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An increasing amount of attention is being focused on contrastive pragmatics, the comparison of linguistic materials of one group of speakers across various languages and cultures around the world. Knowledge of the pragmatic aspects of language is needed in areas such as language teaching and intercultural communication. The investigation presented here involves a replication of Clark & Wilkes-Gibbs' 1986 study of referring as a collaborative effort. In this case, however, two nonnative English speakers describe and match a set of 12 abstract figures. The results show that nonnative English speakers who do not share the same native language or the same system for making definite reference use different kinds of strategies to minimize their collaborative effort in conversation from those native English speakers use.

An increasing amount of attention is being focused on what Oleksy (1989) calls contrastive pragmatics, the comparison of linguistic materials of one group of speakers across various languages and cultures around the world. Since pragmatics involves the study of language from the point of view of the users, including choices made and effects on other participants in the communicative interaction (Crystal 1991), it is particularly important to consider what occurs when nonnative speakers communicate. Verschueren (1987) points out that there are important domains in which knowledge of the pragmatic aspects of language are urgently needed, such as language teaching and crosscultural and international communication.

At the same time, he adds, the role of the hearer and her influence on the speaker's verbal behavior has been underrepresented in pragmatic research. Humphreys-Jones (1986) adds that the role of the hearer in the communication process has generally been ignored as well.

Clark and Wilkes-Gibbs (1986) note that conversation is the fundamental site of language use and it is here that speakers and hearers work together to establish mutual beliefs and common perspectives in order to successfully communicate. While Clark and Carlson (1981) and Clark and Wilkes-Gibbs (1986) have begun to investigate hearers and their influence on the speaker and cooperation in face-to-face interaction, these studies primarily address native language speakers and do not deal directly with the additional concerns introduced when nonnative speakers interact. Levinson (1983) suggests that there is much to be learned from this area. He notes that "...taking features that are directly and simply encoded in one language, one may well be able to find the same features encoded in more subtle and less visible ways in either the structure or the use of other languages" (p. 43). An investigation of how nonnative speakers use linguistic devices to convey meaning and establish mutual beliefs can help inform what Verschueren (1987) refers to as the pragmatic perspective. This perspective centers around the adaptability of language, involving the constant making of choices at every level of linguistic structure.

One method of accomplishing this kind of investigation is the use of referential communication tasks. These picture card tasks have been used frequently and productively in studies of child language development and adult reference and collaborative effort in conversation (e.g., Hedelin & Hjelmquist 1991; Glucksberg, Krauss, & Higgins 1975; Krauss & Weinheimer 1964; Clark & Wilkes-Gibbs 1986; Wilkes-Gibbs & Clark 1992). The investigation presented here

involves a replication of Clark and Wilkes-Gibbs' study of referring as a collaborative effort between native English speakers during a referential communication task. In this case, a native Tamil speaker and a native Japanese speaker, both at advanced levels of English language proficiency, describe a set of 12 abstract figures. The results of their conversation are analyzed and compared to the data from Clark and Wilkes-Gibbs' study. Evidence is presented that nonnative English speakers who do not share the same native language or the same system for making definite reference use different kinds of strategies to minimize their collaborative effort during conversation from those native English speakers use.

Method

Subjects

There were two subjects participating in the study. Both were graduate students at an American university. The subject designated as director was from Malaysia, and a native speaker of Tamil. He began studying English in his home country in elementary school and has been speaking English for about 20 years. He has lived in the U.S.. for a total of three and one-half years. The subject designated as matcher was from Japan and a native speaker of Japanese. She has been speaking English for six years and has lived in the U.S. for four years. Both subjects spoke English at an advanced level of proficiency.

Material

Two sets of Tangram figures on 3 x 5 inch index cards were used. Both sets were identical and consisted of 12 Tangram figures, created from elementary geometric shapes, with one figure per card (see Figure 1). The figures were replications of those used by Clark and Wilkes-Gibbs (1986) in their study of referring. Cardboard was used to fashion opaque screens that were arranged between the subjects.

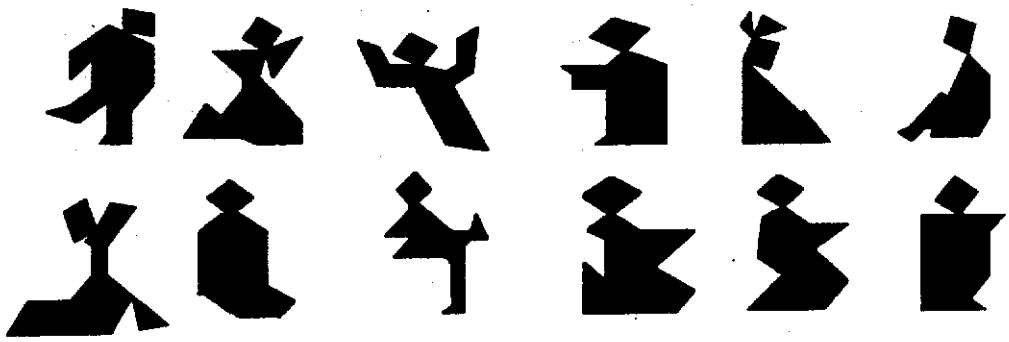

Figure 1. Tangram figures

Design and Procedure

The two subjects were seated across from each other at a conference table, and opaque screens were set up in front of them so that they could not see the other's cards. They could, however, see each other's faces. A small tape recorder was used to record the entire session.

The subjects were told that the task of the director was to describe the figures so that the matcher could correctly identify each one. The matcher was told she could also request more information from the director if desired. The 12 cards were laid in front of the director and matcher, face up, in random order, in two rows of six cards each. The director was instructed to begin with the card in the top row, left corner and work from left to right across the first row, before proceeding to the second row. At the end of each trial, the director and matcher compared their cards to see if they had made any errors. The sets of cards were then reshuffled and arranged in front of each subject to start the next trial. There were six trials in all. Each trial was timed from the point at which the director began to give his first description until either the director or matcher indicated that they were finished with the task.

Results

In this section, the results from the nonnative English speaking (NNS) pair are compared with the results of Clark and Wilkes-Gibbs' study (1986) of collaborative referring among native English speaking (NS) pairs.

The six timed trials of the NS pairs took an average of 25 minutes per pair, in comparison to the 24 minutes for six trials for the NNS pair. This was expected, since the NNS pair were both proficient English speakers who had lived in the U.S. for approximately four years and were attending graduate level university courses. Looking at the number of words, it was noted that the NS pairs used an average of 1,224 words per six trials. In comparison, the NNS pair used a total of 3,605 words during the six trials, nearly three times as many words as the NS pairs. This information was broken down further into a measure of the average number of words used by the directors per figure and is presented in Figure 2. As with the NS pairs, the NNS pair became more efficient from one trial to the next. However, while the NS directors used an average of 41 words per figure on trial 1, the NNS director used an average of 78 words per figure, or nearly twice as many words. Yet, by trial 6, when the NS directors were using an average of 8 words per figure, the NNS director was using only 12 words per figure on average, only 1.5 times as many words.

Figure 3 shows the comparison between the pairs of the average number of speaking turns taken by the directors per figure. The NS directors used an average of 3.7 turns per figure on trial 1 and only 1 turn by trial 6. In comparison, the NNS director used only slightly more turns, with an average of 4.8 turns per figure on trial 1 and only 1.5 turns by trial 6. Taken together, these two measures show that the NNS director used more words per turn to reach mutual agree-

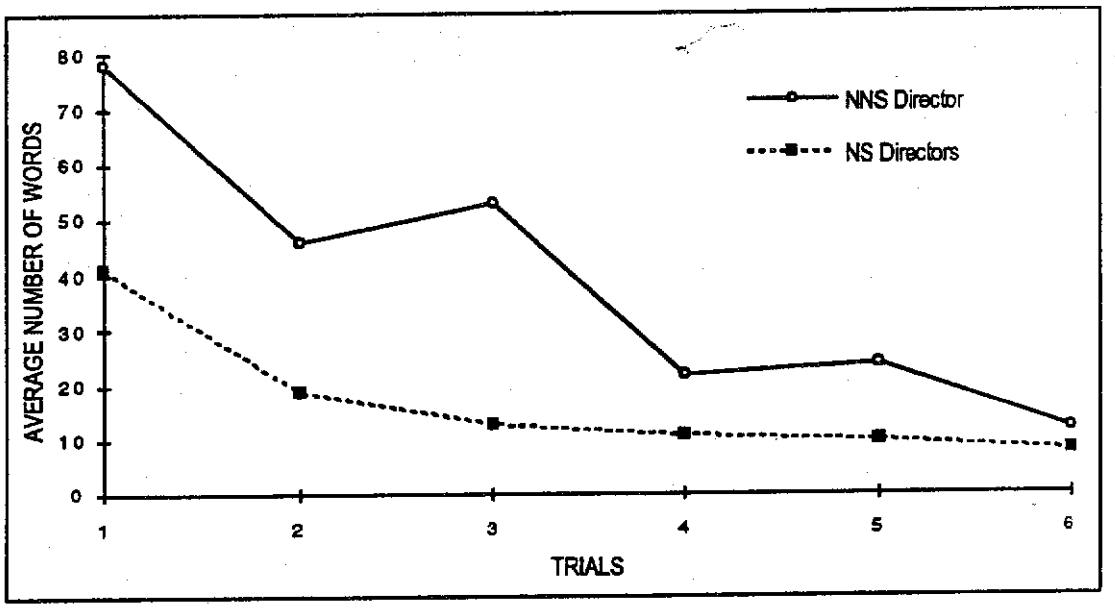

Figure 2. Average number of words used by directors per figure.

ment on the figures being described than the NS pairs did. Additionally, the NNS pair had a 7% error rate across trials as compared to an error rate of 2% for the NS pairs. Interestingly, most of the errors occurred in trial 2, rather than in trial 1 as one might expect. In trial 3, the number of words used by the director and the matcher increased by 17% over trial 2. After trial 2, the NNS pair made no errors.

One of the most interesting findings concerned the use of indefinite and definite references. Clark and Wilkes-Gibbs (1986) reported that, in trial 1, their NS pairs used indefinite references in descriptive statements about the figures (e.g., a person who's kneeling). After trial 1, however, they used what Clark and Wilkes-Gibbs (1986) called 'identificational' statements with definite references 89% of the time (e.g., the guy with his arms raised). After trial 1, there were only seven times when the NS pairs categorized a figure as "is an x" rather than "is the x". In contrast, the NNS pair continued to use indefinite references throughout all six trials. In the last five trials, definite references were made only 20 times. Furthermore, during trial 6, the

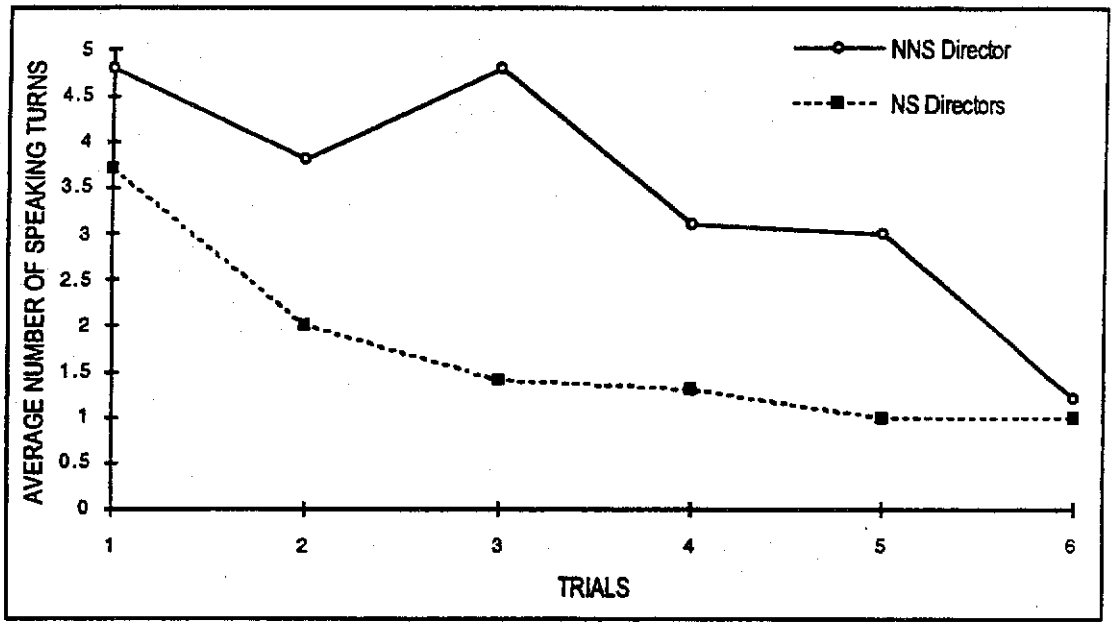

Figure 3. Average number of speaking turns by directors per figure.

director continued to use indefinite references a total of seven times during his 13 turns.

Another point of comparison between NS pairs and this NNS pair concerned their preference for perspective. Clark and Wilkes-Gibbs found strong support for their prediction that NS pairs would take a holistic, analogical perspective (e.g., looks like someone lying on the floor), rather than a segmental, literal perspective (e.g., looks like a triangle and two parallel lines) as a basis for their references in order to minimize collaborative effort. However, this pattern was not followed by the NNS pair. The NNS director used a literal perspective in 53% of his turns, and an analogical perspective in 47%. Also, the matcher used a literal perspective in 58% of her turns and an analogical perspective in 42% of her turns. However, despite the matcher's larger percentage of turns using a literal perspective, she had indicated a preference for an analogical approach during a brief chat with the director between trials 3 and 4:

Director: See, I'm using my knowledge of math, you know. I mean, we are using our knowledge of math, you know, to...
Matcher: I'm, I'm really bad at math. That's why the ver-, this one, like vertical thing, doesn't work.
Director: Ah, vertical/horizontal. Oh, I see.
Matcher: Look like mouse? Ok.
Director: Oh, oh, I see. Oh, uh huh.

Figure 4 shows how, following the matcher's comment, the director increased his use of analogical descriptions, although he still continued to use some literal descriptions. Of equal interest, it can be seen that the matcher, despite her stated preference for analogical descriptions, converged toward the director's use of literal descriptions. In fact, in trial 4, when the director used an analogical description, the matcher frequently used a literal description as a confirmation check:

Director: Ok, first one is bent leg, you know.
Matcher: Ok.
Director: Bent leg.
Matcher: Two figures, one square on the top and bent at the right side?
Director: Ah, yeah, just two figures.

The director also converged toward the matcher in another respect. When the matcher habitually failed to use an obligatory article with certain noun phrases, the director adopted her strategy and used no article for these same phrases, as in the following example:

Matcher: Two figures and .., it's not, not fish.
Director: Not fish. Ah, ok.
Matcher: Ok.
Director: It's not fish, ok.
Matcher: And the last one is fish.
Director: Ok, we are finished, ok.

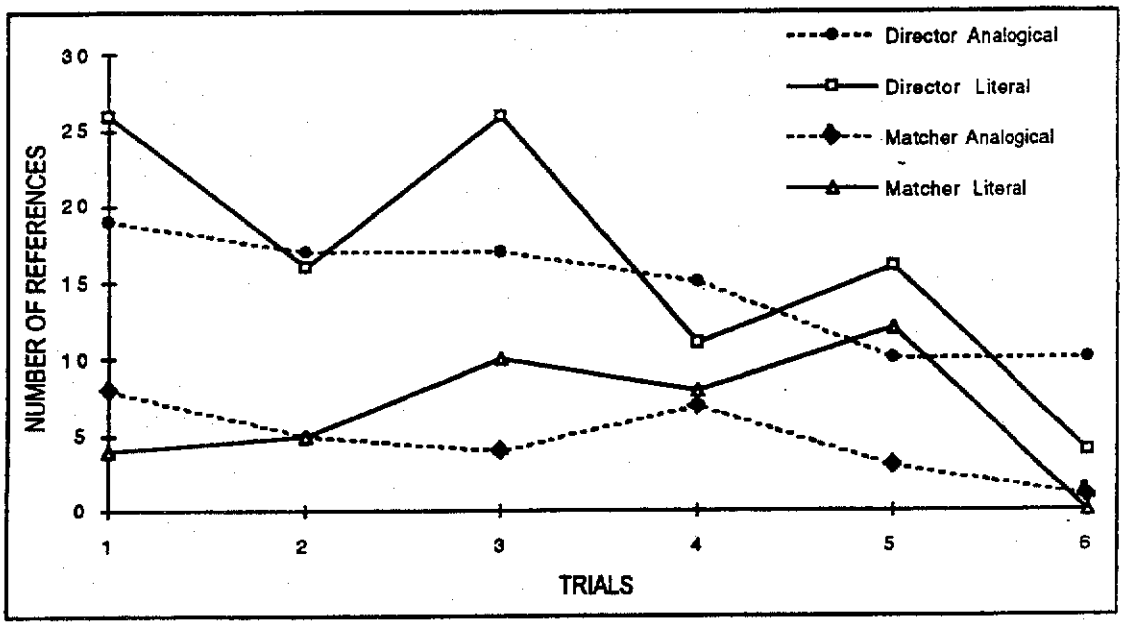

Figure 4. Comparison of director and matcher's use of analogical v. literal perspectives per trial

It was also observed that the director used a large number of comprehension checks, such as "you know," "you see," and "ok". These were classified as comprehension checks (as opposed to idiosyncratic fillers) if they were spoken with a rising intonation at the end. In total, the director used 98 comprehension checks of this type throughout the six trials, which accounted for 6.2% of his total words used.

Discussion

The findings of this study show that a pair of nonnative English speakers completed an experimental task requiring collaboration in approximately the same time as native English speaking pairs. That advanced English proficient nonnative speakers could successfully communicate was not in doubt. What was of interest, however, were the ways in which the nonnative speakers collaborated to establish reference, and how these ways differed from native speakers.

Clark and Wilkes-Gibbs (1986) state that "In each referential process the director and matcher must find a perspective they can mutually accept for current purposes.... For each of these they need to

take special steps at the first mention to establish a common perspective. If that takes more collaborative effort than the director believes possible on trial 1, he shouldn't *refer* [italics in original] to the figures but try first to establish a common perspective" (p. 29). In striving to establish this common perspective, the NNS pair did not show a preference for using definite reference in identifying the figures in the same way that the NS pairs had. In fact, in the last five trials, definite references were made only 20 times. The question arises as to why the NNS pair did not use the same strategy as the NS pairs and what was substituted in its place in order to achieve a common perspective. One possible explanation is that while the director's native language, Tamil, does have definite articles used similar to English, the matcher's native language, Japanese, does not. The matcher was capable of using articles appropriately as evidenced by the fact that they appeared in the trials on some occasions. However, there were at least twenty occasions during the six trials where the matcher did not supply articles in obligatory contexts. This did not seem to pose a problem for the director, though. Instead, he adopted the pattern of the matcher and made reference to some of the figures without any article. Thus, while the director said "looks like a fish" in early trials, he changed his reference to simply "That's fish" in later trials after the matcher had referred to the figure as "is fish". This tactic seemed to have the effect of creating a proper name for the figure, conveying definite reference in a less than conventional way.

The limited use of definite noun phrases by the director and the matcher did affect the collaborative effort of the two subjects in that the director had to use more words to describe the figures, up until the last trial. Although the NNS pair did not use definite referring expressions as suggested by Clark and Wilkes-Gibbs' principle of

least collaborative effort (1986), they did attempt to minimize effort through constructing proper names for figures. They also converged toward each other's preferred perspective and increased the use of comprehension checks.

Clark and Wilkes-Gibbs' collaborative view of reference (1986) states that pairs will take many words to reach an acceptable description on a figure when it is first encountered because they will use many nonstandard techniques, such as expansion, self-correction, trial noun phrases, installment noun phrases, and so forth. Later, identification of the figure should be accomplished more quickly since standard noun phrases (i.e., proper nouns, definite descriptions and pronouns) can be used to make definite references. Although the NNS pair did shorten their references on successive trials, they did not do so with standard noun phrases. Instead, they converged toward each other's preferred strategies. For example, the director attempted to use more analogical descriptions after the matcher stated her preference for them, while at the same time, the matcher moved toward the director's preference for literal descriptions by using them for confirmation checks with him. Also, the director used many comprehension checks during the trials to determine whether the matcher understood his descriptions. Over 249 total turns, the director made 98 comprehension checks with phrases like "you know?" or "you see?". This suggests that the director and matcher spent a great deal of time attempting to establish a mutual belief concerning their reference to each figure. This is supported by the fact that they used nearly three times as many words as the NS pairs to accomplish their goals, although they did so in approximately the same amount of time. Some of this may be accounted for by the topic-comment structure of Japanese (Levinson 1983). The tendency is for Japanese speakers to wait until the end of an utterance in order to determine its

predicate. The large number of comprehension checks suggest that, frequently, the director was uncertain of whether a mutual understanding had been established so that he could proceed to the next figure.

Conclusion

These findings show that a pair of nonnative English speakers used other devices when their command of English referring expressions or their confidence in establishing a mutual belief was not sufficient for the task at hand. The use of only one subject pair, however, does not allow for any generalizing at this time. Nevertheless, as a case study, it does suggest some interesting directions for future studies. Larger groups of pairs, including pairs with the same native language backgrounds and native and nonnative pairs, should provide more insights into how speakers and listeners collaborate in establishing reference when the conventional means are not easily accessible to one or both of the parties. It could be expected that same native language pairs would utilize strategies that differ from those used by pairs with different native languages. Additionally, within same native language pairs, those languages that use definite articles and those that do not might approach collaboration in different ways. Research into the nature of these strategies can add an important dimension to our knowledge of contrastive pragmatics. Also, in terms of pedagogy, second language learners could benefit from more instructional attention on establishing reference. Tasks like this Tangram experiment can provide a useful context for collaborative language use in the classroom.

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