Individual Differences in a Proficiency Task as a Function of L2 and non L2 Specific Dimensions

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ABSTRACT

Research suggests that cognitive characteristics, aside from L2-specific knowledge, contribute to variation in language performance. Reading, for instance includes attitude as a very important factor and not L2-specific knowledge when determining reading ability. Research has shown that how readers extract information from the text is also proven to involve features that are not based on L2 knowledge. This paper explores how poor performance on a L2 task may be due to general language skills and other non-language specific variables. The present study employed a cross-linguistic, within-subject design that dealt with individual differences in L2 speaking via reading aloud. Results show that the highest-ranking student/s on the ITEO exam and diagnostic essay and the highest performing student based on the previous GPA were not the fastest readers, had more disfluencies, and were not able to supply all the correct words in both in L1 and L2. This shows that there are variables that affect L2 performance. This further proves that performances on L2 tasks may be more than just language concerns.

Keywords: L2-specific knowledge; non-linguistic skills; non-L2-specific factors; L2 specific criteria

INTRODUCTION

A traditional method of teaching using a second language involves assessment of performance using L2 specific criteria. This includes vocabulary and grammar competence of the learner in the language used. Assessment is already a given protocol when measuring language performance in order to assess readiness of students, in the case of this study, in a college or university education. "In Netherlands, for instance, it has been observed that majority of the immigrants from non-western countries perform poorly in courses in which Dutch in taught as a second language with the view to preparation for college entry" (Hulstjin & Bossers, 1992, p. 341-342). Thus, failure to meet the expected results is attributed to inefficiency in the second language (L2).

Research in the field of L2 reading has begun to identify some of the variables that are involved in and influence the L2 reading process. Among these are general language skills such as insufficient automatized word recognition, poorly developed text comprehension skills, or poor first language (L1) performance. Apart from these language skills, there can also be non-linguistic factors, such as attitude or motivation. A study by Upton and Lee-Thompson (2001) state background knowledge and cultural schemata as possible non-linguistic influencing variables in L1-L2 reading proficiency. These influences have been proven numerous times to affect knowledge acquisition since it has been observed that L2-specific knowledge occupies only a small part. In fact, Diaz and Klingler (1991) asserted that there has been a consistent degree of generalization in the area of cognitive development, and that is, learning a second language in childhood, either by simultaneous acquisition or in the context of bilingual education, is associated with positive cognitive gains. In fact, there is an

ongoing debate regarding the metalinguistic advantage of bilinguals (Eviatar & Ibrahim, 2000).

Yet, the question remains; what are these cognitive gains, which are also connected in a language task? In support of this, a classical study by Lanco-Worrall, which appeared in Hulsjin and Bossers (1992), on bilingual and monolingual children regarding word substitution task using L2, reports that bilingual children realize the basic arbitrary relationship between a word and object it denotes, earlier than monolinguals. Another study also reports that young bilingual children analyse the similarity of words along a semantic rather than a phonetic dimension at an earlier age than monolinguals (Cromdal, 1999). This semantic and phonetic analysis of words, though an L2-specific task, was not processed using L2-specific knowledge. This may again be attributed to general language processing skills.

Another view in support of the claim that performances on L2-task are not solely based on L2-specific knowledge is the investigation on individual factors in language learning (Fillmore, 1991). The first set of such factors examined learners' characteristics and how these contribute to variation in second-language learning. Among them were those aspects of personality and social style that can affect the learners' ability and inclination to interact with people (Gardner & Lambert, 1972). Other learning characteristics examined were ones that were likely to affect the cognitive aspect of language learning: inductive reasoning, verbal memory and pattern recognition – aspects of cognitive functioning that could affect the ease with which learners recalled and made sense of the language (Fillmore, 1991). The result from these lines of research suggests that indeed, cognitive characteristics, aside from L2-specific knowledge contribute to variation in language performance.

For reading attitude is an important determinant and L2-specific knowledge. In reading attitude is that state of mind related to a language task. It is this attitude that causes the learner to approach or avoid a reading situation, and it is accompanied by feelings and emotions that make reading more or less probable (Yamashita, 2004). How readers extract from the text is also proven to involve features that are non-L2 knowledge based.

During reading, readers' minds repeatedly engage in a variety of processes. Using bottom-up strategies, readers start by processing information at the sentence level. In other words, they focus on identification of the meaning and grammatical category of the word, sentence syntax, text details, and so forth. As they process information that each sentence gives them, they check to see how this information fits, using top-down strategies such as background knowledge, prediction, getting the gist of the text, function to monitor or regulate cognitive strategies (Salataci & Akyel, 2002). They include "checking the outcome of any attempt to solve the problem, planning one's next move, monitoring the effectiveness of any attempted action, testing, revising, and evaluating one's strategies for learning" (Baker & Brown, 1984, p.354). In addition, skimming a text for key information involves using a cognitive strategy, while the personal assessment of the effectiveness of skimming done in gathering textual information would be a metacognitive strategy (Salataci & Akyel, 2002). Scanning is also viewed by language teachers as a non-linguistic skill for it can be applied in non-reading materials, such as classified ads, directory, etc. In spite of this, "assessing non-L2-specific factors" is still considered unexplored in the area of L2 acquisition, specifically, in the area of cross-linguistic comparisons within individuals (Hulstjin & Bossers, 1992, p. 342).

THE STUDY

This study investigated whether poor performance on an L2 task may be due in part to general language skills. If poor performance on an L2 related task is manifested, attribute-

based and not necessarily input-based aspects are at play. Attribute-based aspects include cognitive and personality variables whereas input-based aspects may cover quantity of L2 input received from the environment (Cummins, 1987). In addition, poor performance on L2 specific task may stem from generally deficient oral language production skills, which manifest themselves to the same extent in L1 speaking task. This is over and above the fact that bilingualism is not studied as much as monolinguals, specifically, bilingual competence and language development and practice (Grosjean, 1998). In a nutshell, individual differences between L2 learners in performance on L2 task need not solely be due to differences in L2-specific knowledge or skills; they may also be due to differences in general language processing skills.

Hence, it is very important to acknowledge the existence of possible influences of general, non-L2-specific language-processing factors so that language assessment rubrics inside a classroom, especially for ESL will be enhanced. Proper acknowledgement may bring about proper scoring guidelines in language testing, and the allocation of remedial teaching facilities in the future. Yet, this acceptance is possible only when theoretical L2 proficiency models are made available; models, which specify the L2-specific and non-L2-specific components of the construct of L2 proficiency. In this paper, a report on a study, explicitly aimed at contributing to an understanding of general, non-L2-specific language-processing factors is presented. The present study employed a cross-linguistic, within-subject design that dealt with individual differences in L2 speaking via reading aloud.

METHOD

SUBJECTS

Twenty-three (23) students from the College of Computer Science were chosen for this study. The class is composed of freshmen students of between 17 and 19 years of age. The respondents allowed the researcher to use their real names in the discussion of the results. In terms of heterogeneity of the group, it was determined through the differences in the students' ITEO (Institutional Testing and Evaluating Office) Reading Exam conducted at the start of the trimester. A standard diagnostic essay exam, written a week after the ITEO exam, and the GPA of the students from their previous term were also included in determining the groups' heterogeneity. Both the ITEO and the diagnostic essay are conducted at the start of every term as part of the requirements of the English One (ENGLONE) paper. The results of ITEO and the essay determine those who will have to attend the English Language Laboratory (ELL).

The result of the ITEO exam reflects the students' general reading comprehension level, and the ranking determines the students who are to be sent to the English Language Laboratory in order to keep up with the demands of their English course. The reading result of the ITEO is patterned after the Stanford Achievement General-average test results are based on the U.S. Grade 9 norms. The interpretation of the percentile scores ranges from *Very High* (96-99%) to *Very Low* (1 - 3%). The two classes involved in the study had students who got as high as 97% and as low as 30%. This shows the range of proficiency of the respondents who participated in the study.

The diagnostic essay exam was judged according to the standard rubric of the course ENGLONE of De La Salle University Manila. The criteria of judgment include grammar, flow of thought, and ability to address the prompt. Each has a corresponding number of points. The points were then added and that is the score given to each essay.

MATERIALS AND ADMINISTRATION PROCEDURE

One-page texts with a biographic topic were selected for reading aloud. The English text consists of 296 words and it is about Ephraim Bowen − the writer of the most comprehensive eyewitness account of the American participants of the Gaspee Affair. The Filipino text has 508 words and is about Nick Joaquin – a National Artist for Literature. The provision of these texts gave the participants the impression that apart from participating in the research, they were also given the chance to be exposed to good reading materials. Twelve words from each text were omitted and replaced by blanks. The omitted words were high frequency words, which could easily be inferred from the semantic and syntactic cues present in the context. The subjects were instructed to read the text aloud at their own speed and fill in the missing words. This procedure was used to ensure semantic and grammatical processing of the text. For missing words, i.e. words that the subjects could not fill in, they were made available by the researcher.

SCORING PROCEDURE

This procedure is adopted from Hulstjin and Bossers (1992). Reading Speed (RS) was calculated by dividing total reading time by the number of syllables for each text. Disfluencies (D) were calculated as the sum of the number of repeats, self-corrections and errors. To avoid overlap of dependent measures, unacceptable responses for the blanks were not included in the error score, and successfully corrected errors were coded only as self-correction and not as errors. Words Supplied (WS) were coded as the number of syntactically and semantically accepted words filled in the blanks.

RESULTS AND DISCUSSION

Table 1 presents the mean scores for reading speed (RS), disfluencies (D) and words supplied (WS) in Filipino (L1) and English (L2) by the ITEO rank.

TABLE 1. Mean Performance on Speed, Disfluencies and Words Supplied, in L1 and L2, by ITEO Rank

	ITEO RANK					
	Very High	High	Above Average	High Average	Average	Low Average
Dependent Variable	N = 1	N = 1	N = 5	N =10	N =6	N =0
Speed (syll./sec)						
In L1	2.987	3.012	3.308	3.252	3.436	
In L2	8.336	4.26	3.595	3.211	3.857	
Disfluencies						
In L1	11.0	6.0	4.2	2.7	4.6	
In L2	4.0	4.0	3.2	3.1	3.5	
Words Supplied (Max. = 12)						
in L1	8	9	8.4	8.7	7.6	
in L2	12	11	11	10.5	8.83	

Table 1 presents an expected result in terms of RS, D, and WS of the respondents in relation to ITEO scores. The respondent who got the highest average in the ITEO was indeed

the fastest in reading for both L1, with an average of 2.987 or roughly around 5 minutes, and L2, with an average of 8.336 or roughly around 3 minutes. The rest of the respondents were slower in comparison, but were all fairly close to each other in terms of average. However, what is surprising about the results is the fact that the respondents, in contrast with the highest average student, were all faster in reading a Filipino-based text as compared to an English-based text. This is in contrast to the results for the highest average in the group, who was faster in reading using L2 as compared to L1. This outcome cannot be attributed to Robert Carag's (highest average respondent) ability to read fast and understand at the same time, L2 materials. This may be a result of social factors, as posited in Gardner and Lambert's (1972) study. One factor is that Robert may have been more exposed to L2 texts compared to L1 while growing up, which could partially explain his comfort in reading English-based materials. So while social factors may not only be the influencing variables they do affect the entire reading process (Upton & Lee-Thompson, 2001).

The highest average respondent's exposure to L1 material, which is a result of social factor influencing L2 knowledge is strengthened as the D and WS were computed. Seemingly, Robert has accumulated a total of eleven (11) D in L1 as compared to just four (4) in L2. He was able to supply all missing words in an L2 material as compared to missing four (4) words in an L1 material. In comparison to Robert, other respondents however were able to supply more words in a Filipino-based material but were all behind him in the category of WS for the L1 material. The highest determiner of cognitive knowledge apart from language ability is the ability of other respondents to commit less D compared to Robert, with the *high average* group accumulating the least D as compared to other groups. This is enough to conclude that other respondents are not entirely lower in cognitive ability when it comes to language as compared to Robert. Table 2 presents the mean performance on speed, disfluencies and words supplied of the same respondents in both L1 and L2 according to GPA.

TABLE 2. Mean Performance on Speed, Disfluencies and Words Supplied, in L1 and L2, by GPA

	GPA					
	99-95	94-90	89-85	84-80	79-75	75-70
Dependent Variable	N = 0	N = 5	N = 15	N =3	N =0	N =0
Speed (syll./sec)						
In L1	-	3.511	3.283	2.976	-	-
In L2	-	3.964	3.350	3.24	-	-
Disfluencies						
In L1	-	5.0	3.4	4.33	-	-
In L2	-	3.2	3.066	3.33	-	-
Words Supplied (Max. = 12)						
in L1	-	8.4	8.466	8.0	-	-
in L2	-	10.6	10.33	9.333	-	-

As opposed to the ITEO results, none was ranked on the highest category, yet there were five that fell to the second highest rank, as opposed to just one in the ITEO results. Again, the five students who were highest in their GPA were also the fastest in reading, for both L1 and L2. The inconsistency, however, is seen in both D and WS. First, the highest-ranking group was not able to supply all the correct missing words; in fact, the lowest GPA students were able to supply more. In addition, the highest-ranking group was close in terms of D compared to the other groups. In fact, it was the group with a GPA of 89-85 which had

the least D for both L1 and L2. This result is somewhat similar to the number of D committed by the highest ranking student compared to those committed by other respondents according to ITEO results (see Table 1). Seemingly, the initial conclusion which can be formed from this is that, the most-studious students in class are not so error-free, as opposed to the usual misconception prior to this research. This may be attributed to L1-L2 reading proficiency posited by Upton and Lee-Thompson (2001) in their study. For WS, however, the highest-ranking group tops the other groups for both L1 and L2. Table 3 below shows the mean performance of the respondents on the same variables according to the diagnostic essay.

TABLE 3. Mean Performance on Speed, Disfluencies, and Words Supplied, in L1 and L2, by Diagnostic Essay

	DIAGNOSTIC ESSAY			
	Excellent	Very Good	Average	Needs ELL
Dependent Variable	N = 3	N = 6	N = 8	N =6
Speed (syll./sec)				
In L1	3.247	3.259	3.328	2.800
In L2	5.07	3.485	3.316	2.853
Disfluencies				
In L1	5.34	3.83	3.375	3.833
In L2	2.67	4.0	2.75	3.0
Words Supplied (Max. = 12)				
in L1	8.67	8.16	9.0	7.67
in L2	11.0	10.0	10.125	10.34

As compared to the ITEO and GPA, three fell on the highest-ranking category according to the results of the Diagnostic essay. Yet, the result for speed for these three students were the same as with the other two categories, and that is, they were fastest in the L1 category, but somehow, they happened to be slowest compared to the other students in the L2 category. In fact, the students who were recommended to take the ELL (English Language Laboratory), a remedial class for ENGLONE students, were the fastest in reading the L2 text. The diagnostic essay also garnered the same results as the previous categories, in a way that the highest ranking students got the most D in L1, though second in rank for L2. In addition, the lowest scoring students had less D compared to the students who were in the *very good* category. In fact, the *average* students were able to supply more words in both L1 and l2 compared to the *very good* students. However, the irony of the results is that the highest-ranking students were not able to supply the missing words as compared to the students in the second to the last rank. These results could be attributed to the inconsistency of the rubric used by ENGLONE teachers in grading the essays or it could also be due to cultural differences in teaching L2 to students who are more familiar with their L1.

To summarize and consolidate the results in the three tables; first, the raw data presented by the tables already give a significant conclusion regarding the influence of non-L2 specific variables in the learner's performance on L2 tasks, in this case, the reading-aloud. One significant proof of this claim is the unparallel mean of each category namely, reading aloud, disfluencies and words supplied. Taking for example Ms.Lorraine Jumarang vs. Robert Carag; Lorraine only got a *High Average* in comparison to the *Very High* rank of Robert. Yet, they are almost similar in terms of reading speed in L1, with only .84 difference. Their previous GPA also differ greatly, since Robert belongs to the 94 - 90 bracket, while Lorraine only belongs to the 89-85 bracket. Another example would be

Addison Lim vs. Noel Lopez. Both have the same GPA from their last term, yet Noel was significantly higher than Addison in terms of reading speed in L2, with a difference of almost 1.168. These mixed results only show that there are influences, not yet identified, in terms of actual variables that affect performance in L2 tasks. To further enrich the results, MANOVA should be done to ensure the main effect of the three variables in the performance of the task chosen for the study.

There are many unknown reasons regarding the students' differences in their performance on the reading aloud task. Robert Carag, seems to excel in all variables included, but performed poorly in terms of reading speed in L1. In the same way, no amount of explanation could tell why Timothy Mercado was not able to get a perfect score in the category of words supplied, when Isaac Sabas did very well on it, considering they are almost equal in footing in the ITEO rank and GPA from their previous terms; also Timothy even obtained a higher score in the diagnostic essay.

CONCLUSION

This study attempted to show there were non-L2-specific language-processing factors that need to be taken into account when considering learners' performance on language tasks. A number of implications arise from the study. Firstly, students are not always adept in processing and understanding a text, which is why the amount of time spent reading and understanding a text is not equal to the ability to supply contextual words. Second, it should not be assumed that language learners are adept in their L1 and automatically will achieve L2-specific proficiency. In addition, L2 tasks should indicate clearly what will be measured since results show students are not always members of a homogenous set in a L2 classroom. Performances on L2 tasks may initially be viewed as more than just language concerns, but cognitive resources, as shown in the GPA category, play a central role in the success of acquiring a second language. Thus, previous research that connects language learning and second-language development may not always be true in certain contexts.

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