

# Tasks : Their Contribution to “Pushed” Output

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## プッシュアウトプットを促進するタスク

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### Abstract

The output hypothesis claims that second language acquisition/learning may occur through producing language. It proposes that learners are “pushed” to process language more deeply when they attempt to speak or write precisely, coherently, and appropriately in the target language (Swain, 1985, 1995). Although no consensus has been reached on what conditions bring about “pushed” output and what the nature of the resulting benefits is, recent studies into tasks suggest the conditions that facilitate “pushed” output and the impact of “pushed” output on learners’ acquisition in terms of complexity, accuracy, and fluency (Crookes, 1989 ; Skehan, 1996). This paper discusses elements that determine task difficulty contributing to “pushed” output : the type of task and the components of the task from a cognitive perspective.

**Key words :** output hypothesis, second language acquisition, “pushed” output, tasks,

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### 抄 録

アウトプット仮説によれば、スピーキングあるいはライティングで首尾一貫して正確にしかも適切にメッセージを伝えようとする事（プッシュアウトプット）により、学習者は言語をより深く認識し処理できるようになり、第2言語習得は促進すると考えられている (Swain, 1985, 1995)。本稿では、近年のタスクに関する研究に注目し、プッシュアウトプットを促進する条件について、タスクの種類と構成要素に焦点を当て、その影響を言語習得の3要素である正確さ、流暢さ、そして複雑さ (Crookes, 1989 ; Skehan, 1996) の観点から論ずる。

**キーワード :** アウトプット仮説、第2言語習得、プッシュアウトプット、タスク

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## Introduction

Contemporary research into second language acquisition (SLA) emphasizes the role of output. Swain (1985, 1995) proposed the output hypothesis in which she claimed that “pushed” output, which is output that pushes at the limits of the learner’s current competence, is necessary as well as input for second language acquisition to occur, and output contributes to language acquisition in three ways. First, learners notice a gap between what they want to say and what they can say in producing the target language. Second, producing output is a way of hypothesis testing where learners hypothesize how the language works and try it out. The output occasionally elicits feedback and learners use the feedback to modify their output. Third, output serves as a metalinguistic function as learners reflect on their produced language.

The “pushed” output hypothesis claims that learners need to attempt to convey a message precisely, coherently, and appropriately when they produce the target language, and it is a required process which leads to second language acquisition. Empirical evidence lends support to this hypothesis. Swain’s (1985) study showed that learners in Canadian French immersion programs failed to attain nativlike grammatical and sociolinguistic competence despite the abundant amount of input that they received and output that they produced in the classroom. She speculated that the lack of complete language learning mastery of the immersion classes was because “pushed” output was limited. Swain (1985) noted three characteristics of output in the immersion class. First, there were not adequate opportunities to use French. Second, learners were not pushed to produce full, grammatical, appropriate utterances in the classroom. Moreover, learners did not feel native speaker-like social or cognitive pressure when they spoke in the classroom. Schmidt (1983) also reported on Wes, a Japanese learner of English in Hawaii whose linguistic features became fossilized although he produced a large amount of output with native speakers of English. These cases imply that just producing output cannot provide adequate conditions for acquiring the target language.

On the other hand, Nobuyoshi and Ellis’ (1993) study reported that successful language acquisition resulted from “pushed” output. In their study, Nobuyoshi and Ellis (1993) pushed learners by means of requests for clarification, which led to improvements in the accuracy of production. Their results suggested that learners need to be “pushed” when they produce output so that they stretch their linguistic abilities.

However, there seems to be no consensus among researchers on what conditions bring about “pushed” output and what the nature of the resulting benefits is. Swain’s studies (1995, 1996, 1998 ; Swain & Lapkin, 1998) reported that learners moved beyond their competence and developed their interlanguage through dictogloss, discussion of language forms during which learners work with their partners to reconstruct a text accurately and grammatically on

which they took dictation. Unfortunately, the resulting collaborative dialogue mainly focused on metalinguistic knowledge and was often conducted in the L1, which were limitations of these studies. It is also imperative to examine the role of “pushed” output in the light of other aspects of language acquisition.

Recently, studies into tasks have remarkably advanced and have given rise to significant implications for second language learning (Crookes, 1989 ; Long, 1989, 1997 ; Robinson, 1995 ; Skehan, 1996, 1998). These studies investigated tasks on cognitive conditions for second language learning that can be carried out by means of task-based instruction and they suggested the conditions that facilitate “pushed” output. This paper reviews recent research on tasks and discusses elements that determine the conditions that facilitate “pushed” output and the impact of “pushed” output on complexity, accuracy, and fluency, features that are considered the main elements of second language acquisition (Crookes, 1989 ; Skehan, 1996). According to Brown (1991), the level of difficulty or challenge of a task is an important component in determining the extent to which learners have the opportunity to produce “pushed” output. Therefore, in this paper, two factors that are likely to determine task difficulty are examined : the type of task and the components of the task.

### **The type of task and its impact on second language acquisition**

Although tasks can be categorized into various types, this section will focus on the two aspects of task difficulty : the amount of negotiation of meaning and the cognitive load.

First, a great amount of research suggests that the level of task difficulty can be influenced by the degree to which learners are required to negotiate meaning. Empirical evidence supports the claim that tasks requiring greater negotiation or modification of interaction are more challenging than tasks that do not. For example, Duff (1986) found that convergent tasks such as problem-solving tasks which require learners to reach one conclusion were more likely to produce output than divergent tasks such as debates which do not aim to seek one conclusion in her study which examined dyads between native speakers of English and non-native speakers of English. It suggested that convergent tasks are more instrumental in producing language than divergent tasks, as reaching one conclusion promotes more negotiation. Doughty and Pica (1986) reported that tasks in which information exchange is required generated more modification of interaction than tasks in which information exchange is optional. This suggests that tasks requiring exchange are more likely to push learners beyond their current competence than optional exchange tasks.

Second, task difficulty can be determined by the cognitive load on the learner in the process of implementing the task. Robinson (1995) found that learners produced greater proportions of lexical content words in tasks involving events in the there-and-then settings than tasks involving events in the here-and-now settings in the same narrative task. He

explained that this was because the here-and-now narrative task requires learners to describe something happening right before their eyes as they speak, whereas the there-and-then narrative task requires learners to retrieve the events from memory and to describe them at the same time. Therefore, the there-and-then narrative tasks are more cognitively complex and consequently, are more likely to “stretch” the interlanguage of learners than the here-and-now narrative tasks.

Foster and Skehan (1996) also reported on the influence of cognitive load required by the task. They investigated L2 learners of English by using three tasks that require different cognitive loads: a personal information exchange task, a narrative task, and a decision-making task. The familiarity of tasks is considered highest with a personal information exchange task that demands the least cognitive efforts, and lowest with a decision-making task that has the greatest cognitive load. The level of cognitive load of a narrative task is assumed to fall between a personal information exchange task and a decision-making task. As predicted, the study found that a decision-making task was the most difficult for the learner, followed by the narrative task, with the personal information exchange task as the easiest and most accessible to the learner. This suggests that the cognitive load required by the task would progressively influence the task difficulty.

The next question is what aspects of second language acquisition are influenced by “pushed” output that is generated by different types of task. As mentioned in the introduction, Crookes (1989) and Skehan (1996) claimed that second language acquisition comprises three-distinct elements: complexity, accuracy and fluency, which enforce different cognitive demands for the learner. Complexity concerns elaborateness of language and a variety of syntactic patterns of the contents. The focus of accuracy is to what extent language produced by the learner is free from errors. Fluency emphasizes the ability of a learner to cope with real-time communication, focusing on meaning.

A number of studies have revealed the effect of task type on these elements. First, Foster and Skehan (1996) found that both personal information exchange tasks and decision-making tasks led to accuracy improvement, whereas the personal tasks resulted in lower complexity than the other two tasks. Second, divergent tasks and tasks requiring interpretation had an effect on complexity (Brown, 1991; Duff, 1986). On the other hand, Bygate (1999) examined Hungarian learners of English and showed that argument tasks were less likely to affect complexity. His study reported that argument tasks elicited fewer words than narrative tasks and he speculated that complexity will be less developed in argument tasks, where learners are required to give opinions or suggestions, whereas complexity of lexical processing will be stretched in narrative tasks. Finally, Foster and Skehan (1996) showed that familiar tasks resulted in more fluent performance.

## **Components of tasks and their influence on SLA**

The construction of groups and planning of tasks plays a significant role in influencing task difficulty (Swain, 1993). In other words, opportunities for “pushed” output can be enhanced by carefully and finely manipulating the components of a task.

An important task component is the construction of groups. It is widely claimed that group work is beneficial to language acquisition because it provides a non-threatening atmosphere for learners to produce output (Foster, 1998). However, a number of studies show that the number of participants and their characteristics of groups have an effect on task difficulty. Brown, Anderson, Shilcock, and Yule (1984) suggested that a large number of participants result in greater task difficulty than a small group. However, this does not necessarily mean that a larger number of participants is more desirable. Foster (1998) investigated L2 college students of English and reported that they talked more in dyad settings than in small group settings. She pointed out that many learners did not utter any words in the group settings and suggested that dyad settings where learners cannot help speaking are more suitable for language production.

Next, Plough and Gass (1993), cited in Skehan (1998), argued that participants’ familiarity with one another can have an impact on task performance. Their study reported that familiar pairs in which participants know each other used more negotiation of meaning, which is considered to be instrumental in second language acquisition (Long, 1981), than unfamiliar pairs where partners do not know each other. Furthermore, discourse produced in the familiar pairs tended to be more natural than that in the unfamiliar pairs.

A second factor influencing task performance is planning before implementation of a task. Many researchers have investigated the effect of planning from different perspectives. For example, Foster and Skehan (1996) examined how three different planning conditions (no planning, ten-minute undetailed planning, ten-minute detailed planning) affect language acquisition. In ten-minute undetailed planning, learners had planning time with no guidance, whereas in ten-minute detailed planning, learners received guidance as to how they should use the planning time including suggestions on selecting relevant syntax, lexis, content, and organization for completing the task. The results were intriguing in that there was no straightforward relationship between planning and task outcome. As for complexity and fluency, learners performed better with more detailed planning. However, undetailed planning resulted in the greatest accuracy. Foster and Skehan (1996) argue that there may exist a trade-off effect between complexity and accuracy, suggesting that guidance on paying attention to the content of speech may result in sacrifices in accuracy.

Mehnert (1998) replicated and confirmed Foster and Skehan’s (1996) study by investigating L2 German learners and noted that the impact of planning on task performance

was not straightforward in terms of the amount of planning time. She examined the effect of four different amounts of planning time (no planning, one-minute, five-minute, and ten-minute planning) and found that their influence on performance was not uniform on fluency, complexity and accuracy. With fluency, planning time of up to ten minutes had a progressively greater effect, and ten-minute planning intervals resulted in the greatest complexity among four planning settings. However, the result for accuracy was more complicated and unexpected because the one-minute planners achieved the greatest improvement. This study has thought-provoking implications for planning. Mehnert (1998) speculated that any improvement in all aspects of language performance will not be attained simultaneously by the learner, although she admitted that advance planning resulted in better performance, as it may be effective for learners in controlling communicative pressure.

The previous two studies revealed a relationship between planning and task performance. The question that will then arise is what the learner actually does during planning. Ortega (1999) tried to provide an answer to this question. Her study showed results almost consistent with Foster and Skehan's (1996) and Mehnert's (1998) in terms of the effect of planning : The pre-planning condition produced more fluent and complex language, but no significant effects were observed on accuracy. After conducting the experiments, Ortega (1999) interviewed L2 Spanish learners, which revealed that learners actually did two things during the planning stage. First, learners paid focal attention to problem-solving, rehearsal, and memory-related strategies. Second, learners tried to interpret the communication needs of the task, and consequently, they determined the extent to which they needed to pay attention to form or meaning. From her study, Ortega (1999) suggested a two-fold impact of planning. Planning lightens communication stress and lowers the cognitive load of a given task. In the interview, a large number of learners admitted that planning led to self-confidence and allowed them to interpret task demands and access linguistic resources that they will use in the task. In other words, learners try to enhance conscious attention during advanced planning with the result that a focus on form in the task is promoted. Ortega (1999) argued that the role of planning can be considered the same notion as "pushed" output with respect to facilitating a focus on form in the task.

In addition to the influence of the amount of planning time, recent research by Foster and Skehan (1999) examined other aspects affecting planning : sources and foci. Although they observed that different sources of planning produced different effects, there were few differences between language-focused planning settings and content-focused planning settings. The study showed that a teacher-led planning condition in which the teacher organized planning session and gave explicit teaching or instructions of syntax to the students improved performance in terms of accuracy, whereas a solitary condition where learners were given the opportunity to plan, but they were merely allowed to devote time to plan

themselves without guidance had more influence on complexity and fluency. The results suggest that teacher-led planning leads to more control over the language, whereas solitary planning generates greater complexity as it is not affected by the distraction of other participants (Foster & Skehan, 1999). Furthermore, they reported that the teacher-led planners did not show a trade-off effect between complexity and accuracy. This indicates that learners with the teacher’s guidance improved on both complexity and accuracy, whilst some research showed a trade-off effect between complexity and accuracy or fluency (Foster and Skehan, 1996 ; Mehnert, 1998). Foster and Skehan (1996) commented that the teacher-led condition in the task could result in the most balanced performance in different aspects of language.

## **Discussion**

This paper has drawn on current research into task difficulty that would contribute to generate “pushed” output in task-based language learning. A number of studies show that both task types and components of task exert a considerable influence on the nature of language performance, i.e. complexity, accuracy, and fluency. The studies also offer pedagogical implications. First, the research discussed in this paper supports the contention that tasks have great potential for producing “pushed” output, and consequently, they lead to successful language acquisition, when they are carefully and finely manipulated. Next, research findings provide the teacher with information about the task features that results in “pushed” output (Skehan, 1998). This information allows the teacher to adjust the difficulty of tasks by selecting appropriate task type, group size, members’ characteristics, and pre-planning conditions, depending on his/her learning goals. As a result, it is possible for the learner to attain more balanced language performance. Third, empirical evidence clearly revealed that a focus on form during planning sessions can result in improved performance even where language is used to communicate meaning. This indicates that the teacher plays an important role in drawing learners’ attention to linguistic elements such as vocabulary or syntax, as Long (1997) claims. Foster and Skehan (1999) agree that there seems to be a significant role for the teacher in the way advance planning is implemented.

At the same time, it is important, however, to keep in mind the limitations of research. So far, current research has revealed some immediate effects of task-related conditions. However, language acquisition can not be measured only on a short-term scale. It is also necessary to examine how the effects of certain tasks can connect to longer-term development (Foster and Skehan, 1999). This issue awaits future research.

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