A Critique of Merrill Swain’s Output Hypothesis in Language Learning and Teaching

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Dil Öğrenimi ve Öğretiminde Merrill Swain’in Çıktı Hipotezinin Eleştirisi

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## Abstract

Merrill Swain, who coined the Output Hypothesis, has been one of the important figures in the Second Language Acquisition field. She propounded her theory as complementary to Stephen Krashen’s Input Hypothesis suggesting that learners cannot attain full grammatical competence merely through input processing in a language. The Output Hypothesis has been quite successful in terms of shedding some light on unanswered questions related to output. However, there are still some deficiencies in interpreting what the hypothesis intended to explain. Therefore, the purpose of this paper is to critically review the Output Hypothesis by concentrating on the deficiency of an operational definition of comprehensible output, scarcity of output instances and problems arising from forcing learners to produce language.

## Keywords

Learner anxiety, Noticing function, Second language acquisition, The output theory

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Various hypotheses that play major roles in second language acquisition (SLA) have been put forward to explain SLA processes and clarify the steps in those processes depending on each SLA theory. For instance, one of the first methods in English Language Teaching is the “Army Method” (i.e., the Audio-Lingual Method of the 1950s), which was built on the premises of behavioral psychology and structural linguistics. As a major influence on the “Army Method,” behaviorism somehow ignores the impact of mental and internal processes on human behavior. It emphasizes the role of the frequency of receiving stimuli to make a behavior permanent or automatized. If there is a lack of exposure to stimuli, the behavior becomes extinct. Structural linguistics, as another major influence on the Army Method, lists language as a total of a finite number of predictable patterns. Starting from the sound system to sentence structure, language was considered to be composed of building blocks (VanPatten & Williams, 2015).

Transfer, which was closely associated with SLA, is one of the constructs of Behaviorism. What is meant by transfer is that the distance between a learner’s L1 and L2 might have a positive or negative impact (i.e., interference or L1 interfering with L2) on SLA. To predict the level of difficulty to be experienced by the learner, contrastive analysis was used. Although behaviorism can be used to explain the necessity for input exposure, the research focusing on incidental SLA learning and the variability in learning outcome did not support claims put forward by behaviorists.

Claims made by behaviorism were rejected by research because it was seen that language production was beyond imitation and analogy. Learners were observed to go through similar stages in acquiring a language. Knowledge was considered to be innate, internally driven, and not largely affected by L1. SLA was regarded to be very similar to L1 acquisition, and this understanding was reflected in the Creative Construction Hypothesis, claiming that learners make hypotheses on the input they receive. From this idea, Monitor Model was born (Krashen, 1998). According to Krashen’s theory, acquiring a language involves comprehending meaningful messages and analyzing messages in the innate language acquisition faculty. This theory has five main hypotheses. First, in Acquisition-Learning Hypothesis, acquisition (unconscious, spontaneous, natural) and learning (conscious, explicit, intentional) are two different ways of knowing and cannot interact with each other (noninterface theory). Input and meaningful interaction are necessary for acquisition. Second, regarding the Monitor Hypothesis, learned knowledge acts as an editing mechanism and edits the acquired knowledge by making it ready for language production. If there is enough time and opportunity, a learner can consult this learned knowledge as a monitor to check with the accuracy of the new input during the language production process. Next, according to the Natural Order Hypothesis, learners follow sequential and similar steps while acquiring linguistic features in L2. However, the acquisition and learning process may be affected by the learning environment. For instance, if learners are criticized due to the errors they make, their affective filter will be raised and they may feel more nervous, which may hinder language learning and acquisition process. Last, according to the Input Hypothesis, individuals must receive comprehensible input that is slightly beyond the current level of the learner’s already internalized language knowledge (i.e., i+1; Krashen, 1998). However, output activities are not as important within this hypothesis, as they may even hinder the acquisition process by forcing learners to produce language when they are not ready (Krashen, 1998).

However, within the framework of Interaction Hypothesis (Long, 1996), learners receive comprehensible input and positive or negative feedback for their (in)correct language usages. Hence, interaction provides learners with the opportunities to connect input and output (Long, 1996). Output forces learners to move from semantic comprehension to syntactic use, and it makes them test their accuracy of their knowledge and promotes automaticity (routine use of language). Specifically, interaction researchers consider input as a crucial part of SLA and define it as the language that is available to learners in the written or spoken form (Figure 1). When the learners are provided with modified input that is adjusted based on their level, the input makes more sense to L2 learners. The second important component of interaction hypothesis is called interaction. The interaction researchers referred to it as the communicative practices in which L2 learners are taking part in a socio-communicative context. Within this context, the learners receive feedback on their utterances and decide if their utterance is accurate or not. Regarding the utterances that include errors, Gass & Mackey (2015) stated:

the learner then has to determine what the problem was and how to modify existing linguistic knowledge. The learner then comes up with a hypothesis as to what the correct form should be (e.g., he wented home versus he went home). Obtaining further input (e.g., listening, reading) is a way of determining that in English one says he went home, but never says he wented home. Thus, listening for further input is a way to confirm or disconfirm a hypothesis that he or she may have come up with regarding he nature of the target language. (pp. 183-184)

The third component of the interaction hypothesis is called output, with the help of which the learners move from comprehension stage to production stage. The learner may use output to test the hypotheses mentioned in the example above (i.e., he wented/went home). Thus, learners are forced to produce more accurate sentences, and in time,
the production turns into an automatic behavior. These three components are in a close relationship with each other in L2 acquisition according to interaction hypothesis as seen in Figure 1.

![Figure 1. Input, interactional feedback, and output stages](image)

Furthermore, the feedback learners receive in the interaction stage can be either explicit or implicit. In other words, through negotiation and interaction, learners may receive explicit and/or implicit feedback. Explicit feedback refers to overt corrections or metalinguistic clarifications, whereas implicit one includes the following negotiation strategies: confirmation checks, clarification requests, comprehension checks, and recasts (rephrasing). When the learner starts to question his/her knowledge and accuracy of use, it is called language-related episodes (LREs) (VanPatten & Williams, 2015).

Another aspect to consider in this process is attention. There are different opinions about its role on learning. Schmidt (2001) argues that learning cannot take place without awareness of the input. In addition, similar views were put forward in that input is taken into working memory through awareness of it, and only then it can be transferred to long-term memory (Yang, 2016). For instance, in the Output Hypothesis, Merrill Swain (1993) claims that in order for the learning to take place, there should be a gap in learner’s linguistic knowledge. If learners become aware of this gap, they may be able to modify their output, which may also lead to learning the target language. This requires three functions respectively: noticing function, hypothesis-testing function, and metalinguistic function (Swain & Lapkin, 1995).

As the name suggests, noticing function is about noticing the gaps between what you can already say and the things you would like to say in a language. The second function refers to learner’s reliance on ‘trial and error’ for testing his production upon receiving feedback from the interlocutor. Metalinguistic function, lastly, is basically the reflection on the newly learned language and internalizing the linguistic knowledge with the help of output (Swain & Lapkin, 1995).

Considering all the features mentioned above, the Output Hypothesis (Swain, 1993) directs us to consider a very important point: the incompleteness of Krashen’s Monitor Theory without comprehensible output, which Swain regarded as vital to the process of second language learning. Swain’s ideas encouraged people to review Krashen’s ideas critically and pay attention to the importance of production in language learning. Nevertheless, the Output Hypothesis also comes with its drawbacks such as absence of an operational definition of the comprehensible output and ambiguity of current definition, its disregard for learner motivation and anxiety, and issues related to learner variety despite its emphasis on an important shortcoming of Monitor Theory. In this respect, this paper aims to critically review the Output Hypothesis in the framework of the aforementioned deficiencies.

### Meaning of Comprehensible Output and the Ambiguity it Brings

According to Swain, learners are exposed to the comprehensible input, utter the target structures, fail in transmitting the message, get corrective feedback, correct their utterances, and end up with internalizing that piece of language. Yet, as it may be known it is easier said than done especially when we consider language learning processes of learners.
The authors of this paper, as having been both a learner and teacher of English in the foreign language context, have been observing that output, especially comprehensible output, is relatively scarce particularly for novice language learners. Krashen (1998) also notes that as comprehensible output is too scarce, output does not contribute to learners’ development of linguistic competence. Because of the scarcity of the output, suggesting an operational definition for it becomes an arduous and complex issue. The studies conducted in the scope of this phenomenon also confirm their assumption (Ellis, Tamaka, & Yamazaki, 1994; Saito & Ebsworth, 2004; Song & Suh, 2008; Tarone & Liu, 1995). To illustrate, Ellis et al. (1994) investigated the effects of modified classroom interactions on comprehension and confirmed this scarcity. They carried out their study with 42 English language learners and found that “only 7 of whom engaged actively in meaning negotiation” while others were simply listening (p. 473). The gap between the learners who were engaged in meaning negotiation and the ones who were not able to do so was considerable. In this scarcity, what should be counted as output needs to be clarified.

As a matter of fact, to give credit where credit’s due, Swain (1995) defined comprehensible output as “a message conveyed precisely, appropriately, and coherently” (p. 249). However, this definition is also open to debate as it would appear that any message which does not meet these criteria should be considered as incomprehensible output (Liming, 1990). Unfortunately, the given definition constitutes the problems of being unobservable and immeasurable. Additionally, it is too broad, as it does not account for what constitutes a precise, appropriate, and coherent message. The framework would be more general and applicable to various concepts in SLA if an operational definition had been made for what should and should not be regarded as comprehensible output.

Along with the vagueness of what output is, its postulated necessity to be comprehensible is another puzzle waiting to be solved. To put it another way, how is it possible to decide to what extent an output is comprehensible even if it lacks grammatical components? In this regard, whether it is fluency or accuracy that matters in the output or just the attempt to produce a piece of output is a question to be answered. In another word, it needs to be made clear whether a learner’s uttering only a few words can be seen as language output. For example, a quotation from the study of Pica, Lewis, & Morgenthaler (1989, p. 88) helps us clarify it as follow:

NNS: we have common path in this case
NS: I don’t know that word… Can you describe what it means?
NNS: yes, uh uh if I can explain the car’s nature, we understand easy because car has a few…a lot of nature...

As is seen in the extract, the nonnative speaker attempts to modify his utterance, which is grammatically and semantically incorrect, yet it is still a piece of output. Hence, naming a piece of utterance as output or comprehensible output does not seem to be duck soup. In this sense, any utterance of the learner, whether it is correct or incorrect, can be considered as output. Thus, what comprehensible output means is yet to be defined more clearly.

An interesting study related to the conception of output was carried out by Tarone and Liu (1995). They conducted a 26-month longitudinal study with a Chinese participant and concluded that language output has a variance in its nature. This means that a learner may utter a form accurately in a social context; however, he might produce a different (possibly incorrect) variant of the same form in another context. If so, to our understanding, output emerges haphazardly, which would inevitably raise other issues such as unnecessary of input, feedback, or interaction. Based on this, what counts as output stands inexplicable and difficult to obtain. Because of output’s dependence on individual differences or context, comprehensible output is not a stable phenomenon, but evolving and dynamic. Larsen-Freeman (2015) explains the variability in output with examples from Eskildsen’s (2012) study that was conducted as a conversation analysis study, and thus, what is comprehensible output for a second language learner may not be comprehensible for another one:

Eskildsen pointed out that the favored structures allow the learners to perform certain social functions. Because his L1 encouraged the adoption of a particular form and because he was motivated to communicate a particular message, Valerio made use of the resources he perceived in the language he was learning, despite their ungrammaticality from a target-language perspective. (p. 236)

As understood from the examples above, comprehensible output still needs to be clearly defined. Because learners only make use of the existing faculty of knowledge or the existing resources to produce output, what is produced as comprehensible output may be misunderstood or may not be comprehensible for the other individuals this individual is talking to. In addition, this situation is more obvious especially in student essays. Language teachers may not see much comprehensible output in a beginner level students’ essay or paragraph, even though what is written may be considered comprehensible output for the learner. This gap between the interlocutors is even larger when they share different cultures or contexts. Therefore, what is meant by “comprehensible output” needs some more clarification within the Output Hypothesis.

Furthermore, as a result of the vast spread of English around the globe, various research fields have emerged such as English as an International Language (EIL), English as a Lingua Franca (ELF), Global Englishes for Language Teaching (GELT) (Rose & Galloway, 2019). Considering those, taking learners’ differences stemming from culture,
L1, multilingualism, or translilingualism into consideration has become another must in English Language Teaching. Due to the change from traditional ELT to GELT, classroom practices as well as attitudes towards the English language have undergone through changes. To illustrate, rather than Standard English, multiple or diverse structures are also welcomed according to the GELT framework (De Costa, Crowther, & Maloney, 2019; Rose & Galloway, 2019). In this sense, understanding what comprehensible output stands for in English language teaching and learning becomes even more complicated. For example, a student from India might sound comprehensible to their teacher from the same culture whilst translanguaging between Hindi and English to make meaning, or his speech might sound incomprehensible to a native teacher who expects to hear standard English, which might affect learners’ motivation towards learning. Considering the abovementioned arguments, the recent advancements around the world and innovations in language teaching necessitate reconceptualization of the term “comprehensible output.”

### Issues Related to Learner Motivation, Anxiety, and Pushed Output

Swain (1995) posited that pushing learners to produce output holds a potentially significant role in the development of morphological and syntactical language components that are needed for accuracy of production. Even though Vigil & Oller (1976) claim that learners’ getting negative or corrective feedback from native speakers has beneficial impacts on their language development, the researchers are in doubt that pushing learners to modify their output or giving negative feedback can have positive effects on their motivation to learn the target language. Especially in the classroom context, learners may feel intimidated and be discouraged when they get negative or corrective feedback (Roothooft & Breeze, 2016). If this feedback comes from a native speaker of the language they have been trying to learn, it might have devastating effects on some learners.

Saito & Ebsworth (2004) validated this standpoint with their study in which they investigated perceptions of Japanese EFL and ESL students towards their native speaker English teachers by propounding that foreign language learners had a higher apprehension level, which made them have negative demeanors to class participation. Naturally, in such a context, expecting learner to engage in negotiation for meaning would be pointless.

In Trebit’s (2014) study, in which the participants from a bilingual secondary educational program perform two narrative speaking and writing tasks, it has been concluded that anxiety affects learners’ both spoken and written modalities negatively and output anxiety has been observed significantly stronger in speaking than it is in writing. Regardless of individual differences learners might have, anxiety in productive skills might have a hindering impact on learners’ language performance.

It goes without saying that feedback from a more competent peer or a native speaker helps ease this difficulty but not every learner is motivated to modify their output, notwithstanding getting negative feedback. Quite the contrary, pushing or forcing learners to modify their output through corrective feedback might have negative impacts on learners’ performance. Moreover, due to the transitory nature of speaking, self-monitoring or teacher monitoring for development purposes is restricted, so oral pushed performance practices might fail in providing learners with appropriate opportunities (Bygate, 2006). Krashen (1998) also pointed this out by arguing that asking learners to utilize or modify output is likely to increase language anxiety, and as a result, it would limit their ability to comprehend or attend input.

Despite the remarkable benefits of recasts in corrective feedback, which has been approved to have a substantial role in the Output Hypothesis, every learner might not respond positively to them due to individual differences. Learner anxiety can be considered as one of the differences and there are some studies supporting the idea that it may have a great impact on the effectiveness of corrective feedback. One of the studies was conducted by Sheen (2008). The findings revealed that recasts, as a type of corrective feedback, were only useful for learners who had low language-anxiety, and these learners were more likely to produce high levels of modified output. This finding also indicates that pushing or forcing learners for the sake of output appear to be a bit of touch-and-go act due to the fact that individual differences play a vital role in second language acquisition.

In a similar study, Rassaei (2015) also investigated the situation in terms of oral corrective feedback and reported the impact of learners’ perceptions and their language anxiety level on it. The participants were 60 EFL learners from four upper-intermediate classrooms. Prior to the proficiency test, the learners took an anxiety questionnaire through which they were divided into two groups: low and high-anxiety learners. Then all the learners received corrective feedback randomly, either in recast or metalinguistic form. The findings showed that learners’ perception of both types of corrective feedback was determined by their language anxiety level. According to the study, corrective feedback was successfully noticed and recognized by learners with low-anxiety, which was not the case for learners with high-anxiety. The result of the study also revealed that in a classroom environment, the language anxiety may bring about adverse effects on the performance of the learners through limiting their perception of corrective feedback.

Another point to discuss is pushed output’s failing to make contributions to learners’ fluency in speaking. Even if every condition is met in order to promote comprehensible output, which may not exist in real-life situations, indeed, it is not quite guaranteed that pushing learners to produce the target language contributes to their fluency.
(Foster, 2001; Pawley & Syder, 1983). To this end, in Beniss & Bazzaz’s (2014) experimental study on the impact of pushed output on fluency and accuracy in speaking with 30 female EFL learners in Iranian context, it was concluded that pushed output has no significant effect on learners’ fluency. Hence, making conclusions about positive impacts of pushed output on learners’ fluency in speaking does not seem very possible.

In addition, regarding the pushed output issue, silent period which refers to the time period in which learners build up competence in the target language through listening or reading until the emergence of speaking ability is ignored in the Output Hypothesis (Krashen, 1982). According to Swain (1985, 1993), the function of output is to force or push learners through corrective feedback into a more syntactic mode in an attempt to produce in the target language. The aim here is to help learners move from semantic processing needed for comprehension to syntactic processing needed for language output. However, pushing learners to produce modified output is a clashing idea with what Silent Period posits. Hence, the Output Hypothesis also falls short because of excluding this time period.

**Is Every Learner Capable of Noticing the Gap in Their Interlanguage?**

In the course of producing output, learners notice or become aware of a gap or hole in their linguistic knowledge (Swain, 1995). With regard to this, noticing function, which is one of the underpinnings of the Output Hypothesis (Doqarini, 2013), simply refers to the mechanism triggering learners’ cognitive processes to modify their output with the help of external or internal feedback, as explained earlier in this paper (Swain, 1995). For instance, the diary study of Schmidt & Frota (1986), in which there were several instances of learners’ reports of what had been noticed while communicating with natives, also stands for the significance of noticing in the learning process. However, this raises another question: what are the cognitive processes that learners go through in order to notice the gap between their interlanguage and the target language? Needless to say, what is going on in learners’ mind while learning the language is vague but it is a mystery whether Swain ever took a step back and considered taking these processes on board to be able to picture how output takes place.

For instance, Zaccaron (2018) investigated immediate task repetition in the first place, and also focused on three claims of the Output Hypothesis; noticing function, hypothesis testing and collaborative dialogues. Zaccaron grouped the learners into two groups and asked both groups to complete two tasks that are related to each other. Both groups were asked to complete decision-making and semi-structural interview tasks. Before starting the first task the learners watched a demonstration of the task and then asked to perform accordingly for three times by using materials with different contents. In the second task, the learners were given a semi-structured interview in their L1. In the interview, they were asked general to specific questions about the decision-making task. The results of the study about noticing part revealed that there were a few occurrences of noticing, yet, these occasions were not sufficient for learners to eradicate their errors.

In this respect, we come up with another question: does noticing linguistic deficiencies require higher-order thinking skills, such as analysis, synthesis, and evaluation as proposed by Bloom’s taxonomy? (Forehand, 2010). This process might go smoothly as higher level learners have enough linguistic competence to notice what they are missing or what needs to be compensated, yet it might not be the same for lower level learners who have not been exposed to comprehensible input long enough and have little or no knowledge at all about the linguistic system of the target language. Due to this, it looks a bit unrealistic for them to notice what they do not know while they almost know nothing and are unwilling to interact with others due to their low level of competence.

In Song & Suh’s (2008) study, in which the function of output and the relative effectiveness of two separate forms of production tasks (reconstruction and picture-cued tasks) in noticing a grammatical structure in English is investigated in Korean context, it has been stated that experimental group learners (intermediate level learners) may have faced problems with certain linguistic features when generating the first output. While combating against those linguistic features such as prepositions, phrasal verbs or articles, the learners’ attention may have diverted away from noticing the target structure (Song & Suh, 2008). Therefore, being able to notice certain grammatical structures or components of a language might require higher-order thinking skills.

Similarly, Hanaoka (2007) investigated the role of spontaneous attention on form in a writing task that consists of four stages (output, comparison and two revisions) with Japanese college students. One of the findings of the study is that with regard to the results of proficiency, the learners with better proficiency found more features than less proficient learners when their initial performances are compared. Consequently, this shows that the noticing function fails to account for less able students.

Even Krashen (1982), whose Input Hypothesis has been also criticized for not defining what “i” is in “i+1” (Mitchell, Myles, & Marsden, 2013; Peker & Ozkaynak, 2020; Richards & Rodgers, 1986), has acknowledged that learners need to be at some certain level to be able to handle the learning process. If Swain could hear these successive questions, she would probably say that’s why interaction and corrective feedback are of utmost importance to notice the gap in the Output Hypothesis. However, according to the Output Hypothesis, individuals have difficulty in learning a language on their own, hence they need the assistance or help (i.e. external feedback) of a more knowledgeable one (Gass & Mackey, 2015), which brings Zone of Proximal Development (ZPD; Vygotsky, 1978) to
minds. However, a more competent one’s assistance throughout the acquisition process is not given much place in the Swain’s hypothesis.

**Conclusion**

Needless to say, Swain’s Output Hypothesis has been holding a remarkable position in the field in terms of its applicable suggestions in language classes. Yet, it also holds certain ambiguities that are its pitfalls such as the lack of a tangible definition of comprehensible output. Thus, the ambiguity of the present definition and its disrespect for learner confidence and distress and individual learner differences even though it touches on the shortcomings of Monitor Theory. However, it does not seem possible or realistic for one hypothesis to elucidate everything in the process, as language acquisition is a complex phenomenon in its nature. Hence, the Output Hypothesis should be given credit for its being complementary to several theories and approaches, but the points discussed earlier should be elaborated in the hypothesis more and clarified.
Kaynaklar / References


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