Conversational Implicatures for Non-Native Speakers

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Abstract

Conversational implicatures can be difficult to interpret for learners of English. Several studies have shown that English learners' comprehension of implicatures can be increased through instruction. Many studies have used multiple-choice pre- and post-tests to assess the effects of instruction on the students' interpretation of the implicatures. Cultural knowledge is also shown to impact the level of implicature comprehension. Pedagogical implications of the research are discussed.

Keywords

Conversational implicatures, scalar implicatures, English learner, second language, non-native speaker, Spanish, Cooperative Principle

1. Introduction

1.1 More Than What is Said

Levinson (1983) stated that conversational implicatures are one way in which "more can be communicated..than what is actually said" (101). Conversational implicatures require the listener to understand that which the speaker does not say. Grice (1975) first described implicatures. He based his concept of implicatures on the speaker's obedience to his four maxims (Quality, Quantity, Relation, Manner) which comprise the Cooperative Principle of conversation. That is, the invisible "rules" of conversation require speakers to say what they believe to be the truth (Quality), using as many or as few words as appropriate to the situation (Quantity), keeping their speech relevant to the topic (Relation), using clarity and conciseness (Manner; Cutting and Fordyce 2021).

1.2 Why are Implicatures Difficult for English Learners ?

Since speakers are expected to follow these rules or maxims, listeners are able to extract meaning from utterances even when the speakers at times do not say exactly what they mean. If a speaker says, "I'm very cold," the hearer might understand that the speaker needs a sweater even though the request was unstated. With these coded messages, which can vary from culture to culture, there is a very real possibility of misunderstanding between native and nonnative speakers of English. Students learning

English as a second or foreign language need support to process conversational implicatures correctly to obtain comprehension in the target culture.

2. Review of the Literature

2.1 Non-Native Speaker Interpretation of General Implicatures

Several studies are worth mentioning that investigated the accuracy and ease of interpretation of implicatures by non-native speakers (NNS) compared to native speakers (NS) Bouton (1994) reports longitudinal studies done at the University of Illinois which found that native-like interpretation of English implicatures for NNS students increased the most dramatically in the first 17 months of the subjects' stay in the U.S. without any direct instruction. The researcher used a multiple choice test in which students had to read conversations containing implicatures and then choose the correct interpretation. The types of implicatures which were still difficult for the students after 17 months in an American university were Indirect Criticism, Pope Q (ie., Is the Pope Catholic?), Sequence, and Irony. The results obtained at 33 months and 4-7 years after the students' arrival in the U.S. were slightly improved overall but not statistically significant (92). At 4 ½ years into the students' university career, which entails immersion in an English environment, students still had difficulty with the Sequence and the Pope Q type of implicatures. Some kinds of implicatures were relatively easy, such as the so-called "Minimum Requirement" type based on Grice's Quantity Maxim (1975). Grice advises that the interlocutor's contribution should be "as informative as is required" (45) in the particular situation.

On the other hand, the items asking students to utilize the Relevance Maxim were overall very easy for students but occasionally proved extremely difficult. Bouton asserts that Relevance-type items are non-formulaic in that "their interpretation is idiosyncratically dependent on the relationship between a particular utterance and its specific context" (98). Therefore, each separate Relevance-type item requires the speakers to analyze the words both literally and according to the unique situation in which the conversation takes place. Bouton found that other types of implicatures, the ones which follow a sort of syntactic or semantic pattern or formula, may be more accessible to English learners in general (99) and are very responsive to direct instruction (106).

Cignetti and Di Giuseppe (2015) conducted a similar study with Argentinian students at an English language school in their home country. The context was different from Bouton's in that the students were not living in an English immersion situation but rather were learning English as a foreign language. One group of students received explicit instruction regarding implicatures during 5 hours over a three week period, while the control group did not. The instruction given to the experimental group consisted of types of implicatures, video scenes, and handouts, followed by discussion. Both groups were given a multiple choice pre- and post-test similar to those used by Bouton except that instead of interpreting the meaning of the implicatures, Cignetti and Di Giuseppe's subjects had to choose the correct response to the conversations.

The Experimental Group (EG) and Control Groups (CG) were very similar at the pre-test (mean score of 1.5-1.7 points out of 7 points). However, after instruction, the experimental group greatly outperformed the control group with a 6.7 point mean (EG) versus 1.5 (CG). In addition, the types of implicatures which were difficult on the pre-test, including Pope Q, Minimum Requirement, irony, and relevance, showed a

meaningful improvement for the experimental group on the post-test. Both formulaic and non-formulaic implicatures responded positively to explicit instruction.

Manowong's study (2011) of Thai university students learning English as a foreign language was similar to both Bouton's studies and that of Cignetti and Di Giuseppe. The Thai students were tested using a 15-item multiple choice test that included given situations, dialogs, and a question including an implicature. Various types of implicatures were utilized in the test. The students' task was to choose the correct interpretation of the implicature. Students were also asked to complete a questionnaire about their personal history and their English studies. After the testing, students were chosen randomly to complete a "think aloud" interview in Thai to explain the choices that they made on the test. The students achieved a mean score of 4.5 out of 15 items with the range of scores being 1-9 (the one outlier score of 9 was achieved by a student who is an outstanding achiever in the English course of the university).

The results of the post-test interview showed that students were lacking in the necessary vocabulary and grammatical competence to correctly interpret the implicatures. Indeed, "some students said that they could not make any sense of the conversations or the situations given" (143). Their want of basic linguistic competency prohibited them from obtaining even a literal understanding of the conversations much less an implied one. Interestingly, cultural knowledge proved to be critical for the interpretation of some of the implicatures. For example, one item includes a teacher making an indirect comment about the quality of a student's paper. Because Thai students tend to believe that teachers' speech is straightforward and reliable, they misinterpreted the conversation. It seems that cultural knowledge is just as important as linguistic competence in comprehending implicatures.

A study was completed by Mohammadzadeh, Razi, and Yavuz (2019) of Turkish university students preparing to teach English. The students were enrolled in 3 different levels of English courses (year 1, year 2, year 3). The researchers used a shortened version of the Bouton questionnaire which requires test-takers to correctly interpret the meaning of various types of implicatures in written conversations. The research questions concerned both the overall comprehension of the implicatures as well as comprehension by type of Gricean maxim utilized (relevance, quantity, quality, and manner; Grice 1975). Secondary questions concerned whether there were differences in comprehension rates by gender, age (all were 18-23 years old) or level of English.

This study found that the Turkish university students only successfully understood the English implicatures at a mean of 38.17% of the time on this particular questionnaire. The researchers seemed somewhat dismayed by the low overall achievement level of the university students since they report that other similar studies yielded much higher rates of competence with implicatures. By type, Relevance was the most understood with a 67% success rate, followed by Quantity and Manner at 30%, and Quality at 26%. The researchers report that similar studies yielded similar results on the types of implicatures that are easily understood.

No differences were discovered in this research due to the age or gender of the students. However, and not surprisingly, the Year 3 English students were significantly better at interpreting implicatures than were the Year 1 or Year 2 students. The researchers report that "lack of knowledge of the cultural values of the target language is the main reason

for the related results" (380). The fact that these students, with their low scores on English implicatures, will become English teachers is somewhat concerning.

Nassar's research (2021) was done with Yemeni students in a university English course at the fourth level. The students were studied in their home country. The research study consisted of a multiple choice discourse completion test and an interview. While the test yielded statistical data for the researcher, the main focus of the study was on the interviews which were completed to yield insight into the thought processes of the subjects and to allow the researcher to investigate the reasons or source for students' success or failure.

While Nassar did not report the quantitative results of the multiple choice test in this article, the interview results brought to light some interesting phenomena regarding how these students learned to interpret English implicatures and why many implicatures were still a problem for them. Two-thirds of the students found little help from English courses or classroom texts in regard to the cultural competence required to understand indirect speech. The students overall reported that their knowledge of English- speaking culture was learned from movies, TV, magazines, and the like.

Regarding the contexts of the written conversations on the test, a little more than half of the students said that they were able to recognize the situations and unanimously remarked that the types of contexts exist in Arabic but may be somewhat different. This problem with lack of context familiarity compounded by a difficulty with the indirect meaning of the implicatures led students to choose incorrect answers on the multiple choice test. Nassar discussed the cultural differences between English- and Arabic-speaking communities. "This study has shown that socio-cultural differences between Arabic and English are the main source of failure in understanding English conversational implicatures" (52).

Taguchi (2013) completed two studies on implicatures only one of which is applicable here. This study measured student response times to implicature tasks measured in milliseconds by the computer program PsyScope (see Cohen, MacWhinney, Flatt, & Provost 1993 for more information about this program). Response times are used to determine the relative ease or difficulty of a pragmatic task by indicating the degree of cognition required of the test-taker to respond to an item. In the first study which focused on processing implicatures, Taguchi tested Japanese learners of English with a mean TOEFL (Test of English as a Foreign Language) score of 457 at an American university in Japan. The students were given a 40-item computerized multiple choice test in which a given situation appeared on the computer screen for each item followed by a short audio dialogue. The students had to choose the meaning of the rejoinder at the end of the conversation. The researcher used controlled vocabulary so that the words themselves were not an obstacle to the English learners.

\Taguchi found that conventional implicatures were processed by the learners more easily and more quickly than the non-conventional implicatures. Indirect refusals, a type of convention- al implicature, were the type of item on which students were the most accurate and which took the least amount of time to process. Taguchi reports that "findings from this study lend support to pragmatics theories of a close relation between the degree of indirectness and the amount of effort required for processing…Conventional implicatures (indirect refusals and requests) were easier and

took less time to comprehend than non-conventional implicatures" (23). The researcher also speculated that the indirect refusals may share a common structure in Japanese and English (ie., speakers of both languages tend to offer reasons for indirect refusals).

With the knowledge that L2 students filter their L2 pragmatic skills through the pragmatic rules of the first language, Lee (2002) examined how Korean L2 speakers of English acquired pragmatic conventions in their new language. The researcher specifically examined differences in the ways that NS and NNS speakers interpret English implicatures. Lee studied both NS and high proficiency NNS (Korean L1) graduate students at a U.S. university using a shortened version of Bouton's test of implicatures interpretation. The NS data were used as the correct answers for the NNS. Both quantitative data relating to how well the NNS students did on the implicatures test, and qualitative data which consisted of think-alouds recorded during the test, were collected and analyzed. As a side note, it is interesting to note that the Korean students spoke their think-alouds in their L1 instead of in English.

Though the sample size was small, the researcher's main goal was not to apply the results to all language learners but rather to advance knowledge of how L2 learners acquire the interpretation of implicatures in their new language, namely, English. The length of time in the culture of the target language did not seem to matter much to these higher proficiency students as their stay in the U.S. was shorter than in Bouton's studies. The Korean students performed at almost the level of the NS. At first glance, no one category of implicatures appeared to be problematic for the NNS.

Upon closer examination, however, Grice's (1975) categories of Particularized and Generalized Implicatures became important determiners of how well the NNS understood English implicatures. There was no difference between NS and NNS on the Generalized implicatures which do not require a high level of contextual analysis. However, Particularized implicatures which require a high level of contextual and non-linguistic cues to interpret were more difficult for NNS in a statistically significant way. These NNS tended to interpret all implicatures in a way consistent with their home culture which tends to be collectivist whereas American culture is individualistic.

The qualitative analysis gave Lee insight into the difficulty of the Particularized implicatures since even NS commented that they really needed to hear how the speaker said the comment in order to determine if the meaning was literal or implied. This demonstrates one limitation of a paper-pencil test of implicatures. That is, the interpretation of the implicatures was dependent on the contextual knowledge that was outside the scope of the printed page of questions. Suprasegmentals such as tone, stress, and intonation cannot be observed in a printed version of the dialogs but are important for determining the speaker's intent.

2.2 Non-Native Speaker Interpretation of Scalar Implicatures

The last three studies here have to do with NNS interpretation of scalar implicatures. Snape and Hosoi's research (2018) focused on the scalar implicatures *some* and *all.* Their study included NS of both English and Japanese, but it also included intermediate and advanced Japanese learners of English at the university level. The use of various levels of "scale" offer the listener more or less information about a topic. For example, "*some* of the bananas" would most likely be interpreted differently than "*all* of the bananas." *Some* usually signifies a subset of a whole or a group. Snape and Hosoi

observe that "the role of the hearer is to consider the utterance and determine whether the speaker has been as informative as possible because typically the words uttered by the speaker go beyond the sentence level as they convey far more" (164). In other words, there is a good deal of inference happening in the mind of the listener beyond the literal words spoken.

Their research question concerned whether L2 English learners have native-like use of scalar implicatures in pragmatic contexts, ie., with props representing the items (bananas, strawberries, etc.). The tasks were of this type: If *some* of the strawberries are inside a red circle, the respondents should state so. However, if *all* of the strawberries are inside a red circle and the question elicits whether *some* of the strawberries are inside the circle, the answer could well be *yes* or *no* (ie., yes, *some* strawberries are inside the circle - that is, if *all* are inside, then *some* are certainly inside, vs. no, not *some* but *all* strawberries are inside the circle. In the second case *some* is a subset of *all*) Native English speakers will generally answer such a scalar question with, "No, not *some*, but *all* strawberries are in the circle." With Japanese scalar implicatures functioning somewhat differently than they do in English, these English learners may typically respond with an answer such as, "Yes, *some* of the strawberries are in the circle." Barner, D., Libenson, A., Cheung, P., & Takasaki, M

Snape and Hosoi used a Truth-Value Judgment task created by Barner, Libenson, Cheung, and Takasaki (2009). The tasks asked the participants to respond to questions about the quantity of strawberries inside a circle using the scale of *a, some, all, one, two*. The English learners, both intermediate and advanced, tended to answer pragmatically "Yes" to the question, "Are *some* of the strawberries in the circle?" when all of them were in the circle. The native English speakers, however, tended to answer logically "No" to the same question. Interestingly, the proficiency level of English among the participants made no difference on their achievement of native-like use of scalar implicatures.

To investigate the intersection of scalar implicatures between English and Spanish, Syrett et al (2017) conducted several studies of the interpretation of the scalars *some* and *all* in Spanish, one study focusing on bilingual children and Spanish-speaking children. Scalar implicatures concern how the hearer interprets expressions of quantity on a scale when a so-called "weak" expression such as *some* is used instead of a strong expression like *all*. The issue can be illustrated by the following example: I ate *some* strawberries. One understanding would be that the speaker ate *some*, but not *all*, of the fruit available. A second way of looking at this sentence is to envision the *some* as a segment of *all* of the strawberries. If the speaker has eaten *all* of the strawberries, then surely he has eaten at least *some* of them (233).

The expression *some* is realized a little differently in Spanish than it is in English. Spanish has two words that are translated as *some* in English. This distinction – roughly equivalent to *some (unos)* vs. *some of the (algunos)* in English – gave the researchers an opportunity to observe differences in this scalar interpretation by English-Spanish bilingual children and monolingual Spanish-speaking children. The study involved having participants perform tasks such as, "Put some books on the table." One finding by Syrett et al was that both the monolingual and bilingual children in the study failed to distinguish between the two versions of the Spanish word *some* in the "whole set" vs.

"subset" contexts (249). In addition, the bilingual children also had trouble distinguishing between *some* and *all* in Spanish.

There were some differences in how the two groups of children scored on the "whole set" vs. "subset" scenarios. Syrett et al comment that "while monolingual children seemed to trend towards lower acceptance for the 'whole set' scenarios than in the 'subset' scenarios, bilingual children manifested a trend in the opposite direction. This pattern raises the question of whether these bilingual children are capable of calculating SIs with *algunos* [some of the] at all" (250). This study seems to raise as many questions as answers it provides about how different speakers process scalar implicatures. Clearly more research is needed in this area.

Slabakova (2009) studied native English speakers and Korean speakers in residence at an American university. Two experiments were conducted of which the first one will be discussed here. The study consisted of presenting the subjects with scalar items such as "All elephants have trunks," "Some elephants have trunks," to which the subjects responded with "agree" or "disagree" (9). Items such as "Some elephants have trunks"can be thought of as possibly being underinformative; that is, *some* can be thought of as either a subset of *all* (ie., *some but not all*) or as a weak expression when a stronger one *(all*) would be clearer.

What Slabakova found was that "Korean learners of English accept less logical answers, hence more implicatures than they do in their native language, and more than English and Korean native[s accept]" (9). These English learners may have difficulty arriving at a correct understanding of implied meanings in their L2. In addition, the researcher discovered that the native Korean and English speakers either tended to be consistently "logical" or "pragmatic" in their approach to the items. However, the percentage of "logical" judgements decreased significantly with the "underinformative" statements in the case of the L2 speakers. In other words, the L2 learners were much more likely to judge underinformative statements logically in their L1 than in their L2. This is surprising because pragmatic judgements require much more processing than logical judgements.

3. Pedagogical Implications

The difficulty of comprehending implicatures necessarily begs the question of how to teach them to second language English learners. Cignetti and Di Giuseppe (2015) found that "explicit teaching has an undoubted positive impact on the learners' ability to recover implicatures" (n.p.). In their study, before instruction on interpreting implicatures, both the control and the experimental group seemed to be unaware of them. After the explicit teaching, the experimental group achieved success a significant portion of the time over the control group on a multiple choice test. The results also indicated that the experimental group became more heterogeneous in their understanding of implicatures after instruction. The researchers attribute this phenomenon to individual variations in understanding the complexities of the implicatures. Certainly, implicatures seem to demand more cognitively than most other language structures. Yet, they are important parts of most communicative situations, and as such, Cignetti and Di Giuseppe conclude that all English as a Foreign Language programs need to include explicit instruction on implicatures.

Li (2016) suggests specifically that instruction in conversational implicatures occur during listening comprehension exercises. The researcher laments the lack of pragmatic instruction available in current textbooks, but contends that teachers can structure and use listening exercises to enhance pragmatic awareness. Another idea presented by Li is the introduction of cultural background information for interpreting implicatures. Interestingly, Nassar's research (2021) yielded insight into how students generally acquire such cultural knowledge. This research brought to light the tendency of students to learn cultural knowledge from pop culture products such as movies and magazines rather than in English class. Thus, students who are motivated to watch movies and read magazines during their out-of-class hours may have an edge on the interpretation of implicatures. When students are able to expand their knowledge of the target culture, there is less chance of misunderstandings caused by a lack of such knowledge.

Surprisingly, Bouton (1994) found that students' interpretation of implicatures improved the most dramatically in the first 17 months of their English immersion experience in an American university. This dramatic improvement happened with no direct instruction. The most difficult implicatures for the students were the Sequence and Pope Q types. Bouton further states that formulaic implicatures are very responsive to direct instruction. Formulaic implicatures follow a type of semantic or syntactic pattern that enable students to interpret them more successfully. Students can be taught the most common patterns to listen for and methods of making sense of them.

While not addressing the topic of instruction specifically, Manowong (2011) discovered that students had trouble interpreting implicatures because of low proficiency with vocabulary and grammar. This lack of English proficiency prevented students from understanding the implicatures at even a literal level. Therefore, pedagogically, students may be most ready for instruction on implicatures when they have achieved at least an intermediate level of language proficiency. The researcher also discovered the crucial element of cultural knowledge for interpreting implicatures correctly. Mohammadzadeh, Razi, and Yavuz (2019), too, found that cultural knowledge was crucial to correct interpretation of implicatures. Teachers can weave cultural knowledge into lessons throughout language instruction. Many textbooks contain resources for teaching culture.

Taguchi (2013) pointed out that students' native language may have similar structures to some types of English implicatures and therefore allow transfer to occur. The researcher also claimed that the degree of indirectness contained in a particular implicature determines its difficulty. That is, as indirectness increases, so does misunderstanding of the implicature. Taguchi postulated that conventional implicatures are much more easily and quickly learned than non-conventional types. While not addressing pedagogy *per se*, Taguchi's study indicates that students will need the most help acquiring the implicatures which have the greatest degree of indirectness.

Finally, Zand-Moghadam and Samani (2021) confirmed that task-based language teaching (TBLT) improves EFL learners' pragmatic competence overall (12) and comprehension of implicatures specifically (14). The TBLT utilizes such activities as two-way information gap tasks which require students to give and receive information from other students (12). Because the TBLT lessons consist of many different types of interactive activities and allow meaningful comprehensible input, this type of instruction leads to increased language proficiency overall and pragmatic proficiency specifically.

However, they state that proficiency with implicatures does not improve with TBLT alone but rather with a combination of explicit or implicit instruction along with TBLT (14). This finding confirms the findings of Bouton (1994) and Cignetti and Di Giuseppe (2015) that instruction in interpreting implicatures is essential for increased comprehension.

Clearly, English learners need assistance with the interpretation of conversational implicatures especially when the level of indirectness is high. Mastery of scalar implicatures appears to be very difficult. Several researchers advocate for explicit instruction in their interpretation including instruction in the syntactic and semantic formulaic patterns of some types of implicatures. Some researchers suggest that an intermediate level of English proficiency is necessary for readiness for this type of instruction. Learners' awareness of the culture of the target language and cultural differences from the native language culture is also of utmost importance. While not specifically referenced in this research, this type of instruction would most likely be effective at all levels of English proficiency.

4. Indications for Future Research

There seems to be a shortage of research concerning acquisition of English implicatures for native Spanish-speaking students learning English in the ESL context in the U.S. Open research questions might concern how English and Spanish handle implicature structures and whether there are similarities that can be leveraged to maximize the transfer from one language to another. Additionally, specific types of implicatures that are difficult for the Spanish-to-English transfer could be identified. Then, pedagogical solutions could be considered. Studies of younger students would be helpful for K-12 educators, as well, as many of the current studies concern university students.

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