The Role of Consciousness in Second Language Acquisition

Edina Torlaković (edina_@scs.carleton.ca)
Institute of Interdisciplinary Studies; Cognitive Science, Carleton University
2214 Dunton Tower, 1125 Colonel By Drive
Ottawa, ON
K1S 5B6

Andrew Brook (abrook@ccs.carleton.ca)
Institute of Interdisciplinary Studies; Cognitive Science, Carleton University
2216 Dunton Tower, 1125 Colonel By Drive
Ottawa, ON
K1S 5B6

Abstract

In this paper we argue that in order to resolve the controversy in Second Language Acquisition research concerning whether or not direct instruction is needed for second language acquisition, we need to use a broader sense of 'consciousness' than is used by second language researchers. Block's classification of consciousness into Access and Phenomenal consciousness seems promising. We associate Phenomenal consciousness with explicit knowledge and suggest that explicit instruction is useful. It enhances linguistic competence.

Introduction

This paper addresses a question that is of great importance for Second Language Acquisition (SLA) research. The question is 'what should the role of consciousness in second language (L2) acquisition be?' It is important to answer this question in order to resolve one of the biggest debates in the field of SLA, namely whether or not direct instruction is necessary or even valuable in L2 acquisition.

SLA researchers interested in consciousness should start by considering what others have to say about it. This is necessary to develop a comprehensive picture of consciousness. The debate in SLA needs to be informed by an adequate notion of what consciousness is. Only in this way can we reach an adequate view about its role.

One place to start is to consider what is said about consciousness in philosophy. We will start by comparing the different definitions of consciousness used by SLA researchers and by philosophers. Next we will introduce the controversy over whether L2 learners need to be conscious of grammar rules to learn the target language. Then we will examine Block's well-known distinction between access (A) consciousness and phenomenal (P) consciousness and where language, or more specifically second language, fits into this categorization. With this, we might be one step closer to understanding the role of consciousness in L2 learning/acquisition.

Issues and Positions

Definition(s) of Consciousness

How do SLA theorists and philosophers think about consciousness? As it turns out, quite differently. Let us look at some of the similarities and differences.

When SLA theorists talk about consciousness, they use the term in a quite narrow sense. Schmidt (1995), for example, points out that there are three different senses of the term 'consciousness' as it is used in SLA theory: levels of perception, noticing, and understanding. By contrast, philosophers have a broader understanding of the term. According to Clark (2001), the possibilities include wakefulness, self-awareness, availability for verbal report, availability for control of intentional action, and qualia.

To determine if all these terms are discussing the same, complex entity, they need to be further defined. If one desires to apply concepts of one discipline to another (philosophy to SLA in this case), this is something that we need to know.

According to Schmidt, 'levels of perception' could be defined as levels of a process of obtaining and perhaps processing information. Schmidt defines 'noticing' as rehearsal in short-term memory, while by 'understanding' he refers to rule understanding, i.e., grasping the meanings of rules and becoming thoroughly familiar with them.

Definitions of the terms from Clark's list of possibilities might go as follows: wakefulness is defined as a state in which we are sensitive to our surroundings and in which we can process incoming information and respond to it appropriately. Self-awareness he defines as a capacity to represent ourselves and to be conscious of ourselves 'as distinct agents'. Availability for verbal report is the capacity to access our own inner states and to describe them using natural language, while qualia concerns how things feel to us.

From the above, one can conclude that SLA theorists take consciousness to be something narrower than philosophers

believe. Perception and wakefulness may refer to (or be contained in) the same aspect of consciousness, while noticing and understanding could be seen as part of availability for verbal report. However, self-awareness and qualia are missing from the SLA picture of consciousness. Yet in second language learning (SLL) and acquisition, self-awareness and qualia may play an important role. It is well known that language is closely associated with consciousness in the broader understanding that we find in Clark and other philosophers. If so, this broader notion of consciousness needs to be considered by SLA theorists. We will return to this topic. For now, let us simply note that SLA researchers use a narrow notion of consciousness.[1]

Consciousness and SLA

Next we want to consider a group of related issues: the role of consciousness in various SLA theories the debate in SLA and L2 pedagogy about its proper role, the role of Universal Grammar (UG) in L2 acquisition , and the respective roles of implicit and explicit learning in SLA.

According to Robinson (1996), current debate in SLA is centred on the role of consciousness in L2 development. This controversy is centred in turn on the question of whether or not grammatical instruction is effective for L2 acquisition and if so what kind of grammatical instruction is best. There are researchers who argue that grammatical instruction has only minimal effect on L2 acquisition, Krashen (1981) for example. According to him, L2 development is largely an unconscious process. Krashen does allow that there are two processes involved in L2 development, a conscious process of learning and an unconscious process of acquisition. The conscious process of learning is a system based on rules and their application, while the unconscious process of acquisition is a system responsible for language production. According to Krashen, conscious learning is limited to a small set of simple rule-governed domains. By contrast, development of the much more substantial acquired system is fostered by avoiding instruction and the provision of L2 rules. In his view, learners only have to be exposed to comprehensible language input in order to acquire grammar.

On the other side, there are researchers who argue that comprehensible input alone is not enough for optimal acquisition of the different aspects of grammar and that conscious grammatical instruction is necessary if learners are to have the data they need to acquire grammar (Strozer, 1994). In particular, Schmidt (1994) argues that consciousness of input at the level of noticing is a necessary condition for L2 development. Many other researchers support this view. They use terms such as focus-on-form (Long, 1994), consciousness-raising (Ellis 1993, Fotos and Ellis 1991, Rutherford, 1987), and input-enhancement (Sharwood Smith, 1991). In one way or another, all of these terms are about directing learners' attention to grammatical form in order to help them internalize the L2 system. According to these researchers, teaching should include opportunities for learners to focus on form and consciously notice features of the L2 they are learning.

Universal Grammar and L2 Acquisition

It might appear that because there is little or no need for conscious instruction in L1 acquisition, there is little or no need for it in L2 acquisition either. However, it is well known that the two processes are quite different from one another. Let us compare the two in terms of the theory of Universal Grammar (UG).

According to Chomsky (1980), all of us have an innate capacity for language and we cannot chose not to learn language. We have a mental faculty for language that simply 'grows' as any other organ of our body grows. All that we need is a triggering cause, namely, a language environment. For L1 acquisition, little or no direct teaching is needed.

According to Flynn (1996), the theory of UG does not make any direct claims about L2 acquisition. However, it is important to know whether or not L2 learners in the process of L2 acquisition have access to UG. Ellis (1997) points out that different theories deal with this issue differently. However, there is some good evidence for the a Partial Access Hypothesis, which holds that only the parameters of UG that are common to L1 and L2 are accessible to an L2 learner. According to this view, an L2 learner needs to learn everything else by using general problem-solving strategies. If this is so, there is clearly room for direct conscious instruction in L2 learning.

Explicit and Implicit Knowledge and SLA

It is obvious that in L2 acquisition, both explicit and implicit learning are present. But that is not the same thing as direct conscious instruction being *necessary* for L2 learning. Nor does it say anything about the effects of each type of learning. So let us look these two kinds of learning and their connection(s) to consciousness. Before we enter this inquiry, let us define the two types of knowledge that these two types of learning yield.

According to Ellis, explicit knowledge is "the L2 knowledge of which a learner is aware and can verbalize on request", while the implicit knowledge is "the L2 knowledge of which a learner is unaware and therefore cannot verbalize." (Ellis, 1997,139). We can report explicit knowledge, while we are not aware of implicit knowledge.

Hulstijn and Graaff (1994) attempt to determine to what

[1] It is important to mention that the above are not the only definitions of consciousness in either discipline. However, they are the most common ones.

extent SLA and acquisition of implicit knowledge can be assisted by explicit learning (instruction). According to them, learning varies from spontaneous discovery by a learner to explicit instructions by a teacher. They argue that in fluent speakers, knowledge of L2 is mostly implicit. That, however, does not settle the question of whether, before native-like fluency in L2 is reached, there is a need for explicit instruction.

There are two positions concerning the question, 'how fluent can a speaker become without explicit knowledge?'. They are the Noninterface Position, which argues that implicit knowledge is not influenced by explicit knowledge, and the Interface position, which urges that the acquisition of implicit knowledge may be influenced by explicit knowledge. The Interface Position is divided into a Strong-Interface Position and a Weak-Interface Position. According to the Strong Position, explicit knowledge becomes implicit knowledge through practice. This position is derived from skill acquisition theory; L2 acquisition is seen as the automatization of the application of explicit grammar rules. According to the Weak Position, explicit knowledge only aids the acquisition of implicit knowledge. If a learner is ready for the new knowledge, his conscious knowledge will become implicit. Application of implicitly knowledge can merely be improved through explicit instruction (Ellis, 1993).

Let us now turn to philosophical definition(s) of consciousness.

Consciousness in Philosophy

The initial task of this paper was to consider what philosophers have to say about consciousness in order to search for conceptual issues that may ease and perhaps resolve the current debate in SLA related to the role of consciousness in L2 learning and/or acquisition. Let us return to the issue of what philosophers have to say about consciousness.

Block (1999) introduced an interesting categorization of consciousness into A-consciousness and phenomenal P-consciousness. Block argues that A-consciousness is informational processing and control of thought and action. According to him "a state is A-conscious if it is poised for direct control of thought and action, .. for free use in reasoning and for direct 'rational' control of action and speech." (Block, 1999). By contrast, he defines P-consciousness as what we see, smell, taste, and feel. According to Block, P-consciousness is what it is like to have sensations, feelings, perceptions, thoughts, wants, and emotions: "what makes a state phenomenally conscious is that there is something it is like to be in that state" (Block, 1999). P-consciousness is what we ordinarily call experience.

Block points out that there are three main differences between A-consciousness and P-consciousness. The first difference concerns content. P-consciousness content is phenomenal (it is like something to have it) while the content of A-consciousness is representational. The latter enters into reasoning, behavioural control, etc. The second difference is that A-consciousness is defined in terms of functions in a cognitive system while P-consciousness is not. The third difference is in the paradigms of each type of consciousness. The paradigmatic cases of P-consciousness are sensations, while those of A-consciousness are propositional attitudes.

As for the relationship between A-consciousness and P-consciousness, Block argues that even though A-consciousness and P-consciousness are separate entities, they do interact, influence one another and might even be the product of one another. A P-consciousness change in what is figure and what is ground, for example, might have functional effects on what one comes to believe or do. However, lack of one type of consciousness does not guarantee lack of the other. We will return to the issue of whether it is possible to have A-consciousness without P-consciousness or vice-versa.

Let us now examine how L2 acquisition and language in general fit into the Block's distinction.

Philosophical Views of Consciousness and the Issue of Conscious Instruction

So far we have laid out the controversy in SLA on the question of whether L2 learners benefit from direct grammar instruction and we had looked at a philosophical view of consciousness. Let us now try to connect the two. The hope is that philosophy can help us to ease this controversy. How does L2 acquisition fit into the distinction between A-consciousness and P-consciousness?

A-consciousness plays an important role in reasoning and information processing. It is closely related to 'knowing how to do something'. P-consciousness, by contrast, is 'it being like something to be in some state'. And, as we saw, however, different these two notions are, the two kinds of consciousness interact. In particular, one can be P-conscious of knowing how to do something. Similarly, the way something feels to you can make a difference to cognitive functioning. What we now need to consider is how the two types of consciousness relate to our knowledge of language, in particular our knowledge of the syntactic structure of the language.

Let us introduce Chomsky's distinction between competence and performance. Competence refers to a speaker's knowledge of the language while performance is the actual use of language and reflects not only competence but also such other factors as ability to utilize competence, time constraints, and so on. Performance is the actual use of language in different situations, how we actually speak, use, or manipulate language. Linguistic performance is part of a lot of A-consciousness. Competence, ' speaker's/hearer's knowledge of language', is not tied in the same way to P-consciousness. Most of our competence is in this sense

*un*conscious. Still, there is a relationship between competence and P-consciousness, as we will see. To bring out this relationship, let us connect A-consciousness and P-consciousness to implicit and explicit knowledge. We will argue that P-consciousness is similar, if not identical, to explicit knowledge and that explicit instruction which eases the acquisition of implicit knowledge enhances competence.

Start with UG. If UG is innate, it is not dependent on P-consciousness. What is developed after the triggering effect of the language environment is at least A-consciousness, 'poised for control of thought and action'. A-consciousness of language is not present at birth. A-consciousness of language is indirectly influenced by P-consciousness of language with which it interacts even during the developmental phase because children not only come to use language, it is like something for them to have language (in the usual, P-conscious sense of the term, they are conscious of the language they know), and this consciousness has effects on how they use language. The two types of consciousness of language develop roughly simultaneously. However, that does not show yet that P-consciousness of language enhances any of acquisition, competence, or performance.

Time to bring L2 acquisition back onto the stage. Does P-consciousness have a special role to play in it? We think it does. The Partial Access Hypothesis introduced earlier in this paper shows why. If an L2 learner needs to learn all the parameters of UG that are not common to his L1 and L2, that means that the parameters peculiar to his L2 are not included in his current linguistic competence. If all UG parameters are present at birth, then the UG parameters peculiar to the L2 were lost at some point during or after the process of L1 acquisition. These missing parameters is a major difference between L1 and L2 acquisition. Put in terms of the language of consciousness, the parameters that have dropped out are in neither the subject's A-consciousness or P-consciousness of language. (An implication of this is that, not surprisingly, consciousness of language is language specific.)

We should agree with Krashen when he points out that there are two different processes in L2 development, namely learning and acquisition. However, it does not follow that acquisition is fostered by avoiding explicit instruction. Recall that in L2 learning, both implicit and explicit knowledge are present. It is plausible to suggest that if a required piece of linguistic competence is no longer part of the current competence of a learner, then he will need to learn it explicitly in order to (re)gain an implicit, automatized ability to use it again.

Earlier in this paper Ellis' definition of explicit and implicit knowledge with regard to L2 learners was accepted. However, the definition of the two types of knowledge needs to be modified in terms of P-consciousness and A-consciousness of language. Explicit knowledge is something that a learner is P-conscious of and can verbalize on request. By contrast, though some implicit knowledge is A-conscious, it is by definition never P-conscious. Even though we are not P-conscious of our implicit knowledge, the latter can be influenced by explicit, P-conscious knowledge, just because A-consciousness can be influenced by P-consciousness.

Now that we have presented arguments that linguistic performance consists (at least often, maybe always) in A-consciousness of language and P-consciousness of language can enhance implicit, A-conscious competence and performance, let us now look at their interaction in a bit more detail, to try to see where explicit instruction fits.

We presented the Interface Positions earlier in this paper and said that according to the Weak Position explicit instruction in L2 directly influences explicit knowledge which aids the acquisition of implicit knowledge. Given the connection between A-consciousness of language and implicit knowledge and P-consciousness and explicit knowledge, the Weak Position and Block's (1999) view that P-consciousness can influence A-consciousness are in line with one another.

In L1 acquisition, there is no need for direct instruction. During this process implicit knowledge of language, including A-consciousness of it and P-consciousness or explicit knowledge of language are present. On the one hand, native speakers can always judge whether on not a sentence is grammatically acceptable. However, in most cases they cannot explain why. They have explicit knowledge of the sentence's grammaticality, only implicit knowledge of why. In the case of L2 learners, the situation is quite the opposite. If they can judge the grammaticality of a sentence, they can also cite the relevant rules. Implicit knowledge of rules plays little role since the necessary competence is not innate and yet the acquisition process has not yet rendered it automatic and implicit. Indeed, it is not rare that an L2 learner is capable of explicitly spelling out a grammatical rule of his L2 and yet cannot apply it in his spoken or written L2 productions. To sum up, explicit grammar instruction, essential for acquisition of explicit knowledge (P-consciousness), can also enhance implicit linguistic competence and performance. For that reason, it should be used in L2 teaching (see Figure 1).

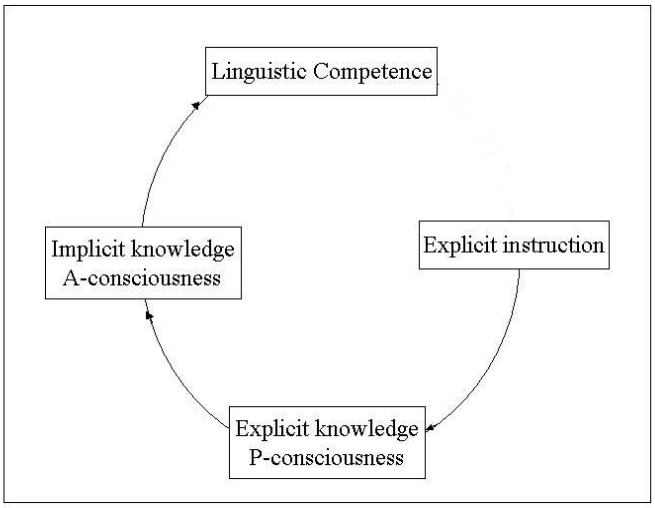

Figure 1: Indirect effect of explicit instruction in L2 on linguistic competence

Conclusion

In this paper we examined an important question for SLA theory, namely, the role of consciousness in L2 acquisition. This question was examined in order to determine whether or not explicit instruction in grammar is advantageous during this process.

We first compared the definitions of consciousness accepted in the two disciplines and concluded that perhaps SLA theorists need to consider consciousness in a broader sense than they do.

We next looked at how different SLA theories view the role of consciousness and we examined the controversy in SLA theory concerning the value of explicit instruction in grammar. In this connection, we paid special attention to the role of UG in L2 acquisition and role of implicit and explicit knowledge in use of UG.

This led us to Block's distinction between A-consciousness and P-consciousness. We examined how L2 acquisition and language in general fit this categorization. We suggested the following:

- linguistic performance is a form of A-consciousness, often at least,
- subjects can be both A-conscious and P-conscious of language, including UG,
- A-consciousness of language can be language specific,
- A-consciousness of language is a form of implicit knowledge, while P-consciousness of language is explicit knowledge,
- P-consciousness can influence A-consciousness, and,
- P-consciousness of language can enhance linguistic competence by improving implicit knowledge.

The relationship of all this to explicit instruction in L2 teaching is as follows. Explicit instruction influences explicit knowledge, obviously. Having explicit knowledge means being P-conscious. But having explicit knowledge or P-consciousness of language can influence one's A-consciousness of it. In this way, P-consciousness can enhance L2 competence and implicit knowledge (see figure 1).

This paper tries to provide a theoretical base for the value of explicit grammar instruction in L2 training. What needs to be examined next is the form of the instruction. One of us has pointed out elsewhere that instruction in grammar should take the form of task-based, form-focussed instruction that contains both positive and negative evidence (Torlaković, 2001).

References

Block N. (1999). On a Confusion About a Function of Consciousness. In N. Block, O. Flanagan, and G. Guzeldere (eds.), *The Nature of Consciousness*. Cambridge, MA: MIT Press, 375-416.

Burge , T. (1999). Two Kinds of Consciousness. In N. Block, O. Flanagan, and G. Guzeldere (eds.), *The Nature of Consciousness*. Cambridge, MA: MIT Press, 427-434.

Clark, A. (2001). *Mindware: An Introduction to the Philosophy of Cognitive Science*. Oxford, Oxford University Press.

Chomsky, N. 1980. Rules and Representations. *The Behavioral and Brain Sciences*. 3. 1-61.

Ellis, R. The Structural Syllabus and Second Language Acquisition. *TESOL Quarterly*. 27. 91-113.

Ellis. R. 1997. *Second Language Acquisition*. Oxford: Oxford University Press.

Flynn, S. 1996. Parameter Setting Approach. In Ritchie, W. and T. Bhatia. *Handbook of Second Language Acquisition*. San Diego: Academic Press.

Fotos, S., & Ellis, R. (1991). Communicating About Grammar; A Task-based Approach. *TESOL Quarterly*, 25, 87-112.

Hulstijn, J. H. and R. Graaff. 1994. Under What Conditions Does Explicit Knowledge of a Second Language Facilitate the Acquisition of Implicit Knowledge. *Aila Review*. 11, 97-113.

Jackson, F. (1999). What Mary Didn't Know. In N. Block, O. Flanagan, and G. Guzeldere (eds.), *The Nature of Consciousness*. Cambridge, MA: MIT Press, 567-570.

Krashen, S. (1981). *Second Language Acquisition and Second Language Learning*. Oxford: Pergamon Press.

Robinson, P. (1996). *Consciousness, Rules, and Instructed Second Language Acquisiton: Theoretical Studies in Second Language Acquisition*. New York: Peter Lang Publishing Inc.

Rutherford, W. (1987). *Second Language Grammar: Learning and Teaching*. London, New York: Longman.

Schmidt, R. (1995). Consciousness and Foreign Language: A Tutorial on the Role of Attention and Awareness in Learning. In R. Schmidt (ed*.), Attention and Awareness in Foreign Language Teaching and Learning*, pp. 12-55. University of Hawaii at Manoa: Second Language Teaching and Curriculum Center Technical Report # 9.

Schmidt, R. 1994. Deconstruction Consciousness in Search of Useful Definition for Applied Linguistics. *Aila Review*. 11.11-26.

Sharwood Smith, M. (1991). Speaking to Many Minds: On the Relevance of Different Types of Language Information for the L2 Learner. *Second Language Research*, 7. 118-132.

Strozer, J. 1994. *Language Acquisition After Puberty*. Washington: Georgetown University Press.

Torlaković, E. (2001). *Application of a CALL System in the Acquisition of Adverbs in English*. Carleton University, MA thesis.