

EFFECTS OF TASK REPETITION ON L2 ORAL PERFORMANCE

EFEITOS DA REPETIÇÃO DE TAREFAS NA PRODUÇÃO ORAL EM L2

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**ABSTRACT:** This study departs from the assumption that speaking an L2 is a complex cognitive ability (FORTKAMP, 2000) whose execution seems to involve tradeoff effects among the different goals of speech production, mainly among fluency, accuracy and complexity (BYGATE, 1998, 1999, 2001b; FOSTER e SKEHAN, 1996; SKEHAN e FOSTER, 1995, 2001; SKEHAN, 1998). Bygate (2001b) studied the effects of task familiarity on L2 speech performance. He found that in repeating a narrative task there were gains in terms of complexity of speech and these gains were achieved at the cost of a loss especially in accuracy. The present study investigated whether the results reported in Bygate (2001b) would be similar in the case of a repetition of a picture description task. According to Robinson (2001), a description is less complex than a narrative task. Four measures of speech performance were calculated following Fortkamp (2000): fluency, accuracy, complexity and lexical density. Results indicate gains in complexity and these gains seem to have been paid, especially by gains in accuracy, thus corroborating Bygate's (2001b) findings for this task condition.

**Keywords:** L2 speech production; gains in complexity of speech; task repetition.

**RESUMO:** Este estudo parte do pressuposto de que falar um segundo idioma (L2) é uma habilidade cognitiva complexa (FORTKAMP, 2000) cuja execução parece envolver uma compensação entre os diferentes objetivos da fala, principalmente entre a fluência, a acurácia e a complexidade (BYGATE, 1996, 1999, 2001b; FOSTER e SKEHAN, 1996; SKEHAN e FOSTER, 1995, 2001; SKEHAN, 1998). Bygate (2001b) estudou os efeitos da familiaridade com a tarefa na produção oral em L2. Ele mostrou que na repetição de uma narrativa há ganhos, principalmente em termos de complexidade da fala, mas esse ganhos ocorrem em detrimento de outros aspectos, principalmente da perda na acurácia da fala. Este estudo investigou se os resultados reportados por Bygate (2001b) seriam similares no caso da repetição de uma tarefa de descrição. Segundo Robinson (2001), a descrição é uma tarefa menos complexa do que uma narrativa. Quatro medidas de produção oral foram calculadas seguindo Fortkamp (2000): fluência, acurácia, complexidade e densidade lexical. Os resultados deste estudo indicam ganhos em termos de complexidade de fala e esses ganhos parecem ter sido alcançados, principalmente, às custas da acurácia, portanto, corroborando resultados de Bygate (2001b) para essa condição de tarefa.

**Palavras-chave:** produção oral em L2; ganhos em complexidade de fala; repetição de tarefa.

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## INTRODUCTION

Among the many activities in which human beings engage in daily, perhaps speaking is one of the most universal and important (LEVELT, 1989). Levelt (1989) views speaking as a complex cognitive activity, which involves a series of interlocking stages. In his model of L1 speech production there are three main stages of speech production which are hierarchically organized. First speakers conceptualize the message taking into consideration the audience and goal, using, in this stage, controlled processes. In the next stage, formulation, which for L1 speakers is an automatic process, the speaker produces a phonetic plan which involves selecting appropriate grammatical and phonological features, forming the preverbal message. Finally, during the articulation phase, the phonetic plan is converted into speech and all these stages proceed in an incremental fashion, with the processes involved in conceptualizing, formulating and articulating running in parallel (LEVELT, 1989).

When it comes to speaking a second/foreign language, the panorama that emerges is even more complex because speaking an L2 offers all the challenges of speaking a first language plus more. The processes involved in the formulation of messages is believed to be controlled in the case of L2, thus, rendering this ability an even more complex skill (FORTKAMP, 2000). Speaking a foreign language involves many processes, some of which are not automatized, competing for the limited capacity resources of our cognitive system (ANDERSON, 1995; ASHCRAFT, 1994; SHIFFRIN AND SCHNEIDER, 1977).

According to Skehan (1998), speaking a foreign language is possible because of the way language is represented. Departing from information processing theory and drawing on Levelt (1989), Skehan claims that during the formulation stage, learners draw on the memory-based system which is responsible for producing lexicalized language, enabling fluency. The memory-based system is fast and requires little processing. Skehan's (1998) account of L2 speech production is based on evidence from Instance-based theories of fluency such as Logan's (1988), which suggests that fluent speech is not based on the fast computation of rules but rather on the retrieval of ready-made chunks, which require little computation. During the conceptualization stage of messages, learners may need to produce language which is more accurate or complex, relying more on the rule-based system, which is responsible for producing language from rules, using more processing for this.

There are likely to be trade-offs as learners conceptualize, formulate and articulate messages in L2. Attention to one aspect of production is usually achieved at the expense of others. In the context of a limited capacity cognitive system (ANDERSON, 1995; ASHCRAFT, 1994; SHIFFRIN AND SCHNEIDER, 1977), it makes sense to think about these trade-offs as also affecting the different goals of oral performance, specially in terms of complexity and accuracy, two aspects of speech production which draw on the same system according to Skehan (1998), the rule-based system. The rule-based system can be used to generate language when time and conditions allow (as for example in literature or tests), whereas the memory-based system is usually preferred in natural communication where time pressure and processing load are operating, and fluency is desired.

Most studies on L2 speech production agree that mastering a foreign language involves speaking it with complexity, fluency and accuracy (SKEHAN, 1996, 1998; BYGATE, 2001b; FORTKAMP, 2000; D'ELY, 2004, 2006, to mention but a few). Studies on task effects on speech production show that there are trade-off effects among these three competing goals of oral production, especially between complexity and accuracy (SKEHAN, 1996, 1998; BYGATE, 2001b; FORTKAMP, 2000; D'ELY, 2004, 2006). These two dimensions of oral production are closely linked to controlled processes and conceptualization of messages (LEVELT, 1989) or the rule-based system in Skehan's (1998) account of L2 production.

Most of the studies on speech production have concentrated on three different measures: fluency – conceptualized as the ability to sustain real-time communication through a focus on meaning; complexity – a willingness to use more challenging language, reflecting hypothesis testing and possibly restructuring of the language system; and accuracy – learners' orientation towards conservatism and control over more stable elements in the interlanguage system (SKEHAN AND FOSTER, 2001). Because people have a limited-capacity cognitive system (ASHCRAFT, 1994), attention to one aspect of oral performance may mean that there is not enough attentional resources to be devoted to other aspects (SKEHAN, 1998).

Bygate (1999) drawing on data from his previous studies to illustrate how tasks could affect learners' language focus, claimed that tasks should be used systematically as a context in which to develop learners' interlanguage system by integrating fluency, accuracy and complexity in communication through the manipulation and variation of tasks. According to him tasks are a means for framing, reframing and unframing language so that learners' attention can be devoted to different aspects of oral performance in each encounter with the task.

In a later study, Bygate (2001b) analyzed the effects of task repetition on L2 speech performance departing from the assumption that when learners have the opportunity to perform the task for the second time, their attention will be targeted to different aspects of the oral production process at each new opportunity, thus leading learners to improve their performance gradually. He claimed that task repetition could influence learners' oral performance by relocating their focus of attention. He hypothesized that the performance in the repeated task would be better than in the first trial in terms of fluency, accuracy and complexity. Moreover, he hypothesized that these gains would carry over to other types of tasks.

Bygate (2001b) administered two tasks over a period of 10 weeks in his study: an interview and a narrative, both controlled for practice effects. Three measures of speech performance were calculated. Fluency was calculated in terms of number of unfilled pauses per t-unit. Accuracy was calculated in terms of errors per t-unit and complexity was calculated in terms of number of words per t-unit. He had three hypotheses, the first predicted that the narrative task would give rise to less fluent and less accurate, but more complex, output. The second hypothesis predicted that task repetition would affect performance, improving fluency, accuracy and complexity on the repeated tasks and hypothesis three predicted that the effects of task repetition would carry over to other types of tasks.

Overall, results of his study (BYGATE, 2001b) show that the effects of task repetition do not carry over to other types of task but, in repeating the same task, there are improvements, especially in terms of complexity. Taken together, his findings seem to corroborate evidence of trade-off effects (BYGATE, 1998, 1999, 2001b; FOSTER AND SKEHAN, 1996; SKEHAN AND FOSTER, 1995, 2001; SKEHAN, 1998), especially in terms of complexity at the expense of accuracy and fluency.

Robinson (2001) distinguishes among task complexity, which involves cognitive demands of the task, task difficulty which depends on learner's factors such as aptitude, motivation, etc, and task conditions which involve the demands of the task, claiming that these three different features of tasks affect performance differently. According to him, narratives are *there-and-then* types of task which are more complex than a picture description task, which is a *here-and-now* type of task. In a narrative, learners have to organize information and maintain it in memory while processing the story they are going to narrate. In a picture description task, learners have visual support and can select what they want to describe first, avoiding what they do not know, thus not penalizing memory as much as in a narrative task.

Given the insights gained from Bygate's (2001b) study concerning the effects of repeating a narrative task on oral performance, and bearing Skehan's (1998) view of L2 speech production in terms of the operation of a dual-code system, made up of a rule-based (prioritizing accuracy and complexity) and a memory-based (prioritizing fluency) systems, this study set off to investigate whether a picture description task would yield similar results as those in Bygate (2001,b), discussing the possible operation of this dual-code system. In what follows the study is described.

## 1. THE STUDY

Based on evidence that the repetition of a narrative task yields gains in complexity at the expense of accuracy and fluency (BYGATE, 2001b) and that a description task is less complex than a narrative task (ROBINSON, 2001), this study set off to investigate whether the repetition of a description task would yield gains in any of the following dimensions of oral performance in the second encounter with the task: fluency, accuracy, complexity and lexical density. Thus, four hypotheses were generated:

Hypothesis 1: The repetition of a picture description task will yield gains in terms of fluency of L2 speech in the second trial of the description.

Hypothesis 2: The repetition of a picture description task will yield gains in terms of accuracy of L2 speech in the second trial of the description.

Hypothesis 3: The repetition of a picture description task will yield gains in terms of complexity of L2 speech in the second trial of the description.

Hypothesis 4: The repetition of a picture description task will yield gains in terms of lexical density of L2 speech in the second trial of the description.

## **2. PARTICIPANTS**

This study was conducted in an intact class environment at the Federal University of Santa Catarina. This class was an experimental class where students attended English classes for free in exchange for participating in research. Different researchers were collecting data in this group in a collaborative enterprise but all of them did so as part of the class routine. The total number of students in the group was 24 but only twelve (6 male and 6 female) were used for this particular study. Although the rest of the group was not used for this study (for some of them had missed class or not taken all the tests), all the students in class would follow the same procedure, doing the same tasks and tests as the others. The researcher taught the group during the whole semester and during the 10 weeks of this experiment, the researcher used different tasks and activities to practice mainly the speaking ability. All the participants in this experimental class were pre-tested with an oral interview and picture description to participate in this group to ensure that all participants had the same level of L2 oral proficiency. The pre-tests were recorded and analyzed by four different expert raters who diagnosed the level of this group as being intermediate. After the pretest, only those participants who were found to be within this level were invited to take part in this experimental group and signed a consent form. The participants selected for this study thus formed a homogeneous group in terms of L2 oral proficiency, having participated in this piece of research on a volunteer basis. All participants were interviewed individually to collect data and received feedback of their performance on the tests. All participants received the same instruction for the speaking test. Once they entered the room where the researcher was waiting for them, they were instructed to describe the picture, talking as much as possible and not interacting with the researcher. They were told that they would not be timed and could not use notes to talk about the picture.

## **3. DATA COLLECTION: INSTRUMENTS AND PROCEDURES**

Speech production was elicited through a picture description task. Following Bygate (2001b) the task was repeated after 10 weeks. The picture was cut from a magazine and consisted of an advertisement of a clothes brand. The picture showed many people on a busy street, some in the car, others walking on the sidewalk and some dancing in the traffic light. The people in the picture were models and most of them were wearing colorful, fashionable clothes. Participants were instructed to describe the picture talking about it as much as possible. They were not given a time limit and all the descriptions were recorded and transcribed in full.

Four measures of speech performance were calculated following Fortkamp (2000). Complexity (Comp) of speech was measured in terms of number of dependent clauses per minute and was calculated by dividing the total number of dependent clauses by the time taken to accomplish the task in seconds and then multiplied by 60 to express the number in minutes. Fluency (Fl) was measured in terms of speech rate unpruned and was calculated

dividing the total number of semantic units produced, including repetitions, by the total time, including pause time and expressed in seconds that the subject took to complete the task. Accuracy (Acc) was calculated by the total number of errors divided by the number of semantic units produced and the resulting figure multiplied by 100 to express the number of errors per 100 words. Finally, lexical density (LD) was calculated by the total number of weighted lexical items divided by the total number of weighed linguistic items and multiplied by 100 so as to obtain the percentage of weighted lexical items over the total number of weighted linguistic items in the speech sample.

In this study gains in performance were operationalized as speech with more complexity and/or fluency and/or lexical density and/or accuracy in the second trial of the description task and were measured through a comparison of means.

#### 4. ANALYSIS

The raw scores of the four speech production measures calculated in this study can be seen in Figure 1. Note that the accuracy scores should be interpreted differently than the other scores. The higher the score for accuracy, the worse the performance in terms of accuracy of speech because it means the participant produced more errors per 100 words. In a preliminary analysis of the raw data, there seems to be a complex panorama in terms of gains in speech performance in the second trial. Whereas complexity scores seem to have increased in the second trial for most participants (except for participant 4 and 9), the other scores varied more. Participants were less accurate (except for participants 8, 9 and 12) in the second trial as can be seen in the increase of accuracy scores over this period. Fluency, measured in terms of speech rate unpruned, improved only for participants 1, 5 and 8, decreasing for the others. Finally, lexical density was worse, although only a little, for almost all participants.

As can be seen in Figure 1, participants seem to have gained in complexity of L2 speech at the expense, especially of accuracy which, except for two participants (P8 and P9 who improved a little), was worse for all the others in the second trial of this condition. As for fluency, the panorama that emerges is a little more complex for there was more variation among participants, some speaking faster (P1, P5, P6, P8) while others (P2, P3, P4, P7, P9, P11, P12) decreasing in fluency in the second trial. Regarding lexical density, except for participants 7 and 12, all the others performed worse (although only slightly) in the second trial although the overall decrease was not as significant as the one in the accuracy measures which seem to have been the most penalized ones.

**Figure 1 – Scores for speech production measures**

| Participant | Comp 1 | Comp 2 | Acc 1 | Acc 2 | SR 1 | SR 2  | LD 1  | LD 2  |
|-------------|--------|--------|-------|-------|------|-------|-------|-------|
| 1           | ,57    | ,90    | 2,61  | 3,01  | 87,4 | 111,3 | 61,72 | 55,71 |
| 2           | 0      | ,39    | 1,13  | 6,54  | 80   | 67,2  | 60,14 | 57,5  |

|    |      |      |      |      |      |       |       |       |
|----|------|------|------|------|------|-------|-------|-------|
| 3  | 0    | ,69  | 1,78 | 3,19 | 103  | 65,58 | 62,22 | 58,27 |
| 4  | 2,27 | 1,24 | ,51  | 2,48 | 147  | 67,08 | 58,38 | 58,92 |
| 5  | 0    | ,79  | 1,42 | 4,39 | 54,5 | 72,79 | 67,46 | 58,67 |
| 6  | 1,2  | 2,52 | 4,16 | 9,17 | 67,2 | 68,84 | 60,60 | 57,40 |
| 7  | 1,24 | 2,64 | 3,28 | 6,41 | 114  | 82,5  | 54,88 | 55,33 |
| 8  | 0    | 1,71 | 4,76 | 3,06 | 48,5 | 84,0  | 57,55 | 56,74 |
| 9  | 2,25 | 1,5  | 2,63 | 1,28 | 54,0 | 48,0  | 57,55 | 56,74 |
| 10 | ,82  | 1,31 | 1,86 | 3,75 | 87,9 | 87,69 | 60,18 | 55,35 |
| 11 | 0    | ,90  | 1,66 | 6,21 | 60,0 | 36,31 | 70,68 | 57,67 |
| 12 | 2,68 | 3,06 | 3,51 | 3,06 | 115  | 99,79 | 57,50 | 58,76 |

Comp – Complexity Acc – Accuracy SR- Speech rate LD – Lexical Density

N= 12

So as to check whether the difference in means between the first and the second trials of the speech production measures was statistically significant, Paired Samples T-Tests were run and the results of these tests can be seen in Figure 2.

**Figure 2 - Paired Samples T- Tests for first and second trials**

|        |          | Paired Differences | t      | df | Sig. (2-tailed) |
|--------|----------|--------------------|--------|----|-----------------|
|        |          | Mean               |        |    |                 |
| Pair 1 | Acc 1/2  | -2,1500            | -3,413 | 11 | ,006            |
| Pair 2 | SR 1/2   | 10,6108            | 1,182  | 11 | ,262            |
| Pair 3 | Comp 1/2 | -,6258             | -3,049 | 11 | ,011            |
| Pair 4 | LD 1/2   | 4,8758             | 2,939  | 11 | ,013            |

Acc – Accuracy, SR – Speech rate, Comp – Complexity, LD – Lexical Density

N= 12

As can be seen in Figure 2, all differences were statistically significant except for speech rate. Thus, only hypothesis 3 is fully confirmed in this study, that is, participants gained in complexity of L2 speech in the second trial and these gains were statistically significant and seem to have been made at the expense, especially of accuracy, thus corroborating Bygate’s (2001b) findings for this condition.

So as to enrich the analysis with a more qualitative look at the data, the transcripts for participant 1 and 9 were selected to provide, by mean of example, an illustration of trade-off effects among the goals of L2 speech performance in the repetition condition. Due to space limitations only these two transcripts will be included in the analysis. The pauses were not

measured and are signaled with (...) in the excerpts. As can be seen in the transcript for participant 1, on the first trial of the picture description he basically used language to describe the picture without interpreting it, avoiding conjunctions and connectors (except for *and*).

Extract 1: Picture description at first trial – Participant 1

*Uh, so... in this picture I can see... a lot of information... come from... coming from... everywhere... is a, it is a... propaganda... from... uh... clothe store, I think so... there are people... dancing on the street... and... some... buildings... and the sky was blue... and... the people are... jumping... very happy... some guys, I think so is... a little bit gay... no problem... and there are many, many... trees and... flowers and... everything is beautiful, there are many colors... there is a... in the middle part of the picture, there is a... a black power... very nice... and a guy is holding... she... and there is a girl... in a cowboy style... and another guy is holding... this girl... and there is a... only one car in the picture... and a pub... in the right... So... and a cafeteria, too... in the other part of the picture... ok, I think is it.*

However, during the second trial of the picture description, Participant 1 was able to use more connectors (so, but, and, also) in full sentences. Moreover, mirroring Bygate's (1999) claim that in the second encounter with the task participants may be able to reframe familiar language, thus exercising different linguistic muscles (p.38), in the second trial of the picture description, Participant 1 seems to have focused more on the picture interpretation per se, rather than on its simple description as can be seen in the last line ... *I think the jeans is the main proposal of this propaganda*. Though in the second trial participant 1 may have interpreted some aspects of the picture (...*everybody is very happy*... in line 7), overall it seems that he focused more on its description.

Another interesting fact that may corroborate this interpretation of participant one's production is that at first trial he limited the description to basically 6 items (propaganda, buildings, sky, black power girl, cowboy style, cafeteria) whereas in the second trial he described 17 (background, building, car, purple jacket, propaganda, parking site, traffic sign, coffee shop, restaurant, foreground, patches, jewelry, black power girl, multicolor, open mouth, photographer, cowboy hat).

Extract 2: Picture description second trial – Participant 1

*Ok I will start my description in the background...there are many people...jumping and dancing...a big white building...eh...in the left part...eh...a little bit in front of... the ...white building, there's a...a...I forgot the...I forgot the color...there's a "marrom" building...in the left part of the...the picture...so eh... the people are jumping and dancing and...there's a ... a car...behind the people...and there's a guy...with...purple...jacket and...another one with green and ...orange and red...there are some girls too...everybody is very happy.. in the ...right background...there's a ... a big ... propaganda ... "Diesel" ... white and... and red... put on the building...there's a ...I don't know the name of...*



*parking site eh... traffic sign ... eh, in the middle of the picture... but in the...the right background...there's a ... a little coffee chop or restaurant, I don't know ... and... in this part there is...the people are very happy too and jumping and... and... dancing ... in the foreground there is ... four ... four or five guys ... I think so, is five guys... the first one in the left is with ... white pants ... with some patches... blue patches...he's ...just with an open ... I don't know the name but I think is uh ... skirt ... is not "skirt", but it's a open skirt (laughs)... and he ... he had some ... he has some ... jewelry ... jewelry ... and he's looking to a black power girl in the middle of the picture ... eh, she's being holding by a guy... but we cannot see the guy... eh, this black power is using ... multicolor ... eh, clothes ... and a... and a ... jeans... pants jeans ... and ...she's looking with open mouth...to the...to the photographer...eh...just on the ... left part ... of the foregro ... the foreground ...there's a guy and a girl ... eh the girl is looking to the ... the guy with the white pants ... and she is ... she is... using a cowboy hat ... and a ... a... top...and the guy is looking to she ... looking she ... and ... he is also with ... jeans ... I think the jeans is the main proposal of this propaganda...I think is it, Bye bye.*

In the case of Participant 9, the results were in the opposite direction as those for Participant 1. Unlike Participant 1, who gained in complexity at the expense of accuracy in the second trial, Participant 9 gained in accuracy at second trial, at the expense of complexity. In extracts 3 and 4 we can see how Participant 9 makes mistakes (very people) in the first trial, correcting them at second trial (many people) in which she spoke less, described less and seemed to have used all her attention to control the language, speaking accurately but penalizing other aspects of her speech performance.

Extract 3 – First trial - Participant 9

*This is a picture, eh... with very colors... very people, I think the people are dancing, uh... the.... It's the dancing... in, in a big... street or in an avenue... eh, I think it's uh... for marketing to... eh... to publish something... I don't know what, there is a... a... a label? ... eh... with write Diesel, uh... other, other people... eh, other people... eh... on the back... eh... doing the same thing, dancing... the same uh... the, in the same manner... in the same expression in the face... but I don't know what, about, about what... I don't know... there is a co, a couple... eh... feeling, feeling something too... uh... and dancing too... eh... two buildings, there, there are two buildings... and I think uh... uh... there is a... a car... trees... that is what I can tell you about... the picture.*

Extract 4 – Second trial – Participant 9

*Eh this is a picture that...there are many people...on the streets...in a big street...eh...some people...in the fore...eh back...some people in the back...the... eh people are dancing and...there are two buildings...eh...and in the middle there are ...there is a street with uh...with trees...and...there are a car...in front of uh...a house, I think it's a...a bar...and...more people for...in the back...that's it, the people are happy...that's it.*

Bygate (1999) claimed that people use their processing capacity in two main ways while speaking: to manage the content, selecting what they are going to say and to execute plans by connecting meanings to forms while doing it (p.39). Focusing on the content usually slows production whereas prioritizing fluency usually means limiting the linguistic selection for the content. Thus, a tradeoff between fluency (focus on content) and complexity and accuracy (focus on form) seems to be inescapable in the course of speech production.

As can be seen in Extract 2, Participant 1 seems to have prioritized more the content in the second trial of the description, interpreting the picture and using more complex language to do so. In the case of Participant 9, the repetition worked as a way of enhancing control over the language, making fewer mistakes at second trial and focusing more on the form than on the content.

Finally, another aspect which must be taken into consideration when analyzing the results of this study is the fact that since the participants used in this study came from an experimental group, some of them may have perceived the speaking tasks as tests and so behaved accordingly. As Iwashita et al (2002) suggest, performance on tests differ from performance in class and so have to be analyzed differently and with caution. Whereas some of the students may have perceived the tasks as tests and felt stressed during its performance, others may have simply regarded the tasks as repetitions and so were not willing to show their best. Whatever the case at hand, task implementation for research purposes must be carried out with care and consideration of these issues.

In what follows a discussion of the tradeoffs found in this study is offered, in light of the literature brought to bear in this study, concluding with some possible pedagogical implications for using different tasks and task conditions in language classes.

## 5. DISCUSSION

The fact that the highest gains found in this study were in terms of complexity of L2 speech, mirroring Bygate's (2001b) findings for this condition, at the expense, especially of accuracy, lends support to studies that found tradeoffs among the goals of oral performance, especially between complexity and accuracy. Even Participant 9, who unlike the others gained at accuracy at the expense of complexity, adds evidence that the tradeoffs are especially in terms of complexity and accuracy.

As reviewed in the introduction to this paper, both complexity and accuracy are believed to require control processes which draw in the same cognitive system, namely, the rule-based system in Skehan's (1998) account. As such, complexity and accuracy show the greatest tradeoff effects and so, gains in one realm, are usually paid for especially by gains in the other.

In Skehan's account (1998; SKEHAN AND FOSTER, 2001) of L2 oral performance, fluency is believed to be focused on meaning whereas complexity and accuracy would entail a focus on form. Moreover, fluency would be possible through the use of a memory-based system responsible for lexicalizing language, making it available without much

computation during ongoing communication. Complexity and accuracy, on the other hand, would stem from the use of a rule-based system responsible for a focus on form which can be achieved through restructuring (hypothesis testing using cutting-edge language) or control (attempting to use more stable forms in the interlanguage system), the former related to complexity whereas the latter is related to accuracy.

The results of this study are aligned with this view of tradeoffs in L2 speech production measures reflecting a focus on meaning (memory-based system) or a focus on form (rule-based system). There were tradeoffs among the four dimensions of L2 oral performance calculated in this study, and the greatest tradeoffs were in terms of complexity (increasing) and accuracy (decreasing). Thus, it is possible to say that learners used cutting edge language, improving at complexity, at the expense specially of using more accurate language.

One possible pedagogical implication for this finding is that, in the course of L2 speech development, so as to allow a balance in production among the many aspects of L2 speech production, different tasks should be used, manipulating participants' attention and performance conditions so as to enable enough practice in all dimensions of speech production, interchanging a focus on meaning, and a focus on form. In the same line, a focus on form should be balanced so as to allow both hypothesis testing and restructuring (complexity) and control of stable elements in the interlanguage system (accuracy).

## 6. CONCLUSION

The main goal of this study was to analyze the effects of a picture description task with repetition on learners' L2 oral performance. As can be seen from the analysis, there were significant gains in performance in terms of complexity of speech in the second trial, mirroring Bygate's (2001b) results for this condition, and these gains seemed to have been paid, especially by gains in accuracy. It was suggested that the tradeoffs found in this study represent evidence that the complexity and accuracy dimensions of L2 speech production draw on the same system (rule-based system with a focus on form) whereas fluency would be based on attention to meaning (memory-based system), as proposed by Skehan (1998). This suggestion is corroborated by the data in this study which showed that participants overall gained in complexity at the expense of accuracy, two measures that are hypothesized to draw on the same cognitive system, the rule-based system. We can also interpret these trade-offs in terms of a focus on meaning or a focus on form which would explain why learners gained in complexity (focus on form) but not on fluency (focus on meaning).

There is evidence for trade-off effects, especially between complexity and accuracy of L2 speech in this condition and it was suggested in this study that, based on this finding, tasks and task conditions should be varied and manipulated by the teacher so as to allow enough practice in each of the four dimensions of oral production. To use Bygate's (1999) words: "Feed people with narrative tasks and they will crunch up some aspects of language in one way, sharpening certain linguistic teeth, i.e. cognitively mapping certain types of

language against certain types of communicative demand. Feed them different tasks, and different linguistic teeth might develop.” (p.39). Thus using the metaphor of a balanced diet in terms of tasks, more research is called for to help teachers make an informed decision when it comes to providing a rich diet of tasks and task conditions depending on which teeth students want or need to sharpen.

Finally, it is important to highlight that the theory supporting the repetition condition is not only logic but also appealing and aligned with the information processing theory which sees human beings as limited capacity processors (ASHCRAFT, 1994). In the context of a limited capacity cognitive system, it makes sense to think of a diet of tasks and task conditions as a way to help students focus on different aspects of L2 speech performance, thus developing L2 speech in its totality.

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