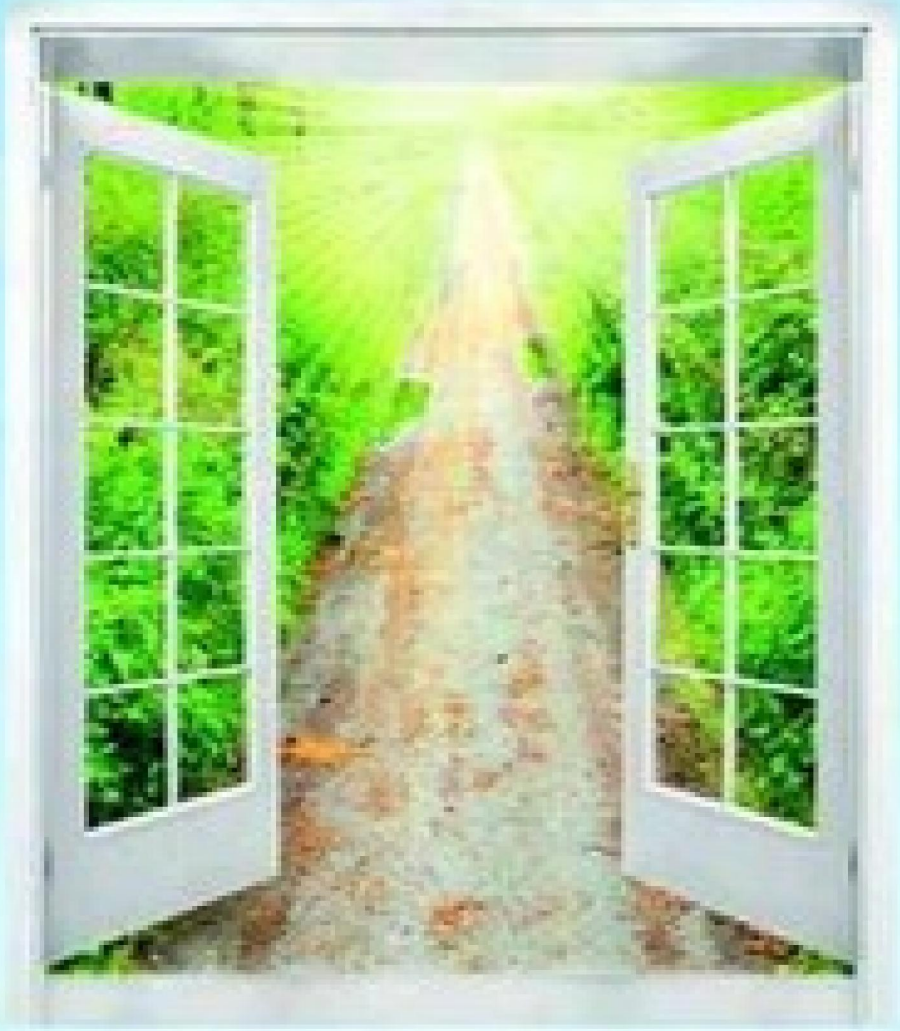
SIXTH EDITION

# PRINCIPLES *of* LANGUAGE LEARNING AND TEACHING

## A COURSE IN SECOND LANGUAGE ACQUISTION



H. DOUGLAS BROWN

ALWAYS LEARNING

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SIXTH EDITION

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A COURSE IN SECOND LANGUAGE ACQUISITION

H. DOUGLAS BROWN

**Principles of Language Learning and Teaching, Sixth Edition**



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# PREFACE

Nearly three and a half decades ago, when the first edition of *Principles of Language Learning and Teaching* was published in 1980, the field of second language acquisition (SLA) was in what now seems like its infancy. Issues and controversies were manageable, a handful of journals published current studies and theoretical musings, and a budding community of researchers gathered at a smattering of conferences here and there.

Today, as I proudly present the sixth edition of *Principles*, SLA has grown—in complexity and sophistication—to mind-boggling proportions. Hundreds of periodicals now grace the landscape of SLA, along with books and papers and presentations and dissertations from every corner of the world. This rich and diverse field of inquiry has now shed a "beacon of light" (note the cover photograph) on the stormy seas that have perplexed us over the years. Nevertheless, a good deal of research on SLA concludes with the usual caveats: "more research is needed" or "our findings remain tentative."

Still, we have come a long way in six decades or so of concentrated focus on SLA, and this latest edition will reflect those successes, and will—perhaps more so than in previous editions—directly relate what we know about SLA to the language classroom. With a new subtitle, "A Course in Second Language Acquisition," designed to signal the book's primary use as a textbook in SLA, the sixth edition of *Principles* offers practicing teachers and teachers in training opportunities to inform their pedagogical practices.

## PURPOSE AND AUDIENCE

As in the previous five editions, the purpose and audience of this sixth edition are as follows:

- *A course in SLA* for students in language-teacher education programs
- *A textbook* on the theoretical foundations of language teaching
- *A summary*, for master's degree candidates, of "everything you need to know" about SLA

- *A handbook,* for experienced language teachers, of current issues, trends, and bibliographic references

For the most part, you don't need to have prior technical knowledge of linguistics or psychology in order to comprehend this book. From the beginning, the textbook builds on what an educated person knows about the world, life, people, and communication. And the book can be used in programs for educating teachers of *any* foreign language, even though many illustrative examples here are in English since that is the language common to all readers.

## CHANGES IN THE SIXTH EDITION

Following are some highlights of this edition:

1. **New issues and topics.** The most significant development in SLA research in the last seven years has been an intense focus on the "social turn" in SLA. The research of the previous six decades has come full circle to encompass what is now considered to be the heart of SLA: the intertwining and interdependence of self, identity, social interaction, and language acquisition. This focus is reflected throughout the book, culminating in my six perspectives (seen metaphorically as a color wheel) on SLA in the final chapter. Many of the chapters have been reorganized (new headings and sections, permutations of topics, etc.) to deliver new messages and new ways of thinking.
2. **Updates and new references.** Out of literally thousands of new articles, books, and chapters that have appeared since the last edition, I have added a selection of some 300 new *bibliographic references* that report the latest work in SLA, along with a number of new terms for the end-of-book *glossary*. Almost all of the *suggested readings* at the end of each chapter are new. In order to make way for the new, a good deal of the "old" has been culled, treated now as brief historical backdrops.
3. **More pedagogical focus.** This edition offers more in the way of practical classroom applications. The few *classroom connections* sprinkled through each chapter have multiplied to about a dozen for each chapter, each more simply and briefly worded, and designed to capture the interest of readers who have *not* had teaching experience along with those who have. In the interest of cutting to the chase, some of the detailed descriptions of research studies have been reduced. End of chapter *activities and discussion questions* have some added practicality, and are now addressed to the course instructor. *Journal-writing guidelines* retain their reflective and classroom-based leanings.
4. **Writing style.** You'll notice that my writing style has changed. I think you will soon discern more relaxed, informal, person-to-person prose throughout. I hope you will "hear" me talking with students, with less

academic stuffiness than before. I'm no less serious now, but I hope more approachable. Virtually every paragraph has been rewritten, loosened when needed, tightened in other spots. The final chapter is a complete rewrite—I think you'll like my summation of SLA theories and controversies through several metaphors with, yes, of course, a dash of whimsy here and there.

## ACKNOWLEDGMENTS

This book has grown out of graduate courses in SLA that I have taught since 1970. My first debt of gratitude is always to my students, for their insights, enthusiasm, and inquisitiveness. I always learn so much from them! I'm additionally grateful to students scattered around the globe who muster the courage to e-mail me with questions and comments. It's always great to hear from curious readers and yes, many of their comments are reflected in this current edition.

This time around I was the beneficiary of quite a number of formal reviews of the fifth edition, some of them assigned to specific chapters to assess. A huge thank-you to my reviewers for your excellent insights and suggestions: Mahmoud Arani, St. Michael's College, Colchester, VT; Tamara Collins-Parks, San Diego State University, San Diego, CA; Carolyn Duffy, St. Michael's College, Colchester, VT; Mark James, Arizona State University, Tempe, AZ; Youjin Kim, Georgia State University, Atlanta, GA; Heekyeong Lee, Monterey Institute of International Studies, Monterey, CA; Joseph Lee, Ohio University, Athens, OH; Suzanne Medina, California State University, Dominguez Hills, CA; Caroline Payant, Georgia State University, Atlanta, GA; and Luke Plonsky, Northern Arizona University, Flagstaff, AZ. Together you all provided an amazingly coherent collage of commentary! I could not have accomplished what I did here without you.

I'm also grateful to a number of language learners whose interviews and journals provided insightful chapter-opening vignettes. Some remain anonymous, while a special thank you goes to Magdalena Madany and Melody Chen, whose "stories" appear in Chapters 5 and 6.

Another essential link in the culmination of the publication of a book is the publishing team. I feel very fortunate to have worked closely with my editor, Lise Minovitz, and her colleagues at Pearson/Longman, with Kelly Ricci and her editors at Aptara, and with my indexer Sallie Steele.

Finally, on a personal note, I want to say yet another enormous thank-you to my wife, Mary, for once again being so patiently supportive of a sometimes overly driven author as I churned out this sixth edition. The support of loved ones is always an immeasurable but crucial contributor to any successful endeavor.

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CHAPTER 1

# LANGUAGE, LEARNING, AND TEACHING

*Carson, a native Californian, took Spanish as a foreign language for two years in high school and then had two more years in college. As a twenty-year-old, he spent one summer month in Costa Rica helping to build affordable housing for the less fortunate in the city of San José. On arrival, his four years of classroom Spanish were self-described as "somewhat useful in giving me a head start, but for face-to-face conversation, pretty useless." After one month in Costa Rica, making an effort to speak Spanish as much and as often as he could with Costa Rican friends, and as little English as possible, he felt like he came back to the United States with enough Spanish to "get along quite well" in a conversation.*

*Sonia, from Sao Paulo, Brazil, took German classes all the way through high school, at the prodding of her German-born parents. After two years of college German, reaching an advanced-intermediate level, she dropped the course the next year. She described feeling little sense of ability beyond a lot of "knowledge about German grammar," and a lack of motivation to continue studying German "just to please my mother and father." Ten years later, when asked how her German was, she reported "okay" reading ability (but no practical reason to read in German), "fair" listening ability (with grandparents), "poor" speaking ability (a few phrases with family), and "almost non-existent" writing ability.*

What do these two learners tell you about learning a second language? Even without the "whole story" of each learner's journey, can you see that language fluency doesn't happen overnight? And that learning a second language also involves learning a second culture? And that it may mean a whole new way of thinking, feeling, and acting? And that commitment, motivation, and serious effort are involved? And finally, that language learning involves social interaction in a meaningful context?

The two learners above may have benefited from their classroom instruction, but did those classrooms provide optimal communicative opportunities to use

their second language (L2)?[1] This book is about both *learning* and *teaching*, and of course teaching is the facilitation of learning. And a major step in learning how to *facilitate* is understanding the intricate web of *principles* that are spun together to affect how and why people learn—or fail to learn—an L2. To begin the process of understanding principles of language learning and teaching, let's ponder some of the questions that you could ask.

## QUESTIONS ABOUT SLA

Any complex set of skills brings with it a host of questions. As a means to guide an exploration of second language acquisition[2] (SLA), let's look at some of the questions you might ask, sorted here into some commonly used topical categories.

### Learner Characteristics

Who are the learners that you are teaching? What is their ethnic, linguistic, and religious heritage? What are their native languages, levels of education, and socioeconomic characteristics? What life experiences have they had that might affect their learning? What are their intellectual capacities, abilities, and strengths and weaknesses? How would you describe the personality of a student of yours? You can no doubt think of more questions, but these will suffice for starters.

#### CLASSROOM CONNECTIONS

In your learning of an L2, how did your own "life experiences" carry over to your SLA process? Among classmates of yours in an L2 class, what are some of their "life experiences" that might make a difference in how you teach your own students or in how well those students will learn the language? For each "experience," what could you do as a teacher to either capitalize on positives in learners' backgrounds or minimize the negatives?

[1, 2]Throughout this book, "second language," abbreviated as L2, refers generically to any *additional* language acquisition beyond the first (L1), including both "foreign" language learning and also subsequent (third, fourth, etc.) languages. Likewise "second language acquisition," abbreviated as SLA, is a generic term referring to L2 acquisition in both natural and instructional settings, as well as to both "foreign" language learning (e.g., learning French in the United States, English in Japan) and "second" language learning (in the L2 culture, e.g., English in the United States and Chinese in China).

## Linguistic Factors

What is language? What is communication? What does it mean when we say someone knows how to *use* a language? What are the relevant differences (and similarities) between a learner's first language (L1) and L2? What properties of the L2 might be difficult for a learner to master? These questions are, of course, central to the discipline of *linguistics*. Language teachers need to understand something about the linguistic system of the L2 and some of the possible difficulties a learner might encounter.

## Learning Processes

How does learning take place? Are there specific steps to successful learning? What mental or intellectual processes are involved in SLA? What kinds of strategies are available to a learner, and which ones are optimal? What is the optimal interrelationship of mental, emotional, and physical processes for successful SLA?

## Age and Acquisition

One of the key issues in L2 research and teaching is a cluster of questions about differences between children and adults. Does the age of learning make a difference? Common observation tells us that children are "better" language learners than adults. Are they, really? What does the research show? How do developmental changes that occur between childhood and adulthood affect SLA?

### Classroom Connections

Did you try to learn an L2 as a child? If so, how did that experience differ from learning an L2 as an adult? Suppose you were asked to teach two foreign language classes, one to eight-year-old children and the other to secondary school seniors (about seventeen years old). How would your teaching approach and your materials differ between those two classes?

## Classroom Instruction

A good deal of SLA successfully takes place outside of any educational context or classroom. In such "natural" environments, do all people learn a language equally successfully? In what has come to be called "instructed" SLA, many questions arise. What are the effects of varying methodological approaches,

textbooks, materials, teacher styles, and institutional factors? Is there an optimal length of *time* required for successful mastery? How can a student best put classroom instruction into action in the "real" world?

### Context

Are the learners attempting to acquire the second language within the cultural and linguistic milieu of the second language, that is, in a "second" language situation in the technical sense of the term? Or are they focusing on a "foreign" language context in which the L2 is heard and spoken only in an artificial environment, such as in a language classroom, or an instructional video? How might the sociopolitical conditions of a particular country or its language policy affect the outcome of a learner's mastery of a language? How do intercultural contrasts and similarities affect the learning process?

### Purpose

Finally, the most encompassing of all questions: Why are learners attempting to acquire the second language? Are they motivated by the achievement of a successful career, or by passing a foreign language requirement, or by wishing to identify closely with the culture and people of the target language?

#### CLASSROOM CONNECTIONS

Think back to a time when you were *first* learning an L2, and make a list of all the reasons (purposes) you had in beginning that process. If students in a classroom have many different such purposes, what could you as a teacher do either to refine or develop those purposes, or to redirect purposes that might not be facilitative?

## REJOICING IN OUR DEFEATS

The above questions have been posed, in global terms, to give you an inkling of the diversity of issues involved in understanding the principles of language learning and teaching. By addressing such questions carefully and critically, you may actually achieve a surprising number of answers. And with the help of this book, you should be able to hone global questions into finer, subtler questions, which in itself is an important task, for often being able to *ask the right questions* is more valuable than possessing storehouses of knowledge.

At the same time, remember that you may not find *final* answers to all the questions. The field of SLA manifests all the methodological and theoretical problems that come with a developing discipline (Long, 2007; VanPatten & Williams, 2007; Hinkel, 2011; Gass, 2013). Therefore, many of these questions have somewhat tentative answers, or at best, answers that must begin with the phrase, "it depends." Answers must be framed in a context that can vary from one learner to another, and from one moment to another.

The wonderful intricacy of complex facets of human behavior will be very much with us for some time. Roger Brown's (1966, p. 326) wry remark of five decades ago still applies:

> Psychologists find it exciting when a complex mental phenomenon—something intelligent and slippery—seems about to be captured by a mechanical model. We yearn to see the model succeed. But when, at the last minute, the phenomenon proves too much for the model and darts off on some uncapturable tangent, there is something in us that rejoices at the defeat.

We can rejoice in our defeats because we know that it's the very elusiveness of the phenomenon of SLA that makes the quest for answers so exciting. Our field of inquiry is no simple, unidimensional reality. It's "slippery" in every way.

The chapters of this book are designed to give you a picture of both the slipperiness of SLA and the systematic storehouse of reliable knowledge that is now available to us. As you consider the issues, chapter by chapter, you will develop an integrated understanding of how people learn—and sometimes fail to learn—an L2.

That understanding must be *eclectic*: no single theory or hypothesis will provide a magic formula for all learners in all contexts. Your conclusions will need to be *enlightened*: you'll be urged to be as critical as you can in considering the merit of various models and theories and research findings. And you'll have to be a bit *cautious*: don't accept every claim as truth just because someone fervently asserts it to be factual. By the end of the final chapter, with this cautious, enlightened, eclectic approach, you'll no doubt surprise yourself on how many pieces of this giant puzzle you can actually put together!

Thomas Kuhn (1970) referred to "normal science" as a process of puzzle solving in which part of the task of the scientist, in this case the teacher, is to discover the pieces and then to fit the pieces together. Some of the pieces of the SLA puzzle have been located and set in place. Others are not yet discovered, and the careful defining of questions will lead to finding those pieces. We can then undertake the task of fitting the pieces together into what Kuhn called a **paradigm**—an interlocking design, a model, or a theory of SLA.

### CLASSROOM CONNECTIONS

How would you describe, in your experience, the current accepted "paradigm," or "approach" to language teaching? As you think about language classes you have taken (and perhaps taught), have you seen a "revolution" in language teaching, or is there one yet to come in the near future?

In order to begin to ask further questions and to find answers to some of those questions, let's first address a fundamental concern in problem-posing: defining the focus of our inquiry. Since this book is about language, learning, and teaching, let's see what happens when we try to define those three terms.

## LANGUAGE

A definition is a statement that captures the key features of a concept. Those features may vary, depending on your own understanding of the concept. And, most importantly, your understanding is essentially a "condensed" version of a theory that elaborates on all the facets of the concept. Conversely, a theory could be thought of as an "extended" definition. Defining, therefore, is serious business: it requires choices about which facets of a phenomenon are worthy of being included.

Suppose you were stopped by a reporter on the street, and in the course of an interview about your field of study, you were asked, "Well, since you're interested in second language acquisition, please tell me what *language* is, exactly." You would no doubt probe your memory for a typical dictionary-type definition of language. What would such a definition look like?

According to *Merriam-Webster's Collegiate Dictionary* (2003, p. 699), language is "a systematic means of communicating ideas or feelings by the use of conventionalized signs, sounds, gestures, or marks having understood meanings." If you had read Steven Pinker's *The Language Instinct* (1994), you would find a little more elaboration:

> Language is a complex, specialized skill, which develops in the child spontaneously, without conscious effort or formal instruction, is deployed without awareness of its underlying logic, is qualitatively the same in every individual, and is distinct from more general abilities to process information or behave intelligently (p. 18).

On the other hand, you might, with Ron Scollon (2004, p. 272), also have included some mention of the creativity of language, the presumed primacy

of speech over writing, and the universality of language among human beings.

If we were to synthesize a number of definitions of **language**, we might come up with a composite definition represented in the eight items in the left-hand column of Table 1.1. These comprise a reasonably concise "25-word-or-less" definition of language. But the simplicity of the eightfold definition should not mask the sophistication of linguistic research underlying each concept. Enormous fields and subfields, yearlong university courses, and reams of research are suggested in each of the eight categories. Some of these fields of research are listed in the right-hand column of Table 1.1.

Table 1.1 Language definition and related subfields of research

| Language | Subfields of Research and Inquiry |
|---|---|
| **1.** …is systematic | phonetics; phonology; morphology; syntax; discourse analysis; lexical analysis |
| **2.** …uses arbitrary symbols | semiotics; semantics; philosophy & history of language; psycholinguistics |
| **3.** …uses symbols that are primarily vocal but may also be visual | phonetics; phonology; writing systems; orthography; nonverbal communication |
| **4.** …uses symbols that have conventionalized meanings | semantics; pragmatics; sociolinguistics; psycholinguistics; cognitive linguistics |
| **5.** …is used for communication | sentence processing; pragmatics; discourse analysis; conversation analysis |
| **6.** …operates in a speech community | sociolinguistics; sociocultural analysis; or culture pragmatics; dialectology; bilingualism |
| **7.** …is essentially human, but not limited to humans | innateness; genetics; neurolinguistics; animal communication |
| **8.** …has universal characteristics | Universal Grammar; innateness; emergentism; neurolinguistics; cross-cultural analysis |

Careful research and extensive study of these eight topics have involved a complex journey through a labyrinth of linguistic science—a maze that continues to be negotiated as many controversies have arisen within these basic concepts.

Your understanding of the components of language determines to a large extent how you teach a language. If, for example, you believe that nonverbal communication is a key to successful second language learning, you will devote some attention in your curriculum to nonverbal systems and cues. If you perceive language as a phenomenon that can be dismantled into thousands of discrete pieces—such as grammar points—and those pieces programmatically taught one by one, you will attend carefully to an understanding of the discrete forms of language. If you think language is essentially cultural and interactive,

your classroom methodology will be imbued with sociolinguistic strategies and communicative tasks.

## LEARNING AND TEACHING

We can also ask questions about constructs like learning and teaching. Consider again some traditional definitions. A search in contemporary dictionaries reveals that **learning** is "acquiring knowledge of a subject or a skill by study, experience, or instruction." Oddly, an educational psychologist would define learning even more succinctly as "a change in an individual caused by experience" (Slavin, 2003, p. 138).

Similarly, **teaching**, which is implied in the first definition of learning, may be defined as "showing or helping someone to learn how to do something, giving instructions, guiding in the study of something, providing with knowledge, causing to know or understand." Isn't it curious that lexicographers seem to have such difficulty in devising a definition of something as universal as teaching? More than perhaps anything else, such definitions reflect the difficulty of defining complex concepts.

Breaking down the components of the definition of learning, we can extract, as we did with language, domains of research and inquiry. Learning is:

1. Acquisition or "adding"
2. The retention of information or skills
3. The involvement of storage systems, memory, and cognitive organization
4. The application of active, conscious focus, and subconscious attention
5. Relatively permanent but subject to forgetting
6. The result of practice, perhaps reinforced practice
7. A change in behavior

These concepts can also give way to a number of subfields within the discipline of psychology: acquisition processes, perception, memory (storage) systems, short- and long-term memory, recall, motivation, conscious and subconscious attention, learning styles and strategies, theories of forgetting, reinforcement, the role of practice. Very quickly the concept of learning becomes every bit as complex as the concept of language. Yet the second language learner brings all these (and more) variables into play in the learning of a second language.

Teaching cannot be defined apart from learning. Teaching is guiding and facilitating learning, enabling a person to learn, and setting the conditions for learning. Your understanding of how people learn will determine your philosophy of education, your teaching style, approach, lesson design, and classroom techniques. If, like B. F. Skinner (1953), you look at learning as a process of operant conditioning through a carefully paced program of reinforcement, you will teach accordingly. If you view second language learning as a deductive rather

than an inductive process, you will probably choose to present rules, lists, and charts to your students rather than let them "discover" those rules inductively.

### CLASSROOM CONNECTIONS

Write your own brief definition of teaching. What are the components of your definition? Take each component and think of how that component was manifested in L2 classes that you took, or if you have taught, how aspects of your definition were apparent in your teaching approach.

An extended definition—or theory—of teaching will spell out governing principles for choosing certain methods and techniques. A theory of teaching, in harmony with your integrated understanding of the learner and of the language to be learned, will point the way to successful procedures on a given day for given learners under the various constraints of the particular context of learning. In other words, your theory of teaching is your theory of learning "stood on its head."

## THREE PERSPECTIVES ON SECOND LANGUAGE ACQUISITION

The general definitions of language, learning, and teaching offered frame a beginning of theory-building. However, points of disagreement become apparent after a little probing of details. For example, is L1 acquisition an innately determined process or much like the learning of many other skills? Is language primarily a "system of formal units" or a "means for social interaction"? Can we attribute SLA success to, let's say, simply a matter of comprehensible input, or exposure to meaningful communicative contexts? Differing viewpoints emerge from equally knowledgeable scholars, who usually differ over the extent to which one perspective is more accurate than another.

Yet with all the possible disagreements among applied linguists and SLA researchers, some historical patterns emerge that highlight trends in the study of SLA. These trends will be described here in the form of three different perspectives, or schools of thought in the fields of linguistics and psychology. While each perspective shares historical chronology, bear in mind that such a sketch may risk some overgeneralization

### Structural Linguistics and Behavioral Psychology

In the 1940s and 1950s, the **structural**, or **descriptive**, school of linguistics prided itself in a rigorous application of the scientific observation of human

languages. Only "publicly observable responses" could be subject to investigation. The linguist's task, according to the **structuralist**, was to *describe* human languages and to identify their structural characteristics. An important axiom of structural linguistics was that languages can differ from each other without limit, and that no preconceptions should apply across languages. Freeman Twaddell (1935), among others, underscored the mandate for the structural linguist to examine only *overtly observable* data, and to ignore any **mentalistic** theorizing that might entertain unobservable guesses, hunches, and intuition about language.

Of further importance to the structural or descriptive linguist was the notion that language could be dismantled into small pieces or units and that these units could be described scientifically, contrasted, and added up again to form the whole. From this principle emerged an unchecked rush of linguists, in the 1940s and 1950s, to the far reaches of the earth to engage in the rigorous production of detailed descriptions of the world's languages, many of them labeled as "exotic."

Similar perspectives were shared by psychologists of this era. For example, B.F. Skinner (1957), Charles Osgood (1957), and others insisted on the rigors of the **scientific method** in studying human behavior. In their **behavioral** paradigm, any notion of "idea" or "meaning" was "explanatory fiction," and in both language and other behavior, the only legitimate "responses" were those that could be objectively perceived, recorded, and measured. The unreliability of observation of states of consciousness, thinking, concept formation, or the acquisition of knowledge made such topics impossible to examine in a behavioral framework.

### Classroom Connections

Structural linguistics was best modeled in the classroom by Charles Fries (1945, 1952), whose "structural drills" and "pattern practices" eventually evolved into the Audiolingual Method (see Chapter 4). In your experience learning or teaching a language, what do you think are the advantages and disadvantages of pattern drills and rote memorization in the language classroom? If they should be used at all, how do you place limits on their use?

## Generative Linguistics and Cognitive Psychology

In the decade of the 1960s, **generative-transformational linguistics** emerged through the influence of Noam Chomsky and a number of his colleagues. Chomsky was trying to show that human language cannot be scrutinized

simply in terms of *observable* stimuli and responses or the volumes of raw data gathered by field linguists. The generative linguist was interested not only in describing language (achieving the level of **descriptive adequacy**) but also in arriving at an **explanatory** level of adequacy in the study of language, that is, a "principled basis, independent of any particular language, for the selection of the descriptively adequate grammar of each language" (Chomsky, 1964, p. 63).

Early seeds of the generative-transformational revolution were planted near the beginning of the twentieth century. Ferdinand de Saussure (1916) claimed that there was a difference between *parole* (what Skinner "observes," and what Chomsky called **performance**), on the one hand, and *langue* (akin to the concept of **competence**, or our underlying and unobservable language ability). A few decades later, however, descriptive linguists chose largely to ignore *langue* and to study *parole*. The revolution brought about by generative linguistics broke with the descriptivists' preoccupation with performance—the outward manifestation of language—and focused on the importance of the underlying (and nonobservable) levels of meaning and thought that give birth to and generate observable linguistic performance.

Similarly, **cognitive** psychologists asserted that meaning, understanding, and knowing were significant data for psychological study. Instead of focusing mechanistically on stimulus-response connections, cognitivists tried to discover psychological principles of organization and functioning. David Ausubel (1965, p. 4), for example, felt that behaviorists "dangerously oversimplified highly complex psychological phenomena." The growth of cognitivism in the 1960s and beyond signaled a distinct change in approaches to the study of human functioning, characterized by assertions that "the mind/brain is, for all intents and purposes, the *necessary* and *sufficient* locus of human thought and learning" (Atkinson, 2011b, p. 3).

Cognitive psychologists, like generative linguists, sought to discover underlying motivations and deeper structures of human behavior by using a **rational** approach. That is, they freed themselves from the strictly empirical study typical of behaviorists and employed the tools of logic, reason, extrapolation, and inference in order to derive explanations for human behavior. For cognitive psychologists, going beyond merely descriptive adequacy to explanatory power took on the utmost importance.

Both the structural linguist and the behavioral psychologist were interested in description, in answering *what* questions about human behavior by means of objective measurement in controlled circumstances. The generative linguist and cognitive psychologist were, to be sure, interested in the *what* question. But they were far more interested in a more ultimate question: *why*? What underlying factors—innate, psychological, social, or environmental circumstances—caused a particular behavior in a human being?

Suppose you're blissfully enjoying a meal at a restaurant when another patron across the room starts screaming expletives, stands up from the table,

throws his drink into the face of the waitperson, and stomps out of the restaurant. A friend later wants to know what happened, and asks various *what* questions. Which restaurant? What time of day was this? What did the person look like? What did the waiter do? What did the guy say as he walked quickly out of the restaurant? Another friend asks different questions, ones that require your *inference* about the incident. Was the guy angry? Was he mentally disturbed? Why did he throw his drink into the waitperson's face? Were other people shocked? Was the waitperson embarrassed?

The first friend asked objective questions, the answers to which were based on *observable* behavior. But did they probe ultimate answers? The second set of questions was richer, and obviously riskier. By daring to ask some difficult questions about the unobserved, we may lose some objectivity but gain more profound insight into human behavior.

## Constructivism: A Multidisciplinary Approach

**Constructivism** is hardly a new school of thought. Piaget and Vygotsky, names often associated with constructivism, are not by any means new to the scene of language studies. Yet, in a variety of **post-structuralist** theoretical positions, constructivism emerged as a paradigm of intense interest in the last part of the twentieth century. A refreshing characteristic of constructivism is its integration of linguistic, psychological, and sociological paradigms, in contrast to the professional chasms that often divided those disciplines in the previous century. Now, with its emphasis on social interaction and the discovery, or construction, of meaning, the three disciplines have much more common ground.

What is constructivism, and how does it differ from the other two viewpoints described above? First, it will be helpful to think of two branches of constructivism: cognitive and social. In **cognitive constructivism,** emphasis is placed on the importance of learners constructing their own representation of reality. "Learners must individually discover and transform complex information if they are to make it their own, [suggesting] a more active role for students in their own learning than is typical in many classrooms" (Slavin, 2003, pp. 257–258). Such claims are rooted in Piaget's seminal work in the middle of the twentieth century, (Piaget, 1954, 1955, 1970; Piaget & Inhelder, 1969) but have taken a long time to become widely accepted views. For Piaget, "learning is a developmental process that involves change, self-generation, and construction, each building on prior learning experiences" (Kaufman, 2004, p. 304).

**Social constructivism** emphasizes the importance of social interaction and cooperative learning in ultimate attainment. Spivey (1997, p. 24) noted that constructivist research tends to focus on "individuals engaged in social practices … on a collaborative group, [or] on a global community." The champion of social constructivism is Lev Vygotsky (1978), who advocated the view that "children's thinking and meaning-making is socially constructed and

emerges out of their social interactions with their environment" (Kaufman, 2004, p. 304).

### Classroom Connections

Constructivists have championed social interaction, discovery learning, and the active role of a learner as necessary for effective learning. In your own L2 learning (or teaching) experiences, what are some examples of constructivism that successfully contributed to your process of learning (or teaching)?

One of the most popular concepts advanced by Vygotsky was the notion of a **zone of proximal development** (ZPD): the distance between learners' existing developmental state and their potential development. Put another way, the ZPD encompasses tasks that a learner has not yet learned but is capable of learning with appropriate stimuli. The ZPD is an important facet of social constructivism because it involves tasks "that a child cannot yet do alone but could do with the assistance of more competent peers or adults" (Slavin, 2003, p. 44; see also Karpov & Haywood, 1998). A number of applications of Vygotsky's ZPD have been made to foreign language instruction (Lantolf, 2000, 2011; Nassaji & Cumming, 2000; Marchenkova, 2005) in both adult and child second language learning contexts.

Vygotsky's concept of the ZPD contrasted rather sharply with Piaget's theory of learning in that the former saw a *unity* of learning and development while the latter saw stages of development setting a precondition or readiness for learning (Dunn & Lantolf, 1998). Piaget stressed the importance of individual cognitive development as a relatively solitary act. Biological timetables and stages of development were basic; social interaction was claimed only to trigger development at the right moment in time. On the other hand, Vygotsky maintained that social interaction was foundational in cognitive development and rejected the notion of predetermined stages.

Closely allied to a Vygotskian social constructivist perspective is that of Mikhail Bakhtin (1986, 1990), the Russian literary theorist who has now captured the attention of SLA researchers and practitioners (Hall, Vitanova, & Marchenkova, 2005). Bakhtin contended that language is "immersed in a social and cultural context, and its central function is to serve as a medium of communication." In this spirit, the early years of the new millennium have seen increasing emphasis on sociocultural dimensions of SLA, or what Watson-Gegeo (2004) described as a language socialization paradigm for SLA: a new synthesis that "involves a reconsideration of mind, language, and epistemology, and a recognition that cognition originates in social interaction and is shaped by cultural and sociopolitical processes" (Watson-Gegeo, 2004, p. 331).

### Classroom Connections

In your foreign language learning (or teaching), what "sociocultural dimensions" of the language did you learn? How did you learn them? How did they contrast with the sociocultural dimensions of your native language?

We can see constructivist perspectives in the work of first and second language acquisition researchers who study conversational discourse, sociocultural factors in learning, and interactionist theories. In many ways, constructivist perspectives are a natural successor to cognitively based studies of universal grammar, information processing, memory, artificial intelligence, and interlanguage systematicity.

All three of the historical perspectives described in this section—structural/behavioral, generative/cognitive, and constructivist—must be seen as important in creating balanced descriptions of second language acquisition. Consider for a moment the analogy of a very high mountain, viewed from a distance. From one direction the mountain may have a sharp peak, easily identified glaciers, and jutting rock formations. From another direction, however, the same mountain might appear to have two peaks (the second formerly hidden from view) and different configurations of its slopes. From a slightly different direction but this time with binoculars, yet further characteristics emerge—a forested ravine, rounded rocks, a winding trail. The study of SLA is very much like the viewing of such a mountain: we need multiple vantage points and tools in order to ascertain the whole picture.

Table 1.2 summarizes concepts and approaches in the three perspectives just described. The chronology of the schools of thought illustrates what Kuhn (1970) described as the structure of scientific revolutions. A successful paradigm is followed by a period of anomaly (doubt, uncertainty, questioning of prevailing theory), then crisis (the "fall" of the existing paradigm) with all the

Table 1.2 Three perspectives on second language acquisition

| Schools of Thought | Typical Themes |
|---|---|
| Structural Linguistics/ Behavioral Psychology | Description, Observable performance, Empiricism, Scientific method, Conditioning, Reinforcement |
| Generative Linguistics/ Cognitive Psychology | Acquisition, Innateness, Language competence, Deep structure, Interlanguage, Systematicity, Variability |
| Constructivism | Interactive discourse, Sociocultural factors, Construction of identity, ZPD, Cooperative learning, Discovery learning |

professional insecurity that comes with it; and then finally a new paradigm, a novel theory, is put together. However, that new paradigm is never unequivocally "new." The "borrowing" from one paradigm to the next underscores the fact that no single paradigm is right or wrong. Some truth can be found in virtually every critical approach to the study of reality.

## NINETEEN CENTURIES OF LANGUAGE TEACHING

A survey of research and theoretical trends in SLA could remain unfocused without its practical application to the language classroom. Since most readers of this book are ultimately interested in language pedagogy, I will offer occasional relevant historical commentaries on language *teaching* and link those descriptions to topics and issues being treated. In so doing, I hope to acquaint you progressively with some of the methodological trends and issues on the pedagogical side of the profession.

So far in this chapter, the focus has been on research over the past century or so of linguistics and psychology. What do we know about language teaching in the two or three millennia prior? The answer is not very much.

Louis Kelly's (1969) informative survey of language teaching over "twenty-five centuries," to borrow from his title, revealed interesting anecdotal accounts of L2 instruction, but few if any research-based language teaching methods. In the Western world, foreign language learning in schools was synonymous with the learning of Latin or Greek. Latin, thought to promote intellectuality through "mental gymnastics," was until relatively recently held to be indispensable to an adequate education. Latin was taught by means of what has been called the **Classical Method**: focus on grammatical rules, memorization of vocabulary and grammatical forms, translation of texts, and performance of written exercises.

As other languages began to be taught in educational institutions in the eighteenth and nineteenth centuries, the Classical Method was adopted as the chief means for teaching foreign languages. Little thought was given at the time to teaching oral use of languages; after all, languages were not being taught primarily to learn oral/aural communication, but to learn for the sake of being "scholarly" or, in some instances, for gaining a reading proficiency in a foreign language. Since there was little if any theoretical research on second language acquisition in general, or on the acquisition of reading proficiency, foreign languages were taught as any other skill was taught.

Language teaching before the twentieth century is best depicted as a "tradition" that, in various manifestations and adaptations, has been practiced in language classrooms worldwide even up to the present time. Late in the nineteenth century, the Classical Method came to be known as the **Grammar Translation Method**. There was little to distinguish Grammar Translation from what had gone on in foreign language classrooms for centuries: explanations of grammar points, memorization of lists, and exercises in translation (Prator & Celce-Murcia, 1979). But the Grammar Translation Method remarkably