

Language Acquisition and the Inner World

Kazuhiko SATO
(Liberal Arts [Humanities], Natori)

The process of second language acquisition has not been explained systematically so far. No existing models and hypotheses can explain the process fully. No teaching methods are recognized as superior to the others. The problem seems to be that the actual function of language in our brains has not been discussed so far. Sato (1995) presents a linguistic model in our brains, explaining the acquisition process of the first language chronologically. Sato (2000) applies the linguistic model to second language acquisition and foreign language learning. It shows that the processes of first language acquisition and second language acquisition can be explained just in one model, although the processes are not identical. In Sato (2013, 2014, 2015), the existence of the Inner World, the world which exists in our brains as a copy of the actual world, is hypothesized, and several essential problems in the fields of linguistics and psychology are discussed through the idea, such as psychological reality of grammar, infantile amnesia, theory of mind and Dr. Libet's five hundred milliseconds. The function of language in our brains is that language pigeonholes human experiences and helps human beings treat and manage their experiences so as to survive in the world successfully. Through the discussions, the actual function of language in our brains has been clarified. It shows that language can be fully worked in our brains only if it is connected to the Inner World in our brains. In this paper, on the basis of the discussions, the process of second language acquisition is explained, and it will be shown that the idea of the Inner World is necessary to think about the process.

Key Words: unconsciousness, psychology, brain, the Inner World, the language model, *Mind Time*

Introduction

Sato (2000) discusses second language acquisition and foreign language learning (SLA) on the basis of the language model which is presented in Sato (1995). When someone says that the processes of first and second language acquisition can be explained just in one model, some researchers will ask whether or not the processes are the same. Of course, the processes must be different. Sato (2000) insists that the processes and even the differences can be explained just in one model.

Sato (2013, 2014, 2015) present the idea of the Inner World (IW) and discuss the psychological problems which have been thought to be difficult to solve with the existing models in the field of psychology, such as infantile amnesia, theory of mind and Dr. Libet's five hundred milliseconds. It has been shown that the "mysterious" problems, in the fields such as linguistics and psychology, can be discussed with the language model which is presented in Sato (1995), if the

existence of IW is hypothesized. IW is a copy of the actual world, or the outer world (OW), which exists in our brains. It is used for human beings to act in OW consciously and unconsciously.

Sato (2015) discusses the unconscious world which is verified by the experiments conducted by Dr. Libet, on the basis of the idea of IW. Naturally, our linguistic activity also must be influenced by the unconscious world if our brains can deal with common occurrences unconsciously as far as they are habitual things.

In this paper, the relation between IW and language acquisition will be discussed with priority given to SLA. For SLA, automatization is said to be needed through which learners can use linguistic knowledge unconsciously (e.g., Shirai, 2008, 2012; Sano, Oka, Yusa, & Kaneko, 2011; JACET SLA Study Group, 2013). However, it seems that no theories can explain the process of automatization definitely at the moment. In addition, although a number of hypotheses have been worked out so far, it seems that no approaches have

been successful in explaining the actual process of language acquisition in our brains (JACET SLA Study Group, 2013, pp5-8). In this paper, such problems will be discussed theoretically from the point of view of IW.

The language acquisition model

Sato (1995) explains a language acquisition model as it develops and presents a language model finally. Figure 1 is the final model of language system in the brain. Infants gain all the experiences as *Images* in their brains without distinction first. Around 12 months old, lexical *Images* become *IMAGEs* from among all the *Images*. *IMAGEs* become special ones among *Images* in their brains and begin to function as indexes of the other *Images*. Then, *IMAGEs* begin to make up networks which work as grammar in their brains. Human beings are incorporated in a linguistic society through the linguistic system in the society. The other skills such as writing and presentation will become necessary if they become part of the society in which such skills are essential.

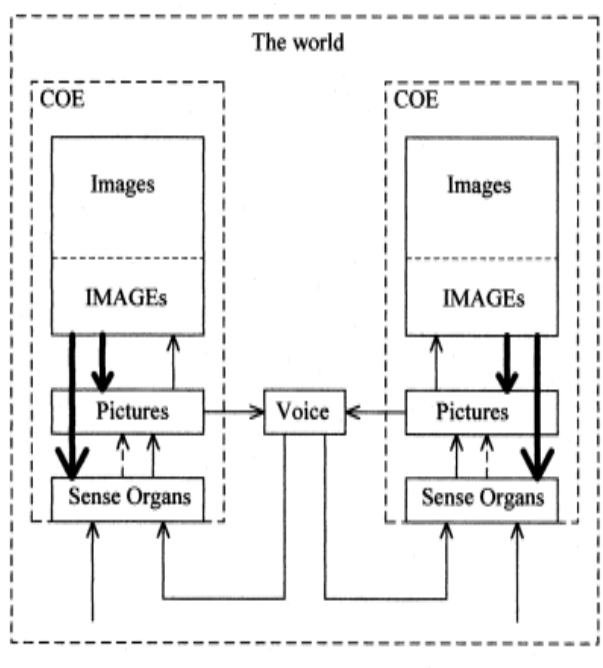


Figure 1. Language in a society. Adapted from “A model of language acquisition and the language system,” by K. Sato, 1995, *Miyagi National College of Technology Research Reports*, 32, p.70. Reprinted with permission.

The process of SLA begins to develop under the precondition that another linguistic system is already in the brain. In the field of SLA, researchers try to explain the acquisition process postulating an individual language system called interlanguage which develops in a learner’s brain. The term, interlanguage, is adopted to refer to the developmental state of the language system, which is somewhere from no knowledge to the fully complete state.

Acquisition order and *development sequence* are distinguished to explain interlanguage (Sano, Oka, Yusa, & Kaneko, 2011, p.7). Acquisition order is the developmental order of grammatical items such as the tenses and the relative clauses. Development sequence means the developmental order in each grammatical item. For example, how do learners acquire the negation? It is said that the sequence is relatively stable among learners (Sano et al., 2011). However, some learners may need much more time to pass a stage than other learners under the influence of their mother tongues. In Sato (2000), the difference depends on whether or not the grammatical networks of their mother tongues in the brain are utilized temporarily in the process of SLA.

The process of SLA is far more complicated than first language acquisition. Mother tongues and other factors ought to influence a number of aspects in the process (Sano et al., 2011). Because the grammatical networks of mother tongues are already in the brain before SLA begins, all the networks might be used in the process of SLA, or some networks might be used, or no networks might be used. The processes of SLA are usually unpredictable because unlimited possibilities of acquisition factors and unlimited combinations of networks of first and second languages exist in the process of SLA. As a result, learners have their own different interlanguages.

The Inner World (IW)

When the existence of IW is presupposed, other problems in the field of SLA also can be discussed through the language model which is presented in Sato (1995).

IW is a copy of the actual world in our brains and supports a wide variety of human activities (Sato, 2013, 2014, 2015). Sato (2013) presents the concept that a human being has their IW in the brain and discusses the psychological reality of linguistic grammar. With IW, human beings can perform daily activities rather unconsciously when the activities are ordinary ones in a certain degree, so that s/he can live a daily life “efficiently” (Sato, 2015). In our brains, or IW,

language functions as indexes of a large variety of social phenomena and makes the retrieval and manipulation processes adequate for our activities (Sato, 1995, 2014).

A research result in the field of bilingual study also provides evidence for the existence of IW. When bilinguals retrieve their past memory, the past events are not specific to a certain language, but what is recalled by a certain language depends on what part of the memory is connected to the language (Sano, Oka, Yusa, & Kaneko, 2011, pp.86-87). In other words, languages and past memories, or experiences, exist in our brains as a set.

Language can display its function only after it works with memory, or IW. In the field of SLA, the input hypothesis, the output hypothesis and the interaction hypothesis have been mainly discussed so far (Sano et al., 2011, pp. 37-39). In the input hypothesis, taking in much understandable input is said to be important for acquisition. In the output hypothesis, it is said to be needed for learners to repeatedly use language. In the interaction hypothesis, negotiations of meaning through actual conversation and so on are emphasized. However, no hypotheses and no teaching methods which have been presented so far can explicitly explain the process of SLA (Sano et al., 2011, p.8). One of the causes of the failure might be attributed to no discussions about how language actually functions in our brains and what kind of role language plays in all the function of the human brain. The hypothesis that IW exists in the human brain will clarify the function and the roles of language.

Rehearsing

Shirai (2008) emphasizes the importance of rehearsal for SLA. The rehearsal is to previously experience what is likely to encounter in the not-so-distant future through rehearsals in the brain. In other words, rehearsing means nothing other than manipulating IW with a target language.

The viewpoint of rehearsal might not be perfect to explain the process of SLA. Shirai (2013) says, answering the author's question, that there is a silent period in the process of SLA. In that period, learners only hear or are just listening to the speech of a target language without using the language. Even if they have such a period, something ought to happen in their brains. What happens in the brain must be rehearsal, so the rehearsal is important in SLA (Shirai, 2013). However, when a highly skilled learner who had gone through a silent period was asked whether or not he had conducted rehearsals

in his mind, he answered that he had not done. Hence, Shirai (2013) says that the rehearsal might not be indispensable for the process of SLA. What actually happens in learners' brains?

The rehearsal is part of activities through which learners begin to be able to manipulate IW with a target language. Being able to see IW through a target language is a minimum prerequisite so as to be able to manipulate IW. Needless to say, rehearsals are useful to accomplish the purpose. However, how can we understand the skilled learner's answer? Rehearsal means that learners intend to actively and consciously make preparations for situations which they will happen to face in the near future. The answer would have implied that the learner had not tried to actively and consciously make preparations for such a situation in the brain. It is not necessary to prepare actively and consciously, but it is essential just to see IW through a target language. Recalling what someone says, or remembering some situations with a target language, or seeing IW passively through a target language is sufficient. In the end, the accumulation of even such passive activities can lead to learners' own linguistic activities with other people's activities assimilated to their own activities in IW. The necessity of the rehearsals is also understood if the existence of IW is theorized. It shows that rehearsing is part of activities through which learners start to be able to deal with IW with a target language.

Automatization

The automatization of language use is achieved when IW begins to work properly with a target language. JACET SLA Study Group (2013) says: SLA reached the zenith of the research in 1970s. Thereafter, in SLA, the behavioristic approach is succeeded by the stochastic model of connectionism-style (a method of calculation which simulates the learning method of cerebral nerve cells) and Chomskyan innatism is taken over by the study of universal grammar (p.6). The approach of this paper seems to be akin to the learning theory of behaviorism. However, in the theory, learners were led to simply repeat linguistic units such as words and sentences, and being able to repeat the units automatically ought to have meant automatization. The essential qualities of language were not understood. Sato (2015) says that the unconscious activities can be performed because human beings have IW. The automatization must be achieved only if

a target language is connected to IW and the IW is able to be manipulated by the language.

Declarative and procedural knowledges

Declarative and procedural knowledges are two sides of IW. Sano, Oka, Yusa, & Kaneko (2011) discusses the knowledges: declarative knowledge is the one that can be explained through language and procedural knowledge is the one that allows human beings to act automatically (p.13). Sato (2015) says that consciousness is required for human beings to confirm, manipulate and modify IW. It can be understood that the two kinds of knowledges are compatible with each other in our brains.

Human communication

Monologues form a foundation of dialogue. Will manipulating IW lead to the ability to converse among human beings in society? When we exhaustively discuss what communication is for human beings, it can be noticed that the function of communication is to compare one's own IW with others' IWs and adjust the IW in society. At the very least, if a human being could not express their own IW, communication would not start. If all the humans had the same IW, we would not need to communicate. Because we humans have our own distinctive characteristic traits, we need to communicate with each other (Sato, 2002). The traits are developed through our IWs.

Conclusions

If the existence of IW is presupposed, the data and the discussions which have been accumulated in the field of SLA so far can be explained properly and coherently. The discussions up to the present have failed to discuss what acquiring language means for human beings exactly. Understanding what the function of language in the brain is and what happens actually in the process of SLA in the brain will lead to our understanding about what should be learned and how language ought to be learned. Language has to be connected to IW in the brain to function, and our IWs are the sources of our personality. Linguistic materials which should be learned by learners have to be treated in relation to their own IWs.

Notes

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