

Research on the Impact of Cultural Noise Interference on the Coherence of Pronunciation in English Dialogues

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Abstract

This paper provides a brief overview of cultural noise interference in English communication. Subsequently, it conducts an illustrative analysis using 100 first-year students from Chongqing Vocational College of Light Industry to explore the impact of cultural noise interference on speaking coherence. Initially, a questionnaire is employed to assess the influence of cultural noise on students' judgments of speaking coherence. Different conversation scenarios involving different types of cultural noise interference are introduced to analyze the speaking coherence of students gradually. A significant impact of cultural noise on learners' speaking coherence is revealed by the results. As the variety of cultural noise increases, the influence on speaking coherence grows more pronounced.

Keywords

Coherence, Communication, Cultural Noise, Spoken English

1. Introduction

In today's world, globalization is accelerating rapidly. Accurate and fluent English pronunciation is quite important for effective cross-cultural communication [1]. Precise pronunciation is crucial for effective communication, and pronunciation errors will lead to comprehension problems and affect communication effectiveness [2]. Non-native English speakers, in particular, must familiarize themselves with English pronunciation through learning. However, their native language and cultural environment can affect pronunciation quality [3], i.e., namely coherence. The power of native language and cultural factors manifests as cultural noise interference, commonly observed in non-native English speakers. This interference can affect standard pronunciation and coherence, which may inhibit communication efficiency and understanding of the intended meaning [4]. Tang [5] analyzed the importance of cultivating critical thinking in foreign language teaching. Liu and Fu [6] reviewed all empirical studies on cross-cultural perspectives in foreign language teaching published in six major Chinese linguistic and foreign language education journals from 2008 to 2018, they conducted an analysis from three dimensions: research content, participants, and methods. The results indicated that domestic research mainly focused on the application of new teaching strategies, the development of tools or models, and cultural teaching evaluation. Ekmekci et al. [7] conducted a study on the satisfaction and evaluation of remote education students

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towards online English courses. The research findings revealed that the majority of students were satisfied with the remote education English courses, considering the content, format, reading, and grammar sections to be sufficient. However, they found the synchronous classes, listening, speaking, and writing parts to be inadequate in terms of both quality and quantity. This paper briefly introduces cultural noise interference in the English communication process, followed by an illustrative analysis involving 100 first-year students from Chongqing Vocational College of Light Industry. Analyzing the impact of cultural noise on English oral communication can help people understand the interference encountered during the process and thus avoid similar issues in practicing English speaking, thereby improving proficiency. This article utilized questionnaires and scenario settings to analyze the disruption caused by cultural noise in English communication, providing relevant suggestions for oral training.

2. Cultural Noise Interference

“Noise” originally denotes harsh and meaningless sounds that can obscure the intended message for the listener [8]. Due to its disruptive nature, the term has evolved to encompass anything that hinders or distorts the ability to convey or receive information during communication [9]. Noise can be categorized into physical, semantic, and cultural. Physical noise is associated with the environmental factors of information transmission, such as background noise or electrical currents in headphones. Semantic noise arises from specific semantic symbols or behaviors, referring to instances where terminology or the pace of speech results in overly dense semantic information, rendering it meaningless for the listener [10]. Cultural noise, the primary focus of this paper, is defined as the phenomenon of signal distortion or misinformation caused by cultural differences, language barriers, misunderstandings, and other factors during the information transmission process.

Using English as a means of communication in conversations is also a form of information dissemination. Especially for non-native English speakers, cultural noise interference can occur during the process of translating or communicating in English [11]. This is primarily because non-native English speakers often lack understanding of the cultural background and customs of English-speaking countries, leading to misunderstandings or inappropriate imitation of certain pronunciations, thereby impacting the coherence and comprehensibility of their utterances. Coherence in English pronunciation pertains to the logical connection between parts of speech in the communication process, ensuring that the listener can comprehend the speaker's intentions [12]. When pronunciation is disrupted by cultural noise, it can result in a breakdown of utterance coherence, subsequently affecting communication effectiveness. Factors contributing to cultural noise interference include language habits, language environment, cultural background, and values. These are all influenced by the disparities in cultural background between the speaker's location and the region where English is the native language [13].

3. Case Analysis

3.1 Analysis Subjects

This paper investigated and analyzed the first-year students of Chongqing Vocational College of Light Industry. According to the midterm and final English assessment scores, 100 students with top rankings

and similar scores were selected, with an average age of 19 ± 1 years old, all of whom were native speakers of Chinese.

3.2 Analysis Methods

As mentioned earlier, in communication studies, “noise” refers to anything that distorts transmitted information, and cultural noise is no exception. When English learners from different cultural backgrounds communicate with native English speakers, cultural noise arises due to the disparities in their respective native cultures. In other words, the interference of cultural noise is generated during communication. This paper introduced cultural noise interference into the communication between the two parties by constructing dialogue scenarios. The description of dialogue scenarios included the dialogue environment and the cultural background of the dialogue characters. To simulate the interference of cultural noise, this paper addressed three aspects: communication mode, communication style, and the use of taboo phrases [14]. Some examples of dialogue scenarios are presented in Table 1.

Table 1. Selected dialog scenario settings with different types of cultural noise interference

Types of cultural noise interference	Examples of dialogue scenarios
Communication mode	Your foreign teacher, who is 45 years old, comes to your party wearing a new dress, and you say to her, <u>“You look nice and younger because of new dress.”</u>
Communication style	You visit your American friend and are amazed by a model car made by her son. You say to your American friend, <u>“I didn't expect that he could make a model car.”</u>
Use of taboo phrases	You and your American friend want to set up a date to go out on the following dates: the 4th and 13th, and you say to your American friend, <u>“What about the date of the 4th?”</u>

For the scenarios, 15 dialog scenarios were set up for each type of cultural noise interference, and 15 were set up without cultural noise interference, totaling 60.

Test item 1: preliminary determining whether cultural noise has an impact on speaking coherence

A questionnaire was constructed with five randomly selected dialog scenarios for each type of cultural noise interference, totaling 15 dialog scenarios. Each design featured one line of dialog, as shown in Table 1 (identified by underlining). Simultaneously, another set of 15 dialog scenarios without cultural noise interference was randomly selected, forming a second questionnaire. Each design featured one line of dialog. The questionnaire with cultural noise interference was distributed randomly to 50 students, while the questionnaire without cultural noise interference was given to the remaining 50 students. The distribution did not disclose whether the questionnaires included cultural noise interference. When students answer the questionnaire, they consider whether the underlined dialogues have semantic coherence and avoid ambiguity according to the dialogue scenarios set in the questionnaire [15]. The correct rate of students' judgments on the coherence of the dialog served as an indicator of their speaking coherence in the presence of cultural noise.

Test item 2: further determining the effect of high or low levels of cultural noise interference on speaking coherence

The initial test examined whether cultural noise has an impact on speaking coherence. To further assess

the influence of cultural noise interference on speaking coherence, 100 students were randomly assigned to four groups: Group A with no cultural noise, Group B with one type of cultural noise, Group C with two kinds of cultural noise, and Group D with three kinds of cultural noise. Students were aware of the group they belonged to but not the specific type of cultural noise in their group. During the test, students underwent one-on-one evaluations with the teacher. The teacher selected 15 conversation scenarios based on the students' group assignments after deleting the underlined conversations shown in Table 1. Students then filled in the blanks of the deleted conversations according to the provided conversation scenarios. Subsequently, students read their answers to the teacher. The teacher evaluated their pronunciation and determined whether they demonstrated speaking coherence.

The teacher followed specific criteria when selecting dialog scenarios for the different student groups. The teacher chose 15 designs from the set without cultural noise interference for Group A. In the case of Group B, the teacher randomly selected one type of cultural noise interference and combined any five scenarios from this type with ten scenarios without cultural noise interference. For Group C, the teacher randomly selected two kinds of cultural noise interference, chose five scenarios from each selected type, and combined them with five scenarios without cultural noise interference. Lastly, for Group D, the teacher randomly picked five scenarios from each of the three types of cultural noise interference.

3.3 Test Results

Test item 1 utilized two questionnaires—one without cultural noise interference and one with cultural noise interference—to collect the average correct rate of students' judgments on the coherence of conversations in different dialogue situations. This served as an initial evaluation of the impact of cultural noise interference on students' coherence in spoken English. Fig. 1 and Table 2 present the statistical outcomes of the questionnaire survey.

Fig. 1 illustrates that the correct rate of speaking coherence judgment in the group without cultural noise interference was higher than in the group with cultural noise interference. Table 2 displays the impact of different cultural noise types on the mean correct rate of oral coherence judgment. The test results showed that cultural noise had a significant impact on the judgements for oral coherence, and the difference between the impact of different cultural noise types on coherence judgment was not large.

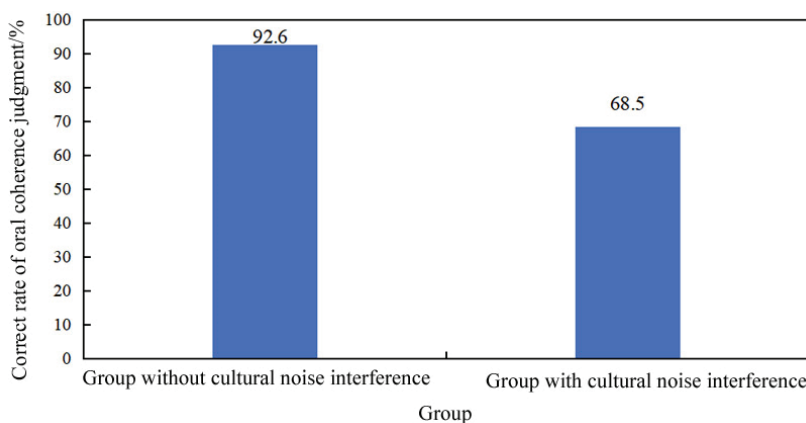


Fig. 1. Mean correct rate of speaking coherence judgments in the two groups.

Table 2. Impact of different cultural noise types on the mean correct rate of students' judgments of speaking coherence

	Correct rate for the judgment of oral coherence (%)	p-value					
		A & B	A & C	A & D	B & C	B & D	C & D
A. Without cultural noise interference	92.2 ± 0.5	0.000	0.001	0.000	0.087	0.154	0.098
B. Communication mode interference	67.3 ± 0.3						
C. Communication style interference	68.3 ± 0.2						
D. Tabu interference	69.3 ± 0.5						

Values are presented as mean ± standard deviation.

To further validate the impact of cultural noise interference on oral pronunciation coherence, Test item 2 gradually increased the number of types of cultural noise interference in the 15 conversation scenarios to assess students' oral pronunciation coherence across scenarios with different numbers of cultural noise interference types. The test results are depicted in Fig. 2. The total correct rate of pronunciation coherence in the group without cultural noise interference was 95.3%; the rate in the group with one type of cultural noise interference was 86.7%; the rate in the group with two types of cultural noise interference was 75.8%, and the rate in the group with three types of cultural noise interference was 65.4%. Fig. 2 illustrates a decrease in the overall correct rate of students' oral pronunciation coherence as the types of cultural noise interference increased across the 15 dialog situations.

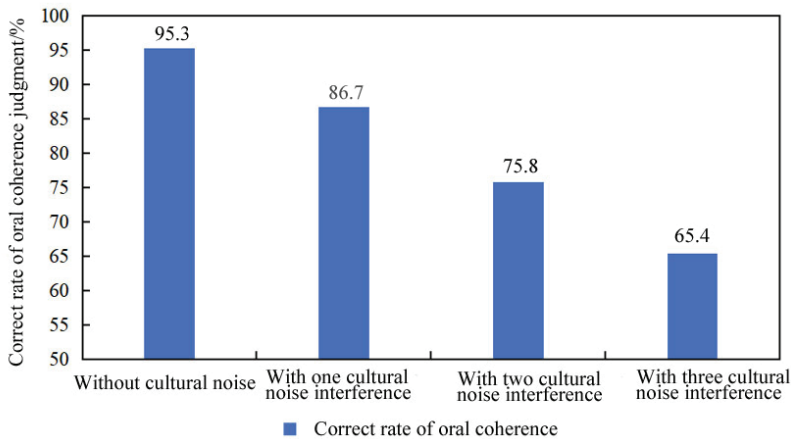


Fig. 2. Correct rate of oral pronunciation coherence under different levels of cultural noise interference.

4. Discussion

With the progression of globalization, English has emerged as the primary language for international communication. Precision in pronunciation and the logical coherence of expressions are vital for effective communication in English conversations across diverse contexts. However, the cultural disparities between participants in international communication often lead to cultural noise interference, impacting

the coherence of oral pronunciation. Cultural noise typically results from misunderstandings or communication barriers arising from differences in cultural backgrounds, values, and customs during cross-cultural communication. This study examined the impact of cultural noise on oral coherence using 100 first-year students from Chongqing Vocational College of Light Industry as a case study. Initially, a questionnaire was employed to assess the influence of cultural noise on oral coherence in conversation scenarios, both with and without cultural noise interference. Subsequently, 15 conversation scenarios were constructed, and the types of cultural noise interference were gradually increased to evaluate students' oral coherence within these scenarios. The questionnaire results revealed that the correct rate of oral coherence judgment without cultural noise interference was significantly higher than the correct rate with cultural noise interference. The oral coherence test results from the conversation scenarios demonstrated a decline in the correct rate of coherence with the escalation of cultural noise interference types. In other words, the greater the interference of cultural noise, the poorer the coherence of spoken language.

The reasons for causing the above results are analyzed. The emergence of cultural noise can be attributed to various factors such as language habits, non-verbal behavior, and cultural practices. Taking examples from Table 1 in the questionnaire survey of the test items, in a conversation scenario with cultural noise, the communicators are individuals from different countries with distinct cultural backgrounds. Due to these differences, they interpret the same thing differently. For example, in Chinese culture, people have taboos regarding the number 4, while Western cultures have taboos regarding the number 13. When discussing dates, this cultural noise interference arises and affects the coherence of spoken language. The manifestation lies in the misjudgment of spoken responses underlined in the survey questionnaire. In situational dialogues, cultural interference made it challenging for students to provide appropriate solutions while speaking, affecting coherence. The greater the number of types of cultural noise interference, the more pronounced the negative impact on coherence. To mitigate the effects of cultural noise interference, learners can adopt the following measures.

- Understand cultural background: Having an understanding of the cultural background, language customs, and values of English-speaking countries will help people better comprehend the usage and meanings of English words and phrases, thereby enhancing one's mastery of correct pronunciation.
- Imitate standard pronunciation: Learners can gradually master the correct pronunciation techniques and intonation changes by imitating standard English pronunciation, thereby improving the accuracy and fluency of their pronunciation.
- Create a language environment: By engaging in conversations with native English speakers, watching English movies and TV shows, listening to English broadcasts and music, learners can create an immersive language environment that enhances the accuracy and fluency of their English pronunciation.
- Receive feedback and guidance: Learners should correct pronunciation errors and improve their pronunciation skills promptly by seeking feedback and guidance from teachers or other professionals.

5. Conclusion

This paper conducted a case study with 100 first-year students from Chongqing Vocational College of Light Industry to explore the impact of cultural noise interference on oral coherence. Initially, a questionnaire was employed to assess the effect of cultural noise on students' judgments of oral

coherence. Subsequently, the number of cultural noise interference types was gradually increased to test the oral coherence of students. The questionnaire results indicated a significantly higher correct rate of speaking coherence in scenarios without cultural noise interference than those with cultural noise interference. The correct rate of students' speaking coherence decreased as the type of cultural noise interference in conversation scenarios increased. In other words, a higher degree of cultural noise interference corresponded to poorer speaking coherence. Learners can mitigate the impact of cultural noise interference by understanding cultural backgrounds, imitating standard pronunciation, creating a language environment, and seeking feedback and guidance.

The limitation of this study is that the number of students participating in the survey is not sufficient, and the settings of dialogue scenarios are not diverse enough. Therefore, future research directions include increasing the number of students and dialogue scenarios to make the analysis results as objective as possible.

Conflict of Interest

The author declare that they have no competing interests.

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