

Second Language Acquisition Theory, Research, and Real-World Teaching

Toute pratique pédagogique peut s'enrichir par l'explication de ses principes.
All pedagogical practice may be enriched by the explanation of its principles.

—Daniel Gaonac'h (1987)

WHAT IS SECOND LANGUAGE ACQUISITION ABOUT?

As an academic discipline, the field of second language acquisition (SLA) is concerned with explaining how people acquire a language other than their first language (L1) both inside and outside the classroom (e.g., immigrants learning French in Québec, a college student learning Italian in Italy, etc.). SLA is thus not language or context specific. SLA is a theory-building field that draws on disciplines such as linguistics, cognitive psychology and psycholinguistics among others. SLA researchers build theories about the processes that underlie how people acquire L2s and rely on empirical evidence to support these theories.

Instructors-in-training who are not familiar with the field of SLA sometimes think that this discipline is concerned with teaching methodology and that the job of SLA specialists is to design effective instructional materials. While it is true that many SLA researchers are interested in the effects of formal language instruction, this is not the primary concern of the field. SLA researchers do not typically deal with day-to-day classroom instruction issues such as "what is the best way to correct compositions" or "what is the best way to teach direct object pronouns." SLA researchers and theorists are concerned with investigating whether instruction has any effect on acquisition in the first place. Can instruction alter the processes that learners use to internalize a new language? Here are some additional questions that SLA researchers attempt to investigate and answer (adapted from Krashen, 2000,

and VanPatten, 2003):

- How does acquisition of a second language occur, that is to say, how do learners of a native language internalize the linguistic system of another language?
- What does their second language look like? What kinds of errors do they make?
- To what extent are language structures transferred from the L1?
- What factors affect acquisition?
- Does formal instruction have an impact on SLA?
- How does fluency develop?
- What role is played by sociocultural factors such as affect, motivation, and the desire to identify with the native speaker?

Such questions guide SLA researchers as they construct theories and design research experiments to test these theories. As you can see, the role of instruction in SLA is just one of many questions that SLA researchers investigate.

What Is Acquisition?

Because the volume of SLA research is so vast, it will not be possible to go into a thorough discussion about the nature of SLA in this chapter. In the next sections, we will discuss some accepted generalizations about SLA drawn from SLA theory and research that may be considered to be most pertinent for L2 instructors. Lightbown first outlined these generalizations in two research articles (Lightbown, 1985, 2000) to help instructors understand the nature of acquisition, and to help them set realistic expectations for L2 instruction.

Adults and Adolescents Can "Acquire" a Second Language

Lightbown uses the term "acquisition" to refer to the distinction that Krashen (1982) (discussed in Chapter 1) first made between linguistic abilities that learners develop unconsciously in the absence of metalinguistic instruction (acquisition), and knowledge that they have about the L2 that is a result of explicit formal instruction (learning). When Lightbown says that adults and adolescents can "acquire" an L2, she means that there are features of an L2 that learners may acquire *incidentally* without intentional effort or formal instruction (2000, p. 439). VanPatten (2003) adds that much of SLA involves the creation of an **implicit linguistic system** that lies outside of awareness. All native speakers of a language have an implicit linguistic system. We say that this linguistic system is implicit because native speakers are generally unaware of the properties that govern this system. For example, native speakers of English know that it is possible to say *Who do you wanna go with?* but that it is not possible to say *Who do you wanna bring the beer to the picnic?* but they cannot explain why. When we take on the task of acquiring an L2, we are in the process of developing a new implicit linguistic system. Research evidence demonstrates that even in the early stages of SLA, L2 learners possess an implicit linguistic system that functions in a very similar manner as that of native speakers. When asked to judge the correctness of L2 sentences, including sentences that contain structures that have never been taught via instruction or feedback, L2 learners can usually

come up with the correct answers even though they cannot explain why an individual sentence is correct or incorrect (see VanPatten & Mandell, 1999). The finding that L2 learners can come to know things about their L2 that have never been taught to them has led researchers and theorists in the field of SLA to posit a primary role for what is called **input**, a point we will discuss in detail later in the next chapter.

Pause to consider . . .

your implicit L2 system. Can you recall examples from your own L2 learning experience where you intuitively knew a sentence or structure was incorrect but you could not explain why?

The Learner Creates a Systematic Interlanguage

The term *interlanguage* was coined by Selinker (1972) to refer to the systematic knowledge that learners have of their L2 at any given point in time during their L2 development. In other words, it is what the learners' implicit linguistic system looks like at any given stage of development. When we say that this interlanguage is 'systematic,' we mean that this knowledge source cannot be explained by the type of instruction or input that learners are exposed to. Lightbown (1991, 2000) points out that even when learners are explicitly taught and given a lot of practice with specific L2 structures, they create their own systematic interlanguage patterns that do not mirror the patterns that were taught.

There Are Predictable Sequences in SLA Such That Certain Structures Have To Be Acquired Before Others Can Be Integrated

This generalization is related to the previous one about how learners create a systematic interlanguage. There is evidence in SLA research to support that L2 learners acquire various grammatical features in predictable orders and over extensive amounts of time. Certain features of an L2 have to be acquired before other features can be integrated into the developing system. Evidence for these predictable sequences can be found in what are called stages of development. **Stages of development** refer to how a learner acquires a particular linguistic feature of an L2 over time. One well-documented example of this involves the acquisition of negation in English. The following displays the types of structures that learners produce as they pass through each stage (taken from Ellis, 1986, pp. 59–60).

Stage 1: no + PHRASE

No drink.

No you playing here.

Stage 2: negator moves inside phrase; *not* and *don't* added to list of negators, but *don't* is considered one word

I no can swim.

I don't see nothing mop.

Stage 3: negator attached to modals but initially may be unanalyzed as is *don't* in Stage 2

I can't play this one.

I won't tell.

Stage 4: auxiliary system of English is developed, and learner acquires correct use of *not* and contractions.

He doesn't know anything.

I didn't say it.

These stages for the acquisition of negation in English show that learners make particular kinds of errors as they reach different stages in the acquisition of a particular structure regardless of what their L1 is. As they pass through each stage, some kind of restructuring happens in the learners' linguistic system for that particular structure.

Another example can be found in what are called acquisition orders. **Acquisition orders** refer to the sequential order in which L2 learners acquire various grammatical features (as opposed to a specific grammatical feature as is the case with developmental stages) over time. Research shows that learners acquire certain grammatical features in predictable orders regardless of the order in which they were formally taught in the classroom. In English, the following order has been documented for the acquisition of verb morphemes:

1. *-ing*
2. regular past tense
3. irregular past tense
4. third-person present tense *-s*

If we examined speech from L2 English learners, we would see that regardless of what their L1 is, they will master the use of *-ing* first, followed by the regular past tense, then the irregular past tense and finally the third-person present *-s*. This order would appear even if learners were formally taught third-person present tense *-s* first. Acquisition orders have also been observed for other languages such as French, Spanish and German.

Acquisition orders and developmental stages appear to be impermeable to instruction and other outside influences because learners of all types will make the same type of errors in the same order no matter what kind of formal instruction they receive. These orders are universal. No matter how instructors teach certain structures or how much they get their learners to practice the forms, or how much error correction is used, they will not be able to alter these orders.

Researchers often refer to acquisition orders and developmental stages as empirical evidence to support that learners have "internal strategies" for organizing language data (Corder, 1981; Lee & VanPatten, 2003). Krashen (discussed in Chapter 1), for example, relied on this research to make his case that formal instruction has no role to play in acquisition.

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the research on stages of development and acquisition orders. How might L2 instructors use this area of research in SLA to inform their teaching? Hint: The answer is NOT so that they can plan their syllabus according to these universal orders. Why is this not feasible?

Practice Does Not Make Perfect

This generalization is also related to the two previous ones. Because interlanguage development is systematic and learners follow universal developmental sequences that are impermeable to formal instruction, no amount of practice will make learners acquire what they are not ready to. Lightbown (1985) points out that when learners are given extensive practice with a particular form, they may exhibit high levels of accuracy with that form for a given period of time but this accuracy will eventually drop because learners will either forget the form or overgeneralize the use of the form. When learners are developmentally ready to acquire the form, accuracy levels for that form will rise again. Researchers sometimes refer to this phenomenon as "U-shaped development."

Knowing a Language Rule Does Not Mean One Will Be Able to Use It in Communicative Interaction

As L2 instructors, we can all probably relate to this generalization. How many times have we seen our students use a rule correctly on a test but then fail to use the same linguistic structure correctly in spontaneous conversation? As you may recall from our discussion in Chapter 1, Krashen (1982) attributes this phenomenon to the distinction he makes between "acquisition" and "learning." According to Krashen, metalinguistic information does not have any direct impact on "acquired" implicit knowledge.

The extent to which explicit knowledge may impact "acquisition" as defined by Krashen remains debatable in SLA research. Some researchers such as Ellis (1993) and Lightbown (1998), however, have suggested that explicit knowledge could help heighten learners' awareness of certain structures so that they may acquire them faster when they are developmentally ready to.

Isolated Explicit Error Correction Is Usually Ineffective in Changing Language Behavior

This generalization is related to the fact that interlanguage behavior is systematic and impermeable to the effects of formal instruction. Telling learners that they have made an error will not alter their interlanguage behavior so that the error will not be made again. Research in SLA suggests that in order for error correction to be effective, it must be carried out over sustained periods of time, and it must be focused on forms that learners are developmentally ready to learn.

For Most Adult Learners, Acquisition Stops Before the Learner Has Achieved Native-Like Mastery of the Target Language

No matter how much time and effort L2 learners devote to learning an L2, most will never become native-like. Their implicit linguistic system and/or their

ability to use their linguistic system tend to remain nonnative-like. Even those very advanced learners who have spent extensive periods abroad interacting in the L2 will often still speak with an accent, no matter how fluent or accurate they are with other aspects of the language. For others, they may still struggle with using certain prepositions or idiomatic features of the L2 correctly.

It is not clear why L2 learners rarely become native-like. Some researchers have proposed that there may be a **critical period** for language acquisition, that is to say, a period in human development where SLA becomes more difficult. This critical period is believed to be around the age of puberty. If learners begin SLA after the critical period, they may have a more difficult time learning the L2 and will most probably never become native-like. However, there are other researchers who do not believe that there is a critical period for SLA. According to these researchers, nonnativeness may be a result of how much input the learner receives over time. In other words, those who start learning an L2 early may do better not because there is a critical period but because they will have had more opportunities to receive input over the course of their lifetime than those who start L2 learning later. These different positions are summarized in Birdsong (1999) as well as in Harley and Wang (1997).

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the idea of a critical period. Do you think there is a critical period for learning skills like playing a musical instrument, sports or chess?

One Cannot Achieve Native-Like (Or Near Native-Like) Command of a Second Language in One Hour a Day (Over Two Years)

It is not clear how much time it takes, but it is certain that native or near native-like competence cannot be achieved exclusively in the classroom no matter how hard students work and no matter how talented the instructors are. Thus, it is highly unrealistic to expect students to be near native-like after going through a typical two-year basic language instruction program. Lightbown (1985) notes that the most successful language learners have been estimated to have spent some 12,000 to 15,000 hours "acquiring" the L2 by the age of six. Furthermore, learners in French immersion programs have been estimated to have received about 4,000 hours of contact with French by Grade 6. As Lightbown points out, in most school programs, the total number of hours after six years of language study for approximately five hours a week would not even reach 1,000.

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the fact that native-like competence cannot be achieved in the classroom in one hour a day. How might teachers use this generalization about SLA to inform their teaching practices?

The Learner's Task Is Enormous Because Language Is Enormously Complex

We say that the learner's task is enormous and that language is complex because learning an L2 entails acquiring many aspects of the target language (e.g., the lexicon, the phonological system, syntax, pragmatics, etc.) and in most cases, all these things must happen at the same time. In addition to *what* L2 learners must learn, there is also the question of *how* acquisition happens. VanPatten (2003) identifies at least three processes that are involved in SLA. These processes include **input processing**, **system change** and **output processing**. We will discuss these processes in more detail in Chapter 3.

Learners' Ability to Understand Language in a Meaningful Context Exceeds Their Ability to Comprehend Decontextualized Language and To Produce Language of Comparable Complexity and Accuracy

We have all observed this phenomenon in our own classrooms. Relying on context and background knowledge, L2 learners may be able to comprehend the language they hear even if they do not understand the forms that encode the meaning or be able to produce the forms accurately. Currently, the relationship between comprehension and production is not entirely clear but there is ample evidence to show that comprehension often precedes production. The explanation may be in part due to the developmental sequences that we discussed earlier. That is to say, while learners may not be developmentally ready to acquire various formal features of the L2, they may be able to extract meaning using contextual cues and world knowledge.

To summarize, this section has defined acquisition in terms of a series of generalizations about SLA made by Lightbown (1985, 2000). Similar statements have also been made by other researchers such as Lee and VanPatten's (2003) "five givens about SLA," and Long's (1990) essay on "The Least a Theory of SLA Needs to Explain." These generalizations should help us understand the nature of acquisition better and, consequently, help us have better and more realistic expectations about how L2 instruction may (or may not) enhance SLA.

Why SLA Theory and Research? What Is Their Relationship to Real-World Teaching?

In Chapter 1, we saw the birth and decline of a number of teaching methods over the course of history. This continues to happen today. Every now and then, a method or textbook that purports to embrace a new teaching approach will make its debut in the parade of foreign teaching methodologies. With so many teaching methods and instructional materials to choose from, each claiming to be new and improved, how is a language instructor supposed to choose?

Frustrated by the overwhelming number of methods, some may opt not to adhere to any particular teaching approach at all. I've heard some instructors say that they use an eclectic approach, that is to say, they take bits and pieces from various methods to suit their daily teaching needs guided by practical experience

and intuition. Practical experience and intuition are certainly important factors but they are not enough on their own. In order to adequately evaluate new or existing approaches and materials, instructors need to have at least a working knowledge of SLA theory and the research evidence that exists to support this theory. Here are some reasons why.

Effective Teaching Practices Are Informed by SLA

When teachers understand how people acquire new languages, they will be in a better position to design or adopt (or pick and choose in an eclectic fashion) various instructional practices to enable their students to become as successful as they can as language learners. When teachers understand that input and interaction are essential ingredients to SLA, they will make sure that their students have ample opportunities to receive and interact with input. They will not spend the majority of their class time doing pattern drills. As stated in a previous publication (Wong, 2002a), teaching an L2 without an understanding of how learners acquire languages is like a doctor practicing medicine without an understanding of how the human body works. The better teachers understand how SLA works, the better they will be able to teach their students.

Instructional Materials Do Not Always Reflect SLA Theory or Research

Instructors need to be cautious about what commercial instructional materials claim to offer. Lightbown (2000) points out that "some aspects of SLA research and theory have become so completely integrated into mainstream FL/SL pedagogy that they are referred to without reference to their sources" (p. 438). There are textbooks that do indeed reflect current developments in SLA theory and research. However, the unfortunate reality is that some commercial materials on the market do not, even when they claim to. In my experience with reviewing foreign language textbooks, I have observed that some of the so called communicative textbooks hardly contain any activities that encourage learners to engage in interpreting and negotiating meaning. Musumeci (1997) corroborates these observations when she reports an example from a proposal for a new language textbook in which "communicative activities" were reduced to meaning any kind of pair or group work (p. 130). Taking this misguided line of logic, a new instructor may inaccurately think that a pattern drill is a communicative activity if students worked on the drill in pairs. I will cite one further example. I was recently asked to evaluate the proposal for a first-year French textbook that was supposed to be content-based, the content being commercial French. As you may recall from Chapter 1, in content-based instruction, the L2 is used as the medium of communication (as opposed to the object of study) for subject matter learning. Excited at the prospect of such a book (as first-year content-based textbooks in French are infrequent), I agreed to review it. However, when I evaluated the sample chapters, I discovered that this was far from being a content-based textbook. The chapters primarily consisted of detailed grammatical explanations followed by mechanical drills that were contextualized with commercial French vocabulary. The authors and editors, evidently, had a very different idea about what

content-based instruction was. Why this mismatch between theory, approach and instructional materials? One reason is that not all textbook editors and authors may be familiar with research in SLA. Often, authors write textbooks based on their own intuitions about how languages are learned, usually drawing on their own language-learning experiences. "This is how I learned language so it must work." There are, of course, textbooks out there that are indeed based on sound theoretical principles. The point here is that unless instructors have some understanding of SLA theory and research, they will not be able to judge the validity of what different instructional materials claim to offer. Therefore, being informed about research in SLA provides us with the best tool for evaluating various theories, teaching practices, and beliefs about language instruction. As Musumeci (1997) pointed out, teaching methodology is only useful and important "to the extent that teachers understand the principles" underlying it (p. 128).

Pause to consider . . .

the mismatch between theory and practice. Can you think of examples in L2 instruction or in other fields where theory is mistranslated into practice?

SLA Offers Realistic Expectations about Teaching and Learning

Understanding the nature of SLA also helps instructors have realistic expectations about their students and about themselves as teachers. Instructors tend to become frustrated when their students make certain errors over and over again after they have explained the concept repeatedly. Is this due to poor teaching? Does this mean that the students are lazy? Not necessarily. Instructors need to understand that SLA is constrained by a variety of factors. As we saw earlier in our discussion about the nature of acquisition based on Lightbown's statements, SLA is highly complex and slow, and the reality is that most L2 learners do not reach native-like competence. Therefore, it is important to keep in mind that the lack of immediate results does not necessarily mean that teachers or students were not doing their jobs. When teachers have a better understanding of the complex nature of SLA, their expectations of learners will also be more realistic and they will be in a better position to assess the outcomes of their own teaching.

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the nature of SLA and assessment in the classroom. Given what we know about the complex nature of SLA, instructors should expect learners to make certain kinds of errors. How do you think these errors should be treated or corrected in exam situations such as oral exams or the composition components of tests?

How Should Instructors Approach the Application of SLA Research?

In this chapter, I have discussed the nature of SLA and outlined why it is important for L2 instructors to have a working knowledge of SLA theory and research to guide their instructional decisions. It is also necessary to point out, however, that this does not mean that research results in SLA can always be directly applied to classroom instruction. First, as discussed earlier, research experiments in SLA are not designed to answer the day-to-day questions about effective language teaching. Second, the contexts in which research experiments are conducted do not always make research results directly applicable to local classroom conditions. In research experiments on instructional effects, researchers must isolate the effects of different variables. In order to do this, they may need to administer instructional treatments to subjects that teachers would not normally do in an actual classroom learning setting. For example, I recently conducted an experiment on a type of instruction called Processing Instruction (Wong, 2004b). This type of instruction includes a combination of explicit information about a target form followed by structured input practice activities (see Chapter 6). In order to isolate the individual effects of the explicit information and practice activities, I used four different groups of subjects in my study: I gave one group of subjects both the explicit information and the structured input activities, I gave a second group only the structured input activities, I gave a third group only the explicit information, and I gave a fourth group no instruction at all (control group). In a classroom learning context, would it be feasible to only give students explicit information (or no instruction) and then test them on the target forms without engaging them in any kind of practice? The answer is, of course, no. However, in order for me to see whether explicit information was doing anything at all in the context of my research, I had to isolate the effect of this variable by giving one group of subjects only the explicit information. Therefore, what is necessary for researchers to do in the context of research does not always reflect what is best for classroom learning contexts.

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the study I just described. My results revealed that explicit information was not necessary for the subjects to make statistical gains on paper-and-pencil posttests. Does this mean that instructors should never use explicit information in the classroom? Explain.

The particular subjects used in a study and the specific learning contexts of a research experiment also may not reflect the local conditions of instructors' individual classrooms. Let's imagine that we have a study about how international students in an intensive English class at an American university acquire question forms. How should an instructor who teaches English to adult

immigrants at a community center in Québec use these research results? What about an instructor in Hong Kong who teaches English to fifth graders twice a week? Direct application of research results is obviously not the answer here. Instructors may certainly gain some valuable insight from this study as to what factors may impact the acquisition of question forms in English, but much thought and interpretation will be needed before they can consider applying the research results to their local classroom conditions. Here are some points and questions to keep in mind when reading and interpreting research reports:

- *Age of Subjects:* Would the results of the study be the same or different with learners of a different age?
- *Target Structure:* Would the results of the study be the same if a different target structure were used?
- *Assessment Measures:* Would the results of the study be the same or different if different assessment measures were used? Might we get different results if we used an oral picture description task instead of a discrete point pencil and paper task?
- *Level of Learners:* Might we get different results if we repeated the study with advanced learners rather than with beginning learners, for example?
- *Number of Instructional Contact Hours:* How might research results be different if the study were conducted in an immersion context where students have 30 hours of target language instruction a week versus a learning context where students only have 4–5 hours of target language instruction per week?

All these factors may have an impact on the results of any given SLA study. Thus, as you read the SLA research presented in subsequent chapters, you should keep these questions in mind when you try to interpret the results.

To reiterate, SLA research is an important source of information to help instructors make sound pedagogical decisions. While the details of research experiments may not be directly applicable to day-to-day classroom instruction, instructors should gain valuable insight from this research about the nature of SLA to help them develop effective teaching principles.

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the interpretation of research findings. Besides age, target structure, assessment measures, level of learners, and instructional contact hours, can you think of other factors that may have an impact on research results?

SUMMARY/CONCLUSION

We have seen that SLA research provides valuable information about how languages are acquired and the different factors that may impact the effectiveness of different instructional interventions. Instructors who are knowledgeable

about research in SLA will be better equipped to evaluate existing and new teaching approaches and techniques. They will be better teachers because they will have more realistic expectations for themselves and their students and will be able to understand the needs of their learners better. We also pointed out that while SLA research should be used by instructors to guide their pedagogical decisions, this research must also be interpreted with caution. Research contexts do not always reflect classroom learning conditions and consequently, research results may not be directly applicable to local classroom learning situations. For this reason, instructors need to carefully consider the differences between the context in which the research study was conducted and the specific context of their individual classrooms and learners. SLA research is indeed an important knowledge source to inform our pedagogical choices but as Lightbown pointed out, “it is not the details of the individual studies that can be ‘applied’ but rather the general principles which they reflect” (Lightbown, 2000, p. 454). In the next chapter, we will focus on the nature of input, an essential ingredient of SLA, so that we may better understand and appreciate the instructional techniques put forth by this book—input enhancement techniques.

ENHANCE YOUR KNOWLEDGE

SLA Research and Classroom Practice

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