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32th LAUD SYMPOSIUM
University of Koblenz-Landau,
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Theme Session 2: The mental processes and acquisition procedures involved in SLA: Case studies and empirical findings

**The influence of task complexity on linguistic performance in L2 writing and speaking:
The effect of mode**

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The paper discusses the effects of cognitive task complexity on different aspects of linguistic performance in L2 writing and L2 speaking. In particular we will focus on the question to what extent the influence of task complexity on linguistic complexity and accuracy in L2 is influenced by the mode in which the tasks have to be performed (oral versus written). In order to investigate the effect of mode the outcomes in a simple and complex task condition. of two groups of Dutch university students of Italian have been compared in both the written and the oral mode.

Task performance in L2 depends on various factors, such as the cognitive complexity of the task, the conditions under which the task has to be performed (task format, participants involved, oral versus written mode) and learner factors (attitude, motivation, anxiety, working memory). Some other, related questions are: To what extent are specific linguistic features triggered by the tasks that have been administered? How can the use of specific developmental features across tasks be best described in terms of frequency, accuracy and distribution? SLA researchers have also tried to shed light on the kind of interactive and cognitive processes that underlie linguistic performance, whether written or oral. An important issue concerns the role of attention during task performance in relation to the cognitive demands posed by the task and the question how the different interactive and processing demands may lead to learning and acquisition (Wickens 2007).

In L2 learning the investigation of linguistic performance (i.e. complexity, fluency and accuracy) requires a thorough analysis of the writing and speaking tasks and linguistic measures by means of which language proficiency is assessed. In order to establish how complex, accurate and fluent a learner's written and oral output is, it is also necessary to gain insight into the question which type of tasks are most likely to elicit linguistic performance. Two of the most well known models which try to explain the relationship between cognitive complexity and linguistic performance are the Limited Attentional Capacity Model (Skehan 1998, Skehan & Foster 2001) and the Multiple Resources Attentional Model or Cognition Hypothesis (Robinson 2005). However, studies which have tried to find evidence for one of these models generally concern oral tasks and oral performance (Gilabert 2007a, b, Michel, Kuiken & Vedder 2007). Only a few studies have looked at the effect of cognitive complexity on the written performance of L2 learners (Kuiken, Mos & Vedder 2005, Kuiken & Vedder 2007a, b, in press). Moreover, to our knowledge there have been no studies in which the effect of mode on linguistic performance in relation to cognitive task complexity has been investigated.

For these reasons a study was set up in which two tasks, which previously had been submitted to a group of L2 learners in the writing mode, were presented to a group of L2 learners as a speaking task. In these tasks cognitive complexity was manipulated along two variables of Robinson's Multiple Resources Attentional Model: the number of elements to be

taken into account and the reasoning demands posed by the task. The participants in the study were 45 learners of Italian as a second language with Dutch as their mother tongue. Their performance on a simple and a complex oral task was compared with that of another group of 91 Italian L2 learners who earlier had performed the same tasks in the written mode (Kuiken & Vedder 2007a, b, in press).

Scores on a cloze test were used both in the first and the second study as a measure of the general level of L2 proficiency of the learners. Syntactic complexity was measured by global performance measures, as suggested by Wolf-Quintero, Inagaki and Kim (1998), such as the number of dependent clauses per AS-unit (Foster, Tonkyn & Wigglesworth 2000) and dependent clauses per clause. Lexical variation was established by means of an adapted type-token ratio which also takes into account text length. Accuracy was measured in terms of the number and type of errors per T-unit/AS-unit. A distinction was made between grammatical errors, lexical errors, orthographic errors and pragmatic errors. On the basis of the seriousness of the errors, a further subdivision was made into first degree, second degree and third degree errors.

In the paper the results of the study of the effects of cognitive complexity on linguistic complexity and accuracy in the oral mode will be discussed in relation to the outcomes in the written mode. The findings will be discussed with respect to the different mental processes and attentional resources involved in either speaking or writing tasks in L2.

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