

Chinese EFL Learners' Pragmatic Comprehension of Aural Sarcasm

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Abstract:

Studies on L2 learners' pragmatic comprehension have examined a wealth of speech acts, such as compliments and refusals, which have mostly focused on written materials. However, research on audio sarcasm has been relatively rare. This study investigates Chinese EFL learners' comprehension accuracy and reaction time when they comprehend auditory sarcasm, and explore what cues they rely on: tone, context and non-vocal cues (facial expressions and gestures). Sixty intermediate and advanced Chinese EFL learners in a Chinese university participated in this research and they were divided into 2 groups. In Group 1, participants were asked to listen to short video clips while watching the scripts. In Group 2, participants were asked to watch the clips with the scripts. Multiple-choice questions were presented after finishing video clips and participants were asked to think aloud during the comprehension process. Results showed that both advanced and intermediate participants were more accurate and faster to process congruent pairs than incongruent pairs (positive context with a sarcastic tone, negative context with a sincere tone). Advanced learners responded more accurately but not always quickly than intermediate learners. Besides, both proficiency groups responded more accurately and quickly when visual cues were presented to them. The results suggested that L2 pragmatic comprehension is dependent on learner's L2 knowledge. In addition, the results revealed an interaction effect of visual cues, tone of voice, context at both intermediate and advanced levels. This study also provides the evidence that a great amount of multimodal input is necessary for L2 learners and they will better understand how multiple cues operate to convey sarcasm.

Keywords:

Aural Sarcasm, Pragmatic Comprehension, Chinese EFL learners

1. Introduction

1.1. Research background

In many cultures people employ sarcasm (or sarcastic irony) to reflect their emotional attitudes and achieve different communicative goals. Sarcasm is used when the intended meaning of speech transcends the literal meaning of words [7]. Burgers

et al. [6] gives a definition of sarcasm as a form of verbal irony which has an intended evaluation implicitly opposite to the literal evaluation. The comprehension of sarcasm represents higher-order pragmatic abilities of humans due to the fact that it requires the integration of various information resources, including the specific context of the speech, non-verbal cues, the tone of voice and so forth [1]. Therefore, it is important to determine the markers or cues of sarcasm. The role of context in the comprehension of sarcasm is widely studied since a number of theories of sarcasm comprehension consider the role of context as significant [11][32]. Similarly, tone of voice alone (without a context) has been shown to provide fairly accurate evidence to identify sarcastic intent in the spoken language [34]. Meanwhile, the roles of visual cues are proved to be crucial to detect sarcasm in the spoken language [10]. In addition, some studies have investigated the interplay of context and tone of voice [35][36], others have examined the interplay of context, tone and literal meaning [14].

Furthermore, it is acknowledged that appropriate understanding of sarcasm in L2 is a much greater challenge for L2 learners. Bouton [4] reported that proficient L2 learners also experience difficulties detecting sarcastic cues and failed to reach the native level. Thus, the present study focuses on the interplay of context, tone of voice and visual cues in Chinese EFL learners' perception of aural sarcasm by examining participants' comprehension accuracy and response time when detecting sarcasm.

1.2. Research significance

Previous research has examined the cues in isolation or the interplay of context and intonation in L1 or L2 comprehension of sarcasm. In these studies, short statements or popular TV series are used. In this present study, visual cues are examined with context and tone of voice. Besides, this study will also explore what cues learners use when detecting and understanding sarcasm.

The current study will provide pedagogical implications for teachers and L2 learners that a large amount of multimodal input featuring different types of sarcasm use in differing contexts can help learners better understand various uses of sarcasm.

2. Literature Review

2.1. L2 pragmatic comprehension

Pragmatic comprehension involves the inferential process of understanding what a speaker intends to accomplish by making utterances [31][33]. A growing body of research has begun to explore whether L2 learners are able to infer meaning of indirect speech acts, implicatures and routines. Compared with native speakers, L2 learners' pragmatic comprehension are influenced by some factors [14]. Conventionality is a factor that enhances learners' comprehension. Conventional forms are easier to comprehend than nonconventional expressions, because they are easily associated with their functions. These associations are not straightforward for the nonconventional requests, resulting in comprehension errors [27]. It does not appear that nonconventional implicatures follow any fixed or predictable pattern of meaning. Understanding the speaker's message requires that listeners search the context, such as background knowledge and the history of their discourse, which therefore requires much higher levels of inference rendering. As the number of cues to be processed increases, the demand on listeners' processing power increases [14].

L2 proficiency is another factor affecting L2 learners' pragmatic comprehension [27]. To possess the ability to communicate intents in a proper way in a situation or to comprehend meaning that is implicitly conveyed, one needs a refined knowledge of L2 linguistic systems. Studies have repeatedly found that high general proficiency supports quality pragmatic performance, but it does not guarantee a nativelike performance [28]. Advanced learners may still incorrectly transfer L1 pragmatic conventions, incorrectly apply L2 pragmalinguistic and sociopragmatic knowledge, and fall short in the fluency of their pragmatic performance [14].

In these studies, comprehension was assessed for both accuracy and response time. Conventional utterances take a shorter time to process than nonconventional utterances. In Taguchi [25], the facilitative effect of conventionality in comprehension was documented. The results showed that it took shorter response times for the more conventional implicatures. There was a significant L2 proficiency effect on accuracy but not on comprehension speed. Accuracy and response time bore no significant relationship. In other words, the advanced L2 learners were not necessarily faster than lower-level learners in processing non-conventional implicatures.

To sum up, the degree of indirectness is closely related to the amount of processing effort involved in comprehension. The processing effort is affected by linguistic and nonlinguistic features, such as features of conventions, cultural and linguistic knowledge. The processing effort manifests in differences in learners' comprehension accuracy and response times over a range of implicature types. Learners' comprehension also interacts with learner-specific factors such as L2 proficiency. Thus, this study takes learners' L2 proficiency into consideration and examines their comprehension accuracy and response time when detecting a nonconventional implicature, namely, sarcasm.

2.2. Pragmatic comprehension of sarcasm

Sarcasm is used by speakers frequently, but it has inconsistent definitions given by researchers. Sarcasm has been defined as a conversational implicature that expresses hurtful criticism and mockery [13]. However, other scholars argue that sarcasm does not necessarily contain negative meaning. For instance, it can convey an intended meaning of compliment or create humor [5] [18]. To analyze speakers' purpose, listeners must rely on different cues.

Much of research have investigated the tone of voice to convey a sarcastic remark [8]. Rockwell [20] claimed that speakers tend to use a lower pitch voice when conveying sarcasm. In contrast, Anolli et al. [2] claimed that a speaker favors a higher pitch when delivering sarcasm. Shapley [22], however, stated that a flat, monotone pitch is favored by speakers to show sarcasm. Attardo et al. [3] listed three characteristic general patterns present in the sarcastic utterances by analyzing the corpus of sarcastic statements. The first one is strong within-statement contrast. This category usually contains a large pitch range in the first part of the utterance, followed by a phrase with a highly compressed pitch range. The second one is compressed pitch pattern which has little pitch movement. The final common pattern is a range of pronounced pitch accents throughout the entire utterance. Attardo et al. [3] outlined conclusions on the above findings. The first is that the pitch of sarcastic utterances cannot be studied in isolation since pitch patterns may extend beyond the sentence boundary. The second point is that intonation and pitch range patterns are inextricably

to the pragmatics of the particular utterance. There is no absolute pitch pattern acting as a marker of irony/sarcasm.

Apart from vocal features, context has also been found to play a vital role in determining the pragmatic comprehension of sarcasm. Many models of sarcasm have indicated the importance of context in the perception of sarcasm [36]. The echoic reminder theory proposed by Kreuz & Glucksberg [15] can be described as claiming that the echoic reminder of an antecedent remark or expectations becomes the context of the sarcastic statement on which sarcasm depends. The reminding function of sarcastic expressions was implied by Sperber & Wilson [23][24] and sarcasm is treated as echoic interpretation. Listeners understand a sarcastically “intended utterance by recognizing that it is echoic, that it alludes to the thoughts, opinions, utterances, or behavior of some person other than the speaker” [15]. The sarcastic utterance is interpreted as an “echo” of either an implicit norm or expectation, or of an explicit preceding event. A speaker conveys disapproval by reminding listeners of a mismatch between what is and what should be. The echoic reminder theory emphasizes the reminder function of echoic utterances and argues that not all sarcastic statements are echoic [32]. Another theory of sarcasm comprehension, the allusional pretense theory [17] states that all sarcastic statements allude to a failed expectation and breach one of the felicity requirements for well-formed speech acts. This theory highlights the importance of context, stating that when an expectation is violated, a listener views an utterance as sarcastic. The listener is more inclined to pay attention to the speaker’s attitude as a result of the unfulfilled expectation. Similarly, the implicit display theory [32] holds that the speaker must be in a sarcastic context in order to be sarcastic. When a discourse setting is not surrounded by a sarcastic environment, and a speaker is not provided the cause for being sarcastic, none of the utterances made in that context are sarcastic.

Many studies have progressed to study the interplay between these cues, and data reveals that both context and tone of voice play a substantial role in the interpretation of sarcasm [14][35][36]. The combined effect of context and tone of voice on sarcasm perception was investigated by Woodland & Voyer [36]. A positive or negative context was presented to native English speakers, followed by auditory positive literal utterances delivered in a sarcastic or sincere tone of voice. While their response time was being evaluated, they were asked to rate whether the utterance they heard was sincere or sarcastic. The study’s most important finding is that there is a clear interaction between context and voice tone in the comprehension of a sarcastic statement. A sarcastic tone of voice paired with a story of a negative context was interpreted as sarcastic. A sincere tone of voice paired with same negative context, on the other hand, was essentially perceived as neutral. Participants also spent longer time when processing incongruent pairs (positive context with a sarcastic tone or negative context with sincere tone) compared to congruent pairs. Koh et al. [14] investigated the interplay between context, tone of voice and literal meaning by examining L2 learners’ comprehension accuracy and speed when detecting sarcasm. The findings show that both proficiency level groups responded more accurately and quickly to congruent pairs than incongruent pairs. An interaction effect was present among literal meaning, congruency, and proficiency, highlighting the role of context, intonation, and literal meaning in understanding L2 sarcasm across different L2 proficiency levels. However, they did not take visual cues into consideration since the video clips they used for experiment may contain exaggerated facial expressions or gestures which may have an impact on sarcasm detection.

On the question of visual cues, they are primarily composed of facial expressions, such as smiles, eyebrow raising, or winks. Intonational cues were less informative than behavioral clues like pointing or laughing [16]. Some studies claim that intonational clues overrule the meaning of the sentence uttered, other have shown that the semantics of the utterances overrides visual and intonational clues [3]. Blank face was examined by Attardo et al. [3]. In their study, participants were asked to depict the facial expressions of speakers uttering sarcastic statements. The results show that there is a recognized facial marker of sarcastic intent that is similar enough to the folk-definition of “blank face” which is considered as an artistic term. Giustolisi & Panzeri [12] conducted research to determine whether sarcastic remarks could be correctly identified using only visual cues, and whether these cues were as effective as prosodic information linked to the sarcastic tone of voice. The results of their studies indicated that the speakers’ sarcastic purpose may be discerned solely based on visual cues. In fact, participants’ facial expressions and bodily movements were more helpful than merely prosodic information in detecting sarcastic remarks.

In summary, previous research have investigated how native speakers comprehend sarcasm by examining various cues such as context, literal meaning, visual cues and tone of voice. L2 learners’ comprehension of sarcasm also received attention by taking into account the combined effect of context, literal meaning and tone of voice. Based on previous research, the current study explores the Chinese EFL learners’ pragmatic comprehension of aural sarcasm by examining context, tone of voice and visual cues.

3. Theoretical Framework

3.1. Relevance theory

Relevance theory [24] adds a cognitive explanation for what components in one’s schema might be triggered during sarcastic processing, providing a more analytic description.

Relevance theory emphasizes the importance of context in an interlocutor’s process of inferring speaker speech and intent. Context is not fixed in advance, according to Sperber & Wilson [24], but is sought for the goal of making an utterance relevant. The interpretation of utterances is entirely dependent on the surrounding information provided. When an interlocutor hears a speech, contextual sources relevant to the interlocutor enter his or her cognitive environment. The interlocutor will then choose the most relevant item(s), and arrive at the speaker’s intended meaning. To put it another way, receiving communication is the process of filtering through the various inputs to locate the most relevant communication.

3.2. Skill acquisition theories

Learners make progress from the initial stage of conscious rule-learning to the point when they can employ rules unconsciously, according to skill acquisition theories. Performance is slow, cautious, and prone to errors at first, but with practice, it becomes quicker and more effortless, and eventually automatic and attention-free [30]. According to DeKeyser [9], among researchers who study skill acquisition processes there is a consensus that practice with a given task gradually decreases reaction time and error rate. Skill acquisition theories highlight the role of practice in L2 pragmatics, and conceptualize and implement practice as a vehicle for developing pragmatic competence.

4. Methodology

4.1. Research questions

The present study attempts to investigate Chinese EFL learners' pragmatic comprehension of sarcasm by examining three types of cues. The research questions are as follows:

(1) What is the effect of incongruency of context and tone pairings of sarcasm on Chinese EFL learners' comprehension accuracy and reaction time?

(2) Do visual cues have facilitative effect on learners' comprehension accuracy and reaction time?

(3) What is the effect of L2 proficiency on comprehension accuracy and reaction time?

4.2. Participants

Students were recruited from a university in China. According to the CET6 grades, they were classified as intermediate learners and advanced learners. After selection, there were 30 intermediate learners and 30 advanced learners. They had no experience in living or studying in English-speaking countries.

4.3. Instrument

The test contained 20 video clips of American and British TV series that participants were not familiar with. The conversations in the clips were classified into two categories: positive or negative context, and sincere and sarcastic tone. More details are given in Table 1. Videos rather than auditory materials can be used for analyzing visual cues in this study. Each video contained some visual cues that were obvious for participants to identify. Each participant was provided with scripts of the TV series. Since the participants were not familiar with the selected TV series, explanations of characters' relationships or other related information were given to them. There were also video clips involving other indirect speech acts to divert participants' attention from sarcasm detection.

Table 1. Classification of the test items.

	Congruent	Incongruent	Incongruent	Congruent
Tone	Sincere	Sincere	Sarcastic	Sarcastic
Context	Positive	Negative	Positive	Negative

4.5. Procedure

Participants were divided into two groups, with 15 intermediate learners and 15 advanced learners in each group. Participants in Group 1 listened to the clips while reading the scripts. Participants in Group 2 watched the videos and read the scripts. After each clip, they were asked to answer a multiple-choice question for comprehension testing. They were instructed to think aloud during the question solving process.

4.6. Data collection and analysis

The experimental process was recorded by the author. The items were presented using the computer software E-prime 2.0 [21]. Response times for each question were recorded. Participants' comprehension accuracy and response time were two dependent variables. L2 proficiency was the between-subject variable. The incongruency of context and tone and existence of visual cues were within-subject variables. A MANOVA test has been conducted using R software [19].

5. Results and Discussion

The predicted results show that context, tone of voice and visual cues had a significant effect on Chinese EFL learners' comprehension of sarcasm. For the first question, both advanced and intermediate participants responded more accurately and quickly to congruent pairs than incongruent pairs. This is in line with findings in Woodland & Voyer [36], Voyer & Vu. [35], and Koh et al. [14]. Due to the lack of situational contrast between tone and context, incongruent pairs necessitate more pragmatic processing [14]. The incongruent pairs not only increased the processing load for L2 learners, but they also resulted in less successful utilization of paralinguistic and contextual information. The results reflect the relevance theory that incongruent pair would require more processing effort, thereby increasing response time.

As regards visual cues, both proficiency groups responded more accurately and quickly when visual cues were presented. The second question is answered that visual cues do facilitate L2 learners' comprehension of sarcasm. According to the records, both advanced and intermediate learners tended to recall character's exaggerated facial expressions or gestures when they encountered difficulties. The lack of contextual resources and being unfamiliar with the sarcastic tone of foreigners may lead them to resort to visual cues that were exaggerated and noticeable [13].

In terms of the third question, that is, what the effect of L2 proficiency is on accuracy and response time, advanced learners performed better in the tests. This indicates that a threshold degree of L2 knowledge is required for L2 pragmatic comprehension [29]. Furthermore, higher-level L2 learners were more accurate but were not always faster than the lower-level learners. This also confirms Koh et al.'s study [14]. Understanding sarcasm requires substantial inference, which results in slower comprehension even for advanced L2 learners. Meanwhile, skill acquisition theories suggest that repeated practice is crucial for improving L2 pragmatic competence. For higher-level learners, slow response time may be the result of insufficient exposure to English sarcasm.

In addition, the results revealed an interaction effect of visual cues, tone of voice, context at both intermediate and advanced levels. Learners at both levels performed better when understanding sarcasm with visual cues and congruent pairs. Intermediate learners were more affected by congruency under the condition of no visual cues, which was also true for advanced learners. This study adds to the growing body of evidence that higher proficiency is not always associated with native-like L2 pragmatic comprehension [29].

The findings highlight the role of practice inferential processing for L2 learners. Besides, a large amount of multimodal input which different types of sarcasm use in various contexts is necessary for L2 learners to better understand different uses of sarcasm. Learners will understand how sarcasm is expressed through combinations of several cues, as well as how these cues interact in an organic fashion.

6. Conclusions

Sarcasm comprehension in L2 is a significantly higher barrier for L2 learners. Even proficient L2 learners have difficulty identifying sarcastic cues and fail to achieve the native level. Previous research has looked at how native speakers understand sarcasm by exploring context, literal meaning, visual cues, and tone of voice. The comprehension of sarcasm by L2 learners was also studied by taking into consideration the combined effect of context, literal meaning, and tone of voice. Therefore, the current study examines the relationship between context, tone of voice, and visual clues in Chinese EFL learners' pragmatic comprehension of aural sarcasm, based on earlier research.

6.1. Major findings

Both advanced and intermediate participants responded more accurately and quickly to congruent pairs than incongruent pairs. The incongruent pairs increased the processing load for L2 learners, and resulted in less successful utilization of paralinguistic and contextual information. When visual cues were given, both proficiency groups answered more precisely and quickly. Lacking contextual resources and being unfamiliar with the sarcastic tone of foreigners may lead participants to resort to visual cues that were noticeable. Furthermore, higher-level L2 learners were more accurate but were not always faster than the lower-level learners. Repeated practice is vital for improving L2 pragmatic competence. For higher-level learners, slow response time may be the result of insufficient exposure to English sarcasm. There is also an interaction effect of visual cues, tone of voice, context at both intermediate and advanced levels, which suggests that higher proficiency is not always associated with native-like L2 pragmatic comprehension.

6.2. Implications

These findings underscore that although advanced-level learners were more accurate in comprehending sarcasm than intermediate-level learners, the higher-level participants were not necessarily faster than their lower-level counterparts. Whereas previous studies on L2 sarcasm focused only on accuracy measures, suggesting that L2 pragmatic comprehension of sarcasm increases with L2 proficiency, this study emphasizes that the same rate of development may not apply to comprehension fluency. Teachers should consider that accuracy and speed do not develop together. In addition, it is not only important to expose learners to authentic materials that present sarcasm in various forms, but it is also crucial to bring the learner's attention to the interplay between tone and context and to discuss interpretations, especially for circumstances when the situational contrast may not be as salient.

6.3. Limitations

There are also some limitations in this study. More research should be done by using eye-tracking to investigate what visual information participants attend to and reveal how those visual cues might influence the comprehension of L2 sarcasm. Such data could also provide further insights into the factors that may have influenced the response time of the participants. Besides, future studies should take into account learners who have resided or studied in English-speaking countries to find out

whether the experiences in the target countries could contribute to L2 pragmatic comprehension.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

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