
PRAGMATIC COMPREHENSION: THE DEVELOPMENT OF SPEED AND ACCURACY IN ENGLISH AS A FOREIGN LANGUAGE

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Abstract

This study examined the development of pragmatic comprehension ability in terms of speed and accuracy across time. Sixty university students of Turkish completed a pre-test and a post-test measuring ability to comprehend implied meaning in dialogues. The participants' comprehension was analyzed for accuracy (scores on the listening task) and comprehension speed (average time taken to answer each item correctly). The learners' accuracy and comprehension speed improved significantly over a 8-week period. However, the effect was lower for comprehension speed than for accuracy. Foreign language proficiency bore no relationship to comprehension speed, and speed had no relationship with accuracy. Moreover, accuracy and comprehension speed were not related to each other. These findings suggest that development of pragmatic knowledge and processing capacity of using the knowledge may not coincide perfectly and necessarily in foreign language development.

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Introduction

Language learners' pragmatic performance in communicative contexts has been analyzed by abundant second language (L2) research with the realization of the role of pragmatic competence in communicative ability. However, in the existing literature, pragmatic competence has been analyzed mainly from production skills, specifically production of speech acts. Little L2 research or foreign language research have investigated comprehension of pragmatic functions (Kasper & Rose, 2002).

According to Thomas (1995), meaning has two levels: *utterance meaning*, and *force*, or speakers' intention behind the words. *Pragmatic comprehension* entails understanding meaning at both levels. It involves the ability to understand what words and sentences mean and the ability to communicate appropriately in particular contexts of use, as well as to understand what speakers mean by them. It contrasts with linguistic competence, which refers to the mastery of the general rules of language abstracted from its use. Therefore, comprehension of *implied meaning*, namely, meaning "that goes beyond what is given by the language form itself or what is literally said" (Verschuere, 1999, p. 25), is an important aspect of comprehension ability. Grice (1975) explains the comprehension process of implied meaning by using a notion of *conversation maxims*, or rules of communication. The conversation maxims enable people to interpret implicit meaning.

Implied meaning is understood based on the assumption that the speaker operates under the listener's ability to supply contextual information to make inferences from seemingly unrelated utterances. Sperber and Wilson (1995) used *relevance theory* to extend Grice's insight and claimed that communication is achieved by interpreting contextual cues and using them to infer speaker's intention. Contextual cues include not only such external factors as physical environment or the immediately preceding discourse, but also internal factors such as one's knowledge about the world, conventions, and experiences. Relevance theory also emphasizes the relation between context and processing effort. The theory argues that the human mind instinctively reacts to an encoded message by considering information conceived to be relevant to the message. By "relevance" it is meant whatever allows the *most new information* to be transmitted in that context on the basis of the *least amount of effort* required to convey it (Sperber, 2004).

As understood above and from the literature, a relatively few number of studies have examined whether language learners can comprehend implied meaning accurately (Bouton, 1992, 1994, 1999; Cameron & Williams, 1997; Carrell, 1981, 1984; Cook & Liddicoat, 2002; Garcia, 2004; Kasper, 1984; Koike, 1996; Röver, 2005; Takahashi & Roitblat, 1994; Taguchi, 2002, 2003; Ying, 1996). Some studies examined the ability to comprehend implicit meaning in relation

to L2 proficiency and the degree of directness or conventionality encoded in utterances.

In summary, a few previous studies have documented that successful comprehension of implied meaning depends on the degree of processing effort necessary for comprehension, as well as learners' general target language proficiency. What is not examined systematically is the developmental aspect of pragmatic comprehension. Only one study to date has examined development of pragmatic comprehension using a pre- and posttest design. Bouton (1992, 1994) investigated L2 learners' comprehension of conversational implicatures. ESL learners took a test that had short written dialogues including different types of implicatures. The results showed that learners' overall comprehension improved over time along with the length of residence in the target language country. Also, only a few studies to date have examined speed in pragmatic comprehension (Takahashi & Roitblat, 1994; Taguchi, 2005). In Taguchi's (2005) study, native English speakers and Japanese college students of EFL completed a listening test measuring ability to comprehend more and less conventional implicatures. Comprehension was analyzed for accuracy and speed. Results showed that, for L2 learners, comprehension of more conventional implicatures took less time than comprehension of less conventional implicatures. Proficiency had a significant impact on accuracy, but not on comprehension speed, and no significant relationship was found between accuracy and comprehension speed. These previous studies suggest that pragmatic knowledge and the capacity to use or process the knowledge are distinguishable underlying aspects of target language communicative competence and therefore should be examined separately. In addition, there has been an increasing attention to the interdependence between cognition and language performance, cognitive processing abilities, such as lexical access skill, which are considered to affect performance. Because limited empirical evidence has demonstrated the relationship among cognitive variables, general proficiency, and pragmatic comprehension, future research also awaits in this direction.

This study investigated the ability to comprehend implied meaning among learners of English as a foreign language, based on the gaps in the existing literature. The purpose of the study was to examine the development of accuracy and comprehension speed across time. One research question guided this study:

(1) Does foreign language learners' ability to comprehend implied meaning improve over time,

in terms of accuracy and speed of comprehension?

Methodology

Participants

Sixty Turkish learners of English participated in this study. The Turkish learners were freshmen enrolled in an intensive English program at a university in Turkey. There were 20 males and 40 females with their average age of 18, ranging from 17 to 22 years old. The students received between 16 and 18 hours of content-based instruction per week in the program over a half-semester period (8 weeks). All classes were taught in English and provided academic activities, such as listening to lectures and taking notes, participating in discussion and writing essays. They were all in upper-intermediate level of English. The students did not have extensive contact with native English speakers outside the classroom. Among the 60 Turkish participants, seven students had from 2 to 4 months experience living overseas through WAT (work and travel programme).

Instruments

Pragmatic Listening Task

Participants' ability to comprehend implied meaning was assessed by a test as pre and post, which was used in Lee's previous research (2002). The Implicature Comprehension Instrument (ICI) was used for data collection purposes.

The implicature comprehension instrument

The Implicature Comprehension Instrument (ICI) is a multiple choice discourse completion task (MDCT), which is defined by Jianda (2006: 4) as follows: "test items where the test taker is required to choose the correct response from the several given options". The rationale behind choosing this specific type of instrument was the concern for practicality. Besides being administered and scored easily, MDCTs are suitable for testing large groups. The MDCT used in the present study is named Implicature Comprehension Instrument (ICI) by the researcher and is an abbreviated version of Bouton's instrument (1988, 1994). The test has been applied as a pre-test and post-test so that the results can be compared. Each correct answer received 1 point while choices of the other options were assigned 0 point. The reliability of the instrument was verified by Bouton (1988, 1994) over four years as part of a longitudinal study and the original version of the test was used in a study by Lee (2002). Consequently, the administration of a pilot test was not necessary.

Data Collection Procedures and Analysis

The data to be used in the study were collected through computerized administration of the research instruments with the freshman undergraduates of the Department of Medicine, Hacettepe University. This took place in the first week of February and April 2007. The lecturers of the department were requested to administer the instruments in their freshman classes at different times of the week. The instruments were administered in one session. Four sections of the freshman undergraduates filled in the tests during class time, which lasted 45 minutes. The students completed the tests in approximately 45 minutes although there was no time limitation.

Analysis of implicature comprehension Data

The ICI scores of the participants were coded into the computer. The descriptive and inferential statistics on the test results were run by SPSS 15. Development of speed was analyzed using two matched-pair *t* tests comparing the differences in accuracy scores and response times between the pre and post-test sessions.

Results

Development of Pragmatic Comprehension Ability

In this part, the results of the ICI (Implicature Comprehension Instrument) applied to 60 participants are displayed. In order to understand the extent to which the participants could comprehend implicatures, descriptive statistics of ICI were calculated.

Descriptive statistics for ICI

Mean	Number of Items	Min-Max	Variance	SD	SEM
8.9	10	4-9	6.5	3.11	2.4

That reveals that the mean score in the questionnaire is 8.9 on a scale of 0- 10. This might be interpreted as a moderate level of success. A further analysis was needed to see if there was any difference between the comprehension rates of different types of implicatures.

As can be seen in Table-1, the success rates varied significantly across items given. Overall, participants had a success rate of 80 % and above on the five items (1, 5, 6, 8 and 10). The other items' success rate is between 40- 50 %.

The *response time* refers to the average number of seconds taken to answer each item correctly. It shows that they became faster in responding to the items over a 8-week period. However, compared with the accuracy gain, the effect size for the response time difference was much smaller, 0.10 which shows small effect. The results thus suggest that the degree of development differed between accuracy and

response speed; the gain of speed when processing pragmatic information was smaller than that of accurate understanding of pragmatic meaning.

Discussion

This study revealed improvement of pragmatic comprehension ability among EFL learners over a 8-week period, in terms of accuracy scores as well as response times. In this study, pragmatic development, in terms of accuracy and speed in comprehending implied meaning, was noted among learners in a foreign language context with no exposure to pragmatic conventions and sociocultural practice. The results lend support to the previous claim that learning in a foreign language context does not necessarily disadvantage pragmatic development (Ohta, 2001); it is the way in which learning is organized and fostered that enables or hinders pragmatic development. It is possible that the EFL learners in this study became more skilled at deriving implied speaker intentions over time because they were able to transfer their L1-based inferential practice to foreign language comprehension. The transfer of inferential skills occurred as learners received more classroom practice in their general listening skill, and thus their listening ability, as well as their overall language proficiency, improved over time. The increase of speed observed among foreign language learners also adds to the previous theoretical claims in the area of cognitive skill development. Information processing models developed by cognitive psychologists argue that the speed of language processing develops naturally in accordance with increased associative practices between input and response (Anderson, 1990; McLaughlin, 1987; Rumelhart & McClelland, 1986). The results suggest that the development of processing speed could occur in a domestic, formal classroom setting. One potential explanation is the intensive instruction in the target language that the learners received at the institution.

Although both accuracy and speed showed significant developmental trends over time, the respective degrees of development differed: Speed increased much less than accuracy did during the 8-week period. The effect size of the mean difference between the pretest and posttest was 0.42 for accuracy scores, but it was 0.10 for response times. Thus, analyses of the two attributes, accuracy and processing speed, revealed different types of information about pragmatic development. Development of performance speed, namely, automatic realization of pragmatic knowledge, seems to lag behind in foreign language acquisition and does

not develop as quickly as accurate demonstration of pragmatic knowledge.

Suggestions for Further Research

One major limitation in this study is the homogeneity of the participant population. Because the participants were limited to adult Turkish EFL learners, findings cannot be generalized to different groups of English language learners. This study found pragmatic gains among EFL learners in an intensive, massed instructional format. However, as this study does not include comparative groups of EFL learners or learners in a traditional English class in nonintensive format, the precise contextual factors that affect the development

are not clear. To overcome these limitations, future research should examine pragmatic comprehension over a wider range of instructional environments. Another limitation of this study relates to the limited number of data collection sessions. Because this study compared performance gains between the beginning and end of the 8-week session, the study did not capture the incremental developmental trend over an extended period of time. Such longitudinal analysis is important, particularly because the size of speed gain was smaller than that of accuracy gain. Future research should incorporate more frequent observations and monitor students' progress for a longer period of time.

Table 1. Correct response rates per item in ICI

# Item	Correct answers	
Item	n (pre-test)	n (post test)
1	36	56
2	38	44
3	30	38
4	28	44
5	50	52
6	43	48
7	39	42
8	41	56
9	28	36
10	46	49

As can be seen in Table-1, the success rates varied significantly across items given. Overall, participants had a success rate of 80 % and above on the five items (1, 5, 6, 8 and 10). The other items' success rate is between 40- 50 %.

Table 2. Descriptive Statistics of Learners' Response Time in Seconds in a Pragmatic Listening Task

	Mean	SD	Min	Max
Pretest				
Implied meaning items	5.69	1.91	2.70	13.24
Posttest				
Implied meaning items	5.20	1.61	2.29	11.46

*The *response time* refers to the average number of seconds taken to answer each item correctly.

	Mean	SD	Min	Max
Pretest				
Implied meaning items	5.69	1.91	2.70	13.24
Posttest				
Implied meaning items	5.20	1.61	2.29	11.46
Pretest				
Implied meaning items	5.69	1.91	2.70	13.24
Posttest				
Implied meaning items	5.20	1.61	2.29	11.46

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