities and challenges. Engaging in intercultural exchanges can spark creativity and foster mutual understanding by enhancing intercultural skills and empathy, while also promoting inclusive practices. Language barriers, unconscious biases, and concerns regarding cultural identity can impede effective communication and foster tensions. Although strides have been made in combating discrimination, historical grievances and socioeconomic disparities continue to intensify conflicts. Researchers highlight the importance of investigating the interplay of culture, values, and worldviews within diverse communities. They argue that having a shared linguistic perspective is essential for effective communication. This common viewpoint influences perceptions of politeness, speaking styles, and social norms, reflecting the larger cultural identity and social dynamics within ethnic groups.

The prosodic features of interjections used by African Americans and European Americans highlight how historical biases and stereotypes have influenced perceptions of linguistic proficiency and cultural identity. Understanding these dynamics is crucial for promoting multilingual education, encouraging inclusive dialogue, and tackling the challenges that stem from cultural differences in communication.

The interplay between language, culture, and identity underscores the profound impact of ethnicity on communication practices and linguistic expression. Recognizing ethnolects, such as African American Vernacular English (AAVE), is crucial for appreciating cultural identity. Furthermore, effective intercultural communication is vital for understanding and navigating diverse perspectives.

This analysis also explores the role of interjections as indicators of emotion in spoken communication. It demonstrates that interjections not only embody cultural norms but also carry different meanings across various contexts. Consequently, they are instrumental in expressing emotions and nurturing interpersonal connections.

Following our experimental study, we have arrived at several significant conclusions:

- 1) The ethnic characteristics of speakers are reflected in prosodic components such as the main tone frequency, the range of fundamental frequency (FO), and intensity levels.
- 2) Variations in the fundamental frequency range among different ethnic groups highlight the differences in the speech patterns of their speakers.
- 3) A narrower range of fundamental frequency in speakers of European American origin highlights the stability of their speech and the consistency of its melody. In contrast, African American speakers demonstrate a wider range of fundamental frequency, suggesting more abrupt changes in intonation.
- 4) The increased intensity of speech among individuals of African American heritage demonstrates a notable degree of expressiveness, as well as underlying emotionality and uncertainty.
- 5) The indicators of intensity in spontaneous speech exhibit notable differences between ethnic groups. Specifically, individuals of African descent demonstrate a higher level of intensity when pronouncing interjections compared to their European American counterparts.

Future research must delve into how linguistic and cultural factors shape the use of vocal cues – such as pitch, volume, and tone – in expressing emotions through natural spoken language across diverse American ethnic communities. This exploration is vital for enhancing existing theories, as it will clarify the intricate relationship between universal emotional mechanisms and culturally influenced processes in recognizing emotions through vocal expressions. By understanding these dynamics, we can significantly advance our grasp of intercultural communication and the nuances of emotional expression, ultimately fostering a deeper connection among diverse communities.

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Authors' contributions

Conceptualization, Yuliia Babchuk and Ihor Bloschynskyi; methodology, Nataliia Kizim and Liutyi Volodymyr; formal analysis, Olha Khamaziuk and Liutyi Volodymyr; investigation, Kateryna Skyba and Yuliia Babchuk; resources, Nadiia Moroz and Yurii Bets; writing - original draft preparation, Maiia Karpushyna and Nataliia Kizim; writing - review and editing, Ihor Bloschynskyi and Maiia Karpushyna; visualization, Nadiia Moroz and Yurii Bets; supervision, Olha Khamaziuk and Kateryna Skyba. All authors read and approved the final manuscript.

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