

## 論文

# A Review of the Role of Output in Second Language Acquisition with anecdotal examples from a Japanese learner's experience

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## 要 旨

第二言語習得のためにアウトプット仮説 (Output Hypothesis, 出力仮説という場合も) の役割。アウトプット仮説を提唱しているのは、語学学習者は言葉を完璧に習得するために行う三つの過程です。一つ目は、気づくこと (noticing) です。気づくこととは、表出することによって学習者は現在の能力では言えないことを気づくということです。二つ目は仮説検証ということ (hypothesis forming and testing) です。仮説検証とは、学習者が現在の能力では言えないことに気づいたら表出を通して、仮説をたて検証することです。三つ目はメタ的語り (metatalk) です。メタ的語りとは、学習者が自分の発話に関して認知的に語ることです。アウトプット仮説を提案したきっかけは、カナダのイマージョン・プログラムにおけるフランス語学習の成果と Krashen のインプット仮説 (Input Hypothesis / 入力仮説) からです。インプット仮説は提唱しているのは、語学学習者が言葉を習得するために、現在の能力よりも少し高いレベルの多量のインプットを理解させることだけで、習得できる。カナダのイマージョン・プログラムの学習者は、十分な現在の能力よりも少し高いレベルの多量のインプットがあったのにも関わらず、文法面で言葉修得できなかったようでした。本題の中では、私は日本語習得する際の実体験をアウトプット仮説の具体例として挙げている。

Keywords: Output Hypothesis (アウトプット仮説／出力仮説), Input Hypothesis (インプット仮説 (Input Hypothesis / 入力仮説), comprehensible output (理解できるアウトプット／出力), comprehensible input (理解できるインプット／入力), noticing (気づくこと), hypothesis forming and testing (仮説検証こと), metatalk (メタ的語り), interlanguage (インターランゲージ)

## Background

To understand the output hypothesis I believe it is first necessary to briefly mention the Input hypothesis as originally proposed by Stephen Krashen. Simply put, Krashen believes that comprehensible input in the presence of a low affective filter is the only thing that can “cause” second language acquisition. In other words, if second language learners are exposed to lots and lots of comprehensible input in a non-stressful (or at least low-stress) situation they will acquire the second language. This hypothesis seems reasonable enough until one considers the role of producing language in it: None. There is no role for production. The hypothesis refers only to “input” not production or output. Therefore, based on this hypothesis a learner could theoretically get tons of comprehensible input over years without ever speaking and then one day open their mouth and speak fluently. Of course, this (probably) never happens and those who receive great portions of comprehensible input over time achieve considerable fluency in a second language as extensive studies of Canadian French immersion students has amply demonstrated.

## Original Output Hypothesis

Ironically, some of the same studies that lent support to the notion that a great deal of comprehensible input over time can lead to considerable fluency also suggested that comprehensible input was not enough to lead to completely fluent and accurate use of the target language. In a study conducted with Canadian immersion students, Swain has shown that even though students had received abundant comprehensible input in French and were somewhat fluent in the language they had still not acquired grammatical competence in the language. Immersion student’s achievement test scores

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equivalent to those of students in the standard English program proved that the input had indeed been comprehensible (the immersion students took the achievement tests in French). Still, immersion students' many syntactical errors in French confirmed that the target language grammatical system had not been fully acquired. This information gave researchers cause to question whether comprehensible input really is the only causal factor in second language acquisition. Swain suggested that "output" was the missing factor and called the concept "comprehensible output" and has been credited with first articulating what has come to be called the "Output Hypothesis."

It has been proposed (Swain 1995) that one possible way to account for the lack of grammatical accuracy was that learners were not being pushed to produce language output. Swain theorized that learners in immersion settings were not "pushed" to a deeper analysis of the target language grammar because they could get their meaning across adequately without doing so. The idea, which sounds so commonsensical and intuitively appealing to me in my study of Japanese, is that producing comprehensible output requires a learner to take a more active role than that required in listening. Essentially, learners must work harder when producing language. This is at least partially because when learners are producing comprehensible output they have (or should have) a vested interest in being as accurate as possible. They are "stakeholders" in what they produce, it is their creation. This is contrasted with comprehensible input with which learners rarely, if ever, have a vested interest in what is said to them (they do however have a presumed desire to understand what is being said!).

It has been proposed that comprehensible output may offer at least three things that input could not do. It could 1) Provide the learner with opportunities for contextualized, meaningful use, 2) Allow them to test out hypotheses and 3) Force them to move from semantic to syntactic processing of the target language. I would like to consider further the second and third of these three roles. Regarding the testing of hypotheses, the idea is that through their produced output learners can test and either confirm or deny hypotheses about the target language system. For example, if I want to say, "Pass the salt, please" (a phrase used commonly, perhaps too commonly, at a dinner table in North America) in Japanese and have never attempted to say this phrase before perhaps I will say "Shio wo totte kudasai." I form and test out this hypothesis despite the fact that: I have never heard the phrase spoken before, I have

never said it myself, and I consider the Japanese verb “toru” (which becomes the imperative form “totte”) to mean “take” rather than “pass” in English. Despite all this I test the hypothesis and find that it is communicatively successful and seemingly grammatically correct, as I have received no verbal or non-verbal feedback indicating otherwise from my interlocutors. I therefore confirm it as a successful hypothesis and assume it enters my interlanguage. This is an actual example from my experience learning Japanese, and I continue to use that phrase to this day so I hope it is correct! As for the third possible role of output, while semantic processing may be sufficient to deal with comprehensible input when listening, the learner needs to attend to more things and, as a result, more cognitive resources are needed when speaking. Therefore, output essentially forces the speaker to pay more attention to grammar and engage in deeper syntactic processing. I experience this on a daily basis in my everyday life in Japan. All around me people are talking and I often feel I am listening intently trying to pick up as much as I can of the conversations sometimes even checking my electronic dictionary for words or phrases I have overheard. However, when someone speaks directly to me I am instantly “on my guard” in effect and my mind is racing to try and form an appropriate response to their utterance. When I am producing formulaic speech or clearly learned forms I can afford to attend less fully. For example, when someone is kind enough to offer polite encouragement by saying “Nihongo wo jozu desu ne” (You speak Japanese quite well, don’t you.) I can afford to attend less fully in this interaction, as most foreigners in Japan for any length of time are likely to have heard this phrase repeatedly whether we actually speak Japanese well or not! I answer with a formulaic response of “Sonna koto wa arimasen” (No, not at all). However, when I want to or have to get something new or complicated across I have to scratch and use all the resources (admittedly limited) at my disposal.

### **Recent Developments**

More recent research has largely provided support for the basic idea of the output hypothesis. This research, conducted over the last ten years, has led researchers to develop and refine their conception of the output hypothesis. Research developments suggest that collaborative tasks (such as Information Gap activities) may be perhaps one of the best ways to get students to produce comprehensible output. As has been

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noted (Swain, 1995) a reason these types of tasks and other kinds of pair and group work activities may be useful is because, whereas individually learners may be novices, working together they have access to their partner's knowledge and can essentially "rise above" their individual level of competence and become, temporarily and with the help of their partners, more proficient "experts." By doing this, learners working in a pair can produce comprehensible output beyond their competence level and learn something new (or at the very least, consolidate existing knowledge).

It is generally agreed that, in terms of the output hypothesis, the above-mentioned three possible roles can still be attributed to comprehensible output although they have been modified slightly from earlier conceptions. Currently, the roles comprehensible output may play are seen to be the following: 1) Comprehensible output can lead a learner to "notice" the gap between what they want to say and what they actually can say. Echoing the original form of the theory (and extending it just a little), 2) comprehensible output often involves hypothesis forming and testing. Finally, 3) comprehensible output can have a meta-linguistic function. This means it can lead to "meta-talk," or talking about language. It seems likely that task-based collaborative activities may be most successful at acting on this third meta-linguistic role of the three proposed roles of comprehensible output by eliciting "meta-talk." I frequently use task-based collaborative activities in my classroom here in Japan with lower-level students and I do notice "meta-talk" taking place often. Even so, it may be that "meta-talk" is most desirable or relevant in the context of high-level but less than accurate learners where students have good fluency in the target language but could benefit from being induced to discuss language in order to move forward and achieve greater accuracy. Interestingly, while verbally produced output is probably the most frequent manifestation of comprehensible output it has been noted that output need not necessarily be verbalized. Swain has suggested that learners may be "noticing" gaps in their knowledge and "producing" language in their heads and furthermore that studies have shown that students learn through this "internal verbalization."

### **Additional Personal Experiences**

Of course, collaborative tasks, and many other activities and/or techniques, can be adapted to focus on any or all of the three roles of comprehensible output. Certainly,

classroom activities in traditional language classrooms can be designed (and are many, many times everyday) to promote the production of comprehensible output. This being the case, my own concept of the first two possible roles of comprehensible output (noticing and hypothesis forming and testing) seem to be more relevant in naturalistic learning settings. For example, when I am faced with the daily necessity to speak Japanese outside the controlled environment of my Japanese language class I very frequently (discouragingly so) “notice” the gap between what I want to say and am able to say. Of course, it could be argued that in my Japanese learning situation this is only because the overwhelming majority of my production situations occur “in nature” but I don’t think so. It is precisely because they are real-life, everyday, relevant situations in which I have a vested interest in understanding and being understood (if I want to get internet access at my new apartment for example) that I notice my lack of competence and want to remedy the problem. In my case as a learner of Japanese, the “noticing” of a gap sometimes leads, in the same conversational exchange, to the forming and then testing of a hypothesis (if conditions are optimum). In these cases I believe that I am operationalizing both of the first two roles of comprehensible output, namely noticing the gap in my knowledge and forming and testing hypotheses. If, afterwards, I remember the situation and ask a Japanese colleague if my hypotheses (my utterances) were correct I could say that I am making use of all three of the roles of comprehensible output. This seems an eminently intuitively appealing approach to language learning and one major advantage we studying Japanese in Japan have over our English students. We can, and do, use make use of the output hypothesis often in our everyday lives without even thinking about it whereas our students often have no opportunity to do so other than one the controlled environment of one English class 90 minutes a week. Hence, the output hypothesis is another in a long line of research-supported reasons to maximize student-talking time and minimize teacher-talking time in our classrooms!

Perhaps one reason the comprehensible output hypothesis seems so credible to me is because when I do all of that described above I invariably retain the pertinent form(s). To illustrate I will share just one of my Japanese learning experiences which I think illustrates the points made by the output hypothesis quite well. A few years back, I wanted to ask about the Pottery class starting in April at a local community center. I wanted to say something along the lines of “My friend and I would like to

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join the Ceramics class. How do we apply?” My first problem was that I wasn't sure how to say the word for ceramics so I formed a hypothesis and decided to say “yakimono” for “ceramics” which I thought meant roughly: yaki=“cooked or baked” and mono=“thing(s).” I had a strong suspicion that this was incorrect but I hoped it would be at least communicatively successful. My second problem was that I didn't know how to say, “How do I apply?” I quickly noticed the gap in my knowledge during my conversation with the woman behind the counter as I struggled to make myself understood (although the conversation hadn't completely broken down so it seemed to be at least somewhat communicatively adequate i.e. she knew or suspected I was interested in a class they were offering and was polite enough to try to help me get my message across). It turned out that “yakimono” was the incorrect word, the correct one was “towgei.” As for the other problem, not knowing how to say “How do I apply?,” after making a few unsuccessful attempts I took a different tack. I hypothesized that a useful rule in Japanese that allows you to say “How do I [insert a verb] + suffix?” (or in Japanese “Do yatte [insert a verb] + suffix+ ii desu ka?”) would work in this situation. The tricky part about this rule is that the verb requires a verb suffix which was an area of confusion for me at the time, and remains so to this day. In any case, I formed a hypothesis and said: “Do yatte moshiko ndara ii desu ka?” This utterance consisted of the “How do I” part “Do yatte,” the Japanese verb “moshikomu” meaning “to apply” or “to sign up for,” the verb suffix “ndara” and the final “ii desu ka?” which, for the purposes of this example, makes the utterance a question. While perhaps not what a native speaker would say, this turned out to be successful both communicatively and grammatically (as confirmed later with the help of a Japanese friend). So, in terms of this exchange I: a) noticed the gap in my knowledge, b) formed and tested at least two hypotheses and then c) engaged in meta-talk about the exchange later (and, in a way, am doing so again right now as I write this). I think I am safe in assuming that with all of the meta-talk concerning these specific forms it will be a long time before I forget them.

A simple example from my students comes from a first year university student who recently asked me: “How long you sleep?” and I answered, “Excuse me” which prompted the student to say “How long you sleep last night?” I contend that my “excuse me” made the student notice the gap and form and then test a hypothesis in trying to be understood. My answer to the second question was probably enough for

him to confirm the hypothesis. This is admittedly a simple example but it seems to me to exemplify quite well the first two roles of the output hypothesis. As for the third role, I find examples of meta-talk frequently in my classroom when doing collaborative pair-work activities such as information gaps etc. I could say that it is unfortunate that this meta-talk about English usually takes place in Japanese but I have just been describing my meta-talk experiences in English and would prefer not to sound self-righteous. Knowing that many English teachers in junior and senior high schools in Japan use the Grammar-Translation method and primarily speak Japanese in English class while explaining grammar points to help their students prepare for the English portion of their high school or university exams I have no doubt that lots of “talk about language” does take place.

### **Theoretical Support**

Support for the comprehensible output hypothesis comes from the work of socio-cultural theorists who maintain that social interaction is a critical factor in human psychological development. Socio-cultural theory claims that our higher psychological processes are based on interactions with others. This implies that we are more fully utilizing our cognitive resources when we are engaged in verbal interaction with each other. From this perspective the use of language is more than communication, it is something that triggers deep mental processes. It means that not only communication but also significant cognitive activity is taking place.

Socio-cultural theorists emphasize the importance of social interaction in psychological development. Language development, when seen as a part of psychological development is what makes socio-cultural theory relevant to the comprehensible output hypothesis. The comprehensible output hypothesis neatly dovetails with socio-cultural theory as it claims that negotiation of meaning and interactional exchanges that take place using comprehensible output lead to language development and in fact are examples of language development. Just as socio-cultural theorists have shown that social interaction leads to psychological development, comprehensible output researchers, led by Swain, have produced evidence showing that comprehensible output leads to language development. For example, it has been shown that while addressing communication problems learners engage in mental



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processes that have been shown to aid language acquisition.

Swain contends that when learners are engaged in meta-talk or otherwise talking about language form they are actually engaged in language learning. Whereas Krashen claims that comprehensible input, in and of itself, leads to language learning Swain suggests that when learners are engaged in negotiation of meaning and talking about language (namely “comprehensible output”) they are, in those moments, engaged in learning language. When I reflect on my own experiences as both a language teacher and learner I find this contention very credible and intuitively appealing. Personally, I know I seem to learn things better and retain them much longer when I am actively noticing gaps in my verbal competence and forming and testing hypotheses about Japanese. Although I do not yet have any firm scientific data to support this belief as regards Japanese students of English in Japan, my years of experience in this country leads me to the firm belief that my students would agree.

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