Task Complexity and Variation in L2 Learner's Oral Discourse

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Abstract: There are many factors which affect the L2 learner's performance at the levels of phonology, morphology and syntax. Consequently when L2 learners attempt to communicate in the target language, their language production will show systematic variability across the above mentioned linguistic domains. This variation can be attributed to some factors such as interlocutors, topic familiarity, prior knowledge, task condition, planning time and tasks types. This paper reports the results of an on going research investigating the issue of variability attributed to the task type. It is hypothesized that the particular type of task learners are required to perform will result in variation in their performance. Results of the statistical analyses of this study investigating the issue of variation in the performance of twenty L2 learners at the English department of Tabriz University provided evidence in support of the hypothesis that performance of L2 learners show systematic variability attributed to task.

Key words: task types, systematic variation, task complexity

The issue of task types and variation in L2 learner's performance is of main concern of language instructors and syllabus designers. There are many sources and factors which cause systematic variation in L2 learner's performance (Ellis, 1985, 1986, 2000; Robinson, 2001; Robinson, Rahimpour and Urwin, 1996; Rahimpour & Harrington, 1996; Rahimpour, 1995, 1997, 1999, 2002, 2005a, 2005b; Dickerson & Dickerson, 1977). These sources include interlocutors, topic, planning time and tasks types which affect the L2 learner's performances in terms of phonology, morphology and syntax. Of course there are also other reasons and factors causing variation in L2 learner's performance. For example, Freeman and Long (1992: 82) argue that a high degree of learner variability in the L2 learner is due to a number of factors. First, compared with the first language, there is a rapid development in L2. A second reason is that adult SL acquires are less cognitively and psycholinguistically constrained than young children acquiring their native language. Their long term memory and processing ability are much improved. The main focus of this study is only to investigate the effect of task types on L2 learner's performance and study of other sources and factors are beyond the scope of this study.

It is discussed that L2 learner's performance differs from task to task. In other words different task types will yield different kinds of production by L2 learners. Therefore a particular type

of task that a learner is asked to perform will also result in variation. This kind of variation, which is due to task differences, is called "task-induced variation" by Ellis. He argues that this is best considered as a blanket term to cover the variability evident when learners perform different tasks (Ellis, 1994:135). This idea is also confirmed by Tarone (1982, 1983, 1985, 1988, 1990) who argues that as second language learners perform different tasks, their production of some grammatical, morphological and phonological forms will vary in a particular manner. Tarone (1979) claims that language varies with a subtle shift of situation, just as a chameleon changes as its surroundings change. She proposes that the interlanguage of L2 should be viewed as a variable system, a system that changes when a linguistic environment changes. She then reports that performance of second language learners on a written grammar test varied from their performance when attempting to communicate orally. There is also ample evidence which suggests that learners perform differently in a grammaticality judgment task and in oral production. Liceras (1983) found that learners produced very low scores on a grammaticality judgment task in comparison with their scores they achieved on a translation and a blank-filling task. Rahimpour (1997) also found that learners' performance in the grammaticality judgment task was syntactically more accurate than their performance in the translation task. Further evidence was provided by LoCoco's error analysis (1976). LoCoco found that the number of errors made by adult elementary learners of SL Spanish varied according to task. For example, preposition errors were more common, and adjective and determiner errors less common, in the translation task than in the free composition and picture description tasks. LoCoco suggested that the learners' perception of the task might be one factor influencing the results. Thus, the learner might have focused on accuracy in the translation task and on expressing ideas clearly in the picture description. Tarone (1983) also agrees with Dickerson and Dickerson (1977) that IL phonology is systematically variable. Dickerson and Dickerson found that Japanese learners of English produced /r/ with varying degree of correctness, depending on whether they were speaking freely, reading a dialogue, or reading a word list. Correct production of the /r/ occurred most frequently in careful speech and least frequently in casual speech. Schmidt (1980) found that learners from different native language backgrounds also varied in their treatment of a rule allowing second-verb ellipsis in English, as in:

   1. *Mary is eating an apple and Sue 0 a pear.*

In another study, Tarone (1988:14) found that learners never produced a sentence like the above one in free and oral production.

All of these factors cause variation and can be considered as dimensions of task.

The present study examines the oral production of learners under two conditions and operationalizes a speculation by Long (1985) claiming that tasks requiring present tense, context supported references (Here-and-Now) are easier to perform than tasks requiring the past tense, context-unsupported reference (There-and-Then) to objects and events dislocated in time and space. The theoretical framework for the proposed task complexity is based on research into first language acquisition (Brown & Bellugi, 1964), research findings from second language development (Meisel, 1987), and functional linguistic theory (Givón, 1989). The claim developed in the present study is that second language narrative tasks requiring reference to There-and-Then are more complex than those requiring reference to the Here-and-Now, and this complexity will be reflected in learners' oral discourse in terms of fluency, accuracy and complexity. Meanwhile research to investigate the complexity of second language tasks is necessary as input to pedagogical decisions regarding the grading and sequencing of the tasks for the purpose of syllabus design (Robinson, 1995). The following data-based study was thus carried out to investigate the variation in the performances of the learners which is attributed to the task complexity.

The above brief literature review thus generated the following research question and research hypothesis:

Research Question: To what extent do different types of tasks elicit different kinds of performance?

Research Hypothesis: Different hypothetical parameters of task complexity affect the L2 learners' oral discourse in terms of fluency, accuracy, and structural complexity.

Method

Participants

Twenty male and female English majors of English department of Tabriz University at the intermediate level were chosen randomly as the participants of this study.

Material

Two picture stories, one in the mode of Here-and-Now (present tense and context supported) and the second one in the mode of There-and-Then (past tense and context unsupported) were used to collect data for this study.

Procedure

The participants were required to view the picture stories separately for one minute and then recall the stories. In the Here-and-Now task, participants were allowed to look at the picture story but in the There-and-Then task they were not allowed to look at the picture story and they had to rely on their memory. Their production in the two tasks was then recorded, transcribed and coded for scoring and statistical analysis.

Results

Participants' production were scored and evaluated in terms of *accuracy* while measuring Error-Free T-Units, *fluency* while measuring Words per Pause and *linguistic complexity* while measuring Lexical Density. To measure lexical density, the number of underlying sentence nodes, indicated by tensed and untensed verbs, in a narrative was divided by the number of T-Units in that narrative. A matched T-test was employed as the statistical means for the data analysis purposes. The results of the statistical analysis revealed that there was a significant difference between participants' performances in Here-and-Now and There-and-Then tasks in terms of accuracy, complexity and fluency. The results of the statistical analysis thus confirmed our hypothesis that different task types elicit different performance. Consequently it can be claimed that performances of L2 learners show systematic variability which is attributed to task types.

The mean differences between the performances of the participants in the two tasks are presented in Table 1.

Table 1. Means and standard deviations for two tasks

	Here-and- Now		There-and-Then	
Measures	**M**	**SD**	**M**	**SD**
EFTU	2.41	.87	5.10	.57
LD	51.78	5.85	41.83	4.09
WPP	8.99	1.36	4.64	.66

EFTU= Error-Free T-Units

LD = Lexical Density

WPP= Words per Pause

As Table 1. shows, participants produced more accuracy in There-and-Then task and less accuracy in Here-and-Now task as reflected in the number of Error-Free T-units. Here-and-Now task led to more linguistic complexity than There-and-Then task reflected in the number of Lexical Density. Again as Table 1 illustrates participants were more fluent in Here-and-Now task than in There-and-Then task which is reflected in the greater number of Words per Pause. .

The variation in terms of accuracy, reflected in the number of Error-Free T-Unites, between the two tasks of Here-and-Now and There-and-Then performed by the participants is illustrated in Figure 1.
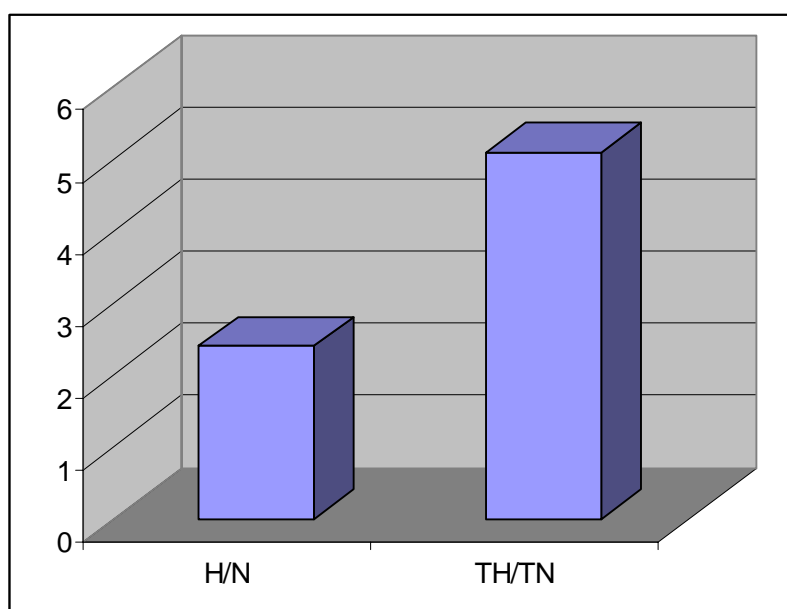

Figure 1. Accuracy measure by Here-and- Now and There-and-Then tasks

The variation in terms of complexity, reflected in the number of Lexical Density, between the two tasks of Here-and-Now and There-and-Then performed by the participants is illustrated in Figure 2.
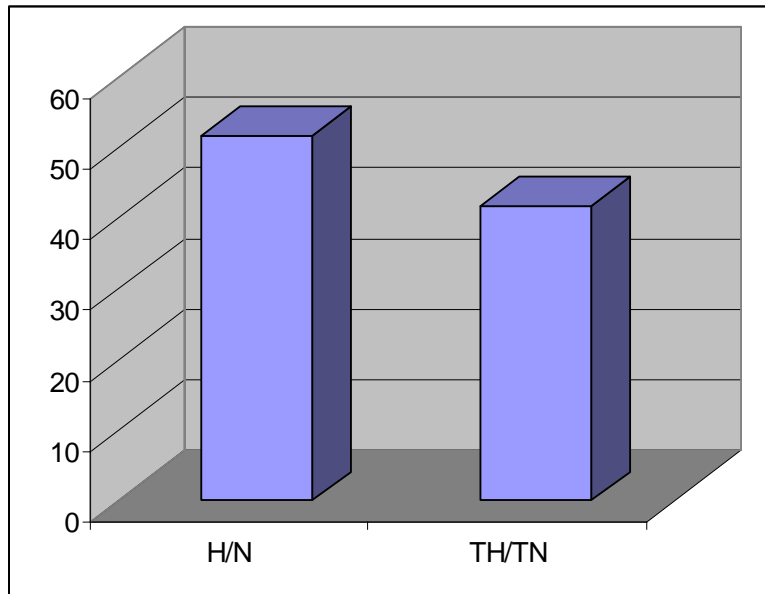
Figure 2.Complexity measure by Here-and-Now and There-and-Then tasks

The variation in terms of fluency, reflected in the number of Words per Pause, between the two tasks of Here-and-Now and There-and-Then performed by the participants is illustrated in Figure 3.
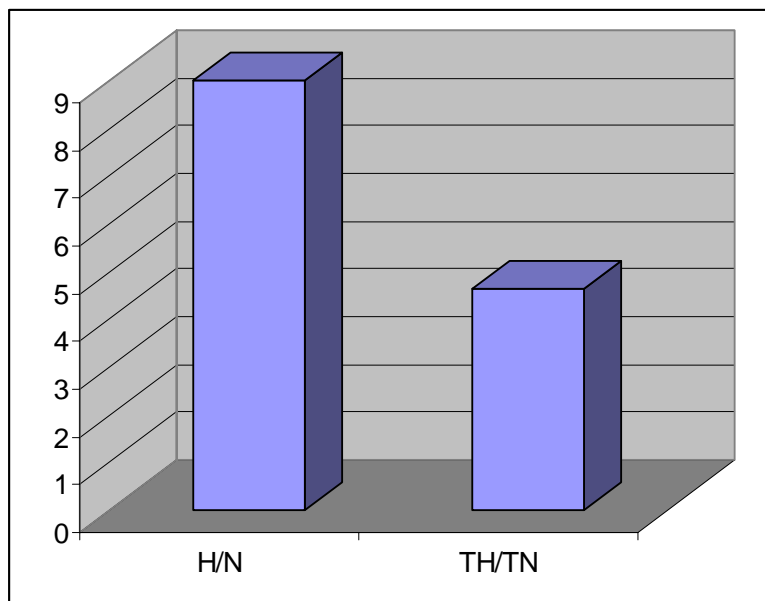

Figure 3. Fluency measure by Here-and-Now and There-and-Then tasks

Discussion

Significant differences were found between the two different tasks performed by the participants of this study in terms of accuracy, complexity and fluency. As shown in Table 1 and Figure 1, There-and-Then task led to more accuracy than Here-and-Now task, while Here-and-Now task led to more complexity than There-and-Then task. In terms of fluency, Here-and-Now task led to more fluency than There-and-Then task. The three differences were significant at $P< .05$.

The greater accuracy in There-and-Then can be interpreted in terms of Long's view (1989) that a difficult task will lead learners to stretch their interlanguage resources. The accuracy can also be interpreted in terms of Givon's (1985) pragmatic and syntactic modes demanding learners to use greater syntactic resources and abilities which will lead to an increase in grammatical accuracy. The accuracy can also be attributed to the load of attention paid by the learners to the difficult task than paid to the easy task.

The greater fluency in Here-and-Now task can be attributed to the lesser cognitive load paced on the learner. Meanwhile access to the context supported in Here-and-Now task provides more information learners need to talk about in the narration of the picture story.

Summary

This study has investigated the issue of variation in L2 learner's performance, which is attributed to task types performed by learners. In sum, task differences are shown to be a basic source of variation in L2 learner's performance (Tarone, 1974, 1979; Ellis, 1994, 2000; Rahimpour, 1995, 1997; Robinson, 1995). The findings of this study revealed that different task types lead to different performances by the learners. Consequently learner's interlanguage is systematically variable and this variability is attributed to the task types performed by the learners.

The findings of this study may have implications for SLA theory and language testing as well as for syllabus designing and material development. Further data based research is still needed to prove the validity of the results presented in this study.

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