FIFTH EDITION

PRINCIPLES *of* LANGUAGE LEARNING AND TEACHING

PEARSON
Longman

H. DOUGLAS BROWN

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PREFACE

WHEN THE first edition of *Principles of Language Learning and Teaching* appeared in 1980, the field of second language acquisition (SLA) was relatively manageable. We had a handful of professional journals devoted to SLA, a good collection of anthologies and conference proceedings, a small but respectable number of books on SLA and teaching, and a budding community of researchers devoted to the field.

Today the field of SLA has a mind-boggling number of branches and subfields and specializations—so many that it is virtually impossible for one person to "manage" them all. In the most recent issue of *Language Teaching*, an abstracting journal covering SLA and its pedagogical implications and applications, 162 periodicals were listed as potential sources of research on SLA. In two recent Handbooks surveying research on second language acquisition (Doughty & Long, 2003; Hinkel, 2005), readers are treated to over 2000 pages and over 70 chapters of surveys of current research! All these publications, coupled with literally thousands of conference presentations annually on SLA worldwide and an impressive number of books, now cover dozens of major subject matter areas. From "A to Z"—Accent to the Zone of proximal development—SLA is a rich and diverse field of inquiry.

Today we can see that the manageable stockpile of research of just a few decades ago has been replaced by a coordinated, systematic storehouse of information. Subfields have been defined and explored. Researchers around the world are meeting, talking, exchanging findings, comparing data, and arriving at some mutually acceptable explanations. A remarkable number of respectable, refereed journals are printing the best and most interesting of this research. Our research miscarriages are fewer as we have collectively learned how to conceive the right questions.

On the other hand, the mysteries and wonder of human language acquisition still perplex of the best of our sleuthing minds. It is a rare research report that does *not* end with some sort of caveat like, "more research is needed." In the 888-page compendium edited by Doughty and Long (2003), *The Handbook of Second Language Acquisition*, the penultimate author's closing sentence reads: "It is hardly surprising, though, that theoretical and methodological problems still abound;

SLA is a newly merging scientific field, and problems come with the territory" (Gregg, 2003, p. 856).

PURPOSE AND AUDIENCE

Since its first publication in 1980, *Principles of Language Learning and Teaching*, here in its fifth edition, has served a number of purposes for many audiences around the world. For graduates or advanced undergraduates in language-teacher education programs, it is a textbook on the theoretical foundations of language teaching, a survey of what research has revealed about how human beings acquire a second language. For a surprising number of people it has become a book that Master's degree candidates pore over in preparation for the SLA section of their comprehensive examinations or for references for their thesis research. For experienced teachers, it has become a handbook that provides an overview of current issues in the field with an index and bibliographic entries to aid in that overview.

For the most part, you do not need to have prior technical knowledge of linguistics or psychology in order to comprehend this book. An attempt has been made to build, from the beginning, 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 FIFTH EDITION

The first question people ask me when they hear that a new edition is about to appear is, "What changes will you make?" or from some students I hear, "Is the last edition really different from the current one?" In anticipation of these questions about the fifth edition, I offer the following highlights:

1. **New issues and topics.** In a field growing as rapidly as ours, a period of six or seven years sees many advances. In a reflection of this growth, the current edition features a number of new topics, listed in capsulized form below, sequenced in the order they appear in chapters.

   - Vygotsky's and Bakhtin's theories; language teaching historical overview
   - Connectionism, emergentism, principles and parameters
   - Age-related evidence—new findings; order of acquisition—new research
   - Thorndike's law of effect, language aptitude—new research, multiple intelligences—update
   - Kinesthetic style, autonomy, awareness, strategies-based instruction—new research

- Attribution theory, self-efficacy, willingness to communicate, LCDH (in anxiety research), Flow theory, orientations—new perspectives
- Culture definitions—update, NESTs and non-NESTs, linguistic imperialism—new perspectives
- Corpus linguistics, contrastive rhetoric
- Competition model, fossilization (stabilization) critique, noticing, attention, feedback types, recasts, uptake, frequency of input
- "Hot topics" in SLA research, output hypothesis—new research, awareness

2. **Updates and new references**. Other topics from the previous edition have been updated with new findings and new perspectives. Some of these updates are reflected in a reorganization of material within the chapters. And out of literally thousands of new articles, books, and chapters that have appeared since the last edition, I have added a selection of over 300 new bibliographic references that report the latest work in SLA.
3. **Permutation of Chapters 8 and 9**. With recent emphases on the blending of linguistic factors with related macro-theories of SLA, a better logical continuity is provided by (1) connecting sociocultural factors (Chapter 7) with questions about communicative competence, pragmatics, and conversation analysis (formerly Chapter 9, now Chapter 8); and (2) connecting learner language, error analysis, and form-focused instruction (formerly Chapter 8, now Chapter 9) with overall theoretical perspectives (Chapter 10).
4. **Amalgamation of pedagogical (methodological) implications**. Users of the previous edition have suggested that the end-of-chapter vignettes on methodology be amalgamated into the text. I have followed this suggestion by incorporating methodological concerns and issues into appropriate chapters. So for example, Chapter 4, which covers learning theories, now has a new section on two learning theory-inspired methods that were in stark contrast: the Audiolingual Method, and Community Language Learning.
5. **New "Classroom Connections."** Another way to bridge what might still be too much of a gap between research findings and classroom *praxis* is now featured in periodic capsules called "Classroom Connections." Here, the reader is reminded of a research issue that is being discussed, and on the same page is referred to some thoughts about how such research may have implications or applications for language classroom pedagogy.
6. **Glossary of technical terminology**. Throughout the book, new terminology that is central to the study of second language acquisition is boldfaced in its first appearance. To provide the reader with a convenient reference to all such terms, this Fifth Edition features a glossary of technical terminology at the end of the book. I suggest that such a lexicon become a tool for reminders and review rather than a method of long-term internalization of concepts. Retention is always better served by embedding terminology into concurrent reading and by association with one's experience, and not by the rote memorization of endless lists of jargon.

ADDITIONAL FEATURES

7. **Classroom-oriented end-of-chapter exercises.** In previous editions, the end-of-chapter exercises were designed for individual contemplation and possibly for teachers to adapt to classroom discussion. In this edition, new and improved classroom-tested exercises are explicitly designed for in-class group work, pair work, whole-class discussion, and individual work.
8. **Accessible suggestions for further reading.** In this edition the suggestions for further reading target an audience of students just beginning in the field of SLA. Few esoteric, technical articles are listed, and instead students are led to more reader-friendly material.
9. **Journal guidelines for a language learning experience.** I have always recommended that the information in a book like this is best internalized if the reader is concurrently taking a course in a foreign language. At the end of each chapter in this edition is a new section that offers classroom-tested journal-writing guidelines for the reader either to reflect on a current experience learning another language or to take a retrospective look at a previous foreign language learning experience. In both cases, the reader is asked to apply concepts and constructs and models to a personal experience learning a foreign language.

ACKNOWLEDGMENTS

This book has grown out of graduate courses in second language acquisition that I have taught at San Francisco State University, the University of Illinois, and the University of Michigan. My first debt of gratitude is therefore to my students—for their insights, enthusiasm, and support. They offered invaluable comments on the first four editions of the book, and I have attempted to incorporate those insights into this fifth edition. I always learn so much from my students!

I am also grateful to faculty colleagues both here at San Francisco State University, at the American Language Institute, and around the world for offering verbal commentary, informal written opinion, and formal published reviews, all of which were useful in fashioning this fifth edition. I also want to thank the publisher's anonymous reviewers for constructive feedback and encouragement.

Finally, on a personal note, my wife, Mary, and I have this past year just become first-time grandparents—Carson William Brown, born to Jeff and Christina Brown in 2004. So readers can look forward to the *sixth* edition in which Carson's budding first language acquisition skills will be well documented! And I of course want to say yet another huge thank you to Mary once again for being so patiently supportive of a cranky, driven author as I churned out this fifth edition.

H. Douglas Brown
San Francisco, California

CHAPTER 1

LANGUAGE, LEARNING, AND TEACHING

LEARNING A second language is a long and complex undertaking. Your whole person is affected as you struggle to reach beyond the confines of your first language and into a new language, a new culture, a new way of thinking, feeling, and acting. Total commitment, total involvement, a total physical, intellectual, and emotional response are necessary to successfully send and receive messages in a second language. Many variables are involved in the acquisition process. Language learning is not a set of easy steps that can be programmed in a quick do-it-yourself kit. So much is at stake that courses in foreign languages are often inadequate training grounds, in and of themselves, for the successful learning of a second language. Few if any people achieve fluency in a foreign language solely within the confines of the classroom.

It may appear contradictory, then, that this book is about both learning and teaching. But some of the contradiction is removed if you look at the teaching process as the facilitation of learning, in which you can teach a foreign language successfully if, among other things, you know something about that intricate web of variables that are spun together to affect how and why one learns or fails to learn a second language. Where does a teacher begin the quest for an understanding of the principles of language learning and teaching? By first considering some of the questions that you could ask.

QUESTIONS ABOUT SECOND LANGUAGE ACQUISITION

Virtually any complex set of skills brings with it a host of questions. While these questions can quickly turn into "issues," because there is no simple answer to the questions, nevertheless we usually begin the process with a set of focused questions to guide our study. Current issues in second language acquisition (SLA) may be initially approached as a multitude of questions that are being asked about this complex process. Let's look at some of those questions, 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's 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 any given learner? These and other questions focus attention on some of the crucial variables affecting both learners' successes in acquiring a foreign language and teachers' capacities to enable learners to achieve that acquisition.

Linguistic Factors

No simpler a question is one that probes the nature of the subject matter itself. What is it that the learner must learn? What is language? What is communication? What does it mean when we say someone knows how to *use* a language? What is the best way to describe or systematize the target (second) language? What are the relevant differences (and commonalities) between a learner's first and second language? What properties of the target language might be difficult for a learner to master? These profound questions are of course central to the discipline of linguistics. The language teacher needs to understand the system and functioning of the second language and the differences between the first and second language of the learner. It is one thing for a teacher to speak and understand a language and yet another matter to attain the technical knowledge required to understand and explain the system of that language—its phonemes, morphemes, words, sentences, and discourse structures.

Learning Processes

How does learning take place? How can a person ensure success in language learning? What cognitive processes are utilized in second language learning? What kinds of strategies are available to a learner, and which ones are optimal? How important are factors like frequency of input, attention to form and meaning, memory and storage processes, and recall? What is the optimal interrelationship of cognitive, affective, and physical domains for successful language learning?

Age and Acquisition

When in the life of a learner does second language learning take place? One of the key issues in second language research and teaching is a cluster of questions about differences between children and adults in learning a second language. Common observation tells us that children are "better" language learners than adults. Research shows that to be an overgeneralization, if not downright questionable.

If so, in what way does the age of learning make a difference? How do the cognitive and emotional developmental changes of childhood and young adulthood affect language acquisition?

Instructional Variables

Some second language acquisition successfully takes place outside of any educational context or classroom or teacher. In such "natural" environments, do all people learn a language equally successfully? If not, what are the ingredients for success? 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? Consider the amount of time spent in classrooms learning a second language: is there an optimal length of time required for successful mastery? Should the learner be exposed to three or five or ten hours a week in the classroom? Or a five-to-seven-hour day in an intensive language program? And how "active" should a learner be outside of the classroom?

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 second language is heard and spoken only in an artificial environment, such as the modern language classroom in an American university or high school? How might the sociopolitical conditions of a particular country or its language policy affect the outcome of a learner's mastery of the 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? What are their purposes? 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? Beyond these categories, what other, emotional, personal, or intellectual reasons do learners have for pursuing this gigantic task of learning another language?

REJOICING IN OUR DEFEATS

The above questions have been posed, in very global terms, to give you an inkling of the diversity of issues involved in the quest for understanding the principles of language learning and teaching. By addressing such questions carefully and critically, you can begin to achieve a surprising number of answers as you move

through the chapters of this book. And you can hone the 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, you should not labor under the impression that you can satisfactorily find final answers to all the questions. By some evaluations, the field of SLA is still in its infancy, with all the methodological and theoretical problems that come with a developing discipline (see Gregg, 2003, for example). Therefore, many of these questions will receive somewhat tentative answers, or at best, answers that must begin with the phrase, "it depends." Answers must almost always be framed in a context that can vary from one learner to another, 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 over four 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 is 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 is "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 are led on a quest for your own personal, integrated understanding of how people learn—and sometimes fail to learn—a second language. That quest is *eclectic*: no single theory or hypothesis will provide a magic formula for all learners in all contexts. And the quest is *cautious*: you will be urged to be as critical as you can in considering the merit of various models and theories and research findings. By the end of the final chapter, however, you will 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 language learning 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 a **paradigm**—an interlocking design, a theory of second language acquisition.

CLASSROOM CONNECTIONS

Research Findings: Thomas Kuhn's *Structure of Scientific Revolutions* has sold over a million copies and has been translated into sixteen languages. Applying Kuhn's popular theory to our current language teaching practice, we can say that Communicative Language Teaching (and, perhaps, Task-Based Teaching—see Chapter 8) is accepted as "normal" and as our current "paradigm."

Teaching Implications: As you look at language classes you have taken (and perhaps taught), do you think there will be an "intellectually violent" change (to paraphrase Kuhn) in which our pedagogy will be markedly transformed? If so, what do you suppose the next "revolution" in language teaching will look like?

That theory, like a jigsaw puzzle, needs to be coherent and unified. If only one point of view is taken—if you look at only one facet of second language learning and teaching—you will derive an incomplete, partial theory. The second language teacher, with eyes wide open to the total picture, needs to form an integrated understanding of the many aspects of the process of second language learning.

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 or delimiting 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 (or the lexicographer's) understanding of the construct. And, most important, that understanding is essentially a "theory" that explicates the construct. So a definition of a term may be thought of as a condensed version of a theory. Conversely, a theory is simply—or not so simply—an extended definition. Defining, therefore, is serious business: it requires choices about which facets of something 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 define *language* in a sentence or two." You would no doubt dig deep into your memory for a typical dictionary-type definition of language. Such definitions, if pursued seriously, could lead to a lexicographer's

wild-goose chase, but they also can reflect a reasonably coherent synopsis of current understanding of just what it is that linguists are trying to study.

If you had had a chance to consult the *Merriam-Webster's Collegiate Dictionary* (2003, p. 699), you might have responded to your questioner with a relatively standard statement like "a systematic means of communicating ideas or feelings by the use of conventionalized signs, sounds, gestures, or marks having understood meanings." Or, if you had read Pinker's *The Language Instinct* (1994), you might have come up with a sophisticated statement such as:

> 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), wish to emphasize that, first of all, language is *not* something that comes in "nicely packaged units" and that it certainly *is* "a multiple, complex, and kaleidoscopic phenomenon." Further, depending on how fussy you wanted to get in your response, you might also have included some mention of (1) the creativity of language, (2) the presumed primacy of speech over writing, and (3) the universality of language among human beings.

A consolidation of a number of possible definitions of **language** yields the following composite definition.

1. Language is systematic.
2. Language is a set of arbitrary symbols.
3. Those symbols are primarily vocal, but may also be visual.
4. The symbols have conventionalized meanings to which they refer.
5. Language is used for communication.
6. Language operates in a speech community or culture.
7. Language is essentially human, although possibly not limited to humans.
8. Language is acquired by all people in much the same way; language and language learning both have universal characteristics.

These eight statements provide a reasonably concise "25-word-or-less" definition of language. But the simplicity of the eightfold definition should not be allowed to mask the sophistication of linguistic research underlying each concept. Enormous fields and subfields and yearlong university courses, are suggested in each of the eight categories. Consider some of these possible areas:

1. Explicit and formal accounts of the system of language on several possible levels (e.g., phonological, syntactic, lexical, and semantic analysis)
2. The symbolic nature of language; the relationship between language and reality; the philosophy of language; the history of language

3. Phonetics; phonology; writing systems; the role of gesture, distance, eye contact, and other "paralinguistic" features of language
4. Semantics; language and cognition; psycholinguistics
5. Communication systems; speaker-hearer interaction; sentence processing
6. Dialectology; sociolinguistics; language and culture; pragmatics; bilingualism and second language acquisition
7. Human language and nonhuman communication; neurolinguistics; innate factors; genetic transmission; nature vs. nurture
8. Language universals; first language acquisition

Serious and extensive thinking about these eight topics involves a complex journey through a labyrinth of linguistic science—a maze that continues to be negotiated. Yet the language teacher needs to know something about this system of communication that we call language. Can foreign language teachers effectively teach a language if they do not know, even in general, something about the relationship between language and cognition, writing systems, nonverbal communication, sociolinguistics, and first language acquisition? And if the second language learner is being asked to be successful in acquiring a system of communication of such vast complexity, isn't it reasonable that the teacher have awareness of what the components of that system are?

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 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.

This book touches on some of the general aspects of language as defined above. More specific aspects will have to be understood in the context of an academic program in a particular language, in which specialized study of linguistics is obviously recommended along with a careful analysis of the foreign language itself.

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 or getting of 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 professional 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.

1. Learning is acquisition or "getting."
2. Learning is retention of information or skill.
3. Retention implies storage systems, memory, cognitive organization.
4. Learning involves active, conscious focus on and acting upon events outside or inside the organism.
5. Learning is relatively permanent but subject to forgetting.
6. Learning involves some form of practice, perhaps reinforced practice.
7. Learning is 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 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 the learner to learn, setting the conditions for learning. Your understanding of how the learner learns will determine your philosophy of education, your teaching style, your approach, methods, and classroom techniques. If, like B. F. Skinner, 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 copious rules and paradigms to your students rather than let them "discover" those rules inductively.

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 subject matter 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."

SCHOOLS OF THOUGHT IN SECOND LANGUAGE ACQUISITION

While the general definitions of language, learning, and teaching offered above might meet with the approval of most linguists, psychologists, and educators, points of disagreement become apparent after a little probing of the components of each definition. For example, is language primarily a "system of formal units" or a "means for social interaction"? Or, for better retention, should a teacher emphasize extrinsic or intrinsic motivation in students? Differing viewpoints emerge from equally knowledgeable scholars, usually over the extent to which one viewpoint or another should receive primacy.

Yet with all the possible disagreements among applied linguists and SLA researchers, some historical patterns emerge that highlight trends and fashions in the study of second language acquisition. These trends will be described here in the form of three different schools of thought—primarily in the fields of linguistics and psychology—that follow somewhat historically, even though components of each school overlap chronologically to some extent. Bear in mind that such a sketch may suggest dichotomies in philosophical positions, and such contrasts are rarely so simplistic in the study of issues in SLA.

Structural Linguistics and Behavioral Psychology

In the 1940s and 1950s, the **structural**, or **descriptive**, school of linguistics, with its advocates—Leonard Bloomfield, Edward Sapir, Charles Hockett, Charles Fries, and others—prided itself in a rigorous application of scientific observations 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 the structural characteristics of those languages. An important axiom of structural linguistics was that languages can differ from each other without limit, and that no preconceptions could apply across languages. Freeman Twaddell (1935, p. 57) stated this principle in perhaps its most extreme terms:

> Whatever our attitude toward mind, spirit, soul, etc., as realities, we must agree that the scientist proceeds as though there were no such things, as though all his information were acquired through processes of his physiological nervous system. Insofar as he occupies himself with psychical, nonmaterial forces, the scientist is not a scientist. The scientific method is quite simply the convention that mind does not exist . . .

Twaddell was underscoring the mandate for the structural linguist to examine only overtly observable data, and to ignore the "mind" insofar as the latter represented a **mentalistic** approach that gave credence to unobservable guesses, hunches, and intuition. Such attitudes prevailed in B. F. Skinner's thought, particularly

in *Verbal Behavior* (1957), in which he said that any notion of "idea" or "meaning" is explanatory fiction, and that the speaker is merely the locus of verbal behavior, not the cause. Charles Osgood (1957) reinstated meaning in verbal behavior, explaining it as a "representational mediation process," but still did not depart from a generally nonmentalistic view of 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 "exotic" languages.

CLASSROOM CONNECTIONS

Research Findings: The prevailing paradigm in linguistic research in the 1940s and 1950s viewed language as a linear, structured system that described grammatical sequences in terms of separate components that could comprise a sentence. These analyses were what Noam Chomsky later called "surface structure" relationships.

Teaching Implications: No one may have better manifested structural linguistics in the classroom than Charles Fries, whose "structural drills" and "pattern practices" were described in his (1945) book, *Teaching and Learning English as a Foreign Language*, and in his (1952) book, *The Structure of English*. The very popular Audiolingual Method (see Chapter 4) drew many insights from Fries's seminal work. What do you think are the advantages and disadvantages of pattern drills in the language classroom?

Among psychologists, a **behavioral** paradigm also focused on publicly observable responses—those that can be objectively perceived, recorded, and measured. The **scientific method** was rigorously adhered to, and therefore such concepts as consciousness and intuition were regarded as mentalistic, illegitimate domains of inquiry. 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. Typical behavioral models were classical and operant conditioning, rote verbal learning, instrumental learning, discrimination learning, and other **empirical** approaches to studying human behavior. You may be familiar with the classical experiments with Pavlov's dog and Skinner's boxes; these

too typify the position that organisms can be conditioned to respond in desired ways, given the correct degree and scheduling of reinforcement. (Behaviorism will be described in more detail in Chapter 4.)

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 followers. 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,* as was noted above. The revolution brought about by generative linguistics broke with the descriptivists' preoccupation with performance—the outward manifestation of language—and capitalized on the important distinction between the overtly observable aspects of language and the hidden 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 rather mechanistically on stimulus-response connections, cognitivists tried to discover psychological principles of organization and functioning. David Ausubel (1965, p. 4) noted:

> From the standpoint of cognitive theorists, the attempt to ignore conscious states or to reduce cognition to mediational processes reflective of implicit behavior not only removes from the field of psychology what is most worth studying but also dangerously oversimplifies highly complex psychological phenomena.

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. Going beyond merely descriptive adequacy to explanatory power took on utmost importance.

Both the structural linguist and the behavioral psychologist were interested in description, in answering *what* questions about human behavior: objective measurement of behavior 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?

If you were to observe someone walk into your house, pick up a chair and fling it through your window, and then walk out, different kinds of questions could be asked. One set of questions would relate to *what* happened: the physical description of the person, the time of day, the size of the chair, the impact of the chair, and so forth. Another set of questions would ask *why* the person did what he or she did: what were the person's motives and psychological state, what might have been the cause of the behavior, and so on. The first set of questions is very rigorous and exacting: it allows no flaw, no mistake in measurement; but does it give you ultimate answers? The second set of questions is richer, but obviously riskier. By daring to ask some difficult questions about the unobserved, we may lose some ground but gain more profound insight about human behavior.

Constructivism: A Multidisciplinary Approach

Constructivism is hardly a new school of thought. Jean Piaget and Lev 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 prevailing paradigm only in the last part of the twentieth century, and is now almost an orthodoxy. 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 the cognitive version of 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 (1954, 1955, 1970; Piaget & Inhelder, 1969) seminal work in the middle of the twentieth century, but have taken that long 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 constructing both cognitive and emotional images of reality.

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 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

Research Findings: Constructivism is a school of thought that emphasizes both the learner's role in constructing meaning out of available linguistic input and the importance of social interaction in creating a new linguistic system. Early constructivists like Vygotsky and Piaget actively emphasized their views many decades ago. What took the language *teaching* profession so long to apply such thinking to classroom practices?

Teaching Implications: Perhaps prevailing views of behavioral psychology curbed an outburst of interactive language teaching. However, as early as the 1970s, some methods advocated the central role of the learner's construction of language (the Silent Way and Community Language Learning) and the importance of meaningful interaction (early forms of the Notional-Functional Syllabus, which started in the United Kingdom). What evidence of constructivism do you see in current foreign language classrooms?

One of the most popular concepts advanced by Vygotsky was the notion of a **zone of proximal development** (ZPD) in every learner: the distance between learners' existing developmental state and their potential development. Put another way, the ZPD describes 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 describes 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; 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) describes 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).

Researchers studying first and second language acquisition have demonstrated constructivist perspectives through studies of 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. (Note: These terms will be defined and explained in subsequent chapters of this book.)

All three of the historical positions 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 distinctive rock formations. From another direction, however, the same mountain might now appear to have two peaks (the second formerly hidden from view) and different configurations of its slopes. From still another direction, yet further characteristics emerge, heretofore unobserved. The study of SLA is very much like the viewing of our mountain: we need multiple tools and vantage points in order to ascertain the whole picture.

Table 1.1 summarizes concepts and approaches described in the three perspectives above. The table may help to pinpoint certain broad ideas that are associated with the respective positions. The patterns that are illustrated are typical of 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 professional insecurity that comes therewith; and then finally a new paradigm, a novel theory, is put together. This cycle is evident in both psychology and linguistics, although the limits and bounds are not always easily perceived—perhaps less easily perceived in psychology, in which all three paradigms currently operate somewhat simultaneously. The cyclical nature of theories underscores the fact that no single theory or paradigm is right or wrong. It is impossible to refute with finality one perspective with another. Some truth can be found in virtually every critical approach to the study of reality.

Table 1.1 Schools of thought in second language acquisition

Time Frame	Schools of Thought	Typical Themes
Early 1900s and 1940s and 1950s	Structural Linguistics and Behavioral Psychology	Description Observable performance Scientific method Empiricism Surface structure Conditioning Reinforcement
1960s, 1970s, and 1980s	Generative Linguistics and Cognitive Psychology	Generative linguistics Acquisition, innateness Interlanguage Systematicity Universal grammar Competence Deep structure
1980s, 1990s, and 2000s	Constructivism	Interactive discourse Sociocultural variables Cooperative learning Discovery learning Construction of meaning Interlanguage variability

NINETEEN CENTURIES OF LANGUAGE TEACHING

A survey of research and theoretical trends in SLA remains abstract and unfocused without its application to the practical concerns of pedagogy in the classroom. Besides, most readers of this book are ultimately interested in language pedagogy in one form or another, and so in an attempt to help to build bridges between theory and practice, 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 major 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, and in the last section of this chapter, I will draw your attention to pedagogical trends and issues in the twentieth century. What do we know about language teaching in the two or three millennia prior? The answer is: not very much.

Kelly's (1969) informative survey of language teaching over "twenty-five centuries" revealed interesting anecdotal accounts of foreign language 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 higher education. Latin was taught by means of what has been called the **Classical Method**: focus on grammatical rules, memorization of vocabulary and of various declensions and conjugations, translation of texts, doing 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.

So language teaching before the twentieth century is best captured 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, beyond a focus on grammatical rules as the basis for translating from the second to the native language. But the Grammar Translation Method remarkably withstood attempts at the outset of the twentieth century to "reform" language teaching methodology, and to this day it remains a standard methodology for language teaching in educational institutions. Prator and Celce-Murcia (1979, p. 3) listed the major characteristics of Grammar Translation:

1. Classes taught in the mother tongue; little use of the L2
2. Much vocabulary taught in the form of lists of isolated words
3. Elaborate explanations of the intricacies of grammar
4. Reading of difficult classical texts begun early
5. Texts treated as exercises in grammatical analysis
6. Occasional drills and exercises in translating sentences from L1 to L2
7. Little or no attention to pronunciation

It is remarkable, in one sense, that this method has been so stalwart among many competing models. It does virtually nothing to enhance a student's communicative ability in the language. It is "remembered with distaste by thousands of school learners, for whom foreign language learning meant a tedious experience of memorizing endless lists of unusable grammar rules and vocabulary and attempting to produce perfect translations of stilted or literary prose" (Richards & Rodgers, 2001, p. 4).

In another sense, however, one can understand why Grammar Translation is so popular. It requires few specialized skills on the part of teachers. Tests of grammar

rules and of translations are easy to construct and can be objectively scored. Many standardized tests of foreign languages still do not attempt to tap into communicative abilities, so students have little motivation to go beyond grammar analogies, translations, and rote exercises. And it is sometimes successful in leading a student toward a reading knowledge of a second language. But, as Richards and Rodgers (2001, p. 7) pointed out, "it has no advocates. It is a method for which there is no theory. There is no literature that offers a rationale or justification for it or that attempts to relate it to issues in linguistics, psychology, or educational theory." As we continue to examine theoretical principles in this book, I think we will understand more fully the "theorylessness" of the Grammar Translation Method.

LANGUAGE TEACHING IN THE TWENTIETH CENTURY

Against the backdrop of the previous 19 centuries, a glance through the past century or so of language teaching gives us, ironically, a rather refreshingly interesting picture of varied interpretations of the "best" way to teach a foreign language. Perhaps beginning with François Gouin's (1880) Series Method, foreign language teaching underwent some revolutionary trends, all of which in one way or another came under the scrutiny of scientific (or observational) research.

As schools of thought have come and gone, so have language teaching trends waxed and waned in popularity. Historically, pedagogical innovation has been the beneficiary of the theoretical research described in the previous section, as witnessed by the influence of such research on trends in language teaching. At the same time, language classrooms and their innovative teachers and students have been laboratories of research that have, in turn, informed theoretical stances as they have changed over time.

Albert Marckwardt (1972, p. 5) saw these "changing winds and shifting sands" as a cyclical pattern in which a new paradigm (to use Kuhn's term) of teaching methodology emerged about every quarter of a century, with each new method breaking from the old but at the same time taking with it some of the positive aspects of the previous paradigm. More recently, Mitchell and Vidal (2001) described our perhaps misguided penchant for characterizing the last century of language teaching metaphorically as a pendulum swinging back and forth between a number of opposing options: focus on accuracy vs. focus on fluency, separation of skills vs. integration of skills, and teacher-centered vs. learner-centered approaches, to name a few. Mitchell and Vidal suggested that a new metaphor may better depict our journey across time: "that of a major river, constantly flowing, fed by many sources of water—rivers, streams, springs in remote territories, all fed by rain on wide expanses of land" (p. 27).

One of the best examples of both the cyclical and fluvial nature of methods is seen in the revolutionary **Audiolingual Method** (ALM) of the late 1940s and 1950s. The ALM, with its overemphasis on oral production drills, borrowed tenets from its predecessor by almost half a century, the **Direct Method**, but had essentially

sprung from behavioral theories of learning of the time. The ALM was a rejection of its classical predecessor, the Grammar Translation Method, by diminishing if not obliterating the need for metacognitive focus on the forms of language. Within a short time, however, with the increasing popularity of cognitive psychology, ALM critics were advocating more attention to rules and to the "cognitive code" of language, which, to some, smacked of a return to Grammar Translation! Shifting sands indeed, and the ebb and flow of paradigms.

Since the early 1970s, the symbiotic relationship of theoretical disciplines and teaching methodology has been continued to manifest itself. The field of psychology, as noted above in outlining tenets of constructivism, has witnessed a growing interest in interpersonal relationships, the value of group work, and the use of numerous cooperative strategies for attaining desired goals. The same era has seen linguists searching ever more deeply for answers to the nature of communication and communicative competence and for explanations of the interactive, sociocultural process of language acquisition.

The language teaching profession has mirrored these theoretical trends with approaches and techniques that have stressed the importance of self-esteem, intrinsic motivation, students cooperatively learning together, of developing individual strategies for constructing meaning, and above all of focusing on the communicative process in language learning. Some of these methodological innovations will be described in subsequent chapters of this book, as they pertain to issues and topics being discussed.

Today, many of the pedagogical springs and rivers of the last few decades are appropriately captured in the term **Communicative Language Teaching** (CLT), now a catchphrase for language teachers. CLT, to be discussed further in Chapter 8, is an eclectic blend of the contributions of previous methods into the best of what a teacher can provide in authentic uses of the second language in the classroom. Indeed, the single greatest challenge in the profession is to move significantly beyond the teaching of rules, patterns, definitions, and other knowledge "about" language to the point that we are teaching our students to communicate genuinely, spontaneously, and meaningfully in the second language.

A significant difference between current language teaching practices and those of, say, a half a century ago, is the absence of proclaimed "orthodoxies" and "best" methods. We are well aware that **methods**, as they were conceived of 40 or 50 years ago or so, are too narrow and too constrictive to apply to a wide range of learners in an enormous number of situational contexts. There are no instant recipes. No quick and easy method is guaranteed to provide success. As Bell (2003), Brown (2001), Kumaravadivelu (2001), and others have appropriately shown, pedagogical trends in language teaching now spur us to develop a principled basis—sometimes called an **approach** (Richards & Rodgers, 2001)—upon which teachers can choose particular designs and techniques for teaching a foreign language in a specific context. Every learner is unique. Every teacher is unique. Every learner-teacher relationship is unique, and every context is unique. Your task as a teacher is to understand the properties of those relationships and contexts.

Then, using a cautious, enlightened, eclectic approach, you can build a set of foundation stones—a theory, if you will—based on principles of second language learning and teaching.

The chapters that follow are designed to help you understand relevant concepts and issues in SLA and in so doing to formulate that approach.

TOPICS AND QUESTIONS FOR STUDY AND DISCUSSION

Note: Items listed below are coded for individual (I) work, group/pair (G) work, or (whole) class (C) discussion, as suggestions to the instructor on how to incorporate the topics and questions into a class session.

1. (G) At the beginning of this chapter, a number of categories of questions about second language acquisition are described, with numerous specific questions in each category. In a small group, in which each group is assigned one category only, try to generate some possible answers to selected questions, especially those questions that involve some complexity. To personalize your responses, include examples from the learning experiences of members of your group.
2. (C) Look at the two definitions of language, one from a dictionary and the other from Pinker's book (page 6). Why are there differences between these two definitions? What assumptions or biases do they reflect on the part of the lexicographer? How do those definitions represent "condensed theories"?
3. (I/G) Write your own "25-words-or-less" definitions of language, learning, and teaching. What would you add to or delete from the definitions given in this chapter? Share your definitions with another classmate or in a small group. Compare differences and similarities.
4. (G) Consider the eight subfields of linguistics listed on pages 6–7, and, assigning one subfield to a pair or small group, discuss briefly the type of approach to second language teaching that might emerge from emphasizing the exclusive importance of your particular subfield. Report your thoughts to the whole class.
5. (C) What did Twaddell (1935, p. 57) mean when he said, "The scientific method is quite simply the convention that mind does not exist"? What are the advantages and disadvantages of attending only to "publicly observable responses" in studying human behavior? Don't limit yourself only to language teaching in considering the ramifications of behavioral principles.
6. (I) In the discussion of constructivism as a school of thought, Vygotsky is cited as a major influence in our understanding of constructivism, especially social constructivism. Restate Vygotsky's philosophy in your own words and offer some classroom examples of Vygotsky's theories in action.
7. (G) Looking back at the three schools of thought described in this chapter, in a small group, suggest some examples of activities in the language classroom that would be derived from one of the three perspectives, as assigned to your

group. From those examples, try to derive some simple descriptors of the three schools of thought.

8. (C) Considering the productive relationship between theory and practice, think of some examples (from any field of study) that show that theory and practice are interactive. Next, think of some specific types of activities typical of a foreign language class you have been in (choral drills, translation, reading aloud, using a vocabulary word in a sentence, etc.). What kind of theoretical assumptions underlie these activities? How might the success (or failure) of the activity possibly alter the theory behind it?
9. (G) Richards and Rodgers (2001, p. 7) said the Grammar Translation Method "is a method for which there is no theory." Why did they make that statement? Do you agree with them? Share in a group any experiences you have had with Grammar Translation in your foreign language classes, and evaluate its effectiveness.
10. (I) At the end of the chapter, twentieth-century language teaching methodology is described as one that evolved into an *approach* rather than a specific accepted *method*, with the Direct Method and Audiolingual Method cited as examples of the latter. What is the difference between approach and method? Describe classroom examples of each.

SUGGESTED READINGS

Doughty, C., & Long, M. (2003). *The handbook of second language acquisition.* Malden, MA: Blackwell Publishing.

Hinkel, E. (Ed.). (2005). *Handbook of research in second language teaching and learning.* Mahwah, NJ: Lawrence Erlbaum Associates.

Together these two handbooks provide an encyclopedic summary of current research in just about every imaginable subfield of second language acquisition. The chapters (24 in Doughty and Long; 57 in Hinkel) in both volumes are individually authored by researchers who have spent a lifetime examining the topic of their specific chapter. The intended audience includes a sophisticated audience of second language acquisition researchers and other "experts," and therefore much of the reading is difficult for a novice in the field; however, both volumes offer a wealth of information, not to mention extensive lists of bibliographic references within each topic.

Mitchell, R., & Myles, F. (2004). *Second language learning theories* (2nd ed.). London: Hodder Arnold.

In this second edition, the authors have updated their original (1998) publication, a useful synopsis of current theoretical perspectives on second language acquisition. Among the theories summarized are Universal

Grammar, cognitive approaches, functional/pragmatic approaches, sociolinguistic and sociocultural perspectives, and research on input and interaction.

Kaufman, D. (2004). Constructivist issues in language learning and teaching. *Annual Review of Applied Linguistics, 24,* 303–319.

Of the three schools of thought presented in this chapter, perhaps constructivism is the most difficult to pin down, and to relate specifically to second language acquisition. Some of the current literature on constructivism is difficult to digest, but in this useful article, Dorit Kaufman defines and synopsizes constructivism in language that a novice in the field can understand.

Brown, H. D. (2001). *Teaching by principles: An interactive approach to language pedagogy* (2nd ed.). White Plains, NY: Pearson Education.

Richard-Amato, P. (2003). *Making it happen: From interactive to participatory language teaching* (3rd ed.). White Plains, NY: Pearson Education.

Richards, J., & Rodgers, T. (2001). *Approaches and methods in language teaching* (2nd ed.). Cambridge, UK: Cambridge University Press.

These three books offer a historical overview and critical analysis of language teaching methods in a context of theoretical foundations that underlie pedagogical practices. Brown and Richard-Amato are general in their scope, while Richards and Rodgers focus especially on the methods that have appeared in language teaching history.

Modern Language Journal, Fall 2000 (vol. 84, no. 4) and Spring 2001 (vol. 85, no. 1).

For an informative picture of the last century of language teaching, you might want to consult these two issues of the Modern Language Journal. *In each issue, a general introduction is followed by a number of articles that examine the history of language teaching in the twentieth century. Special attention is given to publications that appeared in the* Modern Language Journal, *and to the teaching of many different foreign languages.*

LANGUAGE LEARNING EXPERIENCE: JOURNAL ENTRY 1

In each chapter in this book, a brief set of journal-writing guidelines will be offered. Here, you are strongly encouraged to commit yourself to a process of weekly journal entries that chronicle a previous or concurrent foreign language learning experience. In so doing, you will be better able to connect the issues that you read about in this book with a real-life, personal experience.

Remember, a journal is meant to be "freely" written, without much concern for beautiful prose, rhetorical eloquence, or even grammaticality. It is your diary in which you can spontaneously record feelings, thoughts, reactions, and questions.

The prompts that are offered here are not meant to be exhaustive, so feel free to expand on them considerably. The one rule of thumb to follow in writing your journal is: connect your own experiences learning a foreign language with issues and models and studies that are presented in the chapter. Your experiences then become vivid examples of what might otherwise remain somewhat abstract theories.

If you decide to focus your writing on a previous experience learning a foreign language, you will need to "age regress" yourself to the time that you were learning the language. If at all possible, choose a language you learned (or tried to learn!) as an adult, that is, after the age of 12 or so. Then, describe what you were feeling and thinking and doing then.

If your journal centers on a concurrent experience, so much the better, because your memory of the ongoing events will be more vivid. The journal-writing process may even prompt you to adopt certain strategies for more successful learning.

Guidelines for Entry 1

- As you start(ed) your foreign language class, what is your overall emotional feeling? Are you overwhelmed? Scared? Challenged? Motivated? Is the course too easy? Too hard?
- How do you feel about your classmates? The class spirit or mood? Is the class "spirit" upbeat and motivating, or boring and tedious? What are the root causes of this general mood? Is it your own attitude, or the teacher's style, or the makeup of the class?
- Describe activities that you did in the early days of the class that illustrate (1) a behavioral perspective on second language acquisition, (2) a cognitive perspective, and (3) a constructivist perspective.
- Describe your teacher's teaching style. Is it effective? Why or why not? Does your teacher seem to have an approach to language teaching that is consistent with what you've read so far?

PART I

AGE FACTORS

CHAPTER 2

FIRST LANGUAGE ACQUISITION

THE MARVELOUS capacity for acquiring competence in one's native language within the first few years of life has been a subject of interest for many centuries. Some one and a half millennia ago, St. Augustine offered in his *Confessions* a self-analysis of the acquisition of his own first language. "... And thus by constantly hearing words, as they occurred in various sentences, I collected gradually for what they stood; and having broken in my mouth to these signs, I thereby gave utterance to my will."

"Modern" research on child language acquisition dates back to the latter part of the eighteenth century, when the German philosopher Dietrich Tiedemann recorded his observations of the psychological and linguistic development of his young son. At the end of the nineteenth century, François Gouin observed the language acquisition of his nephew and from those insights derived what came to be known as the Series Method of foreign language teaching. Not until the second half of the twentieth century did researchers begin to analyze child language systematically and to try to discover the nature of the psycholinguistic process that enables every human being to gain fluent control of an exceedingly complex system of communication. In a matter of a few decades, some giant strides were taken, especially in the generative and cognitive models of language, in describing the acquisition of particular languages, and in probing universal aspects of acquisition.

This wave of research in child language acquisition led language teachers and teacher trainers to study some of the general findings of such research with a view to drawing analogies between first and second language acquisition, and even to justifying certain teaching methods and techniques on the basis of first language learning principles. On the surface, it is entirely reasonable to make the analogy. After all, all children, given a normal developmental environment, acquire their native languages fluently and efficiently; moreover, they acquire them "naturally," without special instruction, although not without significant effort and attention to language. The direct comparisons must be treated with caution, however. There are dozens of salient differences between first and second language learning; the most obvious difference, in the case of adult second language learning, is the tremendous cognitive and affective contrast between adults and children. A detailed examination of these differences is made in Chapter 3.

This chapter is designed to outline issues in first language learning as a foundation on which you can build an understanding of principles of second language learning. A coherent grasp of the nature of first language learning is an invaluable aid, if not an essential component, in the construction of a theory of second language acquisition. This chapter provides an overview of various theoretical positions—positions that can be related to the paradigms discussed in Chapter 1—in first language acquisition, and a discussion of some key issues in first language acquisition that are particularly significant for an understanding of second language acquisition.

THEORIES OF FIRST LANGUAGE ACQUISITION

Everyone at some time has witnessed the remarkable ability of children to communicate. As small babies, children babble and coo and cry and vocally or nonvocally send an extraordinary number of messages and receive even more messages. As they reach the end of their first year, children make specific attempts to imitate words and speech sounds they hear around them, and about this time they utter their first "words." By about 18 months of age, these words have multiplied considerably and are beginning to appear in two-word and three-word "sentences"—commonly referred to as "telegraphic" utterances—such as the following (Clark, 2003):

all gone milk	shoe off	baby go boom
bye-bye Daddy	Mommy sock	put down floor
gimme toy	there cow	this one go bye

The production tempo now begins to increase as more and more words are spoken every day and more and more combinations of multi-word sentences are uttered. By two years of age, children are comprehending more sophisticated language and their production repertoire is mushrooming, even to forming questions and negatives (Clark, 2003):

where my mitten?	that not rabbits house
what Jeff doing?	I don't need pants off
why not me sleeping?	that not red, that blue

By about age 3, children can comprehend an amazing quantity of linguistic input. Their speech and comprehension capacity geometrically increases as they become the generators of nonstop chattering and incessant conversation, language thereby becoming a mixed blessing for those around them! Their creativity alone brings smiles to parents and older siblings (O'Grady, 2005, p. 17):

> Erase the window, Daddy. [upon seeing a frosted window in the winter]
> Headlights . . . are lights that go on in the head.
> Is this where you get safe? 'Cause this is Safeway and you get safe from the cold. [3-year-old in a Safeway supermarket]

This fluency and creativity continues into school age as children internalize increasingly complex structures, expand their vocabulary, and sharpen communicative skills. At school age, children not only learn what to say but what *not* to say as they learn the social functions of their language.

How can we explain this fantastic journey from that first anguished cry at birth to adult competence in a language? From the first word to tens of thousands? From telegraphese at 18 months to the compound-complex, cognitively precise, socioculturally appropriate sentences just a few short years later? These are the sorts of questions that theories of language acquisition attempt to answer.

In principle, one could adopt one of two polarized positions in the study of first language acquisition. Using the schools of thought referred to in the previous chapter, an extreme behaviorist position would claim that children come into the world with a ***tabula rasa***, a clean slate bearing no preconceived notions about the world or about language, and that these children are then shaped by their environment and slowly conditioned through various schedules of reinforcement. At the other constructivist extreme is the position that makes not only the cognitivist claim that children come into this world with very specific innate knowledge, predispositions, and biological timetables, but that children learn to function in a language chiefly through interaction and discourse.

These positions represent opposites on a continuum, with many possible positions in between. Three such points are explained in this chapter. The first (behaviorist) position is set in contrast to the second (nativist) and third (functional) positions.

Behavioral Approaches

Language is a fundamental part of total human behavior, and behavioral psychologists examined it as such and sought to formulate consistent theories of first language acquisition. The behavioral approach focused on the immediately perceptible aspects of linguistic behavior—the publicly observable responses—and the relationships or associations between those responses and events in the world surrounding them. A behaviorist might consider effective language behavior to be the production of correct responses to stimuli. If a particular response is reinforced, it then becomes habitual, or conditioned. Thus children produce linguistic responses that are reinforced. This is true of their comprehension as well as production responses, although to consider comprehension is to wander just a bit out of the publicly observable realm. One learns to comprehend an utterance by responding appropriately to it and by being reinforced for that response.

One of the best-known attempts to construct a behavioral model of linguistic behavior was embodied in B. F. Skinner's classic, *Verbal Behavior* (1957). Skinner was commonly known for his experiments with animal behavior, but he also gained recognition for his contributions to education through teaching machines and programmed learning (Skinner, 1968). Skinner's theory of verbal behavior was an extension of his general theory of learning by **operant conditioning**.

Operant conditioning refers to conditioning in which the organism (in this case, a human being) emits a response, or **operant** (a sentence or utterance), without necessarily observable stimuli; that operant is maintained (learned) by reinforcement (for example, a positive verbal or nonverbal response from another person). If a child says "want milk" and a parent gives the child some milk, the operant is reinforced and, over repeated instances, is conditioned. According to Skinner, verbal behavior, like other behavior, is controlled by its consequences. When consequences are rewarding, behavior is maintained and is increased in strength and perhaps frequency. When consequences are punishing, or when there is a total lack of reinforcement, the behavior is weakened and eventually extinguished.

Challenges to Behavioral Approaches

Skinner's theories attracted a number of critics, not the least among them Noam Chomsky (1959), who penned a highly critical review of *Verbal Behavior*. Some years later, however, Kenneth MacCorquodale (1970) published a reply to Chomsky's review in which he eloquently defended Skinner's points of view. And so the controversy raged on. Today virtually no one would agree that Skinner's model of verbal behavior adequately accounts for the capacity to acquire language, for language development itself, for the abstract nature of language, or for a theory of meaning. A theory based on conditioning and reinforcement is hard-pressed to explain the fact that every sentence you speak or write—with a few trivial exceptions—is novel, never before uttered either by you or by anyone else! These novel utterances are nevertheless created by very young children as they literally "play" with language, and that same creativity continues on into adulthood and throughout one's life.

In an attempt to broaden the base of behavioral theory, some psychologists proposed modified theoretical positions. One of these positions was **mediation theory**, in which meaning was accounted for by the claim that the linguistic stimulus (a word or sentence) elicits a "mediating" response that is self-stimulating. Charles Osgood (1953, 1957) called this self-stimulation a "representational mediation process," a process that is really covert and invisible, acting within the learner. It is interesting that mediation theory thus attempted to account for abstraction by a notion that reeked of "mentalism"—a cardinal sin for dyed-in-the-wool behaviorists! In fact, in some ways mediation theory was really a rational/cognitive theory masquerading as behavioral. Mediation theories still left many questions about language unanswered. The abstract nature of language and the relationship between meaning and utterance were unresolved. All sentences have deep structures—the level of underlying meaning that is only manifested overtly by surface structures. These deep structures are intricately interwoven in a person's total cognitive and affective experience. Such depths of language were scarcely plumbed by mediational theory.

Yet another attempt to account for first language acquisition within a behavioral framework was made by Jenkins and Palermo (1964). While admitting that

their conjectures were "speculative" and "premature" (p. 143), the authors attempted to synthesize notions of generative linguistics and mediational approaches to child language. They claimed that the child may acquire frames of a linear pattern of sentence elements and learn the stimulus-response equivalences that can be substituted within each frame; imitation was an important, if not essential, aspect of establishing stimulus-response associations. But this theory, too, failed to account for the abstract nature of language, for the child's creativity, and for the interactive nature of language acquisition.

It would appear that the rigor of behavioral psychology, with its emphasis on empirical observation and scientific methodology, only began to explain the miracle of language acquisition. It therefore opened the doors to new approaches which, with the tools of cognitive psychology, emphasized the presumed innate properties of language, and subsequently the importance of social interaction in child first language acquisition.

The Nativist Approach

The term **nativist** is derived from the fundamental assertion that language acquisition is innately determined, that we are born with a genetic capacity that predisposes us to a systematic perception of language around us, resulting in the construction of an internalized system of language.

Innateness hypotheses gained support from several sides. Eric Lenneberg (1967) proposed that language is a "species-specific" behavior and that certain modes of perception, categorizing abilities, and other language-related mechanisms are biologically determined. Chomsky (1965) similarly claimed the existence of innate properties of language to explain the child's mastery of a native language in such a short time despite the highly abstract nature of the rules of language. This innate knowledge, according to Chomsky, was embodied in a metaphorical "little black box" in the brain, a **language acquisition device** (LAD). McNeill (1966) described the LAD as consisting of four innate linguistic properties:

1. The ability to distinguish speech sounds from other sounds in the environment
2. The ability to organize linguistic data into various classes that can later be refined
3. Knowledge that only a certain kind of linguistic system is possible and that other kinds are not
4. The ability to engage in constant evaluation of the developing linguistic system so as to construct the simplest possible system out of the available linguistic input

McNeill and other researchers in the Chomskyan tradition composed eloquent arguments for the appropriateness of the LAD proposition, especially in contrast to behavioral, stimulus-response (S-R) theory, which was so limited in accounting for the creativity present in child language. The notion of linguistically oriented innate

predispositions fits perfectly with generative theories of language: children were presumed to use innate abilities to *generate* a potentially infinite number of utterances. Aspects of meaning, abstractness, and creativity were accounted for more adequately. Even though it was readily recognized that the LAD was not literally a cluster of brain cells that could be isolated and neurologically located, such inquiry on the cognitive side of the linguistic-psychological continuum stimulated a great deal of fruitful research.

More recently, researchers in the nativist tradition have continued this line of inquiry through a genre of child language acquisition research that focuses on what has come to be known as **Universal Grammar** (White, 2003; see also Gass & Selinker, 2001, pp. 168–191; Mitchell & Myles, 1998, pp. 42–71; Cook, 1993, pp. 200–245, for overviews). Assuming that all human beings are genetically equipped with abilities that enable them to acquire language, researchers expanded the LAD notion by positing a system of universal linguistic rules that went well beyond what was originally proposed for the LAD. Universal Grammar (UG) research attempts to discover what it is that all children, regardless of their environmental stimuli (the language[s] they hear around them) bring to the language acquisition process. Such studies have looked at question formation, negation, word order, discontinuity of embedded clauses ("The ball that's on the table is blue"), subject deletion ("Es mi hermano"), and other grammatical phenomena. (More details about UG are covered in a later section of this chapter.)

One of the more practical contributions of nativist theories is evident if you look at the kinds of discoveries that have been made about how the system of child language works. Research has shown that the child's language, at any given point, is a legitimate system in its own right. The child's linguistic development is not a process of developing fewer and fewer "incorrect" structures—not a language in which earlier stages have more "mistakes" than later stages. Rather, the child's language at any stage is **systematic** in that the child is constantly forming hypotheses on the basis of the input received and then testing those hypotheses in speech (and comprehension). As the child's language develops, those hypotheses are continually revised, reshaped, or sometimes abandoned.

Before generative linguistics came into vogue, Jean Berko (1958) demonstrated that children learn language not as a series of separate discrete items but as an integrated system. Using a simple nonsense-word test, Berko discovered that English-speaking children as young as four years of age applied rules for the formation of plural, present progressive, past tense, third singular, and possessives. She found, for example, that if children saw a drawing of an object labeled as a "wug" they could easily talk about two "wugs," or if they were presented with a person who knows how to "gling," children could talk about a person who "glinged" yesterday, or sometimes who "glang."

Nativist studies of child language acquisition were free to construct hypothetical **grammars** (that is, descriptions of linguistic systems) of child language, although such grammars were still solidly based on empirical data. These grammars were largely formal representations of the deep structure—the abstract rules underlying surface

output, the structure not overtly manifest in speech. Linguists began to examine child language from early one-, two-, and three-word forms of "telegraphese" (like "allgone milk" and "baby go boom" mentioned earlier) to the complex language of five- to ten-year-olds. Borrowing one tenet of structural and behavioral paradigms, they approached the data with few preconceived notions about what the child's language ought to be, and probed the data for internally consistent systems, in much the same way that a linguist describes a language in the "field."

CLASSROOM CONNECTIONS

Research Findings: Evidence of young children's production of "telegraphic" utterances of two and three word sentences appears to be universal. The language of children at the subsequent ages of 3, 4, 5, and even older (like the sentence, "Erase the window") brings a smile to adults' faces. All of this is a product of children's "creative construction" of language.

Teaching Implications: Adult learners of a second language are creative, but perhaps not in quite the same way. Telegraphic utterances seem to be the product of the intellectual maturation of children, and such childlike forms don't often appear in adults' language. But phonological, grammatical, lexical, and semantic creativity is quite evident. Consider English learners who have said: "I'm happy to get this burden out of my chest." "I like the [language learning] strategy of reproduction with a partner." "My lack of English is very frastlating to me." What examples of such creativity have your students shown in their learning? How do you respond to them?

A generative framework turned out to be ideal for describing such processes. The early grammars of child language were referred to as **pivot grammars**. It was commonly observed that the child's first two-word utterances seemed to manifest two separate word classes, and not simply two words thrown together at random. Consider the following utterances: "my cap"; "that horsie"; "bye-bye Jeff"; "Mommy sock." Linguists noted that the words on the left-hand side seemed to belong to a class that words on the right-hand side generally did not belong to. That is, *my* could co-occur with *cap, horsie, Jeff,* or *sock,* but not with *that* or *bye-bye*. *Mommy* is, in this case, a word that belongs in both classes. The first class of words was called "pivot," since they could pivot around a number of words in the

second, "open" class. Thus the first rule of the generative grammar of the child was described as follows:

Sentence ↦ pivot word + open word

Research data gathered in the generative framework yielded a multitude of such rules. Some of these rules appear to be grounded in the UG of the child. As the child's language matures and finally becomes adultlike, the number and complexity of generative rules accounting for language competence, of course, boggles the mind.

Challenges to Nativist Approaches

In subsequent years the generative "rule-governed" model in the Chomskyan tradition was challenged. The assumption underlying this tradition is that those generative rules, or "items" in a linguistic sense, are connected **serially**, with one connection between each pair of neurons in the brain. A "messier but more fruitful picture" (Spolsky, 1989, p. 149) was provided by what has come to be known as the **parallel distributed processing** (PDP) model, based on the notion that information is processed simultaneously at several levels of attention. As you read the words on this page, your brain is attending to letters, word juncture and meaning, syntactic relationships, textual discourse, as well as background experiences (schemata) that you bring to the text. A child's (or adult's) linguistic performance may be the consequence of many levels of simultaneous neural interconnections rather than a serial process of one rule being applied, then another, then another, and so forth.

A simple analogy to music may further illustrate this complex notion. Think of an orchestra playing a symphony. The score for the symphony may have, let's say, 12 separate parts that are performed simultaneously. The "symphony" of the human brain enables us to process many segments and levels of language, cognition, affect, and perception all at once—in a parallel configuration. And so, according to the PDP model, a sentence—which has phonological, morphological, syntactic, lexical, semantic, discourse, sociolinguistic, and strategic properties—is not "generated" by a series of rules (Ney & Pearson, 1990; Sokolik, 1990). Rather, sentences are the result of the simultaneous interconnection of a multitude of brain cells.

Closely related to the PDP concept is a branch of psycholinguistic inquiry called **connectionism** (Rumelhart & McClelland, 1986), in which neurons in the brain are said to form multiple connections: each of the 100 billion nerve cells in the brain may be linked to as many as 10,000 of its counterparts. In this approach, experience leads to learning by strengthening particular connections—sometimes at the expense of weakening others. For example, the first language acquisition of English regular past tense forms by children may proceed as a series of connections.

First, a child may confidently connect the form *went* with the verb *go*. Then, children will often perceive another connection, the regular *-ed* suffix attached to a verb, and start using the word *goed*. Finally, with more complex connections, children will perceive *goed* as incorrect, and maintain both connections, the *-ed* form connected to most verbs, and the *went* form as a special connection. "According to such accounts, there are no 'rules' of grammar. Instead, the systematicities of syntax emerge from the set of learned associations between language functions and base and past tense forms, with novel responses generated by 'online' generalizations from stored examples" (N. Ellis, 2003, p. 88).

Finally, in recent years a further development of connectionist models of language acquisition is seen in a position that oddly hearkens back to the spirit of behavioral approaches. **Emergentism**, a perspective, espoused by O'Grady (1999, 2003), MacWhinney (1999), and others, holds that "the complexity of language emerges from, relatively simple developmental process being exposed to a massive and complex environment. The interactions that constitute language are associations, billions of connections, which co-exist within a neural system as organisms co-exist within an eco-system. And systematicities emerge as a result of their interactions and mutual constraints" (N. Ellis, 2003, p. 81). This perspective disagrees sharply with earlier nativist views by suggesting that "there is no inborn Universal Grammar (i.e., no innate grammatical system)" (O'Grady, 1999, p. 623).

Emergentism perhaps represents a more cautious approach to a theory of language acquisition than was evident in the early nativist claims, some arguments (Schwartz, 1999) notwithstanding. By attending more judiciously to observable linguistic performance and to the identification of neurolinguistic components of language acquisition (Schumann et al., 2004), researchers can be more cautious about making too strongly "mentalistic" claims about the psychological reality of rule construction in language acquisition.

Approaches from within the nativist framework—as well as the challenges just outlined above—have made several important contributions to our understanding of the first language acquisition process:

1. Freedom from the restrictions of the so-called "scientific method" to explore the unseen, unobservable, underlying, abstract linguistic structures being developed in the child
2. The construction of a number of potential properties of Universal Grammar, through which we can better understand not just language acquisition but the nature of human languages in general
3. Systematic description of the child's linguistic repertoire as either rule-governed, or operating out of parallel distributed processing capacities, or the result of experiential establishment of connections

Functional Approaches

More recently, with an increase in constructivist perspectives on the study of language, we have seen a shift in patterns of research. The shift has not been so much away from the generative/cognitive side of the continuum, but perhaps better described as a move even more deeply into the essence of language. Two emphases have emerged: (1) Researchers began to see that language was just one manifestation of the cognitive and affective ability to deal with the world, with others, and with the self. (2) Moreover, the generative rules that were proposed under the nativist framework were abstract, formal, explicit, and quite logical, yet they dealt specifically with the **forms** of language and not with the the deeper **functional** levels of meaning constructed from social interaction. Examples of forms of language are morphemes, words, sentences, and the rules that govern them. Functions are the meaningful, interactive purposes within a social (pragmatic) context that we accomplish with the forms.

Cognition and Language Development

Lois Bloom (1971) cogently illustrated the first issue in her criticism of pivot grammar when she pointed out that the relationships in which words occur in telegraphic utterances are only superficially similar. For example, in the utterance "Mommy sock," which nativists would describe as a sentence consisting of a pivot word and an open word, Bloom found at least three possible underlying relations: agent-action (Mommy is putting the sock on), agent-object (Mommy sees the sock), and possessor-possessed (Mommy's sock). By examining data in reference to contexts, Bloom concluded that children learn underlying structures, and not superficial word order. Thus, depending on the social context, "Mommy sock" could mean a number of different things to a child. Those varied meanings were inadequately captured in a pivot grammar approach.

Lewis Carroll aptly captured this characteristic of language in *Through the Looking Glass* (1872), where Alice argues with Humpty Dumpty about the meanings of words:

> "When I use a word," Humpty Dumpty said, in a rather scornful tone, "it means just what I choose it to mean—neither more nor less."
> "The question is," said Alice, "whether you can make words mean so many different things."
> "The question is," said Humpty Dumpty, "which is to be master—that's all."

Bloom's research, along with that of Jean Piaget, Dan Slobin, and others, paved the way for a new wave of child language study, this time centering on the relationship of cognitive development to first language acquisition. Piaget (1955; Piaget & Inhelder, 1969) described overall development as the result of children's interaction with their environment, with an interaction between their developing perceptual

cognitive capacities and their linguistic experience. According to Piaget, what children learn about language is determined by what they already know about the world, a point of view that others (Vygotsky, 1978, for example) have claimed is too unidirectional. Gleitman and Wanner (1982, p. 13) noted in their review of the state of the art in child language research, "children appear to approach language learning equipped with conceptual interpretive abilities for categorizing the world. . . . Learners are biased to map each semantic idea on the linguistic unit *word*."

Dan Slobin (1971, 1986, 1997), among others, demonstrated that in all languages, semantic learning depends on cognitive development and that sequences of development are determined more by semantic complexity than by structural complexity. "There are two major pacesetters to language development, involved with the poles of function and of form: (1) on the functional level, development is paced by the growth of conceptual and communicative capacities, operating in conjunction with innate schemas of cognition; and (2) on the formal level, development is paced by the growth of perceptual and information-processing capacities, operating in conjunction with innate schemas of grammar" (Slobin, 1986, p. 2). Bloom (1976, p. 37) noted that "an explanation of language development depends upon an explanation of the cognitive underpinnings of language: what children know will determine what they learn about the code for both speaking and understanding messages." So child language researchers began to tackle the child's acquisition of the functions of language, and the relationships of the forms of language to those functions.

Social Interaction and Language Development

In recent years, it has become quite clear that language functioning extends well beyond cognitive thought and memory structure. Here we see the second, social constructivist emphasis of the functional perspective. Holzman (1984, p. 119), in her "reciprocal model" of language development, proposed that "a reciprocal behavioral system operates between the language-developing infant-child and the competent [adult] language user in a socializing-teaching-nurturing role." Some research (Berko-Gleason, 1988; Lock, 1991) looked at the interaction between the child's language acquisition and the learning of how social systems operate in human behavior. Other investigations of child language (for example, Budwig, 1995; Kuczaj, 1984) centered on one of the thorniest areas of linguistic research: the function of language in **discourse**. Since language is used for interactive communication, it is only fitting that one study the communicative functions of language: What do children know and learn about talking with others? About connected pieces of discourse (relations between sentences)? The interaction between hearer and speaker? Conversational cues? Within such a perspective, the very heart of language—its communicative and pragmatic function—is being tackled in all its variability (Clark, 2003; O'Grady, 2005).

Of interest in this genre of research is the renewed interest in the performance level of language. All those overt responses that were so carefully observed

by structuralists and hastily weeded out as "performance variables" by generative linguists in their zeal to get at "competence" have now returned to the forefront. Hesitations, pauses, backtracking, and the like are indeed significant conversational cues. Even some of the contextual categories described by—of all people—Skinner, in *Verbal Behavior*, turn out to be relevant! The linguist can no longer deal with abstract, formal rules without dealing with all those minutiae of day-to-day performance that were previously set aside in a search for systematicity.

Several theoretical positions have been sketched out here. (See Figure 2.1 for a summary.) A complete, consistent, unified theory of first language acquisition cannot yet be claimed; however, child language research has manifested some enormous strides toward that ultimate goal. And even if all the answers are far from evident, maybe we are asking more of the right questions.

We turn now to a number of issues in first language acquisition—key questions and problems that have been and are being addressed by researchers in the field. A study of these issues will help you to round out your understanding of the nature of child language acquisition.

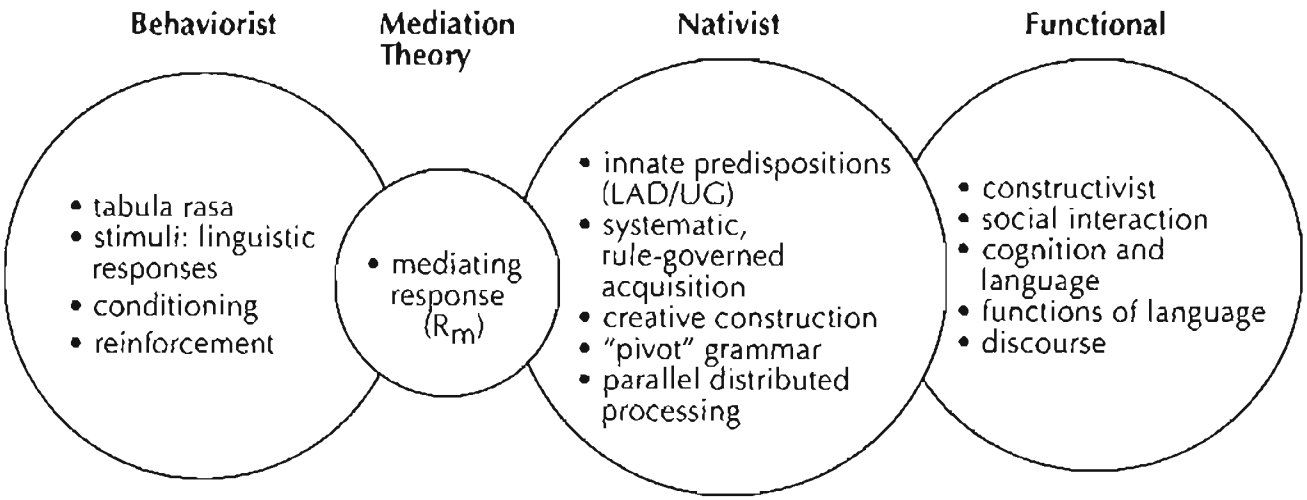

Figure 2.1. Theories of first language acquisition

ISSUES IN FIRST LANGUAGE ACQUISITION

Competence and Performance

For centuries scientists and philosophers have drawn basic distinction between competence and performance. **Competence** refers to one's underlying knowledge of a system, event, or fact. It is the nonobservable *ability* to do something, to perform something. **Performance** is the overtly observable and concrete manifestation or realization of competence. It is the *actual doing* of something: walking, singing, dancing, speaking. In technological societies we have used the competence-performance distinction in all walks of life. In our schools, for example, we have

assumed that children possess certain competence in given areas and that this competence can be measured and assessed by means of the observation of elicited samples of performance called "tests" and "examinations."

In reference to language, competence is one's underlying knowledge of the system of a language—its rules of grammar, its vocabulary, all the pieces of a language and how those pieces fit together. Performance is actual production (speaking, writing) or the comprehension (listening, reading) of linguistic events. Chomsky (1965) likened competence to an "idealized" speaker-hearer who does not display such performance variables as memory limitations, distractions, shifts of attention and interest, errors, and hesitation phenomena, such as repeats, false starts, pauses, omissions, and additions. Chomsky's point was that a theory of language had to be a theory of competence lest the linguist try in vain to categorize an infinite number of performance variables that are not reflective of the underlying linguistic ability of the speaker-hearer.

The distinction is one that linguists and psychologists in the generative/cognitive framework have operated under for some time, a mentalistic construct that structuralists and behaviorists obviously did not deal with: How could one scientifically assess this unobservable, underlying level? Brown and Bellugi (1964) gave us a delightful example of the difficulty of attempting to extract underlying grammatical knowledge from children. Unlike adults, who can be asked, for example, whether it is better to say "two foots" or "two feet," children exhibit what is called the "pop-go-weasel" effect, as witnessed in the following dialogue between an adult and a two-year-old child:

Adult: Now Adam, listen to what I say. Tell me which is better to say: *some water* or *a water*?
Adam: Pop go weasel.

The child obviously had no interest in—or cognizance of—the adult's grammatical interrogation and therefore said whatever he wanted to! The researcher is thus forced to devise indirect methods of judging competence. Among those methods are the tape recording and transcription of countless hours of speech followed by rigorous analysis, and/or the direct administration of certain imitation, production, or comprehension tests, all with numerous disadvantages. How is one, for example, to infer some general competence about the linguistic system of a five-year-old, monolingual, English-speaking girl whose recounting of an incident viewed on television is transcribed below:

> they heared 'em underground ca-cause they went through a hoyle—a hole—and they pulled a rock from underground and then they saw a wave going in—that the hole—and they brought a table and the wave brought 'em out the k—tunnel and then the—they went away and then—uh—m—ah—back on top and it was—uh—going under a bridge and they went—then the braves hit the—the bridge—they—all of it—th-then they looked there—then they—then they were safe.

On the surface it might appear that this child is severely impaired in her attempts to communicate. In fact, I once presented this same transcript, without identification of the speaker, to a group of speech therapists and asked them to analyze the various possible "disorders" manifested in the data. After they cited quite a number of technical manifestations of aphasia, I gleefully informed them of the real source! The point is that every day in our processing of linguistic data, we comprehend such strings of speech and comprehend them rather well because we know something about storytelling, about hesitation phenomena, and about the context of the narrative.

If we were to record many more samples of the five-year-old's speech, we would still be faced with the problem of inferring her competence. What is her knowledge of the verb system? Of the concept of a "sentence"? Even if we administer rather carefully designed tests of comprehension or production to a child, we are still left with the problem of inferring, as accurately as possible, the child's underlying competence. Continued research helps us to confirm those inferences through multiple observations.

Adult talk, incidentally, is often no less fraught with monstrosities, as we can see in the following verbatim transcription of comments made on a talk show by a professional golfer discussing tips on how to improve a golf game.

> Concentration is important. But uh—I also—to go with this of course if you're playing well—if you're playing well then you get uptight about your game. You get keyed up and it's easy to concentrate. You know you're playing well and you know . . . in with a chance than it's easier, much easier to—to you know get in there and—and start to . . . you don't have to think about it. I mean it's got to be automatic.

Perhaps the guest would have been better off if he had simply uttered the very last sentence and omitted all the previous verbiage!

The competence-performance model has not met with universal acceptance. Major criticisms of the model focus on the notion that competence, as defined by Chomsky, consists of the abilities of an "idealized" hearer-speaker, devoid of any so-called performance variables. Stubbs (1996), reviewing the issue, reminded us of the position of British linguists Firth and Halliday: dualisms are unnecessary, and the only option for linguists is to study language in use. Tarone (1988) pointed out that idealizing the language user disclaims responsibility for a number of linguistic goofs and slips of the tongue that may well arise from the context within which a person is communicating. In other words, all of a child's (or adult's) slips and hesitations and self-corrections are potentially connected to what Tarone calls **heterogeneous competence**—abilities that are in the process of being formed. So, while we may be tempted to claim that the five-year-old quoted above knows the difference, say, between a "hole" and a "hoyle," we must not too quickly pass off the latter as an irrelevant slip of the tongue.

What can we conclude about language acquisition theory based on a competence-performance model? A cautious approach to inferring someone's competence will allow you to draw some conclusions about overall ability while still leaving the door open for some significance to be attributed to those linguistic tidbits that you might initially be tempted to discount.

Comprehension and Production

Not to be confused with the competence-performance distinction, comprehension and production can be aspects of *both* performance and competence. One of the myths that has crept into some foreign language teaching materials is that **comprehension** (listening, reading) can be equated with competence, while **production** (speaking, writing) is performance. It is important to recognize that this is not the case: production is of course more directly observable, but comprehension is as much performance—a "willful act," to use Saussure's term—as production is.

In child language, most observational and research evidence points to the general superiority of comprehension over production: children seem to understand "more" than they actually produce. For instance, a child may understand a sentence with an embedded relative in it (e.g., "The ball that's in the sandbox is red") but not be able to produce one. W. R. Miller (1963, p. 863) gave us a good example of this phenomenon in phonological development: "Recently a three-year-old child told me her name was Litha. I answered 'Litha?' 'No, Litha.' 'Oh, Lisa.' 'Yes, Litha.'" The child clearly perceived the contrast between English *s* and *th*, even though she could not produce the contrast herself.

How are we to explain this difference, this apparent "lag" between comprehension and production? We know that even adults understand more vocabulary than they ever use in speech, and also perceive more syntactic variation than they actually produce. Could it be that the same competence accounts for both modes of performance? Or can we speak of comprehension competence as something that is identified as separate from production competence? Because comprehension for the most part runs ahead of production, is it more completely indicative of our overall competence? Is production indicative of a smaller portion of competence? Surely not. It is therefore necessary to make a distinction between production competence and comprehension competence. A theory of language must include some accounting of the separation of the two types of competence. In fact, linguistic competence no doubt has several modes or levels, at least as many as four, since speaking, listening, reading, and writing are all separate modes of performance.

Perhaps an even more compelling argument for the separation of competencies comes from research that appears to support the superiority of production over comprehension. Gathercole (1988) reported on a number of studies in which children were able to produce certain aspects of language they could not comprehend. For example, Rice (1980) found that children who did not previously know terms for color were able to respond verbally to such questions as "What color is

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Research Findings: There is wide evidence of children's ability to comprehend quantitatively more language than they can produce. The same is true of adults, in both foreign and native languages. We can take in words, phrases, grammar, styles, and discourse that we never actually produce.

Teaching Implications: James Asher's (1977) "comprehension approach" to learning foreign languages was at the time billed as a revolution in language teaching. It was echoed in Stephen Krashen's model that stressed comprehensible input as crucial in learning a language successfully (see Chapter 10). How much time do you think should be devoted to comprehension (listening, reading) in a foreign language class? What difference might the students' level of proficiency make in determining how much time to spend on comprehension and production?

this?" But they were not able to respond correctly (by giving the correct colored object) to "Give me the [color] one." While lexical and grammatical instances of production before comprehension seem to be few in number, it still behooves us to be wary in concluding that *all* aspects of linguistic comprehension precede, or facilitate, linguistic production.

Nature or Nurture?

Nativists contend that a child is born with an innate knowledge of or predisposition toward language, and that this innate property (the LAD or UG) is universal in all human beings. The innateness hypothesis was a possible resolution of the contradiction between the behavioral notion that language is a set of habits that can be acquired by a process of conditioning and the fact that such conditioning is much too slow and inefficient a process to account for the acquisition of a phenomenon as complex as language.

But the innateness hypothesis presented a number of problems itself. One of the difficulties has already been discussed in this chapter: the LAD proposition simply postpones facing the central issue of the nature of the human being's capacity for language acquisition. Having thus "explained" language acquisition, one must now scientifically explain the genetic transmission of linguistic ability—which we cannot yet do with certainty. And, of course, scholars taking an emergentist perspective continue to challenge the notion that what is innate is grammatical or linguistic at all. On the other hand, while the LAD remains a tentative hypothesis,

I think we can take heart in slowly mounting genetic (scientific) evidence of the transmission of certain abilities, and assume that among those abilities we will one day find hard evidence of "language genes."

We must not put all our eggs in the innateness basket. Environmental factors cannot by any means be ignored, as connectionists and emergentists have shown. For years linguists, psychologists, and educators have been embroiled in the "nature-nurture" controversy: What are those behaviors that "nature" provides innately, in some sort of predetermined biological timetable, and what are those behaviors that are, by environmental exposure—by "nurture," by teaching—learned and internalized? We do observe that language acquisition is universal, that every child acquires language. But how are the efficiency and success of that learning determined by the environment the child is in? Or by the child's individual construction of linguistic reality in interaction with others? The waters of the innateness hypothesis are considerably muddied by such questions.

An interesting line of research on innateness was pursued by Derek Bickerton (1981), who found evidence, across a number of languages, of common patterns of linguistic and cognitive development. He proposed that human beings are "bio-programmed" to proceed from stage to stage. Like flowering plants, people are innately programmed to "release" certain properties of language at certain developmental ages. Just as we cannot make a geranium bloom before its "time," so human beings will "bloom" in predetermined, preprogrammed steps.

Universals

Closely related to the innateness controversy is the claim that language is universally acquired in the same manner, and moreover, that the deep structure of language at its deepest level may be common to all languages. Decades ago Werner Leopold (1949), who was far ahead of his time, made an eloquent case for certain phonological and grammatical universals in language. Leopold inspired later work by Greenberg (1963, 1966), Bickerton (1981), Slobin (1986, 1992, 1997), and White (1989, 2003), among others.

Currently, as noted earlier in this chapter, research on Universal Grammar continues this quest. One of the keys to such inquiry lies in research on child language acquisition across many different languages in order to determine the commonalities. Slobin (1986, 1992, 1997) and his colleagues gathered data on language acquisition in, among others, Japanese, French, Spanish, German, Polish, Hebrew, and Turkish. Interesting universals of pivot grammar and other telegraphese emerged. Maratsos (1988) enumerated some of the universal linguistic categories under investigation by a number of different researchers:

Word order
Morphological marking tone
Agreement (e.g., of subject and verb)
Reduced reference (e.g., pronouns, ellipsis) nouns and noun classes

Verbs and verb classes
Predication
Negation
Question formation

Much of current UG research is centered around what have come to be known as principles and parameters. **Principles** are invariable characteristics of human language that appear to apply to all languages universally, such as those listed above. Cook (1997, pp. 250–251) offered a simple analogy: Rules of the road in driving universally require the driver to keep to one side of the road; this is a principle. But in some countries you must keep to the left (e.g., the United Kingdom, Japan) and in others keep to the right (e.g., the United States, Taiwan); the latter is a parameter. So, **parameters** vary across languages. White (2003, p. 9) notes that "UG includes principles with a limited number of built-in options (*settings* or *values*), which allow for cross-linguistic variation. Such principles are known as *parameters*." If, for example, all languages adhere to the principle of assigning meaning to word order, then depending on the specific language in question, variations in word order (e.g., subject-verb-object; subject-object-verb, etc.) will apply.

According to some researchers, the child's initial state is said to "consist of a set of universal principles which specify some limited possibilities of variation, expressible in terms of parameters which need to be fixed in one of a few possible ways" (Saleemi, 1992, p. 58). In simpler terms, this means that the child's task of language learning is manageable because of certain naturally occurring constraints. For example, the principle of **structure dependency** "states that language is organized in such a way that it crucially depends on the structural relationships between elements in a sentence (such as words, morphemes, etc.)" (Holzman, 1998, p. 49). Take, for example, the following sentences:

1. The boy kicked the ball.
2. The boy that's wearing a red shirt and standing next to my brother kicked the ball.
3. She's a great teacher.
4. Is she a great teacher?

The first two sentences rely on a structural grouping, characteristic of all languages, called "phrase," or more specifically, "noun phrase." Without awareness of such a principle, someone would get all tangled up in sentence (2). Likewise, the principle of word order permutation allows one to perceive the difference between (3) and (4). Children, of course, are not born with such sophisticated perceptions of language; in fact, sentences like (2) are incomprehensible to most native English-speaking children until about the age of 4 or 5. Nevertheless, the principle of structure dependency eventually appears in both the comprehension and production of the child.

According to UG, languages cannot vary in an infinite number of ways. Parameters determine ways in which languages can vary. Just one example should suffice to illustrate. One parameter, known as "head parameter," specifies the position of the "head" of a phrase in relation to its complements in the phrase. While these positions vary across languages, their importance is primary in all languages. Languages are either "head first" or "head last." English is a typical head-first language, with phrases like "the boy that's wearing a red shirt" and "kicked the ball." Japanese is a head-last language, with sentences like "wa kabe ni kakkatte imasu" (picture wall on is hanging) (from Cook & Newson, 1996, p. 14).

Systematicity and Variability

One of the assumptions of a good deal of current research on child language is the **systematicity** of the process of acquisition. From pivot grammar to three- and four-word utterances, and to full sentences of almost indeterminate length, children exhibit a remarkable ability to infer the phonological, structural, lexical, and semantic system of language. Ever since Berko's (1958) groundbreaking "wug" study, we have been discovering more and more about the systematicity of the acquisition process.

But in the midst of all this systematicity, there is an equally remarkable amount of **variability** in the process of learning! Researchers do not agree on how to define various "stages" of language acquisition, even in English. Certain "typical" patterns appear in child language. The example, cited earlier, of children's learning of past tense forms of verbs like *go* offers an illustration of the difficulty of defining stages. Young children who have not yet mastered the past tense morpheme tend first to learn past tenses as separate items ("walked," "broke," "drank") without knowledge of the difference between regular and irregular verbs. Then, around the age of 4 or 5, they begin to perceive a system in which the *-ed* morpheme is added to a verb, and at this point all verbs become regularized ("breaked," "drinked," "goed"). Finally, after early school age, children perceive that there are two classes of verbs, regular and irregular, and begin to sort out verbs into the two classes, a process that goes on for many years and in some cases persists into young adulthood.

In both first and second language acquisition, the problem of variability is being carefully addressed by researchers (Gass & Selinker, 2001; Bayley & Preston, 1996; Tarone, 1988). One of the major current research problems is to account for all this variability: to determine if what is now variable in our present point of view can some day be deemed systematic through such careful accounting.

Language and Thought

For years researchers have probed the relationship between language and cognition. The behavioral view that cognition is too mentalistic to be studied by the scientific method is diametrically opposed to such positions as that of Piaget (1972), who

claimed that cognitive development is at the very center of the human organism and that language is dependent upon and springs from cognitive development.

Others emphasized the influence of language on cognitive development. Jerome Bruner (Bruner, Olver, & Greenfield, 1966), for example, singled out sources of language-influenced intellectual development: words shaping concepts, dialogues between parent and child or teacher and child serving to orient and educate, and other sources. Vygotsky (1962, 1978) also differed from Piaget in claiming that social interaction, through language, is a prerequisite to cognitive development. Thought and language were seen as two distinct cognitive operations that grow together (Schinke-Llano, 1993). Moreover, every child reaches his or her potential development, in part, through social interaction with adults and peers, as demonstrated earlier in Vygotsky's (1978) zone of proximal development (ZPD).

One of the champions of the position that language affects thought was Benjamin Whorf, who with Edward Sapir formed the well-known Sapir-Whorf hypothesis of linguistic relativity—namely, that each language imposes on its speaker a particular "worldview." (See Chapter 7 for more discussion of the Sapir-Whorf hypothesis.)

The issue at stake in child language acquisition is to determine how thought affects language, how language affects thought, and how linguists can best describe and account for the interaction of the two. While we do not have complete answers, it is clear that research has pointed to the fact that cognitive and linguistic development are inextricably intertwined with dependencies in both directions. And we do know that language is a way of life, is at the foundation of our being, and interacts simultaneously with thoughts and feelings.

Imitation

It is a common informal observation that children are good imitators. We think of children typically as imitators and mimics, and then conclude that imitation is one of the important strategies a child uses in the acquisition of language. That conclusion is not inaccurate on a global level. Indeed, research has shown that **echoing** is a particularly salient strategy in early language learning and an important aspect of early phonological acquisition. Moreover, imitation is consonant with behavioral principles of language acquisition—principles relevant, at least, to the earliest stages.

But it is important to ask what type of imitation is implied. Behaviorists assume one type of imitation, but a deeper level of imitation is far more important in the process of language acquisition. The first type is surface-structure imitation, where a person repeats or mimics the surface strings, attending to a phonological code rather than a semantic code. It is this level of imitation that enables an adult to repeat random numbers or nonsense syllables, or even to mimic nonsense syllables. The semantic data, if any, underlying the surface output are perhaps only peripherally attended to. In foreign language classes, rote pattern drills often evoke surface imitation: a repetition of sounds by the student without the vaguest understanding of what the sounds might possibly mean.

The earliest stages of child language acquisition may manifest a good deal of surface imitation since the baby may not possess the necessary semantic categories to assign "meaning" to utterances. But as children perceive the importance of the semantic level of language, they attend to a greater extent to that meaningful semantic level—the deep structure of language. They engage in deep-structure imitation. In fact, the imitation of the deep structure of language can literally block their attention to the surface structure so that they become, on the face of it, poor imitators. Look at the following conversation as recorded by McNeill (1966, p. 69):

Child: Nobody don't like me.
Mother: No, say "nobody likes me."
Child: Nobody don't like me. [*eight repetitions of this exchange*]
Mother: No, now listen carefully; say "nobody likes me."
Child: Oh! Nobody don't likes me.

You can imagine the frustration of both mother and child, for the mother was attending to a rather technical, surface grammatical distinction, and yet the child sought to derive some meaning value. The child was expressing a deep feeling, while the mother was concerned about grammar!

Or, consider this adult-child exchange (Cazden, 1972, p. 92):

Child: My teacher holded the baby rabbits and we patted them.
Adult: Did you say your teacher held the baby rabbits?
Child: Yes.
Adult: What did you say she did?
Child: She holded the baby rabbits and we patted them.
Adult: Did you say she held them tightly?
Child: No, she holded them loosely.

No amount of indirect modeling of the correct form of the irregular past tense could persuade this child to alter her production. Her comprehension of the adult's past tense form, of course, was perfect.

Another case in point occurred one day when the teacher of an elementary school class asked her pupils to write a few sentences on a piece of paper, to which one rather shy pupil responded, "Ain't got no pencil." Disturbed at this nonstandard response, the teacher embarked on a barrage of corrective models for the child: "I don't have any pencils, you don't have a pencil, they don't have pencils. . . ." When the teacher finally ended her monologue of patterns, the intimidated and bewildered child said, "Ain't nobody got no pencils?" The teacher's purpose was lost on this child because he too was attending to language as a meaningful and communicative tool, and not to the question of whether certain forms were "correct" and others were not. The child, like the children in the other examples, was attending to the **truth value** of the utterance.

Research has also shown that children, when explicitly asked to repeat a sentence in a test situation, will often repeat the correct underlying deep structure with a change in the surface rendition. For example, sentences such as "The ball that is rolling down the hill is black" and "The boy who's in the sandbox is wearing a red shirt" tend to be repeated back by preschool children as "The black ball is rolling down the hill" and "The red boy is in the sandbox" (Brown, 1970). Children are excellent imitators. It is simply a matter of understanding exactly what it is that they are imitating.

Practice and Frequency

Closely related to the notion of imitation is a somewhat broader question, the nature of **practice** in child language. Do children practice their language? If so, how? What is the role of the **frequency** of hearing and producing items in the acquisition of those items? It is common to observe children and conclude that they "practice" language constantly, especially in the early stages of single-word and two-word utterances. A behavioral model of first language acquisition would claim that practice—repetition and association—is the key to the formation of habits by operant conditioning.

One unique form of practice by a child was recorded by Ruth Weir (1962). She found that her children produced rather long monologues in bed at night before going to sleep. Here is one example: "What color ... What color blanket ... What color mop ... What color glass ... Mommy's home sick ... Mommy's home sick ... Where's Mommy home sick ... Where's Mikey sick ... Mikey sick." Such monologues are not uncommon among children, whose inclination it is to "play" with language just as they do with all objects and events around them. Weir's data show far more structural patterning than has commonly been found in other data. Nevertheless, children's practice seems to be a key to language acquisition.

Practice is usually thought of as referring to speaking only. But one can also think in terms of comprehension practice, which is often considered under the rubric of the frequency of linguistic input to the child. Is the acquisition of particular words or structures directly attributable to their frequency in the child's linguistic environment? There is evidence that certain very frequent forms are acquired first: *what* questions, irregular past tense forms, certain common household items and persons. Brown and Hanlon (1970), for example, found that the frequency of occurrence of a linguistic item in the speech of mothers was an overwhelmingly strong predictor of the order of emergence of those items in their children's speech.

There are some conflicting data, however. Telegraphic speech is one case in point. Some of the most frequently occurring words in the language are omitted in such two- and three-word utterances. And McNeill (1968, p. 416) found that a Japanese child produced the Japanese postposition *ga* far more frequently and more correctly than another contrasting postposition *wa*, even though her mother was recorded as using *wa* twice as often as *ga*. McNeill attributed this finding to the fact

that *ga* as a subject marker is of more importance, grammatically, to the child, and she therefore acquired the use of that item since it was more meaningful on a deep-structure level. Another feasible explanation for that finding might lie in the easier pronunciation of *ga*.

The frequency issue may be summed up by noting that nativists who claim that "the relative frequency of stimuli is of little importance in language acquisition" (Wardhaugh, 1971, p. 12) might, in the face of evidence now available (Ellis, 2002), be more cautious in their claims. It would appear that frequency of *meaningful* occurrence may well be a more precise refinement of the notion of frequency.

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Research Findings: While some recent research (Nick Ellis, 2002) now suggests a return to assigning prominence to the frequency of input for language acquisition, for decades the accepted norm was to consider meaningfulness as the key to learning, with secondary emphasis on frequency.

Teaching Implications: The Audiolingual Method, popular in the mid-twentieth century, placed almost exclusive value on frequency of input *and output* in eventual success in learning a language. The ALM was, of course, primarily influenced by a behavioral paradigm, in which conditioning was the key. Current language teaching methods—with their focus on meaning, interaction, and communication—operate on the assumption that frequency takes a backseat to meaningfulness. Do you think we should return to an ALM-like model? In what ways has your learning and teaching distributed frequency and meaningfulness in classroom activity?

Input

The role of input in the child's acquisition of language is undeniably crucial. Whatever one's position is on the innateness of language, the speech that young children hear is primarily the speech heard in the home, and much of that speech is parental speech or the speech of older siblings. Linguists once claimed that most adult speech is basically semigrammatical (full of performance variables), that children are exposed to a chaotic sample of language, and only their innate capacities can account for their successful acquisition of language. McNeill, for example,

wrote: "The speech of adults from which a child discovers the locally appropriate manifestation of the linguistic universals is a completely random, haphazard sample, in no way contrived to instruct the child on grammar" (1966, p. 73). However, Labov's (1970) studies showed that the presumed ungrammaticality of everyday speech appears to be a myth. Bellugi and Brown (1964) and Drach (1969) found that the speech addressed to children was carefully grammatical and lacked the usual hesitations and false starts common in adult-to-adult speech. Landes's (1975) summary of a wide range of research on parental input supported their conclusions. Later studies of parents' speech in the home (Hladik & Edwards, 1984; Moerk, 1985) confirmed earlier evidence demonstrating the selectivity of parental linguistic input to their children.

At the same time, it will be remembered that children react very consistently to the deep structure and the communicative function of language, and they do not react overtly to expansions and grammatical corrections as in the "nobody likes me" dialogue quoted above. Such input is largely ignored unless there is some truth or falsity that the child can attend to. Thus, if a child says "Dat Harry" and the parent says "No, that's *John*," the child might readily self-correct and say "Oh, dat *John*." But what Landes and others showed is that in the long run, children will, after consistent, repeated models in meaningful contexts, eventually transfer correct forms to their own speech and thus correct "dat" to "that's."

The importance of the issue lies in the fact that it is clear from more recent research that adult and peer input to the child is far more important than nativists earlier believed. Adult input seems to shape the child's acquisition, and the interaction patterns between child and parent change according to the increasing language skill of the child. Nurture and environment in this case are tremendously important, although it remains to be seen just how important parental input is as a proportion of total input.

Discourse

A subfield of research that is occupying the attention of an increasing number of child language researchers, especially in an era of social constructivist research, is the area of **conversational** or **discourse** analysis. While parental input is a significant part of the child's development of conversational rules, it is only one aspect, as the child also interacts with peers and, of course, with other adults. Berko-Gleason (1982, p. 20) described the perspective:

> While it used to be generally held that mere *exposure* to language is sufficient to set the child's language generating machinery in motion, it is now clear that, in order for successful first language acquisition to take place, *interaction*, rather than exposure, is required; children do not learn language from overhearing the conversations of others or from listening to the radio, and must, instead, acquire it in the context of being spoken to.

While conversation is a universal human activity performed routinely in the course of daily living, the means by which children learn to take part in conversation appear to be very complex. Sinclair and Coulthard (1975) proposed that conversations be examined in terms of **initiations** and **responses**. What might in a grammatical sentence-based model of language be described as sentences, clauses, words, and morphemes are viewed as transactions, exchanges, moves, and acts. The child learns not only how to initiate a conversation but also how to respond to another's initiating utterance. Questions are not simply questions, but are recognized functionally as requests for information, for action, or for help. At a relatively young age, children learn subtle differences between, say, assertions and challenges. They learn that utterances have both a literal and an intended or functional meaning. Thus, in the case of the question "Can you go to the movies tonight?" the response "I'm busy" is understood correctly as a negative response ("I can't go to the movies"). How do children learn discourse rules? What are the key features children attend to? How do they detect pragmatic or intended meaning? How are gender roles acquired? These and other questions about the acquisition of discourse ability are slowly being answered in the research (see Holmes, 1995, and Tannen, 1996).

Much remains to be studied in the area of the child's development of conversational knowledge (see Shatz & McCloskey, 1984, and McTear, 1984, for a good summary). Nevertheless, such development is perhaps the next frontier to be mastered in the quest for answers to the mystery of language acquisition. Clearly there are important implications here, as we shall see in Chapter 3, for second language learners. The barrier of discourse is one of the most difficult for second language learners to break through.

FIRST LANGUAGE ACQUISITION INSIGHTS APPLIED TO LANGUAGE TEACHING

In the previous chapter, it was noted that language pedagogy did not receive much attention from systematic research until about the beginning of the twentieth century. Interestingly, the first instances in this "modern" era of research on language teaching drew their insights from *children* learning first and second languages! If you turn your clock back about a hundred years, you will happen upon two revolutionaries in language pedagogy, François Gouin and Maximilian Berlitz. Their perceptive observations about language teaching helped set the stage for the development of language teaching methodologies for the century following.

In his *The Art of Learning and Studying Foreign Languages*, François Gouin (1880), described a painful set of experiences that finally led to his insights about language teaching. Having decided in midlife to learn German, he took up residency in Hamburg for one year. But rather than attempting to converse with the natives, he engaged in a rather bizarre sequence of attempts to "master" the language. Upon arrival in Hamburg he felt he should memorize a German grammar

immediately. A generation later, partly through the efforts of visionaries like Maximilian Berlitz, applied linguists finally established the credibility of such approaches in what became known as the Direct Method.

The basic premise of Berlitz's method was that second language learning should be more like first language learning: lots of active oral interaction, spontaneous use of the language, no translation between first and second languages, and little or no analysis of grammatical rules. Richards and Rodgers (2001, p. 12) summarized the principles of the Direct Method:

1. Classroom instruction was conducted exclusively in the target language.
2. Only everyday vocabulary and sentences were taught.
3. Oral communication skills were built up in a carefully graded progression organized around question-and-answer exchanges between teachers and students in small, intensive classes.
4. Grammar was taught inductively.
5. New teaching points were introduced orally.
6. Concrete vocabulary was taught through demonstration, objects, and pictures; abstract vocabulary was taught by association of ideas.
7. Both speech and listening comprehension were taught.
8. Correct pronunciation and grammar were emphasized.

The Direct Method enjoyed considerable popularity through the end of the nineteenth century and well into the twentieth. It was most widely accepted in private language schools where students were highly motivated and where native-speaking teachers could be employed. To this day, "Berlitz" is a household word; Berlitz language schools are thriving in every country of the world. But almost any "method" can succeed when clients are willing to pay high prices for small classes, individual attention, and intensive study. The Direct Method did not take well in public education, where the constraints of budget, classroom size, time, and teacher background made the method difficult to use. Moreover, the Direct Method was criticized for its weak theoretical foundations. The methodology was not so much to be credited for its success as the general skill and personality of the teacher.

By the end of the first quarter of the twentieth century, the use of the Direct Method had declined both in Europe and in the United States. Most language curricula returned to the Grammar Translation Method or to a "reading approach" that emphasized reading skills in foreign languages. But it is interesting that in the middle of the twentieth century, the Direct Method was revived and redirected into what was probably the most visible of all language teaching "revolutions" in the modern era, the Audiolingual Method (to be summarized in Chapter 4). So even this somewhat short-lived movement in language teaching would reappear in the changing winds and shifting sands of history.

book and a table of the 248 irregular German verbs! He did this in a matter of only 10 days and then hurried to "the academy" (the university) to test his new knowledge. "But alas!" he wrote, "I could not understand a single word, not a single word!" Gouin was undaunted. He returned to the isolation of his room, this time to memorize the German roots and to rememorize the grammar book and irregular verbs. Again he emerged with expectations of success. "But alas!"—the result was the same as before. In the course of the year in Germany, Gouin memorized books, translated Goethe and Schiller, and even memorized 30,000 words in a German dictionary, all in the isolation of his room, only to be crushed by his failure to understand German afterward. Only once did he try to "make conversation" as a method, but because this caused people to laugh at him, he was too embarrassed to continue. At the end of the year, having reduced the Classical Method to absurdity, Gouin was forced to return home, a failure.

But there was a happy ending. Upon returning home Gouin discovered that his three-year-old nephew had, during that year, gone through that wonderful stage of *first* language acquisition in which he went from saying virtually nothing to becoming a veritable chatterbox of French. How was it that this little child succeeded so easily in a task, mastering a first language, that Gouin, in a second language, had found impossible? The child must hold the secret to learning a language! Gouin decided to spend a great deal of time observing his nephew and other children and came to the following conclusions: Language learning is primarily a matter of transforming perceptions into conceptions. Children use language to represent their conceptions. Language is a means of thinking, of representing the world to oneself. (These insights, remember, were formed by a language teacher more than a century ago!)

So Gouin set about devising a teaching method that would follow from these insights. And thus the **Series Method** was created, a method that taught learners directly (without translation) and conceptually (without grammatical rules and explanations) a "series" of connected sentences that are easy to perceive. The first lesson of a foreign language would thus teach the following series of 15 sentences:

> I walk toward the door. I draw near to the door. I draw nearer to the door. I get to the door. I stop at the door.
> I stretch out my arm. I take hold of the handle. I turn the handle.
> I open the door. I pull the door.
> The door moves. The door turns on its hinges. The door turns and turns. I open the door wide. I let go of the handle.

The 15 sentences have an unconventionally large number of grammatical properties, vocabulary items, word orders, and complexity. This is no simple *Voici la table* lesson! Yet Gouin was successful with such lessons because the language was so easily understood, stored, recalled, and related to reality.

The "naturalistic"—simulating the "natural" way in which children learn first languages—approaches of Gouin and a few of his contemporaries did not take hold

A number of theories and issues in child language have been explored in this chapter with the purpose of both briefly characterizing the current state of child language research and of highlighting a few of the key concepts that emerge in the formation of an understanding of how babies learn to talk and eventually become sophisticated linguistic beings. There is much to be learned in such an understanding. Every human being who attempts to learn a second language has already learned a first language. It is said that the second time around on something is always easier. In the case of language, this is not necessarily true. But in order to understand why it is not, and to apply such insights to the second language classroom, you need to understand the nature of that initial acquisition process, for it may be that some of the keys to the mystery are found therein. That search is continued in Chapter 3 as we examine how children acquire a second language and compare those processes to those of an adult.

TOPICS AND QUESTIONS FOR STUDY AND DISCUSSION

Note: (I) individual work; (G) group or pair work; (C) whole-class discussion.

1. (G) In a small group, discuss why it is that behavioral theories can account sufficiently well for the earliest utterances of the child, but not for utterances at the sentence and discourse level. Do nativist and functional approaches provide the necessary tools for accounting for those later, more complex utterances?
2. (G/C) If it's possible, with a partner, record on tape some samples of a young child's speech. A child of about 3 is an ideal subject to observe in the study of growing competence in a language. Transcribe a segment of your recording and see if, inductively, you can determine some of the rules the child is using. Present your findings to the rest of the class for discussion.
3. (I) Review the sections that dealt with Universal Grammar. Is it something different from the nativists' concept of LAD? In your own words, what are the positions of those who embrace connectionism and emergentism as alternatives to UG? Which position makes most sense to you? Why?
4. (G) In a group, look at the two samples of speech on pages 36 and 37 (one by a five-year-old, and the other by a professional golfer). Identify what you would consider to be "performance variables" in those transcripts. Then, try to reconstruct an "idealized" form of the two monologues, and share with other groups.
5. (C) Competence and performance are difficult to define. In what sense are they interdependent? How does competence increase? Can it decrease? Try to illustrate with nonlanguage examples of learning certain skills, such as musical or athletic skills.
6. (G) In a group, recall experiences learning a foreign language at some point in your past. Share with others any examples of your comprehension exceeding

your production abilities. How about the reverse? Share your findings with the rest of the class.

7. (I) Name some forms of language and some functions of language. In your own experience learning a previous foreign language, did you experience any difficulty with the latter?
8. (C) In what way do you think Gouin reflected some ideas about language and about language acquisition that are now current more than a hundred years later? Would the Series Method or the Direct Method work for you as a teacher? Discuss pros and cons.

SUGGESTED READINGS

Clark, E. (2003). *First language acquisition.* Cambridge, UK: Cambridge University Press.

O'Grady, W. (2005). *How children learn language.* New York: Cambridge University Press.

These widely used textbooks on first language acquisition summarize research on the topic with many examples of recorded and transcribed speech. Each book deals with age-related acquisitional characteristics. Eve Clark's book is longer and provides more references to research, while William O'Grady's offers a succinct, very readable synopsis of what we know about how children learn their first language.

Pinker, S. (1994). *The language instinct: How the mind creates language.* New York: William Morrow.

Steven Pinker's book hit the best seller list over a decade ago. It offers a wealth of information for the lay reader on such topics as child language acquisition, innateness, thought and language, and linguistics in general.

Ellis, N. (2003). Constructions, chunking, and connectionism: The emergence of second language structure. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 63–103). Malden, MA: Blackwell Publishing.

O'Grady, W. (2003). The radical middle: Nativism without universal grammar. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 43–62). Malden, MA: Blackwell Publishing.

MacWhinney, B. (Ed.). (1999). *The emergence of language.* Mahwah, NJ: Lawrence Erlbaum Associates.

The first two articles, by Nick Ellis and William O'Grady, both from the Doughty and Long Handbook, offer concise synopses of the controversial elements of Universal Grammar, nativism, connectionism, and emergentism in research on first language acquisition, as well as implications for examining

second language acquisition. The anthology edited by Brian MacWhinney focuses specifically on emergentism as an alternative to nativism.

LANGUAGE LEARNING EXPERIENCE: JOURNAL ENTRY 2

Note: See pages 21 and 22 of Chapter 1 for general guidelines for writing a journal on a previous or concurrent language learning experience.

- As you learn(ed) a foreign language, did you feel any of the learning was due to a "knack" you had for it? Think of some examples to illustrate either the presence or the absence of some ability to pick up the language.
- Is your class focused more on the forms of language than the functions? Illustrate with examples.
- Offer some thoughts about what you see as a relationship between behavioral, nativist, and functional approaches to studying *first* language acquisition and your own experiences in learning or teaching a *second* language. These relationships will be dealt with more thoroughly in Chapter 3, and your present instincts would be worth comparing to your thoughts after you cover Chapter 3.
- Go through the issues discussed in this chapter and ask yourself if, in your foreign language class, you have had opportunities to understand and to speak, to imitate the teacher, to practice your language, especially discourse and conversation?
- Consider how children learn their first language and figure out inductively (before you go on to Chapter 3) what some of the child's "secrets" are that enable them to acquire a language seemingly efficiently.

CHAPTER 3

AGE AND ACQUISITION

THE INCREASED pace of research on first language acquisition in the last half of the twentieth century attracted the attention not only of linguists in many subfields but also of educators in various language-related fields. Today the applications of research findings in first language acquisition are widespread. In language arts education, for example, teacher trainees are required to study first language acquisition, particularly acquisition after age 5, in order to improve their understanding of the task of teaching language skills to native speakers. In foreign language education, most standard texts and curricula now include some introductory material on first language acquisition. The reasons for this are clear. We have all observed children acquiring their first language easily and well, yet individuals learning a second language, particularly in an educational setting, can meet with great difficulty and sometimes failure. We should therefore be able to learn something from a systematic study of that first language learning experience.

What may not be quite as obvious, though, is how the second language teacher should interpret the many facets and sometimes conflicting findings of first language research. First language acquisition starts in very early childhood, but second language acquisition can happen in childhood, early or late, as well as in adulthood. Do childhood and adulthood, and differences between them, hold some keys to second language acquisition (SLA) models and theories? The purpose of this chapter is to address some of those questions and to set forth explicitly some of the parameters for looking at the effects of age and acquisition.

DISPELLING MYTHS

The first step in investigating age and acquisition might be to dispel some myths about the relationship between first and second language acquisition. H. H. Stern (1970, pp. 57–58) summarized some common arguments that had been raised from

time to time to recommend a second language teaching method or procedure on the basis of first language acquisition:

1. In language teaching, we must practice and practice, again and again. Just watch a small child learning his mother tongue. He repeats things over and over again. During the language learning stage he practices all the time. This is what we must also do when we learn a foreign language.
2. Language learning is mainly a matter of imitation. You must be a mimic. Just like a small child. He imitates everything.
3. First, we practice the separate sounds, then words, then sentences. That is the natural order and is therefore right for learning a foreign language.
4. Watch a small child's speech development. First he listens, then he speaks. Understanding always precedes speaking. Therefore, this must be the right order of presenting the skills in a foreign language.
5. A small child listens and speaks and no one would dream of making him read or write. Reading and writing are advanced stages of language development. The natural order for first and second language learning is listening, speaking, reading, writing.
6. You did not have to translate when you were small. If you were able to learn your own language without translation, you should be able to learn a foreign language in the same way.
7. A small child simply uses language. He does not learn formal grammar. You don't tell him about verbs and nouns. Yet he learns the language perfectly. It is equally unnecessary to use grammatical conceptualization in teaching a foreign language.

These statements represent the views of those who felt that "the first language learner was looked upon as the foreign language teacher's dream: a pupil who mysteriously laps up his vocabulary, whose pronunciation, in spite of occasional lapses, is impeccable, while morphology and syntax, instead of being a constant headache, come to him like a dream" (Stern, 1970, p. 58).

There are flaws in each of the seven statements. Sometimes the flaw is in the assumption behind the statement about first language learning; sometimes it is in the analogy or implication that is drawn; sometimes it is in both. The flaws represent some of the misunderstandings that need to be demythologized for the second language teacher. Through a careful examination of those shortcomings in this chapter, you should be able to avoid certain pitfalls, as well as to draw enlightened, plausible analogies wherever possible, thereby enriching your understanding of the second language learning process itself.

As cognitive and constructivist research on both first and second language acquisition gathered momentum, second language researchers and foreign language

teachers began to recognize the mistakes in drawing direct global analogies between first and second language acquisition. By the 1970s and 1980s, criticism of earlier direct analogies between first and second language acquisition had reached full steam. Stern (1970), Cook (1973, 1995), and Schachter (1988), among others, addressed the inconsistencies of such analogies, but at the same time recognized the legitimate similarities that, if viewed cautiously, allowed one to draw some constructive conclusions about second language learning.

TYPES OF COMPARISON AND CONTRAST

The comparison of first and second language acquisition can easily be oversimplified. At the very least, one needs to approach the comparison by first considering the differences between children and adults. It is, in one sense, illogical to compare the first language acquisition of a child with the second language acquisition of an adult (Foster-Cohen, 2001; Scovel, 1999; Schachter, 1988; Cook, 1973). This involves trying to draw analogies not only between first and second language learning situations but also between children and adults. It is much more logical to compare first and second language learning in children *or* to compare second language learning in children and adults. Nevertheless, child first language acquisition and adult second language acquisition are common and important categories of acquisition to compare. It is reasonable, therefore, to view the latter type of comparison within a matrix of possible comparisons. Figure 3.1 represents four possible categories to consider, defined by age and type of acquisition. Note that the vertical shaded area between the child and the adult is purposely broad to account for varying definitions of adulthood. In general, however, an adult is considered to be one who has reached the age of puberty. Cell A1 is obviously representative of an abnormal situation. There have been few recorded instances of an adult acquiring a first language. In one widely publicized instance, Curtiss (1977) wrote about Genie, a 13-year-old girl who had been socially isolated and abused all her life until she was discovered, and who was then faced with the task of acquiring a first language. Accounts of "wolf children" and instances of severe disability fall into this category.

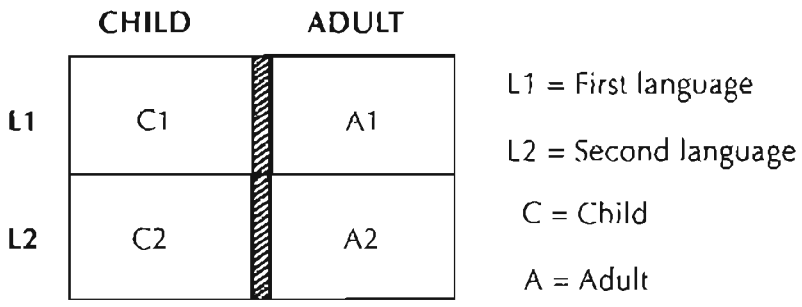

Figure 3.1. First and second language acquisition in adults and children

Since we need not deal with abnormal or pathological cases of language acquisition, we can ignore category A1. That leaves three possible comparisons:

1. First and second language acquisition in children (C1-C2), holding age constant
2. Second language acquisition in children and adults (C2-A2), holding second language constant
3. First language acquisition in children and second language acquisition in adults (C1-A2)

In the C1-C2 comparison (holding age constant), one is manipulating the language variable. However, it is important to remember that a 2-year-old and an 11-year-old exhibit vast cognitive, affective, and physical differences, and that comparisons of all three types must be treated with caution when varying ages of children are being considered. In the C2-A2 comparison, one is holding language constant and manipulating the differences between children and adults. Such comparisons are, for obvious reasons, the most fruitful in yielding analogies for adult second language classroom instruction, and will be the central focus in this chapter. The third comparison, C1-A2, unfortunately manipulates both variables. Many of the traditional comparisons were of this type; however, such comparisons must be made only with extreme caution because of the enormous cognitive, affective, and physical differences between children and adults.

Much of the focus of the rest of this chapter will be made on C2-A2 and C1-C2 comparisons. In both cases, comparisons will be embedded within a number of issues, controversies, and other topics that have attracted the attention of researchers interested in the relationship of age to acquisition.

THE CRITICAL PERIOD HYPOTHESIS

Most discussions about age and acquisition center on the question of whether there is a **critical period** for language acquisition: a biologically determined period of life when language can be acquired more easily and beyond which time language is increasingly difficult to acquire. The **Critical Period Hypothesis** (CPH) claims that there is such a biological timetable. Initially the notion of a critical period was connected only to first language acquisition. (See Singleton & Ryan, 2004, for a detailed overview.) Pathological studies of children who failed to acquire their first language, or aspects thereof, became fuel for arguments of biologically determined predispositions, timed for release, which would wane if the correct environmental stimuli were not present at the crucial stage. We have already seen, in the last chapter, that researchers like Lenneberg (1967) and Bickerton (1981) made strong statements in favor of a critical period before which and after which certain abilities do not develop.

In recent years, a plethora of research has appeared on the possible applications of the CPH to second language contexts. (See Ioup, 2005; Singleton & Ryan, 2004; Moyer, 2004; Hyltenstam & Abrahamsson, 2003; Scovel, 2000; Birdsong, 1999, among others, for useful summaries.) The "classic" argument is that a critical point for second language acquisition occurs around puberty, beyond which people seem to be relatively incapable of acquiring a second language. This has led some to assume, incorrectly, that by the age of 12 or 13 you are "over the hill" when it comes to the possibility of successful second language learning. Such an assumption must be viewed in the light of what it means to be "successful" in learning a second language, and particularly the role of *accent* as a component of success. To examine these issues, we will first look at neurological and phonological considerations, then examine cognitive, affective, and linguistic considerations.

NEUROBIOLOGICAL CONSIDERATIONS

One of the most promising areas of inquiry in age and acquisition research has been the study of the function of the brain in the process of acquisition (see Schumann et al., 2004; Singleton & Ryan, 2004; and Obler & Gjerlow, 1999; for synopses). How might neurological development affect second language success? Does the maturation of the brain at some stage spell the doom of language acquisition ability?

Hemispheric Lateralization

Some scholars have singled out the **lateralization** of the brain as the key to answering such a question. There is evidence in neurological research that as the human brain matures, certain functions are assigned, or "lateralized," to the left **hemisphere** of the brain, and certain other functions to the right hemisphere. Intellectual, logical, and analytic functions appear to be largely located in the left hemisphere, while the right hemisphere controls functions related to emotional and social needs. (See Chapter 5 for more discussion of left- and right-brain functioning.) Language functions appear to be controlled mainly in the left hemisphere, although there is a good deal of conflicting evidence. For example, patients who have had left hemispherectomies have been capable of comprehending and producing an amazing amount of language (see Zangwill, 1971, p. 220). Generally, a stroke or accident victim who suffers a lesion in the left hemisphere will manifest some language impairment, which is less often the case with right hemisphere lesions. However, before drawing any conclusions here, some caution is in order. Millar and Whitaker's (1983, p. 110) conclusion of over 20 years ago still stands: "Enough data have accumulated to challenge the simple view that the left hemisphere is the language hemisphere and the right hemisphere does something else."

While questions about precisely how language is lateralized in the brain are interesting indeed, a more crucial question for second language researchers has centered

on when lateralization takes place, and whether or not that lateralization process affects language acquisition. Eric Lenneberg (1967) and others suggested that lateralization is a slow process that begins around the age of 2 and is completed around puberty. During this time the child is presumably neurologically assigning functions little by little to one side of the brain or the other; included in these functions, of course, is language. It has been found that children up to the age of puberty who suffer injury to the left hemisphere are able to relocalize linguistic functions to the right hemisphere, to "relearn" their first language with relatively little impairment. Adams (1997), for example, did a longitudinal study of a boy who at 8 years of age had no speech, underwent a left hemispherectomy, and then at the age of 9 suddenly began to speak!

Thomas Scovel (1969) proposed a relationship between lateralization and second language acquisition. He suggested that the plasticity of the brain prior to puberty enables children to acquire not only their first language but also a second language, and that possibly it is the very accomplishment of lateralization that makes it difficult for people to be able ever again to easily acquire fluent control of a second language, or at least to acquire it with what Alexander Guiora et al. (1972a) called "authentic" (nativelike) pronunciation.

While Scovel's (1969) suggestion had only marginal experimental basis, it prompted him (Scovel, 1988, 2000) and other researchers (e.g., Birdsong, 1999; Singleton & Ryan, 2004) to take a careful look at neurological factors in first and second language acquisition. This research considered the possibility that there is a critical period not only for first language acquisition but also, by extension, for second language acquisition. Much of the neurological argument centers on the *time* of lateralization. While Lenneberg (1967) contended that lateralization is complete around puberty, Norman Geschwind (1970), among others, suggested a much earlier age. Stephen Krashen (1973) cited research to support the completion of lateralization around age 5. However, Scovel (1984, p. 1) cautioned against assuming, with Krashen, that lateralization is *complete* by age 5. "One must be careful to distinguish between 'emergence' of lateralization (at birth, but quite evident at five) and 'completion' (only evident at about puberty)."

Biological Timetables

One of the most compelling arguments for an accent-related critical period came from Thomas Scovel's (1988) fascinating multidisciplinary review of the evidence that has been amassed. Scovel cited evidence for a **sociobiological critical period** in various species of mammals and birds. (Others, such as Neapolitan et al. 1988, had drawn analogies between the acquisition of birdsong and human language acquisition.) Scovel's evidence pointed toward the development of a socially bonding accent at puberty, enabling species (1) to form an identity with their own community as they anticipate roles of parenting and leadership, and (2) to attract mates of "their own kind" in an instinctive drive to maintain their own species.

If the stabilization of an accepted, authentic accent is biologically preprogrammed for baboons and birds, why not for human beings? The sociobiological evidence that Scovel cited persuades us to conclude that native accents, and therefore "foreign" accents after puberty, may be a genetic leftover that, in our widespread human practice of mating across dialectal, linguistic, and racial barriers, is no longer necessary for the preservation of the human species. "In other words," explained Scovel (1988, p. 80), "an accent emerging after puberty is the price we pay for our preordained ability to be articulate apes."

Following another line of research, Walsh and Diller (1981, p. 18) proposed that different aspects of a second language are learned optimally at different ages:

> Lower-order processes such as pronunciation are dependent on early maturing and less adaptive macroneural circuits, which makes foreign accents difficult to overcome after childhood. Higher-order language functions, such as semantic relations, are more dependent on late maturing neural circuits, which may explain why college students can learn many times the amount of grammar and vocabulary that elementary school students can learn in a given period of time.

Walsh and Diller's conclusions have been supported in more recent findings, reported by Singleton and Ryan (2004) and Hyltenstam and Abrahamsson (2003). We are left, then, with some support for a neurologically based critical period, but principally for the acquisition of an authentic (nativelike) accent, and not very strongly for the acquisition of communicative fluency and other "higher-order" processes. We return to the latter issue in the next section.

Right-Hemispheric Participation

Yet another branch of neurolinguistic research focused on the role of the right hemisphere in the acquisition of a second language. Obler (1981, p. 58) noted that in second language learning, there is significant right hemisphere participation and that "this participation is particularly active during the early stages of learning the second language." But this "participation" to some extent consists of what we will later (Chapter 5) define as "strategies" of acquisition. Obler cited the strategy of guessing at meanings, and of using formulaic utterances, as examples of right hemisphere activity. Others (Genesee, 1982; Seliger, 1982) also found support for right hemisphere involvement in the form of complex language processing as opposed to early language acquisition.

Genesee (1982, p. 321) concluded that "there may be greater right hemisphere involvement in language processing in bilinguals who acquire their second language late relative to their first language and in bilinguals who learn it in informal contexts." While this conclusion may appear to contradict Obler's statement above, it does not. Obler found support for more right hemisphere activity during the early

stages of second language acquisition, but her conclusions were drawn from a study of seventh-, ninth-, and eleventh-grade subjects—all postpubescent. Such studies seem to suggest that second language learners, particularly adult learners, might benefit from more encouragement of right-brain activity in the classroom context. But, as Scovel (1982, pp. 324-325) noted, that sort of conclusion needs to be cautious, since the research provides a good deal of conflicting evidence, some of which has been grossly misinterpreted in "an unhappy marriage of single-minded neuropsychologists and double-minded educationalists .... Brain research ... will not provide a quick fix to our teaching problems."

Singleton and Ryan (2004, p. 143) echo Scovel's conclusion upon examining two additional decades of research on lateralization: "Clearly, the debate about the right hemisphere's contribution to language processing is set to continue for some time. Since, as we have seen, there is not yet agreement on what constitutes good evidence in this matter, the inference must be that resolution of the substantive issues is still some way off."

CLASSROOM CONNECTIONS

Research Findings: Although research is inconclusive about left- and right-hemispheric participation in language acquisition, a number of empirical and observational studies indicate that adults might benefit from a healthy dose of right-brain-oriented activities in the foreign language classroom.

Teaching Implications: Some approaches to language teaching (for example, Total Physical Response, the Natural Approach) advocate a less analytical approach and a more psychomotor, integrated, social atmosphere in the classroom. What are some typical right-brain-oriented activities that you have seen—or would use—in the language classroom?

Anthropological Evidence

Some adults have been known to acquire an authentic accent in a second language after the age of puberty, but such individuals are few and far between. Anthropologist Jane Hill (1970) provided an intriguing response to Scovel's (1969) study by citing anthropological research on non-Western societies that yielded evidence that adults can, in the normal course of their lives, acquire second languages perfectly. One unique instance of second language acquisition in adulthood was reported by Sorenson (1967), who studied the Tukano culture of South America. At least two dozen languages were spoken among these communities, and each tribal

group, identified by the language it speaks, is an exogamous unit; that is, people must marry outside their group, and hence almost always marry someone who speaks another language. Sorenson reported that during adolescence, individuals actively and almost suddenly began to speak two or three other languages to which they had been exposed at some point. Moreover, "in adulthood [a person] may acquire more languages; as he approaches old age, field observation indicates, he will go on to perfect his knowledge of all the languages at his disposal" (Sorenson, 1967, p. 678). In conclusion, Hill (1970, pp. 247–248) made the following assertions:

> The language acquisition situation seen in adult language learners in the largely monolingual American English middle class speech communities . . . may have been inappropriately taken to be a universal situation in proposing an innatist explanation for adult foreign accents. Multilingual speech communities of various types deserve careful study . . . . We will have to explore the influence of social and cultural roles which language and phonation play, and the role which attitudes about language play, as an alternative or a supplement to the cerebral dominance theory as an explanation of adult foreign accents.

Hill's challenge was taken up in subsequent decades. Flege (1987) and Morris and Gerstman (1986), for example, cited motivation, affective variables, social factors, and the quality of input as important in explaining the apparent advantage of the child. Even more recently, Moyer (2004) has reminded us of a multitude of cognitive, social, psychological, and strategic variables affecting the ultimate attainment of proficiency in a second language.

THE SIGNIFICANCE OF ACCENT

Implicit in the comments of the preceding section is the assumption that the emergence of what we commonly call "foreign accent" is of some importance in our arguments about age and acquisition. We can appreciate the fact that given the existence of several hundred muscles (throat, larynx, mouth, lips, tongue, and others) that are used in the articulation of human speech, a tremendous degree of muscular control is required to achieve the fluency of a native speaker of a language. At birth the speech muscles are developed only to the extent that the larynx can control sustained cries. These speech muscles gradually develop, and control of some complex sounds in certain languages (in English the *r* and *l* are typical) is sometimes not achieved until after age 5, although complete phonemic control is present in virtually all children before puberty.

Research on the acquisition of authentic control of the phonology of a foreign language supports the notion of a critical period. Most of the evidence indicates that persons beyond the age of puberty do not acquire what has come to be called **authentic** (native-speaker) pronunciation of the second language. Possible causes

of such an age-based factor have already been discussed: neuromuscular plasticity, cerebral development, sociobiological programs, and the environment of sociocultural influences.

It is tempting immediately to cite exceptions to the rule ("My Aunt Mary learned French at 25, and everyone in France said she sounded just like a native"). These exceptions, however, appear to be (1) isolated instances or (2) only anecdotally supported. True, there are special people who possess somewhere within their competence the ability to override neurobiological critical period effects and to achieve a virtually perfect nativelike pronunciation of a foreign language. But in terms of statistical probability (see Scovel, 1988), it is clear that the chances of any one individual commencing a second language after puberty and achieving a scientifically verifiable authentic native accent are infinitesimal.

So where do we go from here? First, some sample studies, spanning several decades, will serve as examples of the kind of research on adult phonological acquisition that appears to contradict what some have called the **strong version** of the CPH, that is, one that holds unswervingly to the predictability of age effects.

Gerald Neufeld (1977, 1979, 1980, 2001) undertook a set of studies to determine to what extent adults could approximate native-speaker accents in a second language never before encountered. In his earliest experiment, 20 adult native English speakers were taught to imitate 10 utterances, each from 1 to 16 syllables in length, in Japanese and in Chinese. Native-speaking Japanese and Chinese judges listened to the taped imitations. The results indicated that 11 of the Japanese and 9 of the Chinese imitations were judged to have been produced by "native speakers." In his latest study (2001) similar results were obtained with English learners of French. While Neufeld recognized the limitations of his own studies, he suggested that "older students have neither lost their sensitivity to subtle differences in sounds, rhythm, and pitch nor the ability to reproduce these sounds and contours" (1979, p. 234). Nevertheless, Scovel (1988, pp. 154–159) and Long (1990b, pp. 266–268) later pointed out experimental flaws in Neufeld's experiments, stemming from the methodology used to judge "native speaker" and from the information initially given to the judges.

In more recent years, Moyer (1999) and Bongaerts, Planken, and Schils (1995) also centered on the strong version of the CPH. Moyer's study with native English-speaking graduate students of German upheld the strong CPH: subjects' performance was not judged to be comparable to native speakers of German. The Bongaerts et al. study reported on a group of adult Dutch speakers of English, all late learners, who recorded a monologue, a reading of a short text, and readings of isolated sentences and isolated words. Some of the nonnative performances, for some of the trials, were judged to have come from native speakers. However, in a later review of this study, Scovel (1997, p. 118) carefully noted that it was also the case that many native speakers of English in their study were judged to be nonnative! The earlier Neufeld experiments and the more recent studies essentially supported the strong CPH. However, in the latest studies of age and accent, we find some equivocation from researchers who prefer to play down the accent issue and

look at other proficiency factors, since "the available evidence does not consistently support the hypothesis that younger L2 learners are *globally* [my italics] more efficient and successful than older learners" (Singleton & Ryan, 2004, p. 115).

Upon reviewing the research on age and accent acquisition, as Scovel (1999) and others have done, we are left with persuasive evidence of a critical period for accent, but for accent only! It is important to remember in all these considerations that pronunciation of a language is not by any means the sole criterion for acquisition, nor is it really the most important one. We all know people who have less than perfect pronunciation but who also have excellent and fluent control of a second language, control that can even exceed that of many native speakers. A modern version of this phenomenon might be called the "Arnold Schwarzeneggar Effect" (after the actor-turned-governor in California), whose accent is clearly noticeable yet who is arguably as linguistically proficient as any native speaker of American English. The acquisition of the communicative and functional purposes of language is, in most circumstances, far more important than a perfect native accent. Hyltenstam and Abrahamsson (2003, pp. 578–580) reminded us of the positive side of the miracle of second language acquisition:

> More surprising, we would like to claim, are the miraculous levels of proficiency that second language learners (at all ages) in fact *can* reach, despite the constraints that are imposed by our biological scheduling. That maturational effects, to a very large extent, can be compensated for is indeed encouraging. The subtle differences that we have assumed to exist between near-native and native proficiency are probably highly insignificant in all aspects of the second language speaker's life and endeavors, although *very* significant for a theory of human capacity for language learning. The highly successful L2 speakers that we have characterized as having reached "only" near-native proficiency *are*, in fact, nativelike in all contexts except, perhaps, in the laboratory of the linguist with specific interest in second language learning mechanisms.

Perhaps, in our everyday encounters with second language users, we are too quick to criticize the "failure" of adult second language learners by nitpicking at minor pronunciation points or nonintrusive grammatical errors. Cook (1995, p. 55) warned against "using native accent as the yardstick" in our penchant for holding up monolingualism as the standard. And so, maybe instead, we can turn those perspectives into a more positive focus on the "multi-competence" (Cook 1995, p. 52) of second language learners. Or, in the words of Marinova-Todd, Marshall, and Snow (2000, p. 9), we would do well to refrain from too much of "a misemphasis on poor adult learners and an underemphasis on adults who master L2s to nativelike levels." Instead of being so perplexed and concerned about how bad people are at learning second languages, we should be fascinated with how much those same learners have accomplished.

CLASSROOM CONNECTIONS

Research Findings: Some researchers, such as Hyltenstam and Abrahamsson (2003), would like to see a more positive spin on second language acquisition, one with emphasis on what adults can and do accomplish rather than on the "native accent yardstick."

Teaching Implications: What are some of the positive and encouraging elements of adult second language acquisition? In your experience, what have you accomplished as an adult learning a second language that you might not have been able to do as well or as efficiently as a child?

Today researchers are continuing the quest for answers to child-adult differences by looking beyond simple phonological factors. Bongaerts et al. (1995) found results that suggested that certain learner characteristics and contexts may work together to override the disadvantages of a late start. Slavoff and Johnson (1995) found that younger children (ages 7 to 9) did not have a particular advantage in rate of learning over older (10- to 12-year-old) children. Longitudinal studies such as Ioup et al.'s (1994) study of a highly nativelike adult learner of Egyptian Arabic are useful in their focus on the factors beyond phonology that might be relevant in helping us to be more successful in teaching second languages to adults. Studies on the effects of Universal Grammar (White, 2003), of instructional factors (Singleton & Ryan, 2004), and of contextual and sociopsychological factors (Moyer, 2004) are all highly promising domains of research on age and acquisition.

COGNITIVE CONSIDERATIONS

Human cognition develops rapidly throughout the first 16 years of life and less rapidly thereafter. Some cognitive changes are critical; others are more gradual and difficult to detect. Jean Piaget (1972; 1955; Piaget & Inhelder, 1969) outlined the course of intellectual development in a child through various stages:

- Sensorimotor stage (birth to 2)
- Preoperational stage (ages 2 to 7)
- Operational stage (ages 7 to 16)
  - Concrete operational stage (ages 7 to 11)
  - Formal operational stage (ages 11 to 16)

A critical stage for a consideration of the effects of age on second language acquisition appears to occur, in Piaget's outline, at puberty (age 11 in his model).

It is here that a person becomes capable of abstraction, of formal thinking which transcends concrete experience and direct perception. Cognitively, then, an argument can be made for a critical period of language acquisition by connecting language acquisition and the concrete/formal stage transition. However, as reasonable as such a contention might sound, even here some caution is warranted. Singleton and Ryan (2004, pp. 156–159) offer a number of objections to connecting Piagetian stages of development with critical period arguments, not the least of which was the "vagueness" and lack of empirical data in Piaget's theory.

Ausubel (1964) hinted at the relevance of such a connection when he noted that adults learning a second language could profit from certain grammatical explanations and deductive thinking that obviously would be pointless for a child. Whether adults do in fact profit from such explanations depends, of course, on the suitability and efficiency of the explanation, the teacher, the context, and other pedagogical variables. We have observed, though, that children do learn second languages well without the benefit—or hindrance—of formal operational thought. Does this capacity of formal, abstract thought have a facilitating or inhibiting effect on language acquisition in adults? Ellen Rosansky (1975, p. 96) felt that initial language acquisition takes place when the child is highly "centered": "He is not only egocentric at this time, but when faced with a problem he can focus (and then only fleetingly) on one dimension at a time. This lack of flexibility and lack of decentration may well be a necessity for language acquisition."

Young children are generally not "aware" that they are acquiring a language, nor are they aware of societal values and attitudes placed on one language or another. It is said that "a watched pot never boils"; is it possible that a language learner who is too consciously aware of what he or she is doing will have difficulty in learning the second language?

You may be tempted to answer that question affirmatively, but there is both logical and anecdotal counterevidence. Logically, a superior intellect should facilitate what is in one sense a highly complex intellectual activity. Anecdotal evidence shows that some adults who have been successful language learners have been very much aware of the process they were going through, even to the point of utilizing self-made paradigms and other fabricated linguistic devices to facilitate the learning process. So, if mature cognition is a liability to successful second language acquisition, clearly some intervening variables allow some persons to be very successful second language learners after puberty. These variables may in most cases lie outside the cognitive domain entirely, perhaps more centrally in the affective—or emotional—domain.

A strong case for the superiority of children in **implicit learning** (acquisition of linguistic patterns without **explicit** attention or instruction) was advanced by Robert DeKeyser (2000). In a study of adult native speakers of Hungarian learning English, he found that certain adults, those with high general verbal ability, were able

to "use explicit learning mechanisms to bypass the increasingly inefficient implicit mechanisms" (p. 518). He went on to conclude:

> If the Critical Period Hypothesis is constrained, however, to implicit learning mechanisms, then it appears that there is more than just a sizable correlation: Early age confers an absolute, not a statistical, advantage—that is, there may very well be no exceptions to the age effect. Somewhere between the ages of 6–7 and 16–17, everybody loses the mental equipment required for the implicit induction of the abstract patterns underlying a human language, and the critical period really deserves its name (p. 518).

In a response to DeKeyser, Bialystok (2002, p. 482) contested "the logic that connects [DeKeyser's] results to his preferred conclusions." Arguing that a strong case for a critical period must show a "discontinuity in learning outcomes" (that is, a maturational *point* in development that marks a change), Bialystok maintained that DeKeyser's data did not show such an effect. Rather, she maintained, the changes that DeKeyser observed in his subjects could have been the product of gradual change with age.

The lateralization hypothesis may provide another key to cognitive differences between child and adult language acquisition. As the child matures into adulthood, some would maintain, the left hemisphere (which controls the analytical and intellectual functions) becomes more dominant than the right hemisphere (which controls the emotional functions). It is possible that the dominance of the left hemisphere contributes to a tendency to overanalyze and to be too intellectually centered on the task of second language learning.

Another construct that should be considered in examining the cognitive domain is the Piagetian notion of equilibration. **Equilibration** is defined as "progressive interior organization of knowledge in a stepwise fashion" (Sullivan, 1967, p. 12), and is related to the concept of equilibrium. That is, cognition develops as a process of moving from states of doubt and uncertainty (disequilibrium) to stages of resolution and certainty (equilibrium) and then back to further doubt that is, in time, also resolved. And so the cycle continues. Piaget (1970) claimed that conceptual development is a process of progressively moving from states of disequilibrium to equilibrium and that periods of disequilibrium mark virtually all cognitive development up through age 14 or 15, when formal operations finally are firmly organized and equilibrium is reached.

It is conceivable that disequilibrium may provide significant motivation for language acquisition: language interacts with cognition to achieve equilibrium. Perhaps until that state of final equilibrium is reached, the child is cognitively ready and eager to acquire the language necessary for achieving the cognitive equilibrium of adulthood. That same child was, until that time, decreasingly tolerant of cognitive ambiguities. Children are amazingly indifferent to contradictions, but intellectual growth produces an awareness of ambiguities about them and heightens the need

for resolution. Perhaps a general intolerance of contradictions produces an acute awareness of the enormous complexities of acquiring an additional language, and so perhaps around the age of 14 or 15, the prospect of learning a second language becomes overwhelming, thus discouraging the learner from proceeding a step at a time as a younger child would do.

The final consideration in the cognitive domain is the distinction that Ausubel made between **rote** and **meaningful learning**. Ausubel noted that people of all ages have little need for rote, mechanistic learning that is not related to existing knowledge and experience. Rather, most items are acquired by meaningful learning, by anchoring and relating new items and experiences to knowledge that exists in the cognitive framework. It is a myth to contend that children are good rote learners, that they make good use of meaningless repetition and mimicking. We have already seen in Chapter 2 that children's practice and imitation is a very meaningful activity that is contextualized and purposeful. Adults have developed even greater concentration and so have greater ability for rote learning, but they usually use rote learning only for short-term memory or for somewhat artificial purposes. By inference, we may conclude that the foreign language classroom should not become the locus of excessive rote activity: rote drills, pattern practice without context, rule recitation, and other activities that are not in the context of meaningful communication.

It is interesting to note that C2–A2 comparisons almost always refer, in the case of children, to natural untutored learning, and for adults, to the classroom learning of a second language. Even so, many foreign language classrooms around the world still utilize an excessive number of rote-learning procedures. So, if adults learning a foreign language by rote methods are compared with children learning a second language in a natural, meaningful context, the child's learning will seem to be superior. The cause of such superiority may not be in the age of the person, but in the context of learning. The child happens to be learning language meaningfully, and the adult is not.

The cognitive domain holds yet other areas of interest for comparing first and second language acquisition. These areas will be treated more fully in Chapters 4 and 5. We turn now to what may be the most complex, yet the most illuminating, perspective on age and acquisition: the affective domain.

AFFECTIVE CONSIDERATIONS

Human beings are emotional creatures. At the heart of all thought and meaning and action is emotion. As "intellectual" as we would like to think we are, we are influenced by our emotions. It is only logical, then, to look at the affective (emotional) domain for some of the most significant answers to the problems of contrasting the differences between first and second language acquisition.

Research on the affective domain in second language acquisition has been mounting steadily for a number of decades. This research has been inspired by a number of factors. Not the least of these is the fact that linguistic theory is now

asking the deepest possible questions about human language, with some applied linguists examining the inner being of the person to discover if, in the affective side of human behavior, there lies an explanation to the mysteries of language acquisition. A full treatment of affective variables in second language acquisition is provided in Chapters 6 and 7; in this chapter it is important to take a brief look at selected affective factors as they relate to the age and acquisition issue.

The affective domain includes many factors: empathy, self-esteem, extroversion, inhibition, imitation, anxiety, attitudes—the list could go on. Some of these may seem at first rather far removed from language learning, but when we consider the pervasive nature of language, any affective factor can conceivably be relevant to second language learning.

A case in point is the role of **egocentricity** in human development. Very young children are highly egocentric. The world revolves about them, and they see all events as focusing on themselves. Small babies at first do not even distinguish a separation between themselves and the world around them. A rattle held in a baby's hand, for example, is simply an inseparable extension of the baby as long as it is grasped; when the baby drops it or loses sight of it, the rattle ceases to exist. As children grow older they become more aware of themselves, more self-conscious as they seek both to define and to understand their self-identity. In preadolescence children develop an acute consciousness of themselves as separate and identifiable entities but ones which, in their still-wavering insecurity, need protecting. They therefore develop **inhibitions** about this self-identity, fearing to expose too much self-doubt. At puberty these inhibitions are heightened in the trauma of undergoing critical physical, cognitive, and emotional changes. Adolescents must acquire a totally new physical, cognitive, and emotional identity. Their egos are affected not only in how they understand themselves but also in how they reach out beyond themselves, how they relate to others socially, and how they use the communicative process to bring on affective equilibrium.

Several decades ago, Alexander Guiora, a researcher in the study of personality variables in second language learning, proposed what he called the **language ego** (Guiora et al., 1972b; see also Dörnyei, 2005; Ehrman, 1993) to account for the identity a person develops in reference to the language he or she speaks. For any monolingual person, the language ego involves the interaction of the native language and ego development. Oneself-identity is inextricably bound up with one's language, for it is in the communicative process—the process of sending out messages and having them "bounced" back—that such identities are confirmed, shaped, and reshaped. Guiora suggested that the language ego may account for the difficulties that adults have in learning a second language.

The child's ego is dynamic and growing and flexible through the age of puberty. Thus a new language at this stage does not pose a substantial "threat" or inhibition to the ego, and adaptation is made relatively easily as long as there are no undue confounding sociocultural factors such as, for example, a damaging attitude toward a language or language group at a young age. Then the simultaneous physical, emotional, and cognitive changes of puberty give rise to a defensive mechanism in

which the language ego becomes protective and defensive. The language ego clings to the security of the native language to protect the fragile ego of the young adult. The language ego, which has now become part and parcel of self-identity, is threatened, and thus a context develops in which you must be willing to make a fool of yourself in the trial-and-error struggle of speaking and understanding a foreign language. Younger children are less frightened because they are less aware of language *forms*, and the possibility of making mistakes in those forms—mistakes that one really must make in an attempt to communicate spontaneously—does not concern them greatly.

It is no wonder, then, that the acquisition of a new language ego is an enormous undertaking not only for young adolescents but also for an adult who has grown comfortable and secure in his or her own identity and who possesses inhibitions that serve as a wall of defensive protection around the ego. Making the leap to a new or second identity is no simple matter; it can be successful only when one musters the necessary ego strength to overcome inhibitions. It is possible that the successful adult language learner is someone who can bridge this affective gap. Some of the seeds of success might have been sown early in life. In a bilingual setting, for example, if a child has already learned one second language in childhood, then affectively, learning a third language as an adult might represent much less of a threat. Or such seeds may be independent of a bilingual setting; they may simply have arisen out of whatever combination of nature and nurture makes for the development of a strong ego.

CLASSROOM CONNECTIONS

Research Findings: It is common to find research that compares children and adults acquiring second languages, with the assumption that the two categories are easily defined. But not enough research examines differences between younger (6–7-year-old) and older (10–11-year-old) children.

Teaching Implications: If you were teaching two groups of children—a 6–7-year-old group and a 10–11-year-old group—how would your approach and classroom activities differ?

In looking at SLA in children, it is important to distinguish younger and older children. Preadolescent children of 9 or 10, for example, are beginning to develop inhibitions, and it is conceivable that children of this age have a good deal of affective dissonance to overcome as they attempt to learn a second language. This could account for difficulties that older prepubescent children encounter in acquiring a

second language. Adult vs. child comparisons are, of course, highly relevant. We know from both observational and research evidence that mature adults manifest a number of inhibitions. These inhibitions surface in modern language classes where the learner's attempts to speak in the foreign language are often fraught with embarrassment. We have also observed the same inhibition in the "natural" setting (a nonclassroom setting, such as a learner living in a foreign culture), although in such instances there is the likelihood that the necessity to communicate overrides the inhibitions.

Other affective factors seem to hinge on the basic notion of ego identification. It would appear that the study of second language learning as the acquisition of a **second identity** might pose a fruitful and important issue in understanding not only some differences between child and adult first and second language learning but second language learning in general (see Chapter 7).

Another affectively related variable deserves mention here even though it will be given fuller consideration in Chapter 6: the role of **attitudes** in language learning. From the growing body of literature on attitudes, it seems clear that negative attitudes can affect success in learning a language. Very young children, who are not developed enough cognitively to possess "attitudes" toward races, cultures, ethnic groups, classes of people, and languages, may be less affected than adults. Macnamara (1975, p. 79) noted that "a child suddenly transported from Montreal to Berlin will rapidly learn German no matter what he thinks of the Germans." But as children reach school age, they also begin to acquire certain attitudes toward types and stereotypes of people. Most of these attitudes are "taught," consciously or unconsciously, by parents, other adults, and peers. The learning of negative attitudes toward the people who speak the second language or toward the second language itself has been shown to affect the success of language learning in persons from school age on up.

Finally, **peer pressure** is a particularly important variable in considering child-adult comparisons. The peer pressure children encounter in language learning is quite unlike what the adult experiences. Children usually have strong constraints upon them to conform. They are told in words, thoughts, and actions that they had better "be like the rest of the kids." Such peer pressure extends to language. Adults experience some peer pressure, but of a different kind. Adults tend to tolerate linguistic differences more than children, and therefore errors in speech are more easily excused. If adults can understand a second language speaker, for example, they will usually provide positive cognitive and affective feedback, a level of tolerance that might encourage some adult learners to "get by." Children are harsher critics of one another's actions and words and may thus provide a necessary and sufficient degree of mutual pressure to learn the second language.

LINGUISTIC CONSIDERATIONS

We have so far looked at learners themselves and considered a number of different issues in age and acquisition. Now we turn to some issues that center on the

subject matter itself: language. What are some of the linguistic considerations in age-related questions about SLA? A growing number of research studies are now available to shed some light on the linguistic processes of second language learning and how those processes differ between children and adults. A good deal of this research will be treated in Chapters 8 through 10, but here we will look briefly at some specific issues that arise in examining the child's acquisition of a second language.

Bilingualism

It is clear that children learning two languages simultaneously acquire them by the use of similar strategies. They are, in essence, learning two first languages, and the key to success is in distinguishing separate contexts for the two languages. People who learn a second language in such separate contexts can often be described as coordinate bilinguals; they have two meaning systems, as opposed to compound bilinguals who have one meaning system from which both languages operate. Children generally do not have problems with "mixing up languages," regardless of the separateness of contexts for use of the languages. Moreover, "bilinguals are not two monolinguals in the same head" (Cook, 1995, p. 58). Most bilinguals, however, engage in **code-switching** (the act of inserting words, phrases, or even longer stretches of one language into the other), especially when communicating with another bilingual.

In some cases the acquisition of both languages in bilingual children is slightly slower than the normal schedule for first language acquisition. However, a respectable stockpile of research (see Reynolds, 1991; Schinke-Llano, 1989) shows a considerable cognitive benefit of early childhood bilingualism, supporting Lambert's (1972) contention that bilingual children are more facile at concept formation and have a greater mental flexibility.

Interference Between First and Second Languages

A good deal of the research on nonsimultaneous second language acquisition, in both children and adults, has focused on the interfering effects of the first and second languages. For the most part, research confirms that the linguistic and cognitive processes of second language learning in young children are in general similar to first language processes. Hansen-Bede (1975), Milon (1974), Ervin-Tripp (1974), Dulay and Burt (1974a), Natalicio and Natalicio (1971), and Ravem (1968), among others, concluded that similar strategies and linguistic features are present in both first and second language learning in children. Dulay and Burt (1974a) found, for example, that 86 percent of more than 500 errors made by Spanish-speaking children learning English reflected normal developmental characteristics—that is, expected intralingual strategies, not interference errors from the first language. Hansen-Bede (1975) examined such linguistic structures as possession, gender, word order, verb forms, questions, and negation in an English-speaking three-year-old child

who learned Urdu upon moving to Pakistan. In spite of some marked linguistic contrasts between English and Urdu, the child's acquisition did not appear to show first language interference and, except for negation, showed similar strategies and rules for both the first and the second language.

Adult second language linguistic processes are more vulnerable to the effect of the first language on the second, especially the farther apart the two events are. Whether adults learn a foreign language in a classroom or out in the "arena," they approach the second language—either focally or peripherally—systematically, and they attempt to formulate linguistic rules on the basis of whatever linguistic information is available to them: information from the native language, the second language, teachers, classmates, and peers. The nature and sequencing of these systems has been the subject of a good deal of second language research in the last half of the twentieth century. What we have learned above all else from this research is that the saliency of interference from the first language does not imply that interference is the most relevant or most crucial factor in adult second language acquisition. Adults learning a second language manifest some of the same types of errors found in children learning their first language (see Chapter 8).

Adults, more cognitively secure, appear to operate from the solid foundation of the first language and thus manifest more interference. But it was pointed out earlier that adults, too, manifest errors not unlike some of the errors children make, the result of creative perception of the second language and an attempt to discover its rules apart from the rules of the first language. The first language, however, may be more readily used to bridge gaps that the adult learner cannot fill by generalization within the second language. In this case we do well to remember that the first language can be a facilitating factor, and not just an interfering factor.

Order of Acquisition

One of the first steps toward demonstrating the importance of factors beyond first language interference was taken in a series of research studies by Heidi Dulay and Marina Burt (1972, 1974a, 1974b, 1976). Emphasizing the absence of L1 interference, they claimed that "transfer of L1 syntactic patterns rarely occurs" in child second language acquisition (1976, p. 72). They claimed that children learning a second language use a **creative construction** process, just as they do in their first language.

This conclusion was supported by voluminous research data collected on the acquisition order of eleven English morphemes in children learning English as a second language. Dulay and Burt found a common order of acquisition among children of several native language backgrounds, an order very similar to that found by Roger Brown (1973) using the same morphemes but for children acquiring English as their first language:

1. present progressive (*-ing*)
2. [and 3.] *in, on*

(continued)

4. plural (*-s*)
5. past irregular
6. possessive (*-'s*)
7. uncontractible copula (*is, am, are*)
8. articles (*a, the*)
9. past regular (*-ed*)
10. third-person regular (*-s*)
11. third-person irregular

There were logical and methodological arguments about the validity of morpheme-order findings. Rosansky (1976) argued that the statistical procedures used were suspect, and others (Roger Andersen, 1978; Larsen-Freeman, 1976) noted that 11 English morphemes constitute only a minute portion of English syntax, and therefore lack generalizability. On the other hand, Zobl and Liceras (1994, p. 161), in a "search for a unified theoretical account for the L1 and L2 morpheme orders," reexamined the morpheme-order studies and concluded the generalizability of morpheme acquisition order.

In a resurgence of research on order of acquisition, the topic has emerged as an important consideration both in studies of age and acquisition and in the search for universals in language acquisition. A nagging question in earlier research centered on the search for *causes* of ostensibly universal patterns of acquisition, a question that most studies left unaddressed. Bardovi-Harlig (1999) contended that the earlier morpheme studies were too focused on morphology and on a form-oriented approach, and showed that attention to a semantic-oriented approach had more explanatory power. So, for example, the role of tense and aspect markers across languages offered a better explanation of why both children in their first language and adults in their second language acquisition exhibit a common order of acquisition.

Even more recently, Goldschneider & DeKeyser (2005, 2001) reported on studies that refined earlier claims about acquisition order by proposing five determinants of acquisition order across numerous languages:

1. Perceptual salience (how easy it is to see or hear a given structure)
2. Semantic complexity (how many meanings are expressed by a particular form)
3. Morpho-phonological regularity (the degree to which language forms are affected by their phonological environment)
4. Syntactic category (grammatical characteristics of forms)
5. Frequency in the input (the number of times a given structure occurs in speech addressed to the learner)

While they did not make strong claims for the predictive validity of the above five determinants, they remained optimistic that these determinants hold promise as a useful meta-analysis of data that heretofore remained somewhat mysterious. Further, Goldschneider and DeKeyser suggested that "teachers could make the

predictors work for them and could potentially increase the rate of acquisition by presenting material on functors in a way that capitalizes on these causes" (2005, p. 63).

ISSUES IN FIRST LANGUAGE ACQUISITION REVISITED

Having examined the comparison of first and second language acquisition across a number of domains of human behavior, we turn in this final section to a brief consideration of the eight issues in first language acquisition that were presented in Chapter 2. In most cases the implications of these issues are already clear, from the comments in the previous chapter, from the reader's logical thinking, or from comments in this chapter. Therefore what follows is a way of highlighting the implications of the issues for second language learning.

Competence and Performance

It is as difficult to "get at" linguistic competence in a second language as it is in a first. For children, judgments of grammaticality may elicit a second language "pop-go-weasel" effect. You can be a little more direct in inferring competence in adults; adults can make choices between two alternative forms, and sometimes they manifest an awareness of grammaticality in a second language. But you must remember that adults are not in general able to verbalize "rules" and paradigms consciously even in their native language. Furthermore, in judging utterances in the modern language classroom and responses on various tests, teachers need to be cautiously attentive to the discrepancy between performance on a given day or in a given context and competence in a second language in general. Remember that one isolated sample of second language speech may on the surface appear to be rather malformed until you consider that sample in comparison with the everyday mistakes and errors of native speakers.

Comprehension and Production

Whether or not comprehension is derived from a separate level of competence, there is a universal distinction between comprehension and production. Learning a second language usually means learning to speak it *and* to comprehend it! When we say "Do you speak English?" or "Parlez-vous français?" we usually mean "and do you *understand* it, too?" Learning involves both modes (unless you are interested only in, say, learning to read in the second language). So teaching involves attending to both comprehension and production and the full consideration of the gaps and differences between the two. Adult second language learners will, like children, often *hear* a distinction but not be able to produce it. The inability to produce an item, therefore, should not be taken to mean that the learner cannot comprehend the item.

Nature or Nurture?

What happens after puberty to the magic "little black box" called LAD? Does the adult suffer from linguistic "hardening of the arteries"? Does LAD "grow up" somehow? Does lateralization signal the death of LAD? We do not have complete answers to these questions, but there have been some hints in the discussion of physical, cognitive, and affective factors. What we do know is that adults and children alike appear to have the capacity to acquire a second language at any age. The only trick that nature might play on adults is to virtually rule out the acquisition of authentic accent. As you have seen above, this still leaves a wide swath of language properties that may actually be more efficiently acquired in an adult. If an adult does not acquire a second language successfully, it is probably because of intervening cognitive or affective variables and not the absence of innate capacities. Defining those intervening variables appears to be more relevant than probing the properties of innateness.

Universals

In recent years Universal Grammar has come to the attention of a growing number of researchers. The conclusions from this research are mixed (Van Buren, 1996). Research on child SLA suggests that children's developing second language grammars are indeed constrained by UG (Lakshmanan, 1995). But it is not immediately clear whether this knowledge is available directly from a truly universal "source," or through the mediation of the first language. Yet even in the first language, UG seems to predict certain syntactic domains but not others. This has led some to conclude that second language learners have only "partial access" to UG (O'Grady, 1996). But Bley-Vroman (1988) went a step further in claiming a "no access" position for adults learning a second language: adults acquire second language systems without any reference to UG.

Others disagree strongly with the partial- and no-access claim. Cook (1993, p. 244) provocatively asked, "Why should second language users be treated as failed monolinguals? ... A proper account of second language learning would treat multicompetence on its own terms, not in L1 related terms." In other words, why look to monolingualism as a standard by which UG or any other means of inquiry should be modeled? If UG models do not fit second language learning processes, then it may be "the description of UG that is at fault, and not the L2 learner" (Cook, 1993, p. 245). Where does this leave us? Perhaps in a position of keeping an open mind as teachers and an inquisitive spirit as researchers.

Systematicity and Variability

It is clear that second language acquisition, both child and adult, is characterized by both systematicity and variability. Second language linguistic development appears in many instances to mirror the first language acquisition process: learners induce

rules, generalize across a category, overgeneralize, and proceed in stages of development (more on this in Chapter 9). Recent research has suggested that even the order of acquisition may universally follow certain identifiable determinants (Goldschneider & DeKeyser, 2005). The variability of second language data poses thorny problems that have been addressed by people like Gass and Selinker (2001), Preston (1996), Ellis (1989, 1987), and Tarone (1988). The variability of second language acquisition is exacerbated by a host of cognitive, affective, cultural, and contextual variables that are sometimes not applicable to a first language learning situation.

Language and Thought

Another intricately complex issue in both first and second language acquisition is the precise relationship between language and thought. We can see that language helps to shape thinking and that thinking helps to shape language. What happens to this interdependence when a second language is acquired? Does the bilingual person's memory consist of one storage system (compound bilingualism) or two (coordinate bilingualism)? The second language learner is clearly presented with a tremendous task in sorting out new meanings from old, distinguishing thoughts and concepts in one language that are similar but not quite parallel to the second language, perhaps really acquiring a whole new system of conceptualization. The second language teacher needs to be acutely aware of cultural thought patterns that may be as interfering as the linguistic patterns themselves.

Imitation

While children are good deep-structure imitators (centering on meaning, not surface features), adults can fare much better in imitating surface structure (by rote mechanisms) if they are explicitly directed to do so. Sometimes their ability to center on surface distinctions is a distracting factor; at other times it is helpful. Adults learning a second language might do well to attend consciously to truth value and to be less aware of surface structure as they communicate. The implication is that meaningful contexts for language learning are necessary; second language learners ought not to become too preoccupied with form lest they lose sight of the function and purpose of language.

Practice and Frequency

Too many language classes are filled with rote practice that centers on surface forms. Most cognitive psychologists agree that the frequency of stimuli and the number of times spent practicing a form are not highly important in learning an item. What is important is meaningfulness. While some researchers quibble on the issue of frequency (Ellis, 2002), in the case of second language learning, it appears that contextualized, appropriate, meaningful communication in the second language seems to be the best possible practice the second language learner could engage in.

Input

In the case of classroom second language learning, parental input is replaced by teacher input. Teachers might do well to be as deliberate, but meaningful, in their communications with students as the parent is to the child since input is as important to the second language learner as it is to the first language learner. And that input should foster meaningful communicative use of the language in appropriate contexts.

Discourse

We have only begun to scratch the surface of possibilities of second language discourse analysis. As we search for better ways of teaching communicative competence to second language learners, research on the acquisition of discourse becomes more and more important. Perhaps a study of children's amazing dexterity in acquiring rules of conversation and in perceiving intended meaning will help us to find ways of teaching such capacities to second language learners. We will look more at these issues in Chapter 9.

SOME "AGE-AND-ACQUISITION-INSPIRED" LANGUAGE TEACHING METHODS

In Chapter 2, we saw that research on language teaching in the "modern" era may have been sparked by François Gouin's observation of his young nephew's *first* language acquisition. Another look at language teaching methodology in a historical context reveals a number of instances of methods that were inspired by observation of and research on child *second* language acquisition. Two of these methods are described here, as examples of extending an understanding of children's second language acquisition to the adult second language classroom.

Total Physical Response

The founder of the **Total Physical Response** (TPR) method, James Asher (1977), noted that children, in learning their first language, appear to do a lot of listening before they speak, and that their listening is accompanied by physical responses (reaching, grabbing, moving, looking, and so forth). He also gave some attention to right-brain learning. According to Asher, motor activity is a right-brain function that should precede left-brain language processing. Asher was also convinced that language classes were often the locus of too much anxiety and wished to devise a method that was as stress-free as possible, where learners would not feel overly self-conscious and defensive. The TPR classroom, then, was one in which students did a great deal of listening and acting. The teacher was very directive in orchestrating a performance: "The instructor is the director of a stage play in which the students are the actors" (Asher, 1977, p. 43).

A typical TPR class utilized the imperative mood, even at more advanced proficiency levels. Commands were an easy way to get learners to move about and to loosen up: "Open the window," "Close the door," "Stand up," "Sit down," "Pick up the book," "Give it to John," and so on. No verbal response was necessary. More complex syntax was incorporated into the imperative: "Draw a rectangle on the chalkboard." "Walk quickly to the door and hit it." Humor was easy to introduce: "Walk slowly to the window and jump." "Put your toothbrush in your book" (Asher, 1977, p. 55). Interrogatives were also easily dealt with: "Where is the book?" "Who is John?" (students point to the book or to John). Eventually students, one by one, presumably felt comfortable enough to venture verbal responses to questions, then to ask questions themselves, and the process continued.

Like other methods of the twentieth century, TPR—as a method—had its limitations. It was especially effective in the beginning levels of language proficiency, but lost its distinctiveness as learners advanced in their competence. But today TPR is used more as a type of classroom *activity*, which is a more useful way to view it. Many successful communicative, interactive classrooms utilize TPR activities to provide both auditory input and physical activity.

The Natural Approach

Stephen Krashen's (1982) theories of second language acquisition have been widely discussed and hotly debated since the 1970s. (Chapter 10 will offer further details on Krashen's influence on second language acquisition theory.) One of the hallmarks of Krashen's theories is that adults should acquire a second language just as children do: they should be given the opportunity to "pick up" a language, and shouldn't be forced to "study" grammar in the classroom.

The major methodological offshoot of Krashen's work was manifested in the **Natural Approach**, developed by one of Krashen's associates, Tracy Terrell (Krashen & Terrell, 1983). Acting on many of the claims that Asher made for TPR, Krashen and Terrell felt that learners would benefit from delaying production until speech "emerges," that learners should be as relaxed as possible in the classroom, and that a great deal of communication and "acquisition" should take place, as opposed to analysis. In fact, the Natural Approach advocated the use of TPR activities at the beginning level of language learning, when "comprehensible input" is essential for triggering the acquisition of language.

The Natural Approach was aimed at the goal of basic interpersonal communication skills, that is, everyday language situations—conversations, shopping, listening to the radio, and the like. The initial task of the teacher was to provide comprehensible input—spoken language that is understandable to the learner—or just a little beyond the learner's level. Learners did not need to say anything during this "silent period" until they felt ready to do so. The teacher was the source of the learners' input and the creator of an interesting and stimulating variety of classroom activities—commands, games, skits, and small-group work.

The most controversial aspects of the Natural Approach were its "silent period" and its reliance on the notion of "comprehensible input." One could argue, with Richards & Rodgers (2001) and Gibbons (1985), that the delay of oral production can be pushed too far and that at an early stage it is important for the teacher to step in and encourage students to talk. And determining just what we mean by "comprehensible" is exceedingly difficult (see Chapter 10 for further comments). Language learning is an interactive process, and therefore an overreliance on the role of input at the expense of the stimulation of output could thwart the second language acquisition process. The Natural Approach, like TPR, also tended to lose its distinctive identity once a course was well under way.

But, of course, we also can look at the Natural Approach and be reminded that sometimes we insist that students speak much too soon, thereby raising anxiety and lessening the possibility of further risk-taking as the learner tries to progress. And so, once again, your responsibility as a teacher is to choose the best of what others have experimented with, and to adapt those insights to your own situation. There is a good deal of insight to be gained, and intuition to be developed, from examining the merits of methods such as TPR and the Natural Approach. Those insights and intuitions can become a part of your own cautious, enlightened eclecticism.

In this chapter we have touched on a number of significant perspectives on questions about age and acquisition. In all this, it is important to maintain the distinction among the three types (C1-C2; C2-A2; C1-A2) of age and language comparisons mentioned at the beginning of the chapter. By considering three logically possible comparisons, unnecessary loopholes in reasoning should be minimized. While some answers to our questions are less than conclusive, in many cases research has been historically revealing. By operating on our collective understanding of the effects of age on acquisition, you can, with some confidence, construct your own personal integrated understanding of that relationship, and how that relationship might hold fruitful implications for second language teaching.

Above all else, I call attention to the balanced perspective offered by Scovel (1999, p. 1):

> "The younger, the better" is a myth that has been fueled by media hype and, sometimes, "junk science." We are led to believe that children are better at learning foreign languages without fully considering all the evidence and without looking at all aspects of acquisition. On at least several planes—literacy, vocabulary, pragmatics, schematic knowledge, and even syntax—adults have been shown to be superior learners. Perpetuating a younger-the-better myth in arguments about bilingual education and other forms of early language intervention does a disservice to our children and to our educational enterprise.

We have seen in this chapter that there certainly appear to be some potential advantages to an early age for SLA, but there is absolutely no evidence that an adult cannot overcome all of those disadvantages save one, accent, and the latter is hardly the quintessential criterion for effective interpersonal communication.

TOPICS AND QUESTIONS FOR STUDY AND DISCUSSION

Note: (I) individual work; (G) group or pair work; (C) whole-class discussion.

1. (G/C) Each group or pair should be assigned one of the seven common arguments (page 55) cited by Stern (1970) that were used to justify analogies between first language learning and second language teaching. In the group, determine what is assumed or presupposed in the statement. Then reiterate the flaw in each analogy. Report conclusions back to the whole class for further discussion.
2. (C) Are there students in the class who were exposed to, or learned, second languages before puberty? What were the circumstances, and what difficulties, if any, were encountered? Has authentic pronunciation in the language remained to this day?
3. (C) Is there anyone in the class, or anyone who knows someone else, who started learning a second language after puberty and who nevertheless has an almost "perfect" accent? How did you assess whether the accent was perfect? Why do you suppose such a person was able to be so successful?
4. (I) In your words, write down the essence of Scovel's claim that the acquisition of a native accent around the age of puberty is an evolutionary leftover of sociobiological critical periods evident in many species of animals and birds. In view of widely accepted cross-cultural, cross-linguistic, and interracial marriages today, how relevant is the biological claim for mating within the gene pool?
5. (G/C) In groups, try to determine the criteria for deciding whether or not someone is an authentic native speaker of your native language. In the process, consider the wide variety of "World Englishes" commonly spoken today. How clearly definitive can your criteria be? Talk about occupations, if any, in which a native accent is indispensable. Share with the rest of the class, and try to come to a consensus.
6. (G) In groups, talk about any cognitive or affective blocks you have experienced in your own attempts to learn a second language. What could you do (or what could you have done) to overcome those barriers?
7. (I) Summarize the 10 "revisited" issues in your own words. How does your understanding of those issues, as they apply to second language learning, help you to formulate a better understanding of the total process of second language

acquisition? Cite what you think might be some practical classroom implications of the 10 issues.

8. (C) Do you think it is worthwhile to teach children a second language in the classroom? If so, how might approaches and methods differ between a class of children and a class of adults?

SUGGESTED READINGS

Scovel, T. (2000). A critical review of the critical period hypothesis. *Annual Review of Applied Linguistics, 20*, 213–223.

Singleton, D. (2001). Age and second language acquisition. *Annual Review of Applied Linguistics, 21*, 77–89.

Singleton, D., & Ryan, L. (2004). *Language acquisition: The age factor* (2nd ed.). Clevedon, UK: Multilingual Matters.

The two review articles by Thomas Scovel and David Singleton, in successive years of the Annual Review of Applied Linguistics, offer excellent overviews of issues and research on the critical period hypothesis and questions about the relationship of age to acquisition. Singleton and Ryan's book gives updated and more detailed discussions of the same issues, with an excellent synopsis of first language evidence and second language evidence in two separate chapters.

DeKeyser, R. (2000). The robustness of critical period effects in second language acquisition. *Studies in Second Language Acquisition, 22*, 499–533.

Bialystok, E. (2002). On the reliability of robustness: A reply to DeKeyser. *Studies in Second Language Acquisition, 24*, 481–488.

Robert DeKeyser's article reports a study in which he examined hypotheses concerning the existence of a critical period for second language acquisition. While he concludes that his data support his hypotheses, Ellen Bialystok argues otherwise, citing problems in DeKeyser's interpretation of the data. This exchange is a good example of the process of carrying out and interpreting research data, and of varying interpretations of the same data.

Goldschneider, J., & DeKeyser, R. (2001). Explaining the "natural order of L2 morpheme acquisition" in English: A meta-analysis of multiple determinants. *Language Learning, 51*, 1–50.

For about two decades, researchers had virtually dismissed "natural order" claims as a dead issue, with no viable explanations for the possibility of natural orders in the acquisition of morphemes. Here, the authors revive the debate by offering underlying principles that potentially explain order of acquisition.

LANGUAGE LEARNING EXPERIENCE: JOURNAL ENTRY 3

Note: See pages 21 and 22 of Chapter 1 for general guidelines for writing a journal on a previous or concurrent language learning experience.

- How good do you think your pronunciation of your foreign language is? How do you feel about your pronunciation—satisfied, dissatisfied, resigned, in need of improvement? Assuming you would not expect to be "perfect," what steps can you take (or could you have taken) to improve your pronunciation to a point of maximum clarity of articulation?
- Given your current age (or your age when you were learning a foreign language), do you feel you're too old to make much progress? Are you linguistically "over the hill" with little hope of achieving your goals? Analyze the roots of your answers to these questions.
- Children might have some secrets of success: not monitoring themselves too much, not analyzing grammar, not being too worried about their egos, shedding inhibitions, not letting the native language interfere much. In what way did you, or could you, put those secrets to use in your own learning?
- In learning a foreign language, were any aspects (such as listening discrimination exercises, pronunciation drills, learning grammar rules, small group conversations, reading, or writing) easier than others for you? Analyze what made certain procedures easier than others.
- Do you think you might have some advantages over children in learning a foreign language? Speculate on what those advantages might be. Then make a list of strategies you could use to capitalize on those advantages.

PART II

PSYCHOLOGICAL FACTORS

CHAPTER 4

HUMAN LEARNING

So FAR, in outlining a theory of second language acquisition, we have discovered that the cognitive domain of human behavior is of key importance in the acquisition of both a first and a second language. The processes of perceiving, attending, storing, and recalling are central to the task of internalizing a language. In this chapter we focus specifically on cognitive processes by examining the general nature of human learning. In the first part of the chapter, different learning theories are outlined. Then, we deal with some other universal learning principles. Finally, some current thoughts about aptitude and intelligence are presented.

LEARNING AND TRAINING

How do human beings learn? Are there certain basic principles of learning that apply to all learning acts? Is one theory of learning "better" than another? If so, how can you evaluate the usefulness of a theory? These and other important questions need to be answered in order to achieve an integrated understanding of second language acquisition.

Before tackling theories of human learning directly, consider the following situation as an illustration of sorting out cognitive considerations in any task in which you are trying to determine what it means to conclude that an organism has learned something. Suppose you have decided to train your somewhat untalented pet dog to catch Frisbees in midair at a distance of, say, 30 yards or so. What would you need to know about your dog and how would you go about the training program?

Consider the following four steps:

1. First, you will need to specify *entry behavior*: what your dog already "knows." What abilities does it possess upon which you, the trainer, can build? What are its drives, needs, motivations, limitations?
2. Next, you need to formulate explicitly the *goals* of the task. You have a general directive: what are your specific objectives? How successfully and with what sort of "style points" must this dog perform? In what differing environments?

3. You would also need to devise some *methods of training*. Based on what you know about entry behavior and goals of the task, how would you go about the training process? Where would you begin? Would you start at 3 feet? Place the Frisbee in the dog's mouth? Would you use rewards? Punishment? What alternatives would you have ready if the dog failed to learn?
4. Finally, you would need some sort of *evaluation procedure*. How would you determine whether or not the dog had indeed learned what you set out to teach? You would need to determine short-term and long-term evaluation measures. If the dog performs correctly after one day of training, what will happen one month later? That is, will the dog maintain what it has learned?

Already a somewhat simple task has become quite complex with questions that require considerable forethought and expertise. But we are talking only about a dog performing a simple trick. If we talk about human beings learning a second language, the task is of course much, much more complex. Nevertheless, the questions and procedures that apply to you, the language teacher, are akin to those that applied to you, the dog trainer. You must have a comprehensive knowledge of the entry behavior of a person, of objectives you wish to reach, of possible methods that follow from your understanding of the first two factors, and of an evaluation procedure. These steps derive from your conception of how human beings learn, and that is what this chapter is all about.

In turning now to varied theories of how human beings learn, consider once again various definitions of learning, as discussed in Chapter 1: "acquiring or getting of knowledge of a subject or a skill by study, experience, or instruction," or "a relatively permanent change in a behavioral tendency, . . . the result of reinforced practice." When we consider such definitions, it is clear that one can understand learning in many different ways, which is why there are so many different theories, extended definitions, and schools of thought on the topic of learning.

We now focus on how psychologists have defined **learning**, and we will look at these theories through the eyes of four psychologists, two representing a behavioral viewpoint (Pavlov and Skinner), one representing a cognitive stance (Ausubel), and one that stretches into what could be loosely defined as a constructivist school of thought (Rogers). The four positions should illustrate not only some of the history of learning theory, but also the diverse perspectives that form the foundations of varying language teaching approaches and methods.

PAVLOV'S CLASSICAL BEHAVIORISM

Certainly the best-known classical behaviorist is the Russian psychologist Ivan Pavlov, who at the turn of the century conducted a series of experiments in which he trained a dog to salivate to the tone of a bell through a procedure that has come to be labeled **classical conditioning**. For Pavlov the learning process consisted of

the formation of associations between stimuli and reflexive responses. All of us are aware that certain stimuli automatically produce or elicit rather specific responses or reflexes, and we have also observed that sometimes that reflex occurs in response to stimuli that appear to be indirectly related to the reflex. Pavlov used the salivation response to the sight or smell of food (an **unconditioned response**) in many of his pioneering experiments. In the classical experiment he trained a dog, by repeated occurrences, to associate the sound of a bell with food until the dog acquired a **conditioned response**: salivation at the sound of the bell. A previously neutral **stimulus** (the sound of the bell) had acquired the power to elicit a **response** (salivation) that was originally elicited by another stimulus (the smell of meat).

Drawing on Pavlov's findings, John B. Watson (1913) coined the term *behaviorism*. In the empirical tradition of John Locke, Watson contended that human behavior should be studied objectively, rejecting mentalistic notions of innateness and instinct. He adopted the classical conditioning theory as the explanation for all learning: by the process of conditioning, we build an array of stimulus-response connections, and more complex behaviors are learned by building up series or chains of responses. Later, E.L. Thorndike expanded on classical conditioning models by showing that stimuli that occurred after a behavior had an influence on future behaviors. Thorndike's **Law of Effect** paved the way for another psychologist, B.F. Skinner, to modify our understanding of human learning—to be discussed in the next section. Pavlov's, Watson's, and Thorndike's emphasis on the study of overt behavior and rigorous adherence to the scientific method had a tremendous influence on learning theories for decades. Language teaching practices likewise for many years were influenced by a behavioristic tradition.

SKINNER'S OPERANT CONDITIONING

In 1938, B.F. Skinner published his *Behavior of Organisms* and in so doing established himself as one of the leading behaviorists in the United States. He followed the tradition of Watson and Thorndike, but other psychologists (see Anderson and Ausubel, 1965, p. 5) have called Skinner a **neobehaviorist** because he added a unique dimension to behavioristic psychology. The classical conditioning of Pavlov was, according to Skinner, a highly specialized form of learning utilized mainly by animals and playing little part in human conditioning. Skinner called Pavlovian conditioning **respondent conditioning** since it was concerned with respondent behavior—that is, behavior that is **elicited** by a preceding stimulus.

Skinner's **operant conditioning** attempted to account for most of human learning and behavior. Operant behavior is behavior in which one "operates" on the environment; within this model the importance of stimuli is deemphasized. For example, we cannot identify a specific stimulus leading a baby to rise to a standing position or to take a first step; we therefore need not be concerned about that stimulus, but we should be concerned about the consequences—the stimuli that follow

the response. Stressing Thorndike's Law of Effect, Skinner demonstrated the importance of those events that follow a response. Suppose that another baby accidentally touches a nearby object and a tinkling bell sound occurs. The infant may look in the direction from which the sound came, become curious about it, and after several such "accidental" responses discover exactly which toy it is that makes the sound and how to produce that sound. The baby operated on her environment. Her responses were reinforced until finally a particular concept or behavior was learned.

According to Skinner, the events or stimuli—the **reinforcers**—that follow a response and that tend to strengthen behavior or increase the probability of a recurrence of that response constitute a powerful force in the control of human behavior. Reinforcers are far stronger aspects of learning than is mere association of a prior stimulus with a following response, as in the classical conditioning model. We are governed by the consequences of our behavior, and therefore Skinner felt we ought, in studying human behavior, to study the effect of those consequences. And if we wish to control behavior, say, to teach someone something, we ought to attend carefully to reinforcers.

CLASSROOM CONNECTIONS

Research Findings: Thorndike's Law of Effect emphasized the importance of stimuli that occur *after* a desired behavior. Skinner's concept of an *emitted* response also focused on the power of reinforcement for long-term learning.

Teaching Implications: Teachers in language classrooms often offer stimuli or reinforcement after a student performs in the foreign language. What kind of stimuli have your teachers used to reward your efforts?

Operants are classes of responses. Crying, sitting down, walking, and batting a baseball are operants. They are sets of responses that are **emitted** and governed by the consequences they produce. In contrast, **respondents** are sets of responses that are **elicited** by identifiable stimuli. Certain physical reflex actions are respondents. Crying can be respondent or operant behavior. Sometimes crying is elicited in direct reaction to a hurt. Often, however, it is an emitted response that produces the consequences of getting fed, cuddled, played with, comforted, and so forth. Such operant crying can be controlled. If parents wait until a child's crying reaches a certain intensity before responding, loud crying is more likely to appear in the future. If parents ignore crying (when they are certain that it is operant crying), eventually the absence of reinforcers will extinguish the behavior. Operant crying

depends on its effect on the parents and is maintained or changed according to their response to it.

Skinner believed that, in keeping with the above principle, **punishment** "works to the disadvantage of both the punished organism and the punishing agency" (1953, p. 183). Punishment can be either the withdrawal of a positive reinforcer or the presentation of an aversive stimulus. More commonly we think of punishment as the latter—a spanking, a harsh reprimand—but the removal of certain positive reinforcers, such as a privilege, can also be considered a form of punishment. Skinner felt that in the long run, punishment does not actually eliminate behavior, but that mild punishment may be necessary for temporary suppression of an undesired response, although no punishment of such a kind should be meted out without positively reinforcing alternate responses.

The best method of extinction, said Skinner, is the absence of any reinforcement; however, the active reinforcement of alternative responses hastens that extinction. So if a parent wishes the children would not kick a football in the living room, Skinner would maintain that instead of punishing them adversely for such behavior when it occurs, the parent should refrain from any negative reaction and should instead provide positive reinforcement for kicking footballs outside; in this way the undesired behavior will be effectively extinguished. Such a procedure is, of course, easier said than done, especially if the children break your best table lamp in the absence of any punishment!

Skinner was extremely methodical and empirical in his theory of learning, to the point of being preoccupied with scientific controls. While many of his experiments were performed on lower animals, his theories had an impact on our understanding of human learning and on education. His book *The Technology of Teaching* (1968) was a classic in the field of programmed instruction. Following Skinner's model, one is led to believe that virtually any subject matter can be taught effectively and successfully by a carefully designed program of step-by-step reinforcement. Programmed instruction had its impact on foreign language teaching, though language is such complex behavior, penetrating so deeply into both cognitive and affective domains, that programmed instruction in languages was limited to very specialized subsets of language.

The impact of Skinnerian psychology on foreign language teaching extended well beyond programmed instruction. Skinner's *Verbal Behavior* (1957) described language as a system of verbal operants, and his understanding of the role of conditioning led to a whole new era in language teaching around the middle of the twentieth century. A Skinnerian view of both language and language learning dominated foreign language teaching methodology for several decades, leading to a heavy reliance in the classroom on the controlled practice of verbal operants under carefully designed schedules of reinforcement. The popular Audiolingual Method, which will be discussed toward the end of this chapter, was a prime example of Skinner's impact on American language teaching practices in the decades of the 1950s, 1960s, and early 1970s.

There is no doubt that behavioristic learning theories have had a lasting impact on our understanding of the process of human learning. There is much in the theory that is true and valuable. There is another side to the coin, however. We have looked at the side that claims that human behavior can be predicted and controlled and scientifically studied and validated. We have not looked at the side that views human behavior as essentially abstract in nature, as being composed of such a complex of variables that behavior, except in its extreme abnormality, simply cannot be predicted or easily controlled. We turn next to two representatives of this side of the coin—David Ausubel's meaningful learning theory and Carl Rogers's humanistic psychology.

AUSUBEL'S SUBSUMPTION THEORY

David Ausubel contended that learning takes place in the human organism through a meaningful process of relating new events or items to already existing cognitive concepts or propositions—hanging new items on existing cognitive pegs. Meaning is not an implicit response, but a "clearly articulated and precisely differentiated conscious experience that emerges when potentially meaningful signs, symbols, concepts, or propositions are related to and incorporated within a given individual's cognitive structure on a nonarbitrary and substantive basis" (Anderson & Ausubel, 1965, p. 8). It is this relatability that, according to Ausubel, accounts for a number of phenomena: the acquisition of new meanings (knowledge), retention, the psychological organization of knowledge as a hierarchical structure, and the eventual occurrence of forgetting.

Rote vs. Meaningful Learning

The cognitive theory of learning as put forth by Ausubel is perhaps best understood by contrasting **rote learning** and **meaningful learning**. In the perspective of rote learning, the concept of meaningful learning takes on new significance. Ausubel described rote learning as the process of acquiring material as "discrete and relatively isolated entities that are relatable to cognitive structure only in an arbitrary and verbatim fashion, not permitting the establishment of [meaningful] relationships" (1968, p. 108). That is, rote learning involves the mental storage of items having little or no association with existing cognitive structure. Most of us, for example, can learn a few necessary phone numbers and ZIP codes by rote without reference to cognitive hierarchical organization.

On the other hand, meaningful learning, or **subsumption**, may be described as a process of relating and anchoring new material to relevant established entities in cognitive structure. As new material enters the cognitive field, it interacts with, and is appropriately *subsumed* under, a more inclusive conceptual system. The very fact that material is subsumable, that is, relatable to stable elements in cognitive

structure, accounts for its meaningfulness. If we think of cognitive structure as a system of building blocks, then rote learning is the process of acquiring isolated blocks with no particular function in the building of a structure and no relationship to other blocks. Meaningful learning is the process whereby blocks become an integral part of already established categories or systematic clusters of blocks. For the sake of a visual picture of the distinction, consider the graphic representation in Figures 4.1 and 4.2.

Any learning situation can be meaningful if (1) learners have a meaningful learning set—that is, a disposition to relate the new learning task to what they already know—and (2) the learning task itself is potentially meaningful to the learners—that is, relatable to the learners' structure of knowledge. The second

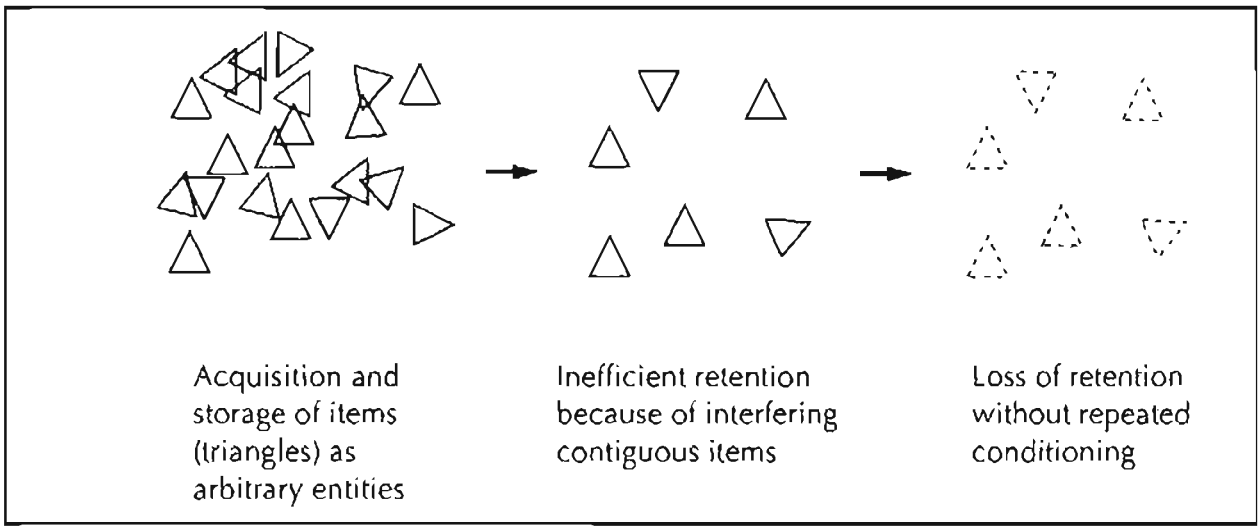

Figure 4.1. Schematic representation of rote learning and retention

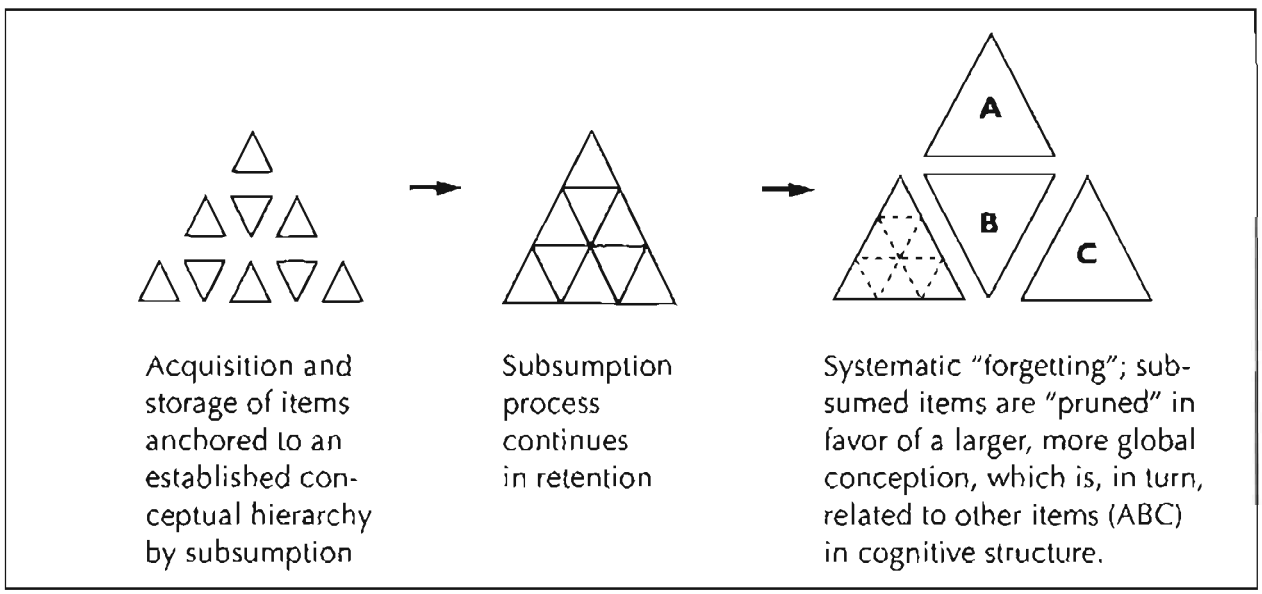

Figure 4.2. Schematic representation of meaningful learning and retention (subsumption)

method of establishing meaningfulness—one that Frank Smith (1975, p. 162) called "manufacturing meaningfulness"—is a potentially powerful factor in human learning. We can make things meaningful if necessary and if we are strongly motivated to do so. Students cramming for an examination often invent a mnemonic device for remembering a list of items; the meaningful retention of the device successfully retrieves the whole list of items.

Frank Smith (1975) also noted that similar strategies can be used in parlor games in which, for example, you are called upon to remember for a few moments several items presented to you. By associating items either in groups or with some external stimuli, retention is enhanced. Imagine "putting" each object in a different location on your person: a safety pin in your pocket, a toothpick in your mouth, a marble in your shoe. By later "taking a tour around your person," you can "feel" the objects there in your imagination. More than a century ago William James (1890, p. 662) described meaningful learning:

> In mental terms, the more other facts a fact is associated with in the mind, the better possession of it our memory retains. Each of its associates becomes a hook to which it hangs, a means to fish it up by when sunk beneath the surface. Together, they form a network of attachments by which it is woven into the entire issue of our thought. The "secret of good memory" is thus the secret of forming diverse and multiple associations with every fact we care to retain.... Briefly, then, of two men [sic] with the same outward experiences and the same amount of mere native tenacity, the one who thinks over his experiences most, and weaves them into systematic relation with each other, will be the one with the best memory.

The distinction between rote and meaningful learning may not at first appear to be important since in either case material can be learned. But the significance of the distinction becomes clear when we consider the relative efficiency of the two kinds of learning in terms of retention, or long-term memory. We are often tempted to examine learning from the perspective of input alone, failing to consider the uselessness of a learned item that is not retained. Human beings are capable of learning almost any given item within the so-called "magic seven, plus or minus two" (Miller, 1956) units for perhaps a few seconds, but long-term memory is a different matter. We can remember an unfamiliar phone number, for example, long enough to dial the number, after which point it is usually extinguished by interfering factors. But a meaningfully learned, subsumed item has far greater potential for retention. Try, for example, to recall all your previous phone numbers (assuming you have moved a number of times in your life). It is doubtful you will be very successful; telephone numbers tend to be quite arbitrary, bearing little meaningful relationship to reality (other than perhaps area codes and other such numerical systematization). But previous street addresses, for example, are sometimes more efficiently retained since they bear some meaningful relationship to the reality of

physical images, directions, streets, houses, and the rest of the town, and are therefore more suitable for long-term retention without concerted reinforcement.

Systematic Forgetting

Ausubel provided a plausible explanation for the universal nature of forgetting. Since rotely learned materials do not interact with cognitive structure in a substantive fashion, they are learned in conformity with the laws of association, and their retention is influenced primarily by the interfering effects of similar rote materials learned immediately before or after the learning task (commonly referred to as **proactive** and **retroactive inhibition**). In the case of meaningfully learned material, retention is influenced primarily by the properties of "relevant and cumulatively established ideational systems in cognitive structure with which the learning task interacts" (Ausubel, 1968, p. 108). Compared to this kind of extended interaction, concurrent interfering effects have relatively little influence on meaningful learning, and retention is highly efficient. Hence, addresses are retained as part of a meaningful set, while phone numbers, being self-contained, isolated entities, are easily forgotten.

We cannot say, of course, that meaningfully learned material is never forgotten. But in the case of such learning, forgetting takes place in a much more intentional and purposeful manner because it is a continuation of the very process of subsumption by which one learns; forgetting is really a second or "obliterative" stage of subsumption, characterized as "memorial reduction to the least common denominator" (Ausubel, 1963, p. 218). Because it is more economical and less burdensome to retain a single inclusive concept than to remember a large number of more specific items, the importance of a specific item tends to be incorporated into the generalized meaning of the larger item. In this obliterative stage of subsumption, the specific items become progressively less identifiable as entities in their own right until they are finally no longer available and are said to be forgotten (see Figure 4.2).

It is this second stage of subsumption that operates through what I have called **cognitive pruning** procedures (Brown, 1972). Pruning is the elimination of unnecessary clutter and a clearing of the way for more material to enter the cognitive field, in the same way that pruning a tree ultimately allows greater and fuller growth. Using the building-block analogy, one might say that, at the outset, a structure made of blocks is seen as a few individual blocks, but as "nucleation" begins to give the structure a perceived shape, some of the single blocks achieve less and less identity in their own right and become subsumed into the larger structure. Finally, the single blocks are lost to perception, or pruned out, to use the metaphor, and the total structure is perceived as a single whole without clearly defined parts.

An example of such pruning may be found in a child's learning of the concept of "so hot that it will burn"—that is, excessive heat that could cause physical pain. A small child's first exposure to such heat may be either direct contact with or verbally mediated exposure to hot coffee, a pan of boiling water, a stove, an iron, a

candle. That first exposure may be readily recalled for some time as the child maintains a meaningful association between a parent's hot coffee and hurting. After a number of exposures to things that are very hot, the child begins to form a concept of "hotness" by clustering experiences together and forming a generalization. In so doing the bits and pieces of experience that actually built the concept are slowly forgotten—pruned—in favor of the general concept that, in the years that follow, enables the child to extrapolate to future experiences and to avoid burning fingers on hot objects.

An important aspect of the pruning stage of learning is that subsumptive forgetting, or pruning, is not haphazard or chance—it is systematic. Thus by promoting optimal pruning procedures, we have a potential learning situation that will produce retention beyond that normally expected under more traditional theories of forgetting.

Research on **language attrition** has focused on a variety of possible causes for the loss of second language skills (Montrul, 2002; Tomiyama, 2000; Weltens & Cohen, 1989; Weltens, 1987; Lambert & Freed, 1982). Some studies have shown that certain aspects of language are more vulnerable to forgetting than others; so for example, lexical items may be more easily lost than idioms, depending on such factors as native language transfer and interference (Nakuma, 1998). Some researchers have suggested that "neurolinguistic blocking" and left-/right-brain functioning could contribute to forgetting (Obler, 1982). It also appears that long-term forgetting can apply to certain linguistic features (lexical, phonological, syntactic, and so on) and not to others (Andersen, 1982). Further, Olshtain (1989) suggested that some aspects of attrition can be explained as a reversal of the acquisition process. Other common reasons for language attrition center on the strength and conditions of initial learning, on the kind of use that a second language has been put to, motivational factors contributing to forgetting (Gardner, 1982), and on cultural identity (Priven, 2002).

CLASSROOM CONNECTIONS

Research Findings: Olshtain described language *attrition* as a reversal of the acquisition process, while Obler said that "neurolinguistic blocking" contributes to long-term forgetting of a language.

Teaching Implications: What can you do as a learner to help prevent such attrition, and what kinds of techniques do you think a teacher could use to prolong the beneficial effects of learning a language in the classroom?

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Attrition is not limited to second language acquisition (Isurin, 2000; Porte, 1999). Native language forgetting occurs in some cases of **subtractive bilingualism** (Siegel, 2003), where learners rely more and more on a second language, which eventually replaces their first language. Often subtractive bilingualism is the result of members of a minority group learning the language of a majority group because the latter downgrades speakers of the minority language.

Research on language attrition usually focuses on long-term loss and not on those minute-by-minute or day-by-day losses of material that learners experience as they cope with large quantities of new material in the course of a semester or year of classroom language learning. It is this classroom context that poses the more immediate problem for the language teacher. Ausubel's solution to that problem would lie in the initial learning process: systematic, meaningful subsumption of material at the outset in order to enhance the retention process. Ausubel's theory of learning has important implications for second language learning and teaching. The importance of meaning in language and of meaningful contexts for linguistic communication has been discussed in the first three chapters. Too much rote activity, at the expense of meaningful communication in language classes, could stifle the learning process.

Subsumption theory provides a strong theoretical basis for the rejection of conditioning models of practice and repetition in language teaching. In a meaningful process like second language learning, mindless repetition, imitation, and other rote practices in the language classroom have no place. The Audiolingual Method, which emerged as a widely used and accepted method of foreign language teaching, was based almost exclusively on a behavioristic theory of conditioning that relied heavily on rote learning. The mechanical "stamping in" of the language through saturation with little reference to meaning is seriously challenged by subsumption theory (Ausubel, 1964). Rote learning can be effective on a short-term basis, but for any long-term retention it fails because of the tremendous buildup of interference. In those cases in which efficient long-term retention *is* attained in rote-learning situations like those often found in the Audiolingual Method, maybe by sheer dogged determination, the learner has somehow subsumed the material meaningfully *in spite* of the method!

The notion that forgetting is systematic also has important implications for language learning and teaching. In the early stages of language learning, certain devices (definitions, paradigms, illustrations, or rules) are often used to facilitate subsumption. These devices can be made initially meaningful by assigning or "manufacturing" meaningfulness. But in the process of making language automatic, the devices serve only as interim entities, meaningful at a low level of subsumption, and then they are systematically pruned out at later stages of language learning. We might thus better achieve the goal of communicative competence by removing unnecessary barriers to automaticity. A definition, mnemonic device, or a paraphrase, for example, might be initially facilitative, but as its need is minimized by larger and more global conceptualizations, it is pruned.

While we are all fully aware of the decreasing dependence upon tips and pointers and paradigms in language learning, Ausubel's theory of learning may help to give explanatory adequacy to the notion. Most current language teaching approaches now understand their temporary usefulness, and for the most part urge students to "forget" these interim, mechanical items as they make progress in a language and instead to focus more on the communicative use (comprehension or production) of language.

ROGERS'S HUMANISTIC PSYCHOLOGY

Carl Rogers is not traditionally thought of as a "learning" psychologist, yet he and his colleagues and followers have had a significant impact on our present understanding of learning, particularly learning in an educational or pedagogical context. Rogers's humanistic psychology has more of an affective focus than a cognitive one, and so it may be said to fall into the perspective of a constructivist view of learning. Certainly, Rogers and Vygotsky share some views in common in their highlighting of the social and interactive nature of learning.

Rogers devoted most of his professional life to clinical work in an attempt to be of therapeutic help to individuals. In his classic work *Client-Centered Therapy* (1951), Rogers carefully analyzed human behavior in general, including the learning process, by means of the presentation of 19 formal principles of human behavior. All 19 principles were concerned with learning from a "phenomenological" perspective, a perspective that is in sharp contrast to that of Skinner. Rogers studied the "whole person" as a physical and cognitive, but primarily emotional, being. His formal principles focused on the development of an individual's self-concept and of his or her personal sense of reality, those internal forces that cause a person to act. Rogers felt that inherent in principles of behavior is the ability of human beings to adapt and to grow in the direction that enhances their existence. Given a nonthreatening environment, a person will form a picture of reality that is indeed congruent with reality and will grow and learn. "Fully functioning persons," according to Rogers, live at peace with all of their feelings and reactions; they are able to reach their full potential (Rogers, 1977).

Rogers's position has important implications for education (see O'Hara, 2003; Rogers, 1983; Curran, 1972). The focus is away from "teaching" and toward "learning" or, put in more recent terms, "transformative pedagogy" (O'Hara, 2003, p. 64). The goal of education is the facilitation of change and learning. Learning how to learn is more important than being taught something from the "superior" vantage point of a teacher who unilaterally decides what shall be taught. Many of our present systems of education, in prescribing curricular goals and dictating what shall be learned, deny persons both freedom and dignity. What is needed, according to Rogers, is for teachers to become facilitators of learning through the establishment of interpersonal relationships with learners. Teachers, to be facilitators, must first be real and genuine, discarding masks of superiority and omniscience. Second,

teachers need to have genuine trust, acceptance, and a prizing of the other person—the student—as a worthy, valuable individual. And third, teachers need to communicate openly and empathetically with their students, and vice versa. Teachers with these characteristics will not only understand themselves better but will also be effective teachers, who, having set the optimal stage and context for learning, will succeed in the goals of education.

We can see in Carl Rogers's humanism quite a departure from the scientific analysis of Skinnerian psychology and even from Ausubel's rationalistic theory. Rogers is not as concerned about the actual cognitive process of learning because, he feels, if the context for learning is properly created, then human beings will, in fact, learn everything they need to.

Rogers's theory is not without its flaws. The educator may be tempted to take the nondirective approach too far, to the point that valuable time is lost in the process of allowing students to "discover" facts and principles for themselves. Also, a nonthreatening environment might become so nonthreatening that the facilitative tension needed for learning is absent. There is ample research documenting the positive effects of competitiveness in a classroom, as long as that competitiveness does not damage self-esteem and hinder motivation to learn (see Bailey, 1983).

One much talked-about educational theorist in the Rogersian tradition is the well-known Brazilian educator Paolo Freire (1970), whose seminal work, *Pedagogy of the Oppressed*, has inspired many a teacher to consider the importance of the *empowerment* of students in classrooms. Freire vigorously objected to traditional "banking" concepts of education in which teachers think of their task as one of "filling" students "by making deposits of information which [they] consider to constitute true knowledge—deposits which are detached from reality" (1970, p. 62). Instead, Freire has continued to argue, students should be allowed to negotiate learning outcomes, to cooperate with teachers and other learners in a process of discovery, to engage in critical thinking, and to relate everything they do in school to their reality outside the classroom. While such "liberationist" views of education must be approached with some caution (Clarke, 1990), learners may nevertheless be empowered to achieve solutions to real problems in the real world.

The work of Rogers (1983), Freire (1970), and other educators of a similar frame of mind has contributed significantly in recent years to a redefinition of the educational process. In adapting Rogers's ideas to language teaching and learning, we need to see to it that learners understand themselves and communicate this self to others freely and nondefensively. Teachers as facilitators must therefore provide the nurturing context for learners to construct their meanings in interaction with others. When teachers rather programmatically feed students quantities of knowledge, which they subsequently devour, they may foster a climate of defensive learning in which learners try to protect themselves from failure, from criticism, from competition with fellow students, and possibly from punishment. Classroom activities and materials in language learning should therefore utilize meaningful contexts of genuine communication with students engaged together in the process of becoming "persons."

CLASSROOM CONNECTIONS

Research Findings: Both Carl Rogers and Paolo Freire stressed the importance of learner-centered classrooms where the teacher and learners negotiate learning outcomes, engage in discovery learning, and relate the course content to students' reality outside the classroom.

Teaching Implications: How have you observed these ideas in action in your own language learning experience (or teaching experience)?

The various perspectives on learning that have been outlined in this section are schematically represented in Table 4.1.

Table 4.1. Theories of learning

BEHAVIORISTIC		COGNITIVE	CONSTRUCTIVIST
Classical	Operant		
[Pavlov]	[Skinner]	[Ausubel]	[Rogers]
Respondent conditioning	Governed by consequences	Meaningful = powerful	Fully functioning person
Elicited response	Emitted response	Rote = weak	Learn how to learn
S → R	R → S (reward)	Subsumption	Community of learners
	No punishment	Association	
	Programmed instruction	Systematic forgetting	Empowerment
		Cognitive "pruning"	

Note: S = stimulus, R = response-reward

TYPES OF LEARNING

Theories of learning of course do not capture all of the possible elements of general principles of human learning. In addition to the four learning theories just considered are various taxonomies of types of human learning and other mental processes universal to all. The educational psychologist Robert Gagné (1965), for example, ably demonstrated the importance of identifying a number of *types* of learning that all human beings use. Types of learning vary according to the context and subject matter to be learned, but a complex task such as language learning involves every

one of Gagné's types of learning—from simple signal learning to problem solving. Gagné (1965, pp. 58–59) identified eight types of learning:

1. **Signal learning**. The individual learns to make a general diffuse response to a signal. This is the classical conditioned response of Pavlov.
2. **Stimulus–response learning**. The learner acquires a precise response to a discriminated stimulus. What is learned is a connection or, in Skinnerian terms, a discriminated operant, sometimes called an instrumental response.
3. **Chaining**. What is acquired is a chain of two or more stimulus-response connections. The conditions for such learning have also been described by Skinner.
4. **Verbal association**. Verbal association is the learning of chains that are verbal. Basically, the conditions resemble those for other (motor) chains. However, the presence of language in the human being makes this a special type of chaining because internal links may be selected from the individual's previously learned repertoire of language.
5. **Multiple discrimination**. The individual learns to make a number of different identifying responses to many different stimuli, which may resemble each other in physical appearance to a greater or lesser degree. Although the learning of each stimulus–response connection is a simple occurrence, the connections tend to interfere with one another.
6. **Concept learning**. The learner acquires the ability to make a common response to a class of stimuli even though the individual members of that class may differ widely from each other. The learner is able to make a response that identifies an entire class of objects or events.
7. **Principle learning**. In simplest terms, a principle is a chain of two or more concepts. It functions to organize behavior and experience. In Ausubel's terminology, a principle is a "subsumer"—a cluster of related concepts.
8. **Problem solving**. Problem solving is a kind of learning that requires the internal events usually referred to as "thinking." Previously acquired concepts and principles are combined in a conscious focus on an unresolved or ambiguous set of events.

It is apparent from just a cursory definition of these eight types of learning that some types are better explained by certain theories than others. For example, the first five types seem to fit easily into a behavioristic framework, while the last three are better explained by Ausubel's or Rogers's theories of learning. Since all eight types of learning are relevant to second language learning, the implication is that certain "lower"-level aspects of second language learning may be more adequately treated by behavioristic approaches and methods, while certain "higher"-order types of learning are more effectively taught by methods derived from a cognitive approach to learning.

The second language learning process can be further efficiently categorized and sequenced in cognitive terms by means of the eight types of learning.

1. Signal learning in general occurs in the total language process: human beings make a general response of some kind (emotional, cognitive, verbal, or nonverbal) to language.
2. Stimulus-response learning is evident in the acquisition of the sound system of a foreign language in which, through a process of conditioning and trial and error, the learner makes closer and closer approximations to nativelike pronunciation. Simple lexical items are, in one sense, acquired by stimulus-response connections; in another sense they are related to higher-order types of learning.
3. Chaining is evident in the acquisition of phonological sequences and syntactic patterns—the stringing together of several responses—although we should not be misled into believing that verbal chains are necessarily linear. Generative linguists (like McNeill, as we saw in Chapter 2) have wisely shown that sentence structure is hierarchical.
4. The fourth type of learning involves Gagné's distinction between verbal and nonverbal chains, and is not really therefore a separate type of language learning.
5. Multiple discriminations are necessary particularly in second language learning where, for example, a word has to take on several meanings, or a rule in the native language is reshaped to fit a second language context.
6. Concept learning includes the notion that language and cognition are inextricably interrelated, also that rules themselves—rules of syntax, rules of conversation—are linguistic concepts that have to be acquired.
7. Principle learning is the extension of concept learning to the formation of a linguistic system, in which rules are not isolated in rote memory, but conjoined and subsumed in a total system.
8. Finally, problem solving is clearly evident in second language learning as the learner is continually faced with sets of events that are truly problems to be solved—problems every bit as difficult as algebra problems or other "intellectual" problems. Solutions to the problems involve the creative interaction of all eight types of learning as the learner sifts and weighs previous information and knowledge in order to correctly determine the meaning of a word, the interpretation of an utterance, the rule that governs a common class of linguistic items, or a conversationally appropriate response.

It is not difficult, on some reflection, to discern the importance of varied types of learning in the second language acquisition process (see Larsen-Freeman, 1991). Teachers and researchers have all too often dismissed certain theories of learning as irrelevant or useless because of the misperception that language learning consists of only one type of learning. "Language is concept learning," say some; "Language

is a conditioning process," say others. Both are correct in that part of language learning consists of each of the above. But both are incorrect to assume that all of language learning can be so simply classified. Methods of teaching, in recognizing different levels of learning, need to be consonant with whichever aspect of language is being taught at a particular time while also recognizing the interrelatedness of all levels of language learning.

TRANSFER, INTERFERENCE, AND OVERGENERALIZATION

Human beings approach any new problem with an existing set of cognitive structures and, through insight, logical thinking, and various forms of hypothesis testing, call upon whatever prior experiences they have had and whatever cognitive structures they possess to attempt a solution. In the literature on language learning processes, three terms have commonly been singled out for explication: transfer, interference, and overgeneralization. The three terms are sometimes mistakenly considered to represent separate processes; they are more correctly understood as several manifestations of one principle of learning—the interaction of previously learned material with a present learning event. From the beginning of life the human organism, or any organism for that matter, builds a structure of knowledge by the accumulation of experiences and by the storage of aspects of those experiences in memory. Let us consider these common terms in two associated pairs.

Transfer is a general term describing the carryover of previous performance or knowledge to subsequent learning. Positive transfer occurs when the prior knowledge benefits the learning task—that is, when a previous item is correctly applied to present subject matter. Negative transfer occurs when previous performance disrupts the performance of a second task. The latter can be referred to as **interference**, in that previously learned material interferes with subsequent material—a previous item is incorrectly transferred or incorrectly associated with an item to be learned.

It has been common in second language teaching to stress the role of interference—that is, the interfering effects of the native language on the target (the second) language. It is of course not surprising that this process has been so singled out, for native language interference is surely the most immediately noticeable source of error among second language learners. The saliency of interference has been so strong that some have viewed second language learning as exclusively involving the overcoming of the effects of the native language. It is clear from learning theory that a person will use whatever previous experience he or she has had with language to facilitate the second language learning process. The native language is an obvious set of prior experiences. Sometimes the native language is negatively transferred, and we say then that interference has occurred. For example, a French native speaker might say in English, "I am in New York since January," a perfectly logical transfer of the comparable French sentence "Je suis à New York depuis janvier." Because of the negative transfer of the French verb form to English,

the French system has, in this case, interfered with the person's production of a correct English form.

It is exceedingly important to remember, however, that the native language of a second language learner is often positively transferred, in which case the learner benefits from the facilitating effects of the first language. In the above sentence, for example, the correct one-to-one word order correspondence, the personal pronoun, and the preposition have been positively transferred from French to English. We often mistakenly overlook the facilitating effects of the native language in our penchant for analyzing errors in the second language and for overstressing the interfering effects of the first language. A more detailed discussion of the syndrome is provided in Chapter 8.

In the literature on second language acquisition, interference is almost as frequent a term as **overgeneralization**, which is, of course, a particular subset of generalization. Generalization is a crucially important and pervading strategy in human learning. To generalize means to infer or derive a law, rule, or conclusion, usually from the observation of particular instances. The principle of generalization can be explained by Ausubel's concept of meaningful learning. Meaningful learning is, in fact, generalization: items are subsumed (generalized) under higher-order categories for meaningful retention. Much of human learning involves generalization. The learning of concepts in early childhood is a process of generalizing. A child who has been exposed to various kinds of animals gradually acquires a generalized concept of "animal." That same child, however, at an early stage of generalization, might in his or her familiarity with dogs see a horse for the first time and overgeneralize the concept of "dog" and call the horse a dog. Similarly, a number of animals might be placed into a category of "dog" until the general attributes of a larger category, "animal," have been learned.

In second language acquisition it has been common to refer to overgeneralization as a process that occurs as the second language learner acts within the target language, generalizing a particular rule or item in the second language—irrespective of the native language—beyond legitimate bounds. We have already observed that children, at a particular stage of learning English as a native language, overgeneralize regular past tense endings (*walked, opened*) as applicable to all past tense forms (*goed, flied*) until they recognize a subset of verbs that belong in an "irregular" category. After gaining some exposure and familiarity with the second language, second language learners similarly will overgeneralize within the target language. Typical examples in learning English as a second language are past tense regularization and utterances like "John doesn't can study" (negativization requires insertion of the *do* auxiliary before verbs) or "He told me when should I get off the train" (indirect discourse requires normal word order, not question word order, after the *wh-* word). Unaware that these rules have special constraints, the learner overgeneralizes. Such overgeneralization is committed by learners of English from almost any native language background. (Chapter 8 gives a more detailed discussion of linguistic overgeneralization.)

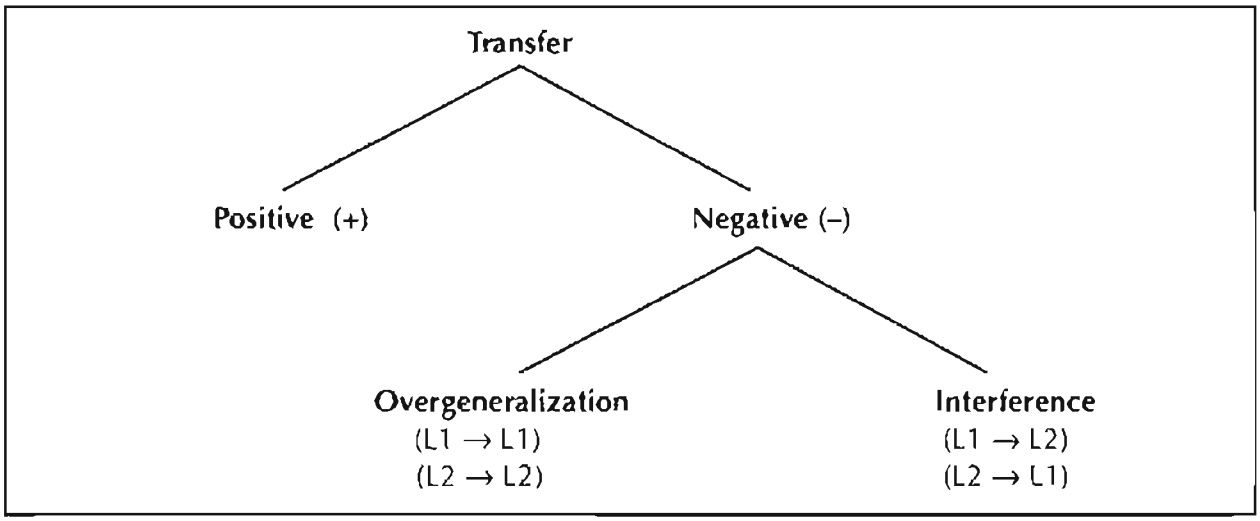

Figure 4.3. Transfer, overgeneralization, and interference

Many have been led to believe that there are only two processes of second language acquisition: interference and overgeneralization. This is obviously a misconception. First, interference and overgeneralization are the negative counterparts of the facilitating processes of transfer and generalization. (See Figure 4.3.) Second, while they are indeed aspects of somewhat different processes, they represent fundamental and interrelated components of all human learning, and when applied to second language acquisition, are simply extensions of general psychological principles. Interference of the first language in the second is simply a form of generalizing that takes prior first language experiences and applies them incorrectly. Overgeneralization is the incorrect application—negative transfer—of previously learned second language material to a present second language context. All generalizing involves transfer, and all transfer involves generalizing.

INDUCTIVE AND DEDUCTIVE REASONING

Inductive and deductive reasoning are two polar aspects of the generalization process. In the case of **inductive reasoning**, one stores a number of specific instances and induces a general law or rule or conclusion that governs or subsumes the specific instances. **Deductive reasoning** is a movement from a generalization to specific instances: specific subsumed facts are inferred or deduced from a general principle. Second language learning in the "field" (natural, untutored language learning), as well as first language learning, involves a largely inductive process, in which learners must infer certain rules and meanings from all the data around them.

Classroom learning tends to rely more than it should on deductive reasoning. Traditional—especially Grammar Translation—methods have overemphasized the use of deductive reasoning in language teaching. While it may be appropriate at times to articulate a rule and then proceed to its instances, most of the evidence in

communicative second language learning points to the superiority of an inductive approach to rules and generalizations. However, both inductively and deductively oriented teaching methods can be effective, depending on the goals and contexts of a particular language teaching situation.

An interesting extension of the inductive/deductive dichotomy was reported in Peters's (1981) case study of a child learning a first language. Peters pointed out that we are inclined, too often, to assume that a child's linguistic development proceeds from the parts to the whole, that is, children first learn sounds, then words, then sentences, and so forth. However, Peters's subject manifested a number of "Gestalt" characteristics, perceiving the whole before the parts. The subject demonstrated the perception of these wholes in the form of intonation patterns that appeared in his speech well before the particular words that would make up sentences. Peters cited other evidence of Gestalt learning in children and concluded that such "sentence learners" (vs. "word learners") may be more common than researchers had previously assumed.

The implications of Peters's study for second language teaching are rather tantalizing. We should perhaps pay close attention to learners' production of overall, meaning-bearing intonation patterns. Wong (1986) capitalizes on just such a concept in a discussion of teaching communicative oral production.

LANGUAGE APTITUDE

The learning theories, types of learning, and other processes that have so far been explained in this chapter deal with mental perception, storage, and recall. Little has been said about a related and somewhat controversial issue in second language acquisition research: **language aptitude**. The questions are:

1. Is there an ability or "talent" that we can call foreign language aptitude?
2. If so, what is it, and is it innate or environmentally "nurtured"?
3. Is it a distinct ability or is it an aspect of general cognitive abilities?
4. Does aptitude vary by age and by whether learning is implicit or explicit?
5. Can aptitudinal factors be reliably measured?
6. If so, are they predictive of success in learning a foreign language?

Do certain people have a "knack" for learning foreign languages? Anecdotal evidence would suggest that, for a variety of causal factors, some people are indeed able to learn languages faster and more efficiently than others. One perspective of looking at such aptitude is the identification of a number of characteristics of successful language learners. Risk-taking behavior, memory efficiency, intelligent guessing, and ambiguity tolerance are but a few of the many variables that have been cited (Robinson, 2005; Dörnyei & Skehan, 2003; Brown, 1991; Rubin & Thompson, 1982, among others). Such factors will be the focus of the next chapter in this book.

A more traditional way of examining what we mean by aptitude is through a historical progression of research that began around the middle of the twentieth century with John Carroll's (Carroll & Sapon, 1958) construction of the Modern Language Aptitude Test (MLAT). The MLAT required prospective language learners (before they began to learn a foreign language) to perform such tasks as learning numbers, discriminating sounds, detecting spelling clues and grammatical patterns, and memorizing word meanings, all either in the native language, English, or utilizing words and morphemes from a constructed, hypothetical language. The MLAT was considered to be independent of a specific foreign language, and therefore predictive of success in the learning of any language. This test, along with similar aptitude tests such as the Pimsleur Language Aptitude Battery (PLAB) (Pimsleur, 1966) and the Defense Language Aptitude Battery (DLAB) (Peterson & Al Haik, 1976) were used for some time in such contexts as Peace Corps volunteer training programs and military communications courses to help predict successful language learners.

In the decade or so following their publication, the above-mentioned aptitude tests were reasonably well received by foreign language teachers and administrators, especially in view of their reportedly high correlations with ultimate success in language classrooms. But slowly, their popularity steadily waned, with few attempts to experiment with alternative measures of language aptitude (Skehan, 1998; Parry & Child, 1990). Two factors accounted for this decline. First, even though the MLAT and the PLAB claimed to measure language aptitude, it soon became apparent that they probably reflected the general intelligence or academic ability of a student in any instructional setting (see Skehan, 1989a). At best, they appeared to measure ability to perform focused, analytical, **context-reduced** activities that occupy a student in a traditional language classroom. They hardly even began to tap into the kinds of learning strategies and styles that recent research (Chamot, 2005; Cohen, 1998; Oxford, 1996, 1990b; Reid, 1995; Ehrman, 1990) has shown to be crucial in the acquisition of communicative competence in **context-embedded** situations. As we will see in the next chapter, learners can be successful for a multitude of reasons, many of which are much more related to motivation and determination than to so-called "native" abilities (Lett & O'Mara, 1990).

Second, how is one to interpret a language aptitude test? Rarely does an institution have the luxury or capability to test people before they take a foreign language in order to counsel certain people out of their decision to do so. And in cases where an aptitude test might be administered, such a test clearly biases both student and teacher. Both are led to believe that they will be successful or unsuccessful, depending on the aptitude test score, and a self-fulfilling prophecy is likely to occur. It is better for teachers to be optimistic for students, and in the early stages of a student's process of language learning, to monitor styles and strategies carefully, leading the student toward strategies that will aid in the process of learning and away from those blocking factors that will hinder the process.

Until very recently, only few isolated efforts continued to address foreign language aptitude and success (Harley & Hart, 1997; Sasaki, 1993a, 1993b). Then, a

new era of aptitude research seemed to have been launched with Skehan's (1998) renewed attempts to pursue the construct of aptitude. He exposed some of the weaknesses of previous aptitude constructs, and suggested that aptitude may be related to a cognitive view of second language acquisition that incorporates input processing, inductive language learning, output strategies, and fluency.

Then, with the birth of the new millennium, we saw a resurgence of interest language aptitude (Robinson, 2005, 2002, 2001; Dörnyei & Skehan, 2003; Skehan, 2002; Grigorenko, Sternberg, & Ehrman, 2000). Grigorenko, Sternberg, & Ehrman (2000) proposed an aptitude battery based on Robert Sternberg's theory of intelligence (see the next section in this chapter), the CANAL-F test (Cognitive Ability for Novelty in Acquisition of Language—Foreign). This battery differs from previous ones in its involvement of the test taker in a process of learning a simulated language embedded in a multifaceted language context. Further, it is dynamic rather than static in that it measures the ability to learn at the time of taking the test.

Dörnyei and Skehan (2003) followed up on the renewed interest in aptitude with the suggestion that aptitude may be related to various "stages," or what might also be called **processes**, of second language acquisition. So, for example, aptitude constructs such as attention and short-term memory could be relevant for processing of input in a foreign language; phonemic coding ability could contribute to noticing of phonological patterns; and aptitude constructs like inductive learning, chunking, and retrieval abilities may allow a learner to identify and integrate grammatical patterns. Dörnyei and Skehan also cite other research to conclude that "aptitude is relevant not simply for conventional, explicit, rule-focused teaching contexts, but also when the learning is implicit [in natural contexts]" (p. 600).

Finally, Peter Robinson's (2005, 2002, 2001) continued work on aptitude issues probes other questions about language aptitude. Of significant interest is his specification of a host of possible abilities that extend well beyond the original abilities in Carroll's (Carroll & Sapon, 1959) early work. Robinson (2005) suggested that aptitude is a complex of abilities that include, among others, processing speed, short- and long-term memory, rote memory, planning time, pragmatic abilities, interactional intelligence, emotional intelligence, and self-efficacy.

So today the search for verifiable factors that make up aptitude, or the "knack" for learning a foreign language, is headed in the direction of a broader spectrum of learner characteristics. Some of those characteristics fall into the question of intelligence—what is it, and how it relates to language learning—and others are matters of learning styles and strategies which we will deal with in Chapter 5. We address the issue of intelligence next.

INTELLIGENCE AND LANGUAGE LEARNING

Questions about language aptitude invariably lead to the use of the word "intelligence," a common, everyday word but one that has a multiplicity of denotations and connotations. What is intelligence? How is intelligence defined in terms of

the *foreign* language learning process? And more specifically, what *kinds* of intelligence are related to foreign language learning?

Intelligence has traditionally been defined and measured in terms of linguistic and logical-mathematical abilities. Our notion of IQ (Intelligence Quotient) is based on several generations of testing of these two domains, stemming from the research of Alfred Binet early in the twentieth century. Success in educational institutions and in life in general seems to be a correlate of high IQ. In terms of Ausubel's meaningful learning model, high intelligence would no doubt imply a very efficient process of storing items that are particularly useful in building conceptual hierarchies and systematically pruning those that are not useful. Other cognitive psychologists have dealt in a much more sophisticated way with memory processing and recall systems.

In relating intelligence to second language learning, can we say simply that a "smart" person will be capable of learning a second language more successfully because of greater intelligence? After all, the greatest barrier to second language learning seems to boil down to a matter of memory, in the sense that if you could just remember everything you were ever taught, or you ever heard, you would be a very successful language learner. Or would you? It appears that our "language learning IQs" are much more complicated than that.

Howard Gardner (1999, 1983) advanced a controversial theory of intelligence that blew apart our traditional thoughts about IQ. Initially, Gardner (1983) described seven different intelligences which, in his view, provided a much more comprehensive picture of intelligence. Since then, he has added one more intelligence (naturalist), and has even toyed with further possible forms of intelligence (spiritual, existential, moral) (Gardner, 2004, 1999). Beyond the traditional two forms of intelligence (listed as 1 and 2 below), the following eight **multiple intelligences** are typically listed in Gardner's work:

1. Linguistic
2. Logical-mathematical
3. Musical (the ability to perceive and create pitch and rhythmic patterns)
4. Spatial (the ability to find one's way around an environment, to form mental images of reality, and to transform them readily)
5. Bodily-kinesthetic (fine motor movement, athletic prowess)
6. Naturalist (sensitivity to natural objects (plants, animals, clouds)
7. Interpersonal (the ability to understand others, how they feel, what motivates them, how they interact with one another)
8. Intrapersonal intelligence (the ability to see oneself, to develop a sense of self-identity)

Gardner maintained that by looking only at the first two categories we rule out a great number of the human being's mental abilities; we see only a portion of the total capacity of the human mind. Moreover, he showed that our traditional definitions of intelligence are culture-bound. The "sixth sense" of a hunter in New

Guinea or the navigational abilities of a sailor in Micronesia are not accounted for in our Westernized definitions of IQ. His more recent work (Gardner, 2004) has focused on applications of his multiple intelligences theory to daily human interactions as we manipulate those around us in order to accomplish a variety of purposes.

In a likewise revolutionary style, Robert Sternberg (1988, 1985) has also shaken up the world of traditional intelligence measurement. In his **triarchic** view of intelligence, Sternberg proposed three types of "smartness":

- Componential ability for analytical thinking
- Experiential ability to engage in creative thinking, combining disparate experiences in insightful ways
- Contextual ability: "Street smartness" that enables people to "play the game" of manipulating their environment (others, situations, institutions, contexts)

Sternberg contended that too much of psychometric theory is obsessed with mental speed, and therefore dedicated his research to tests that measure insight, real-life problem solving, "common sense," getting a wider picture of things, and other practical tasks that are closely related to success in the real world. Like Gardner, Sternberg has also recently provided a practical dimension to his research in publications that demonstrated how practical and creative intelligence can determine one's success in life (Sternberg, 2003, 1997).

Finally, in another effort to remind us of the bias of traditional definitions and tests of intelligence, Daniel Goleman's work on **emotional intelligence** (1998, 1995; Merlevede, Bridoux, & Vandamme, 2001) is persuasive in placing emotion, or what might be called **EQ** (Emotional Quotient), at the seat of intellectual functioning. The management of even a handful of core emotions—anger, fear, enjoyment, love, disgust, shame, and others—drives and controls efficient mental or cognitive processing. Even more to the point, Goleman argued that "the emotional mind is far quicker than the rational mind, springing into action without even pausing to consider what it is doing. Its quickness precludes the deliberate, analytic reflection that is the hallmark of the thinking mind" (Goleman, 1995, p. 291). Gardner's seventh and eighth types of intelligence (interpersonal and intrapersonal) are of course laden with emotional processing, but Goleman would place emotion at the highest level of a hierarchy of human abilities.

By expanding constructs of intelligence as Gardner, Sternberg, and Goleman have done, we can more easily discern a relationship between intelligence and second language learning. In its traditional definition, intelligence may have little to do with one's success as a second language learner: people within a wide range of IQs have proven to be successful in acquiring a second language. But Gardner attaches other important attributes to the notion of intelligence, attributes that could be crucial to second language success. Musical intelligence could explain the relative ease that some learners have in perceiving and producing the intonation patterns of a language. Music also appears to provide a natural facilitator of learning,

as McGinn, Stokes, and Trier (2005) recently demonstrated. Bodily-kinesthetic modes have already been discussed in connection with the learning of the phonology of a language. Interpersonal intelligence is of obvious importance in the communicative process. Intrapersonal factors will be discussed in detail in Chapter 6 of this book. One might even be able to speculate on the extent to which spatial intelligence, especially a "sense of direction," may assist the second culture learner in growing comfortable in a new environment. Sternberg's experiential and contextual abilities cast further light on the components of the "knack" that some people have for quick, efficient, unabashed language acquisition. Finally, the EQ (emotional quotient) suggested by Goleman may be far more important than any other factor in accounting for second language success both in classrooms and in untutored contexts.

Educational institutions have recently been applying Gardner's multiple intelligences to a variety of school-oriented contexts. Thomas Armstrong (1994, 1993), for example, focused teachers and learners on "seven ways of being smart," and helped educators to see that linguistics and logical-mathematical intelligences are not the only pathways to success in the real world. A high IQ in the traditional sense may garner high scholastic test scores, but may not indicate success in business, marketing, art, communications, counseling, or teaching. In foreign language education, Christison (2005, 1999) and others have been successfully applying the concept of multiple intelligences to teaching English as a second or foreign language by showing how each intelligence relates to certain demands in the classroom.

Quite some time ago, Oller suggested, in an eloquent essay, that intelligence may after all be language-based. "Language may not be merely a vital link in the social side of intellectual development, it may be the very foundation of intelligence itself" (1981a, p. 466). According to Oller, arguments from genetics and neurology suggest "a deep relationship, perhaps even an identity, between intelligence and language ability" (p. 487). The implications of Oller's hypothesis for second language learning are enticing. Both first and second languages must be closely tied to meaning in its deepest sense. Effective second language learning thus links surface forms of a language with meaningful experiences, as we have already noted in Ausubel's learning theory. The strength of that link may indeed be a factor of intelligence in a multiple number of ways.

LEARNING THEORIES IN ACTION: TWO LANGUAGE TEACHING METHODS IN CONTRAST

Implications of learning theories for the language classroom have been cited frequently in this chapter. But two language teaching methods that emerged in the last century of language teaching may be of particular interest in this regard. The Audiolingual method, inspired by behavioristic principles, and Community Language Learning, a direct attempt to apply Carl Rogers's theories, are in stark contrast with each other. We look at these two methods here.

The Audiolingual Method

The outbreak of World War II thrust the United States into a worldwide conflict, heightening the need for Americans to become orally proficient in the languages of both their allies and their enemies. The time was ripe for a language-teaching revolution. The U.S. military provided the impetus with funding for special, intensive language courses that focused on the aural/oral skills; these courses came to be known as the Army Specialized Training Program (ASTP), or, more colloquially, the "Army Method." Characteristic of these courses was a great deal of oral activity—pronunciation and pattern drills and conversation practice—with virtually none of the grammar and translation found in traditional classes. It was ironic that numerous foundation stones of the now somewhat unpopular Direct Method were borrowed and injected into this new approach. Soon, the success of the Army Method and the revived national interest in foreign languages spurred educational institutions to adopt the new methodology. In all its variations and adaptations, the Army Method came to be known in the 1950s as the **Audiolingual Method** (ALM).

The ALM was firmly grounded in linguistic and psychological theory. Structural linguists of the 1940s and 1950s had been engaged in what they claimed was a "scientific descriptive analysis" of various languages, and teaching methodologists saw a direct application of such analysis to teaching linguistic patterns (Fries, 1945). At the same time, behavioristic psychologists advocated conditioning and habit-formation models of learning. The classical and operant conditioning models described earlier in this chapter provided the perfect foundation for the mimicry drills and pattern practices so typical of audiolingual methodology.

The characteristics of the ALM may be summed up in the following list (adapted from Prator & Celce-Murcia, 1979):

1. New material is presented in dialog form.
2. There is dependence on mimicry, memorization of set phrases, and overlearning.
3. Structures are sequenced by means of contrastive analysis and taught one at a time.
4. Structural patterns are taught using repetitive drills.
5. There is little or no grammatical explanation: grammar is taught by inductive analogy rather than deductive explanation.
6. Vocabulary is strictly limited and learned in context.
7. There is much use of tapes, language labs, and visual aids.
8. Great importance is attached to pronunciation.
9. Very little use of the mother tongue by teachers is permitted.
10. Successful responses are immediately reinforced.
11. There is a great effort to get students to produce error-free utterances.
12. There is a tendency to manipulate language and disregard content.

For a number of reasons the ALM enjoyed many years of popularity, and even to this day, adaptations of the ALM are found in contemporary methodologies. The ALM was firmly rooted in respectable theoretical perspectives at the time. Materials were carefully prepared, tested, and disseminated to educational institutions. "Success" could be more overtly experienced by students as they practiced their dialogs in off-hours.

But the popularity did not last forever. Due in part to Wilga Rivers's (1964) eloquent exposure of the shortcomings of the ALM, and its ultimate failure to teach long-term communicative proficiency, its popularity waned. We discovered that language was not really acquired through a process of habit formation and overlearning, that errors were not necessarily to be avoided at all costs, and that structural linguistics did not tell us everything about language that we needed to know. While the ALM was a valiant attempt to reap the fruits of language teaching methodologies that had preceded it, in the end it still fell short, as all methods do. But we learned something from the very failure of the ALM to do everything it had promised, and we moved forward.

Community Language Learning

The age of audiolingualism, with its emphasis on surface forms and on the rote practice of scientifically produced patterns, began to wane when the Chomskyan revolution in linguistics turned linguists and language teachers toward the "deep structure" of language and when psychologists began to recognize the fundamentally affective and interpersonal nature of all learning. The decade of the 1970s was a chaotic but exceedingly fruitful era during which second language research not only came into its own but also began to inspire innovative methods for language teaching. As we increasingly recognized the importance of both cognitive and affective factors in second language learning, certain teaching methods came into vogue.

These methods attempted to capitalize on the perceived importance of psychological factors in language learners' success. At the same time they were touted as "innovative" and "revolutionary," especially when compared to Audiolingual or Grammar Translation methodology. Claims for their success, originating from their proprietary founders and proponents, were often overstated in the interest of attracting teachers to weekend workshops and seminars, to new books, tapes and videos, and, of course, to getting their learners to reach the zenith of their potential. These claims, often overstated and overgeneralized, led David Nunan (1989, p. 97) to refer to the methods of the day as "designer" methods: promises of success, one size fits all!

Despite the overly strong claims that were made for such methods, they were an important part of our language teaching history, and they gave us some insights about language learning that still enlighten our teaching practices. We look at one such "designer" method here, Community Language Learning (CLL), expressly constructed to put Carl Rogers's theory of learning into action.

In his "Counseling-Learning" model of education, Charles Curran (1972) was inspired by Carl Rogers's view of education (Rogers, 1951) in which students and teacher join together to facilitate learning in a context of valuing and prizing each individual in the group. In such a surrounding, each person lowers the defenses that prevent open, interpersonal communication. The anxiety caused by the educational context is lessened by means of the supportive community. The teacher's presence is not perceived as a threat, nor is it the teacher's purpose to impose limits and boundaries; rather, as a "counselor," the teacher's role is to center his or her attention on the clients (the students) and their needs.

Curran's model of education was extended to language learning contexts in the form of **Community Language Learning** (CLL) (LaForge, 1971). While particular adaptations of CLL are numerous, the basic methodology was explicit. The group of clients (learners), having first established in their native language an interpersonal relationship and trust, are seated in a circle with the counselor (teacher) on the outside of the circle. The students may be complete beginners in the foreign language. When one of them wishes to say something to the group or to an individual, he or she says it in the native language (say, English) and the counselor translates the utterance back to the learner in the second language (say, Japanese). The learner then repeats that Japanese sentence as accurately as possible. Another client responds, in English; the utterance is translated by the counselor; the client repeats it; and the conversation continues. If possible the conversation is taped for later listening, and at the end of each session the learners together inductively attempt to glean information about the new language. If desirable, the counselor may take a more directive role and provide some explanation of certain linguistic rules or items.

As the learners gain more and more familiarity with the foreign language, more and more direct communication can take place, with the counselor providing less and less direct translation and information, until after many sessions, even months or years later, the learner achieves fluency in the spoken language. The learner has at that point become independent.

There are advantages and disadvantages to a method like CLL. CLL is an attempt to put Carl Rogers's philosophy into action and to overcome some of the threatening affective factors in second language learning. But there are some practical and theoretical problems with CLL. The counselor-teacher can become too nondirective. While some intense inductive struggle is a necessary component of second language learning, the initial grueling days and weeks of floundering in ignorance in CLL could be alleviated by more directed, deductive learning: by being told. Perhaps only later, when the learner has moved to more independence, is an inductive strategy really successful. And, of course, the success of CLL depends largely on the translation expertise of the counselor. Translation is an intricate and complex process that is often easier said than done; if subtle aspects of language are mistranslated, there could be a less than effective understanding of the target language.

Despite its weaknesses, CLL offers certain insights to teachers. We are reminded to lower learners' anxiety, to create as much of a supportive group in our classrooms as possible, to allow students to initiate language, and to point learners

toward autonomous learning in preparation for the day when they no longer have the teacher to guide them. And while we are certainly offered an example of a method that diverged completely from the behaviorally inspired ALM, we are also reminded that most effective language classrooms manifest bits and pieces of *both* of these contrasting methods. We are reminded of our need to be eclectically judicious in selecting tasks for our lessons.

We have much to gain from the understanding of learning principles that have been presented in this chapter, of the various ways of understanding what intelligence is, and of how research on learning has been applied to the language classroom. Some aspects of language learning may call upon a conditioning process (as highlighted in the ALM); other aspects require a meaningful cognitive process; others depend upon the security of supportive co-learners interacting freely and willingly with one another (as exemplified in CLL); still others are related to one's total intellectual structure. Each aspect is important, but there is no consistent amalgamation of theory that works for every context of second language learning. Each teacher has to adopt a somewhat intuitive process of discerning the best synthesis of theory for an enlightened analysis of the particular context at hand. That intuition will be nurtured by an integrated understanding of the appropriateness and of the strengths and weaknesses of varied perspectives on learning.

TOPICS AND QUESTIONS FOR STUDY AND DISCUSSION

Note: (I) individual work; (G) group or pair work; (C) whole-class discussion.

1. (G) The class should be divided into four groups, with one of the four learning theorists discussed in the chapter assigned to each group. Tasks for the groups are to "defend" their particular theory as the most insightful or complete. To do so, each group will need to summarize strengths and to anticipate arguments from other groups.
2. (C) The results of the four groups' findings can be presented to the rest of the class in a "debate" about which learning theory has the most to contribute to understanding the SLA process.
3. (C) Tease apart the distinction between elicited and emitted responses. Can you specify some operants that are emitted by the learner in a foreign language class? And some responses that are elicited? Specify some of the reinforcers that are present in language classes. How effective are certain reinforcers?
4. (I) Skinner felt that punishment, or negative reinforcement, was just another way of calling attention to undesired behavior and therefore should be avoided. Do you think correction of student errors in a classroom is negative

reinforcement? How can error treatment be given a positive spin, in Skinnerian terms?

5. (G) List some activities you consider to be rote and others that are meaningful in foreign language classes you have taken (or are teaching). Do some activities fall into a gray area between the two? Evaluate the effectiveness of all the activities your group has listed. Share your conclusions with the rest of the class.
6. (G) In pairs, quickly brainstorm some examples of "cognitive pruning" or systematic forgetting that occur in a foreign language classroom. For example, do definitions fall into this category? Or grammatical rules? Cite some ways that a teacher might foster such pruning.
7. (C) In one sense Skinner, Ausubel, and Rogers represent quite different points of view—at least they focus on different facets of human learning. Do you think it is possible to synthesize the three points of view? In what way are all three psychologists expressing the "truth"? In what way do they differ substantially? Try to formulate an integrated understanding of human learning by taking the best of all three points of view. Does your integrated theory tell you something about how people learn a second language? About how you should teach a second language?
8. (G) Look back at the section on foreign language aptitude. From what you have learned, what factors do you think should be represented in a comprehensive test of aptitude? Compare your group's suggestions with those of other groups.
9. (G/C) The class should be divided into as many as eight pairs. To each pair, assign one of Gardner's eight multiple intelligences. (Additional pairs could tackle Gardner's proposed spiritual, existential, and moral intelligences.) In your group, brainstorm typical language classroom activities or techniques that foster your type of intelligence. Make a list of your activities and compare it with the other lists.

SUGGESTED READINGS

Lightbown, P., & Spada, N. (1993). *How languages are learned.* Oxford: Oxford University Press.

Williams, M., & Burden, R. (1997). *Psychology for language teachers: A social constructivist approach.* Cambridge, UK: Cambridge University Press.

These two introductory SLA textbooks, written in language that is comprehensible to first-level graduate students, provide useful summaries of theories of learning, including some perspectives that were not covered in this chapter.

Robinson, P. (2005). Aptitude and L2 acquisition. *Annual Review of Applied Linguistics, 25*, 46-73.

Skehan, P. (2002). Theorising and updating aptitude. In P. Robinson (Ed.), *Individual differences and instructed language learning* (pp. 69–93). Amsterdam: Benjamins.

Research on language aptitude was in a period of quiescence for several decades until recently, when research on the issue was revived. In these two articles, Peter Robinson and Peter Skehan offer informative summaries of current developments in research on language aptitude.

Gardner, H. (2004). *Changing minds.* Boston, MA: Harvard Business School Press.

Goleman, D. (1998). *Working with emotional intelligence.* New York: Bantam Books.

Sternberg, R. (2003). *Wisdom, intelligence, and creativity synthesized.* New York: Cambridge University Press.

These three books demonstrate the evolution of the work of the three intelligence researchers, Howard Gardner, Daniel Goleman, and Robert Sternberg, now addressed to lay audiences. They show how their views of "smartness" can be applied to everyday situations and problems and relationships. While these books are not focused on language acquisition, some of the advice contained therein can be adapted to language learning.

LANGUAGE LEARNING EXPERIENCE: JOURNAL ENTRY 4

Note: See pages 21 and 22 of Chapter 1 for general guidelines for writing a journal on a previous or concurrent language learning experience.

- If you had to classify your approach to learning a foreign language, would it be more Skinnerian, Ausubelian, or Rogersian? Or a combination of them?
- Sometimes teachers don't give students opportunities to *emit* language in the classroom, and just keep *eliciting* too much. Sometimes it's the other way around. What is your experience? If you feel (or have felt) that you don't have enough chances to volunteer to speak, what can (could) you do to change that pattern?
- Rogers recommended "nondefensive" learning. Do you feel that you are learning to defend yourself against the teacher's disapproval, or against your classmates, or against bad grades? Are your classmates your allies or competitors?
- Short of actually taking a traditional language aptitude test, how would you assess your own "knack" for learning languages? Whether your self-assessment is high or low, what do you think are key components of high language aptitude? Can you "learn" some of those abilities?

- Do any of Gardner's eight types of intelligence strike you as being crucial to your success in your foreign language? Or how about Sternberg's three views of intelligence? Or Goleman's EQ? Are there any intelligences that you underutilize? What can you do about that?
- Have you been taught with either Audiolingual techniques (rote repetition and drills) or CLL-like activities (small, supportive groups that are encouraged to initiate your own utterances), discussed at the end of the chapter? If so, what is (was) your assessment of their effectiveness?

CHAPTER 5

STYLES AND STRATEGIES

THEORIES OF learning, Gagné's "types" of learning, transfer processes, and aptitude and intelligence models are all attempts to describe universal human traits in learning. They seek to explain globally how people perceive, filter, store, and recall information. Such processes, the unifying theme of the previous chapter, do not account for the plethora of differences *across* individuals in the way they learn, or for differences *within* any one individual. While we all exhibit inherently human traits of learning, every individual approaches a problem or learns a set of facts or organizes a combination of feelings from a unique perspective. This chapter deals with cognitive variations in learning a second language, i.e., variations in learning styles that differ across individuals, and in strategies employed by individuals to attack particular problems in particular contexts.

PROCESS, STYLE, AND STRATEGY

Before we look specifically at some styles and strategies of second language learning, a few words are in order to explain the differences among process, style, and strategy as the terms are used in the literature on second language acquisition. Historically, there has been some confusion in the use of these three terms, and even in recent literature you will find some variations in uses of the terms. Cohen (1998), for example, likes to refer to strategies that are habitual and no longer in the learner's conscious control as "processes." And so it is important to carefully define these terms here at the outset.

Process is the most general of the three concepts, and was essentially the focus of the previous chapter. All human beings engage in certain universal processes. Just as we all need air, water, and food for our survival, so do all humans of normal intelligence engage in certain levels or types of learning. Human beings universally make stimulus-response connections and are driven by reinforcement. We all engage in association, meaningful and rote storage, transfer, generalization, and interference. Everyone has some degree of aptitude for learning a second language that may be described by specified verbal learning processes. We all possess, in varying

proportions, abilities in a multiplicity of intelligences. Process is characteristic of every human being.

Style is a term that refers to consistent and rather enduring tendencies or preferences within an individual. Styles are those general characteristics of intellectual functioning (and personality type, as well) that pertain to you as an individual, and that differentiate you from someone else. For example, you might be more visually oriented, more tolerant of ambiguity, or more reflective than someone else—these would be styles that characterize a general or dominant pattern in your thinking or feeling. So styles vary *across* individuals.

Strategies are specific methods of approaching a problem or task, modes of operation for achieving a particular end, planned designs for controlling and manipulating certain information. Oxford & Ehrman (1998, p. 8) defined second language learning strategies as "specific actions, behaviors, steps, or techniques . . . used by students to enhance their own learning." They are contextualized "battle plans" that might vary from moment to moment, or from one situation to another, or even from one culture to another. Strategies vary *within* an individual. Each of us has a number of possible options for solving a particular problem, and we choose one—or several in sequence—for a given "problem" in learning a second language.

As we turn to a study of styles and strategies in second language learning, we can benefit by understanding these "layers of an onion," or points on a continuum, ranging from universal properties of learning to specific intraindividual variations in learning.

LEARNING STYLES

A few years ago I landed at the Naples, Italy, airport at 3:00 A.M., after a harrowing day of missed flights, delays, and rerouting that had started early the previous morning in Barcelona. The airport was practically deserted, and to top it off, my luggage was missing! No one at that hour could speak English and my Italian was limited to a couple of handy phrases that were now useless to me. What did I do?

With a style that tends to be generally **tolerant of ambiguity**, I first told myself not to get flustered, and to remain calm in spite of my fatigue and frustration. My **left-brain** style told me to take practical, logical steps and to focus only on the important details of the moment. Simultaneously, my sometimes equally strong propensity to use a **right-brain** approach allowed me to empathize with airport personnel and to use numerous alternative communicative strategies to get messages across. I was **reflective** enough to be patient with miscommunications and my inability to communicate well, yet **impulsive** to the extent that I needed to insist on some action as soon as possible.

The way we learn things in general and the way we attack a problem seem to hinge on a rather amorphous link between personality and cognition; this link is referred to as **cognitive style**. When cognitive styles are specifically related to an

educational context, where affective and physiological factors are intermingled, they are usually more generally referred to as **learning styles**.

Learning styles might be thought of as "cognitive, affective, and physiological traits that are relatively stable indicators of how learners perceive, interact with, and respond to the learning environment" (Keefe, 1979, p. 4). Or, more simply, Skehan (1991, p. 288) defined learning style as "a general predisposition, voluntary or not, toward processing information in a particular way." In the enormous task of learning a second language, one that so deeply involves affective factors, a study of learning style brings important variables to the forefront. Such styles can contribute significantly to the construction of a unified theory of second language acquisition.

Learning styles mediate between emotion and cognition, as you will soon discover. For example, a **reflective style** invariably grows out of a reflective personality or a reflective mood. An **impulsive style**, on the other hand, usually arises out of an impulsive emotional state. People's styles are determined by the way they internalize their total environment, and since that internalization process is not strictly cognitive, we find that physical, affective, and cognitive domains merge in learning styles. Some would claim that styles are stable traits in adults. This is a questionable view, as noted by Dörnyei and Skehan (2003, p. 602): "A predisposition may be deep-seated, but it does imply some capacity for flexibility, and scope for adaptation of particular styles to meet the demands of particular circumstances." It would appear that individuals show general tendencies toward one style or another, but that differing contexts will evoke differing styles in the same individual. Perhaps an "intelligent" and "successful" person is one who is "bicognitive"—one who can manipulate both ends of a style continuum.

If I were to try to enumerate all the learning styles that educators and psychologists have identified, a very long list of just about every imaginable sensory, communicative, cultural, affective, cognitive, and intellectual factor would emerge. From early research by Ausubel (1968, p. 171) and Hill (1972) on general learning in all subject matter content, to more recent research on second language acquisition in particular (Ehrman & Leaver, 2003; Wintergerst, DeCapua, & Itzen, 2001, Cohen, 1998; Ehrman, 1996; Oxford & Anderson, 1995; Reid, 1995), literally dozens of different styles have been identified. Ehrman and Leaver (2003) researched the relevance of nine such styles to second language acquisition:

1. Field independence-dependence
2. Random (non-linear) vs. sequential (linear)
3. Global vs. particular
4. Inductive vs. deductive
5. Synthetic vs. analytic
6. Analogue vs. digital
7. Concrete vs. abstract
8. Leveling vs. sharpening
9. Impulsive vs. reflective

Other researchers (Brown, 2002; Reid, 1995; Danesi, 1988; Chapelle & Roberts, 1986; Chapelle, 1983; Stevick, 1982) have added yet other factors, including left- and right-brain styles, ambiguity tolerance, and visual/auditory/kinesthetic styles, to the list of potentially significant contributors to successful acquisition. Five of these have been selected, because of their relevance to teaching, for consideration in the next sections.

Field Independence

Do you remember, in those coloring books you pored over as a child, a picture of a forest scene with exotic trees and flowers, and a caption saying, "Find the hidden monkeys in the trees"? If you looked carefully, you soon began to spot them, some upside-down, some sideways, some high and some low, a dozen or so monkeys camouflaged by the lines of what at first sight looked like just leaves and trees. The ability to find those hidden monkeys hinged upon your **field independent** style: your ability to perceive a particular, relevant item or factor in a "field" of distracting items. In general psychological terms, that field may be perceptual, or it may be more abstract and refer to a set of thoughts, ideas, or feelings from which your task is to perceive specific relevant subsets. **Field dependence** is, conversely, the tendency to be "dependent" on the total field so that the parts embedded within the field are not easily perceived, although that total field is perceived more clearly as a unified whole. Field dependence is synonymous with **field sensitivity**, a term that may carry a more positive connotation.

A field independent (FI) style enables you to distinguish parts from a whole, to concentrate on something (like reading a book in a noisy train station), or to analyze separate variables without the contamination of neighboring variables. On the other hand, *too much* FI may result in cognitive "tunnel vision": you see only the parts and not their relationship to the whole. "You can't see the forest for the trees," as the saying goes. Seen in this light, development of a field dependent (FD) style has positive effects: you perceive the whole picture, the larger view, the general configuration of a problem or idea or event. It is clear, then, that *both* FI and FD are necessary for most of the cognitive and affective problems we face.

The literature on field independence-dependence (FID) (Witkin & Goodenough, 1981; Witkin, 1962) has shown that FI increases as a child matures to adulthood, that a person tends to be dominant in one mode or the other, and that FID is a relatively stable trait in adulthood. It has been found in Western culture that males tend to be more FI, and that FI is related to one of the three main factors traditionally used to define intelligence (the analytical factor), but not to the other two factors (verbal comprehension and attention concentration). Cross-culturally, the extent of the development of a FID style as children mature is a factor of the type of society and home in which the child is reared. Authoritarian or agrarian societies, which are usually highly socialized and utilize strict rearing practices, tend to produce more FD. A democratic, industrialized, competitive society with freer rearing norms tends to produce more FI persons.

Affectively, persons who are more predominantly FI tend to be generally more independent, competitive, and self-confident. FD persons tend to be more socialized, to derive their self-identity from persons around them, and are usually more empathic and perceptive of the feelings and thoughts of others.

How does all this relate to second language learning? Two conflicting hypotheses have emerged. First, we could conclude that FI is closely related to classroom learning that involves analysis, attention to details, and mastering of exercises, drills, and other focused activities. Indeed, research supports such a hypothesis. Naiman, Fröhlich, Stern, and Todesco (1978) found in a study of English-speaking eighth, tenth, and twelfth graders who were learning French in Toronto that FI correlated positively and significantly with language success in the classroom. Other studies (Johnson, Prior, & Artuso, 2000; Jamieson, 1992; Hansen, 1984; Stansfield & Hansen, 1983; Hansen & Stansfield, 1981) found relatively strong evidence in groups of adult second language learners of a relationship between FI and formal (test) measures of language performance, which in some respects require analytical abilities.

Chapelle and Roberts (1986) found support for the correlation of a FI style with language success as measured both by traditional, analytic, paper-and-pencil tests and by an oral interview. (The latter finding—the correlation with the oral interview—was a bit surprising in light of the second of our two hypotheses, to be taken up below.) Abraham (1985) found that second language learners who were FI performed better in deductive lessons, while those with FD styles were more successful with inductive lesson designs. Still other studies (Chapelle & Green, 1992; Alptekin & Atakan, 1990; Chapelle & Abraham, 1990) provided further evidence of superiority of a FI style for second language success. Further, Elliott (1995a, 1995b) found a moderate correlation between FI and pronunciation accuracy. And in a review of several decades of research on FID, Hoffman (1997, p. 225) concluded that "further research . . . should be pursued before the hypothesis that there is a relationship between FD/I and SLA is abandoned." Similar suggestions were made by Dörnyei and Skehan (2003, p. 604): "... Because of the current promise of reconceptualizations and new measurement tools, there may be scope for additional research where, just a few years ago, the area looked very unpromising."

The second of the conflicting hypotheses proposes that a FD style will, by virtue of its association with empathy, social outreach, and perception of other people, yield successful learning of the communicative aspects of a second language. While no one denies the plausibility of this second hypothesis, little empirical evidence has been gathered to support it. The principal reason for the dearth of such evidence is the absence of a true test of FD.

The standard test of FI, the Group Embedded Figures Test (GEFT) (Oltman, Raskin, & Witkin, 1971) requires subjects to discern small geometric shapes embedded in larger geometric designs. A high score on such embedded-figures tests indicates FI, but a low score does *not* necessarily imply relatively high FD. This latter fact has unfortunately not been recognized by every researcher who has interpreted results of embedded-figures tests. Johnson, Prior, and Artuso (2000),

for example, concluded that "a more field-dependent style was associated with better performance on second language communicative measures" (p. 529), but their study never actually measured FD! Rather, the assumption was made that negative correlations between scores on the GEFT and communicative measures allowed them to conclude a relationship between FD and communicative ability. So we are left with no standardized means of measuring FD, and thus the second hypothesis has been confirmed largely through anecdotal or observational evidence.

CLASSROOM CONNECTIONS

Research Findings: Early research on FI (Witkin, 1962) reported several kinds of tests of FI, including a test called the Rod and Frame Test. In this procedure, test takers step into a completely dark cubicle. Their task is to manipulate an illuminated rod within an illuminated rectangular frame. As the frame appears at various angles, they must position the rod in what they feel is a "straight up and down" position, irrespective of the various positions of the frame. FI is the extent to which the test taker can place the rod correctly without being influenced by the frame.

Teaching Implications: Obviously, classrooms cannot be equipped with elaborate Rod and Frame devices, nor with the supplies necessary for the standard Group Embedded Figures Test. If the FID continuum is to be useful, perhaps classroom language teachers are better served by following their intuition concerning students' FID and acting to raise students' awareness of their styles and their strengths and weaknesses. How have you (if you have taught) helped your students to become aware of styles? As a student, how has your teacher helped to make you aware of them?

The two hypotheses could be seen as paradoxical: how could FD be most important on the one hand and FI equally important? The answer to the paradox would appear to be that clearly *both* styles are important. The two hypotheses deal with two different kinds of language learning. One kind of learning implies natural, face-to-face communication, the kind of communication that occurs too rarely in the average language classroom. The second kind of learning involves the familiar classroom activities: drills, exercises, tests, and so forth. It is most likely that "natural" language learning in the "field," beyond the constraints of the classroom, is aided by a FD style, and the classroom type of learning is enhanced, conversely, a FI style.

There is some research to support such a conclusion. Guiora, Brannon, and Dull (1972b) showed that empathy is related to language acquisition, and though one could argue with some of their experimental design factors (H. D. Brown, 1973), the conclusion seems reasonable and also supportable by observational evidence and intuition. Some pilot studies of FID (Brown, 1977a) indicated that FI correlated *negatively* with informal oral interviews of adult English learners in the United States. And so it would appear that FID might provide one construct that differentiates "classroom" (tutored) second language learning from "natural" (untutored) second language learning.

FID may also prove to be a valuable tool for differentiating child and adult language acquisition. The child, more predominantly FD, may have a cognitive style advantage over the more FI adult. Stephen Krashen (1977) has suggested that adults use more "monitoring," or "learning," strategies (conscious attention to forms) for language acquisition, while children utilize strategies of "acquisition" (subconscious attention to functions). This distinction between acquisition and learning could well be explicated by the FID dichotomy. (See Chapter 10 for further discussion of Krashen's Monitor model.)

Psychologists originally viewed FID as a relatively stable characteristic in adults (Witkin & Goodenough, 1981). However, there has been little empirical support for this conclusion; instead, FID, like all styles, appears to be contextualized and variable (Skehan, 1998). Logically and observationally, FID is quite variable within one person. Depending upon the context of learning, individual learners can vary their utilization of FI or FD. If a task requires FI, individuals may invoke a FI style; if it requires FD, they may invoke a FD style. Such ambiguities fueled Griffiths and Sheen's (1992, p. 133) passionate attempt to discredit the whole FI construct, where they concluded that this "theoretically flawed" notion "does not have, and has never had, any relevance for second language learning."

Carol Chapelle's (1992; see also Chapelle & Green, 1992), response to Griffiths and Sheen claimed a number of flaws in the latter's research, and reflected a more optimistic viewpoint on the relevance of FI to communicative language ability. She suggested, as did Hoffman (1997) and Johnson, Prior, and Artuso (2000), avenues of future research. One could surmise from Chapelle's comments that her optimism sprang from—among other things—our acceptance of the view that FI and FD are not in complementary distribution within an individual. Some learners might be both highly FI and highly FD as contexts vary. Such variability is not without its parallels in almost every other psychological construct. A generally extroverted person might, for example, be relatively introverted given certain contexts; or a preference for visual processing would not preclude the possibility of invoking auditory processors when deemed necessary. In second language learning, then, it may be incorrect to assume that learners should be either FI or FD. It is more likely that persons have general inclinations, but, given certain contexts, can exercise a sufficient degree of an appropriate style. The burden on the learner is to invoke the appropriate style for the context. The burden on the teacher is to understand the preferred styles of each learner and to sow the seeds for flexibility.

Left- and Right-Brain Dominance

We have already observed in Chapter 3 that **left- and right-brain dominance** is a potentially significant issue in developing a theory of second language acquisition. As the child's brain matures, various functions become lateralized to the left or right hemisphere. The left hemisphere is associated with logical, analytical thought, with mathematical and linear processing of information. The right hemisphere perceives and remembers visual, tactile, and auditory images; it is more efficient in processing holistic, integrative, and emotional information. Torrance (1980) lists several characteristics of left- and right-brain dominance. (See Table 5.1.)

Table 5.1. Left- and right-brain characteristics (adapted from Torrance, 1980)

Left-Brain Dominance	Right-Brain Dominance
Intellectual	Intuitive
Remembers names	Remembers faces
Responds to verbal instructions and explanations	Responds to demonstrated, illustrated, or symbolic instructions
Experiments systematically and with control	Experiments randomly and with less restraint
Makes objective judgments	Makes subjective judgments
Planned and structured	Fluid and spontaneous
Prefers established, certain information	Prefers elusive, uncertain information
Analytic reader	Synthesizing reader
Reliance on language in thinking and remembering	Reliance on images in thinking and remembering
Prefers talking and writing	Prefers drawing and manipulating objects
Prefers multiple-choice tests	Prefers open-ended questions
Controls feelings	More free with feelings
Not good at interpreting body language	Good at interpreting body language
Rarely uses metaphors	Frequently uses metaphors
Favors logical problem solving	Favors intuitive problem solving

While we can cite many differences between left- and right-brain characteristics, it is important to remember that the left and right hemispheres operate together as a "team." Through the *corpus collosum*, messages are sent back and forth so that both hemispheres are involved in much of the neurological activity of the human brain. Most problem solving involves the capacities of both hemispheres, and often the best solutions to problems are those in which each hemisphere has participated optimally (see Danesi, 1988). We must also remember Scovel's (1982) warning that left- and right-brain differences tend to draw more attention than the research warrants at the present time.

Nevertheless, the left-/right-brain construct helps to define another useful learning style continuum, with implications for second language learning and

teaching. Danesi (1988), for example, used "neurological bimodality" to analyze the way in which various language teaching methods have failed: by appealing too strongly to left-brain processes, past methods were inadequately stimulating important right-brain processes in the language classroom. Krashen, Seliger, and Hartnett (1974) found support for the hypothesis that left-brain-dominant second language learners preferred a deductive style of teaching, while right-brain-dominant learners appeared to be more successful in an inductive classroom environment. Stevick (1982) concluded that left-brain-dominant second language learners are better at producing separate words, gathering the specifics of language, carrying out sequences of operations, and dealing with abstraction, classification, labeling, and reorganization. Right-brain-dominant learners, on the other hand, appear to deal better with whole images (not with reshuffling parts), with generalizations, with metaphors, and with emotional reactions and artistic expressions. In Chapter 3, I noted the role of the right hemisphere in second language learning. This may suggest a greater need to perceive whole meanings in those early stages, and to analyze and monitor oneself more in the later stages.

You may be asking yourself how left- and right-brain functioning differs from FI and FD. While few studies have set out explicitly to correlate the two factors, intuitive observation of learners and conclusions from studies of both hemispheric preference and FI show a strong relationship. Thus, in dealing with either type of cognitive style, we are dealing with two styles that are highly parallel. Conclusions that were drawn above for FI and FD generally apply well for left- and right-brain functioning, respectively.

Ambiguity Tolerance

A third style concerns the degree to which you are cognitively willing to tolerate ideas and propositions that run counter to your own belief system or structure of knowledge. Some people are, for example, relatively open-minded in accepting ideologies and events and facts that contradict their own views; they are **ambiguity tolerant**, that is, more content than others to entertain and even internalize contradictory propositions. Others, more closed-minded and dogmatic, tend to reject items that are contradictory or slightly incongruent with their existing system; in their **ambiguity intolerance**, they wish to see every proposition fit into an acceptable place in their cognitive organization, and if it does not fit, it is rejected.

Again, advantages and disadvantages are present in each style. The person who is tolerant of ambiguity is free to entertain a number of innovative and creative possibilities and not be cognitively or affectively disturbed by ambiguity and uncertainty. In second language learning a great amount of apparently contradictory information is encountered: words that differ from the native language, rules that not only differ but that are internally inconsistent because of certain "exceptions," and sometimes a whole cultural system that is distant from that of the native culture. Successful language learning necessitates tolerance of such ambiguities, at least for interim periods or stages, during which time ambiguous items are given a

chance to become resolved. On the other hand, too much tolerance of ambiguity can have a detrimental effect. People can become "wishy-washy," accepting virtually every proposition before them, not efficiently subsuming necessary facts into their cognitive organizational structure. Such excess tolerance has the effect of hampering or preventing meaningful subsumption of ideas. Linguistic rules, for example, might not be effectively integrated into a whole system; rather, they may be gulped down in meaningless chunks learned by rote.

Intolerance of ambiguity also has its advantages and disadvantages. A certain intolerance at an optimal level enables one to guard against the wishy-washiness referred to above, to close off avenues of hopeless possibilities, to reject entirely contradictory material, and to deal with the reality of the system that one has built. But intolerance can close the mind too soon, especially if ambiguity is perceived as a threat; the result is a rigid, dogmatic, brittle mind that is too narrow to be creative. This may be particularly harmful in second language learning.

A few research findings are available on this style in second language learning. Naiman et al. (1978) found that ambiguity tolerance was one of only two significant factors in predicting the success of their high school learners of French in Toronto. Chapelle and Roberts (1986) measured tolerance of ambiguity in learners of English as a second language in Illinois. They found that learners with a high tolerance for ambiguity were slightly more successful in certain language tasks. These findings suggest—though not strongly so—that ambiguity tolerance may be an important factor in second language learning. The findings have intuitive appeal. It is hard to imagine a compartmentalizer—a person who sees everything in black and white with no shades of gray—ever being successful in the overwhelmingly ambiguous process of learning a second language.

Reflectivity and Impulsivity

It is common for us to show in our personalities certain tendencies toward reflectivity sometimes and impulsivity at other times. Psychological studies have been conducted to determine the degree to which, in the cognitive domain, a person tends to make either a quick or gambling (**impulsive**) guess at an answer to a problem or a slower, more calculated (**reflective**) decision. David Ewing (1977) referred to two styles that are closely related to the reflectivity/impulsivity (R/I) dimension: systematic and intuitive styles. An intuitive style implies an approach in which a person makes a number of different gambles on the basis of "hunches," with possibly several successive gambles before a solution is achieved. Systematic thinkers tend to weigh all the considerations in a problem, work out all the loopholes, and then, after extensive reflection, venture a solution.

The implications for language acquisition are numerous. It has been found that children who are conceptually reflective tend to make fewer errors in reading than impulsive children (Kagan, 1965); however, impulsive persons are usually faster readers, and eventually master the "psycholinguistic guessing game" (Goodman, 1970) of reading so that their impulsive style of reading may not necessarily deter

comprehension. In another study (Kagan, Pearson, & Welch, 1966), inductive reasoning was found to be more effective with reflective persons, suggesting that generally reflective persons could benefit more from inductive learning situations. Virtually all research on R/I has used the Matching Familiar Figures Test (Kagan, 1965; revised by Cairns & Cammock, 1989), in which subjects are required to find, among numerous slightly different drawings of figures (people, ships, buildings, etc.), the drawing that matches the criterion figure. And most of the research to date on this cognitive style has looked at American, monolingual, English-speaking children.

A few studies have related R/I to second language learning. Doron (1973) found that among her sample of adult learners of ESL in the United States, reflective students were slower but more accurate than impulsive students in reading. In another study of adult ESL students, Abraham (1981) concluded that reflection was weakly related to performance on a proofreading task. Jamieson (1992) reported on yet another study of adult ESL learners. She found that "fast-accurate" learners, or good guessers, were better language learners as measured by the standardized Test of English as a Foreign Language, but warned against assuming that impulsivity always implies accuracy. Some of her subjects were fast and inaccurate.

CLASSROOM CONNECTIONS

Research Findings: Joan Jamieson's (1992) study of FID and reflectivity showed that the R/I style (slow and fast problem solving/responding styles) alone did not account for success on the TOEFL. She discovered that some students were fast and inaccurate and others slow and accurate, and concluded that the combination of *speed* and *accuracy* led to success on timed, standardized tests.

Teaching Implications: Time is a more important factor in language success than you might at first think. All classroom contexts require students to work under timed conditions: Tests, reading, writing (composing), responding to listening, and speaking fluently are all subject to time constraints. How has your own degree of R/I helped or hindered your learning of a second language in the classroom? Are you fast and *accurate* as well, and if not, how might you develop both speed and accuracy?

R/I has some important considerations for classroom second language learning and teaching. Teachers tend to judge mistakes too harshly, especially in the case of a learner with an impulsive style who may be more willing than a reflective person

to gamble at an answer. On the other hand, a reflective person may require patience from the teacher, who must allow more time for the student to struggle with responses. It is also conceivable that those with impulsive styles may go through a number of rapid transitions of semigrammatical stages of SLA, with reflective persons tending to remain longer at a particular stage with "larger" leaps from stage to stage.

Visual, Auditory, and Kinesthetic Styles

Yet another dimension of learning style—one that is salient in a formal classroom setting—is the preference that learners show toward either visual, auditory, and/or kinesthetic input. **Visual** learners tend to prefer reading and studying charts, drawings, and other graphic information. **Auditory** learners prefer listening to lectures and audiotapes. And **kinesthetic** learners will show a preference for demonstrations and physical activity involving bodily movement. Of course, most successful learners utilize both visual and auditory input, but slight preferences one way or the other may distinguish one learner from another, an important factor for classroom instruction.

In one study of adult learners of ESL, Joy Reid (1987) found some significant cross-cultural differences in visual and auditory styles. By means of a self-reporting questionnaire, the subjects rated their own preferences. The students rated statements like "When I read instructions, I learn them better" and "I learn more when I make drawings as I study" on a five-point scale ranging from "strongly agree" to "strongly disagree." Among Reid's results: Korean students were significantly more visually oriented than native English-speaking Americans; Japanese students were the least auditory students, significantly less auditorily inclined than Chinese and Arabic students. Reid also found that some of the preferences of her subjects were a factor of gender, length of time in the United States, academic field of study, and level of education. Later, Reid (1995) reported on studies that included kinesthetic styles with results that confirmed the importance of attending to such preferences among learners.

Research findings on learning styles underscore the importance of recognizing learners' varying preferences. However, teachers must take a cautious approach. Measurement of style preferences (usually by means of self-check questionnaires) is problematic (Ehrman & Leaver, 2003). The fact that learners' styles represent preferred approaches rather than immutable stable traits means that learners can adapt to varying contexts and situations. And styles can be a reflection if not a direct product of one's cultural background (Wintergerst, DeCapua, & Itzen, 2001; Oxford & Anderson, 1995), which spurs teachers to be sensitive to students' heritage languages and cultures in the process of engaging in classroom activities. These caveats notwithstanding, research on learning styles prods us as teachers to help students first of all to take charge of their language learning process—to become *autonomous* learners, and then to become *aware* of their styles, preferences, strengths, and weaknesses, and finally to take appropriate *action* on their second language learning challenges.

AUTONOMY, AWARENESS, AND ACTION

Implied in any consideration of the role of styles and strategies in learning a second language are three linked concepts: autonomy, awareness, and action. These three "As" of learner development have taken on significance in recent years, especially with increasing pedagogical emphasis on learner-centered language teaching (Wenden, 2002).

A review of the history of language teaching will reveal some interesting "changing winds and shifting sands" as noted in Chapter 1. One way of looking at this history is to consider the extent to which methodological trends have emphasized the respective roles of the teacher and the learner. Until some of the "designer" methods appeared in the 1970s, most of language teaching methodology was teacher centered. Students entered a classroom, sat down dutifully in their desks, and waited for the teacher to tell them what to do. Those directives might have been to translate a passage, to memorize a rule, or to repeat a dialogue. Then, the profession seemed to discover the value of learner **autonomy** in the form of allowing learners to do things like initiate oral production, solve problems in small groups, practice language forms in pairs, and practice using the language outside of the classroom. In keeping with a popular social trend of more and more "self-help" manuals for everything from weight loss to how to feel that you're "okay," the language teaching profession began to encourage learners to "take charge" of their own learning, and to chart their own "pathways to success" (see Brown, 1989, for example).

The process of developing within learners a sense of autonomy required the use (and sometimes invention) of strategies, as aptly demonstrated by Wenden (1992). After all, how many students enter a foreign language class knowing anything at all about the process of language learning, or about the "tricks of the trade" in successfully acquiring an additional language? With the aid of research on achieving autonomy (Schmenk, 2005; Palfreyman, 2003; Benson & Toogood, 2002; Benson, 2001; Cotterall & Crabbe, 1999; Benson & Voller, 1997; Pennycook, 1997; Pemberton, 1996; Riley, 1988) language programs and courses increasingly emphasized to students the importance of self-starting and of taking responsibility for one's own learning.

The literature on the topic raises some caution flags. Schmenk (2005) appropriately described the nonuniversality of the concept of autonomy, and Pennycook (1997) warned us about the potential cultural imperialism involved in assuming every culture equally values and promotes autonomy, especially in educational institutions. For language teaching in sub-Saharan Africa, Sonaiya (2002, p. 106) questioned "the global validity of the so-called *autonomous* method of language learning . . . which has obvious origins in European and North American traditions of individualism."

However, some recent studies are more encouraging. Underscoring the need for teachers to be sensitive to the cultural background of students, Carter (2001) suggested that while learners in Trinidad and Tobago traditionally rely heavily on

teachers as managers of their learning, autonomy can nevertheless be fostered through what she described as a "context-sensitive" model (p. 26). Similarly, Spratt, Humphreys, and Chan (2002) found that autonomy could be promoted among learners in Hong Kong, as long as an appropriate level of motivation was present. Schmenk (2005, p. 115) recommended a "glocalization" (a combination of both global and local considerations) of the concept of autonomy in non-Western cultures, one that involves "a critical awareness of . . . specific cultural backdrops and impacts" as teachers involve students in autonomous learning.

Closely linked to the concept of autonomy is the demand on learners to become **aware** of their own processes of learning. Do you remember the first foreign language course you ever took? To what extent did your teacher or your textbook help you to become aware of what language learning was all about? Were you offered activities that would help you to monitor your own learning process? To help you to assess your own strengths and weaknesses? To suggest strategies that might help you to become more successful?

Until recently, few courses in languages provided such opportunities for learners to become aware of what language learning was all about and what they could do to become better learners. Now, with the backdrop of a good deal of research on awareness and "consciousness raising," language programs are offering more occasions for learners to develop a metacognitive awareness of their ongoing learning. In fact, a whole new journal, *Language Awareness*, has been devoted to the concept, and research findings are coming in. Lightbown and Spada (2000), for example, showed that English learners in Quebec displayed no awareness of their own intuitions about language learning, and suggested further attempts to help students to increase awareness. Simard and Wong (2004) described an awareness-of-language program in the United Kingdom which helped students to engage in metalinguistic reflection. Nakatani (2005) trained English learners in Japan to focus explicitly on oral production strategies, which resulted in improved performance in speaking. Rosa and Leow (2004) found that learners of Spanish as a second language in the United States showed improved performance under conditions of **awareness-raising**.

What we are learning from these studies is that learners can indeed benefit from raised awareness of their own processes of learning. Undoubtedly, as we will see in Chapter 9, there is an optimal level of awareness (Lightbown & Spada, 1990) that serves learners. In other words, too much awareness, too much explicit focus on grammar, or too much devotion to rules, coupled with not enough intuitive, subconscious communication, will smother learners' yearning to simply *use* language, unfettered by overattention to correctness. But some levels of awareness are clearly warranted, and in this chapter we will speak to the issue of strategic awareness: the conscious application of appropriate strategies.

The final "A" in this section is simply a reminder to all that awareness without **action** will be relatively useless. Once learners can become aware of their predispositions, their styles, and their strengths and weaknesses, they can then take appropriate action in the form of a plethora of strategies that are available to them. Not

all strategies are appropriate for all learners. A learner who, for example, is already aware of an ambiguity tolerant, right-brain style surely will not need a battery of new strategies to open up, to be calm in the face of a storm of incomprehensible language, or to take in the big picture. Such strategies are already naturally in place. However, a learner who represents the other side of the coin—intolerant of ambiguity, analytical, linear thinking—can obviously benefit from an awareness of those proclivities and from taking appropriate strategic action.

STRATEGIES

If styles are general characteristics that differentiate one individual from another, then **strategies** are those specific "attacks" that we make on a given problem, and that vary considerably within each individual. They are the moment-by-moment techniques that we employ to solve "problems" posed by second language input and output. Chamot (2005, p. 112) defines strategies quite broadly as "procedures that facilitate a learning task. . . . Strategies are most often conscious and goal driven." The field of second language acquisition has distinguished between two types of strategy: **learning strategies** and **communication strategies**. The former relate to input—to processing, storage, and retrieval, that is, to taking in messages from others. The latter pertain to output, how we productively express meaning, how we deliver messages to others. We will examine both types of strategy here.

First, a brief historical note on the study of second language learners' strategies. As our knowledge of second language acquisition increased markedly during the 1970s, teachers and researchers came to realize that no single research finding and no single method of language teaching would usher in an era of universal success in teaching a second language. We saw that certain learners seemed to be successful regardless of methods or techniques of teaching. We began to see the importance of individual variation in language learning. Certain people appeared to be endowed with abilities to succeed; others lacked those abilities. This observation led Rubin (1975) and Stern (1975) to describe "good" language learners in terms of personal characteristics, styles, and strategies. Rubin (Rubin & Thompson, 1982) later summarized fourteen such characteristics. Good language learners:

1. Find their own way, taking charge of their learning
2. Organize information about language
3. Are creative, developing a "feel" for the language by experimenting with its grammar and words
4. Make their own opportunities for practice in using the language inside and outside the classroom
5. Learn to live with uncertainty by not getting flustered and by continuing to talk or listen without understanding every word
6. Use mnemonics and other memory strategies to recall what has been learned
7. Make errors work for them and not against them

8. Use linguistic knowledge, including knowledge of their first language, in learning a second language
9. Use contextual cues to help them in comprehension
10. Learn to make intelligent guesses
11. Learn chunks of language as wholes and formalized routines to help them perform "beyond their competence"
12. Learn certain tricks that help to keep conversations going
13. Learn certain production strategies to fill in gaps in their own competence
14. Learn different styles of speech and writing and learn to vary their language according to the formality of the situation

Such lists, speculative as they were in the mid-1970s, inspired a group of collaborators in Toronto to undertake a study of good language learning traits (Naiman et al., 1978, reprinted in 1996). While the empirical results of the Toronto study were somewhat disappointing, they nevertheless spurred many other researchers to try to identify characteristics of "successful" language learners (see Stevick 1989, for example), and even *un*successful learners (Vann & Abraham, 1990). Such research led others (Rubin & Thompson, 1982; Brown, 1989, 1991; Marshall, 1989) to offer advice to would-be students of foreign language on how to become better learners.

In more recent research, with the increasing interest in social constructivist analyses of language acquisition, we find a shift of focus away from merely searching for universal cognitive and affective characteristics of successful learners. Drawing on the work of Vygotsky (1978) and Bakhtin (1990, 1986), Norton and Toohey (2001) suggested quite a different viewpoint. They adopt a sociocultural approach that looks at learners as participants in a community of language users in "local contexts in which specific practices create possibilities for them to learn English" (p. 311). Fundamental to their point of view is the *identity* that each learner creates in a socially constructed context. As learners *invest* in their learning process, they create avenues of success.

A comparison of earlier views of successful learners with more recent social constructivist research may eventually yield an amalgamation of the two strands: Teachers, on the one hand, can benefit from attending to what might indeed be very common strategies for successful learning across many cultures and contexts, but on the other hand, they need to be ever mindful of individual needs and variations as well as the cultural context of learning.

Learning Strategies

The research of the mid-1970s led to some very careful defining of specific learning strategies. In some of the most comprehensive research of this kind, Michael O'Malley and Anna Chamot and colleagues (O'Malley et al., 1983, 1985a, 1985b, 1987, 1989; Chamot & O'Malley, 1986, 1987; O'Malley and Chamot, 1990; Chamot, Barnhart, El-Dinary, & Robins, 1999) studied the use of strategies by learners of English as a second language in the United States.

Typically, strategies were divided into three main categories, as noted in Table 5.2. **Metacognitive** is a term used in information-processing theory to indicate an "executive" function, strategies that involve planning for learning, thinking about the learning process as it is taking place, monitoring of one's production or comprehension, and evaluating learning after an activity is completed (Purpura, 1997). **Cognitive strategies** are more limited to specific learning tasks and involve more direct manipulation of the learning material itself. **Socioaffective strategies** have to do with social-mediating activity and interacting with others. Note that the latter strategy, along with some of the other strategies listed in Table 5.2, are actually **communication strategies**.

Table 5.2. Learning strategies

Learning Strategy	Description
Metacognitive strategies	
Advance organizers	Making a general but comprehensive preview of the organizing concept or principle in an anticipated learning activity
Directed attention	Deciding in advance to attend in general to a learning task and to ignore irrelevent distractors
Selective attention	Deciding in advance to attend to specific aspects of language input or situational details that will cue the retention of language input
Self-management	Understanding the conditions that help one learn and arranging for the presence of those conditions
Functional planning	Planning for and rehearsing linguistic components necessary to carry out an upcoming language task
Self-monitoring	Correcting one's speech for accuracy in pronunciation, grammar, vocabulary, or for appropriateness related to the setting or to the people who are present
Delayed production	Consciously deciding to postpone speaking in order to learn initially through listening comprehension
Self-evaluation	Checking the outcomes of one's own language learning against an internal measure of completeness and accuracy
Cognitive Strategies	
Repetition	Imitating a language model, including overt practice and silent rehearsal
Resourcing	Using target language reference materials

(continued on next page)

Table 5.2. Learning strategies (*continued*)

Learning Strategy	Description
Cognitive Strategies	
Translation	Using the first language as a base for understanding and/or producing the second language
Grouping	Reordering or reclassifying, and perhaps labeling, the material to be learned based on common attributes
Note taking	Writing down the main idea, important points, outline, or summary of information presented orally or in writing
Deduction	Consciously applying rules to produce or understand the second language
Recombination	Constructing a meaningful sentence or larger language sequence by combining known elements in a new way
Imagery	Relating new information to visual concepts in memory via familiar, easily retrievable visualizations, phrases, or locations
Auditory representation	Retention of the sound or a similar sound for a word, phrase, or longer language sequence
Keyword	Remembering a new word in the second language by (1) identifying a familiar word in the first language that sounds like or otherwise resembles the new word and (2) generating easily recalled images of some relationship between the new word and the familiar word
Contextualization	Placing a word or phrase in a meaningful language sequence
Elaboration	Relating new information to other concepts in memory
Transfer	Using previously acquired linguistic and/or conceptual knowledge to facilitate a new language learning task
Inferencing	Using available information to guess meanings of new items, predict outcomes, or fill in missing information
Socioaffective Strategies	
Cooperation	Working with one or more peers to obtain feedback, pool information, or model a language activity
Question for clarification	Asking a teacher or other native speaker for repetition, paraphrasing, explanation, and/or examples

Source: O'Malley et al., 1985b, pp. 582–584.

In more recent years, strategy research has been evolving a *theory* of language learning strategies that seeks to confirm or disconfirm a number of questions that have arisen (Dörnyei & Skehan, 2003; Griffiths & Parr, 2001; Hsiao & Oxford, 2002). Such research involves (1) the adequacy of categorizing strategies into the above three divisions, (2) the psychological assumptions underlying the postulation of strategic options, (3) the relationship of strategy research to current language teaching paradigms, (4) intercorrelations among, and relationships between, the many strategies that have been identified, and (5) the adequacy of various measures of strategy use and awareness.

Many studies have been carried out on the effectiveness of learners' using a variety of strategies in their quest for language competence. One way of classifying such work is through the four skills of listening, speaking, reading, and writing. Learning strategies, as opposed to communication strategies, typically involve the receptive skills of listening and reading. O'Malley, Chamot, and Kupper (1989) found that second language learners developed effective listening skills through the use of monitoring, elaboration, and inferencing. Strategies such as selective attention to keywords and advance organizers, inferring from context, prediction, using a worksheet, and taking notes have been shown to be successfully teachable (Vandergrift, 2003; Carrier, 2003; Ozeki, 2000; Rost & Ross, 1991). Reading strategies such as bottom-up and top-down processing, predicting, guessing from context, brainstorming, and summarizing, have been shown in other studies to be effectively taught (Pressley, 2000; Chamot & El-Dinary, 1999; Anderson, 1991).

Gender has been shown to be a significant variable in strategy use, both in the case of learning and in communication strategies. Bacon's (1992) study showed that men and women used listening strategies differently. Maubach and Morgan (2001) reported that among high school learners of French and German, males engaged in more risk-taking and spontaneous speaking strategies while females use organizational strategies in written work more effectively. Phakiti (2003) found that male university students in Thailand reported significantly higher use of metacognitive strategies than women. El-Dib's (2004) study in Kuwait indicated that males and females used differing strategies, often dictated by the cultural context of Kuwaiti society.

In the last decade or so of language teaching, we have seen mounting evidence of the usefulness of learners' incorporating strategies into their acquisition process. Two major forms of strategy use have been documented: classroom-based or textbook-embedded training, now called strategies-based instruction (SBI), and autonomous self-help training (see later in this chapter for more on these two forms). Both have been demonstrated to be effective for various learners in various contexts (Chamot, 2005; Anderson, 2005; Dörnyei & Skehan, 2003; McDonough, 1999; Cohen, 1998; Hill, 1994; Wenden, 1992).

Of particular interest in both prongs of research and practice is the extent to which cross-cultural variables may facilitate or interfere with strategy use among learners (McDonough, 1999; Oxford, 1996; Pemberton, 1996; Oxford & Anderson,

1995). General conclusions from an extensive number of recent studies in many countries promise more than a glimmer of hope that SBI and autonomous learning are viable avenues to success: China (Gan, Humphreys, & Hamp-Lyons, 2004; Jun Zhang, 2003), Korea (Lee & Oxford, 2005), Japan (Cohen, 2004; Taguchi, 2002; Ozeki, 2000), Egypt (Nelson, Carson, Al Batal, & El Bakary, 2002), Kuwait (El-Dib, 2004), Italy (Macaro, 2000), and Singapore (Wharton, 2000), among others.

Communication Strategies

While learning strategies deal with the receptive domain of intake, memory, storage, and recall, communication strategies pertain to the employment of verbal or nonverbal mechanisms for the productive communication of information. In the arena of linguistic interaction, it is sometimes difficult, of course, to distinguish between the two, as Tarone (1983) aptly noted, since comprehension and production can occur almost simultaneously. Nevertheless, as long as one can appreciate the slipperiness of such a dichotomy, it remains a useful distinction in understanding the nature of strategies, especially for pedagogical purposes.

The speculative early research of the 1970s (Varadi, 1973, and others) has now led to a great deal of recent attention to communication strategies (Chamot, 2005; Anderson, 2005; McDonough, 1999; Dörnyei, 1995; Rost & Ross, 1991; Bialystok, 1990a; Bongaerts & Poulisse, 1989; Oxford & Crookall, 1989). Some time ago, Faerch and Kasper (1983a, p. 36) defined communication strategies as "potentially conscious plans for solving what to an individual presents itself as a problem in reaching a particular communicative goal." While the research of the last decade does indeed focus largely on the *compensatory* nature of communication strategies, more recent approaches seem to take a more positive view of communication strategies as elements of an overall *strategic* competence (see Chapter 9) in which learners bring to bear all the possible facets of their growing competence in order to send clear messages in the second language. Moreover, such strategies may or may not be "potentially conscious"; support for such a conclusion comes from observations of first language acquisition strategies that are similar to those used by adults in second language learning contexts (Bongaerts & Poulisse, 1989).

Perhaps the best way to understand what is meant by communication strategy is to look at a typical list of such strategies. Table 5.3 offers a taxonomy that reflects accepted categories over several decades of research (adapted from Dörnyei, 1995, p. 58).

Dörnyei's classification is an appropriate practical basis for some further comments on communication strategies. We will elaborate here on a few of the strategies.

Avoidance Strategies

Avoidance is a common communication strategy that can be broken down into several subcategories. The most common type of avoidance strategy is

Table 5.3. Communication strategies

Avoidance Strategies
1. Message abandonment: Leaving a message unfinished because of language difficulties
2. Topic avoidance: Avoiding topic areas or concepts that pose language difficulties
Compensatory Strategies
3. Circumlocution: Describing or exemplifying the target object of action (e.g., the thing you open bottles with for corkscrew)
4. Approximation: Using an alternative term which expresses the meaning of the target lexical item as closely as possible (e.g., *ship* for *sailboat*)
5. Use of all-purpose words: Extending a general, empty lexical item to contexts where specific words are lacking (e.g., the overuse of *thing, stuff, what-do-you-call-it, thingie*)
6. Word coinage: Creating a nonexisting L2 word based on a supposed rule (e.g., *vegetarianist* for *vegetarian*)
7. Prefabricated patterns: Using memorized stock phrases, usually for "survival" purposes (e.g., *Where is the* _____ *or Comment allez -vous?* where the morphological components are not known to the learner)
8. Nonlinguistic signals: Mime, gesture, facial expression, or sound imitation
9. Literal translation: Translating literally a lexical item, idiom, compound word, or structure from L1 to L2
10. Foreignizing: Using a L1 word by adjusting it to L2 phonology (i.e., with a L2 pronunciation) and/or morphology (e.g., adding to it a L2 suffix)
11. Code-switching: Using a L1 word with L1 pronunciation or a L3 word with L3 pronunciation while speaking in L2
12. Appeal for help: Asking for aid from the interlocutor either directly (e.g., What do you call . . .?) or indirectly (e.g., rising intonation, pause, eye contact, puzzled expression)
13. Stalling or time-gaining strategies: Using fillers or hesitation devices to fill pauses and to gain time to think (e.g., *well, now let's see, uh, as a matter of fact*)

Source: Adapted from Dörnyei 1995, p. 58.

syntactic or **lexical avoidance** within a semantic category. Consider the following conversation between a learner and a native speaker:

L: I lost my road.
US: You lost your *road?*
L: Uh, . . . I lost. I lost. I got lost.

The learner avoided the lexical item *road* entirely, not being able to come up with the word *way* at that point. A French learner who wishes to avoid the use of the subjunctive in the sentence *Il faut que nous partions* may, for example, use instead

the sentence *Il nous faut partir.* Or, not being sure of the use of *en* in the sentence *J'en ai trois*, the learner might simply say *J'ai trois pommes.* **Phonological avoidance** is also common, as in the case of a Japanese tennis partner of mine who avoided using the word *rally* (because of its phonological difficulty) and instead opted to say, simply, "hit the ball."

A more direct type of avoidance is **topic avoidance**, in which a whole topic of conversation (say, talking about what happened yesterday if the past tense is unfamiliar) might be avoided entirely. Learners manage to devise ingenious methods of topic avoidance: changing the subject, pretending not to understand (a classical means for avoiding answering a question), simply not responding at all, or noticeably abandoning a message when a thought becomes too difficult to express.

Compensatory Strategies

Another common set of communication devices involves compensation for missing knowledge. We will elaborate here on just three of the eleven strategy types in Table 5.3.

Typical of rock-bottom beginning-level learners, for example, is the memorization of certain stock phrases or sentences without internalized knowledge of their components. These memorized chunks of language, known as **prefabricated patterns**, are often found in pocket bilingual phrase books, which list hundreds of sentences for various occasions: "How much does this cost?" "Where is the toilet?" "I don't speak English." "I don't understand you." Such phrases are memorized by rote to fit their appropriate context. Prefabricated patterns are sometimes the source of some merriment. In my first few days of Kikongo learning in Africa, I tried to say, in Kikongo, "I don't know Kikongo" to those who attempted to converse with me. I was later embarrassed to discover that, in the first few attempts at producing this prefabricated avoidance device, instead of saying *Kizeyi Kikongo ko*, I had said *Kizolele Kikongo ko* (I don't *like* Kikongo), which brought on reactions ranging from amusement to hostility.

Code-switching is the use of a first or third language within a stream of speech in the second language. Often code-switching subconsciously occurs between two advanced learners with a common first language, but in such a case, usually not as a compensatory strategy. Learners in the early stages of acquisition, however, might code-switch—use their native language to fill in missing knowledge—whether the hearer knows that native language or not. Sometimes the learner slips in just a word or two, in the hope that the hearer will get the gist of what is being communicated. It is surprising that context of communication coupled with some of the universals of nonverbal expression sometimes enables learners to communicate an idea in their own language to someone unfamiliar with that language. Such marvels of communication are a tribute to the universality of human experience and a balm for those who feel the utter despair of attempting to communicate in a foreign tongue.

Yet another common compensatory strategy is a direct appeal for help, often termed **appeal to authority**. Learners may, if stuck for a particular word or phrase,

directly ask a proficient speaker or the teacher for the form ("How do you say _____?"). Or they might venture a possible guess and then ask for verification from the proficient speaker of the correctness of the attempt. Also within this category are those instances where the learner might appeal to a bilingual dictionary for help. The latter case can also produce some rather amusing situations. Once a student of English as a second language, when asked to introduce himself to the class and the teacher, said, "Allow me to introduce myself and tell you some of the . . ." At this point he quickly got out his pocket dictionary and, finding the word he wanted, continued, "some of the *headlights* of my past."

The list of potentially useful communication strategies is not limited to the 13 listed in Table 5.3. Oxford (1990a) provided a comprehensive taxonomy combining both communication and learning strategies (see Figure 5.1 on the next two pages). Cohen and Aphek (1981) found that successful learners in their study made use of word association and generating their own rules. Chesterfield and Chesterfield (1985) reported instances of self talk as learners practiced their second language. Rost and Ross (1991) discovered that learners benefited from asking for repetition and seeking various forms of clarification. Huang and Van Naerssen (1987) attributed the oral production success of Chinese learners of English to functional practice (using language for communication) and, even more interesting, to reading practice. And the research continues.

STRATEGIES-BASED INSTRUCTION

Much of the work of researchers and teachers on the application of both learning and communication strategies to classroom learning has come to be known generically as **strategies-based instruction** (SBI) (McDonough, 1999; Cohen, 1998), or as learner strategy training. Cohen (1998) likes to refer to "SSBI"—*styles* and strategies-based instruction—to emphasize the productive link between styles and strategies. As we seek to make the language classroom an effective milieu for learning, it has become increasingly apparent that "teaching learners how to learn" is crucial. Wenden (1985) was among the first to assert that learner strategies are the key to learner autonomy, and that one of the most important goals of language teaching should be the facilitation of that autonomy. Chamot (2005, p. 123) further concluded that "explicit instruction is far more effective than simply asking students to use one or more strategies and also fosters metacognition, students' ability to understand their own thinking and learning processes."

Teachers can benefit from an understanding of what makes learners successful and unsuccessful, and establish in the classroom a milieu for the realization of successful strategies. Teachers cannot always expect instant success in that effort since students often bring with them certain preconceived notions of what "ought" to go on in the classroom (Bialystok, 1985). However, it has been found that students will benefit from SBI if they (1) understand the strategy itself, (2) perceive it to be effective,

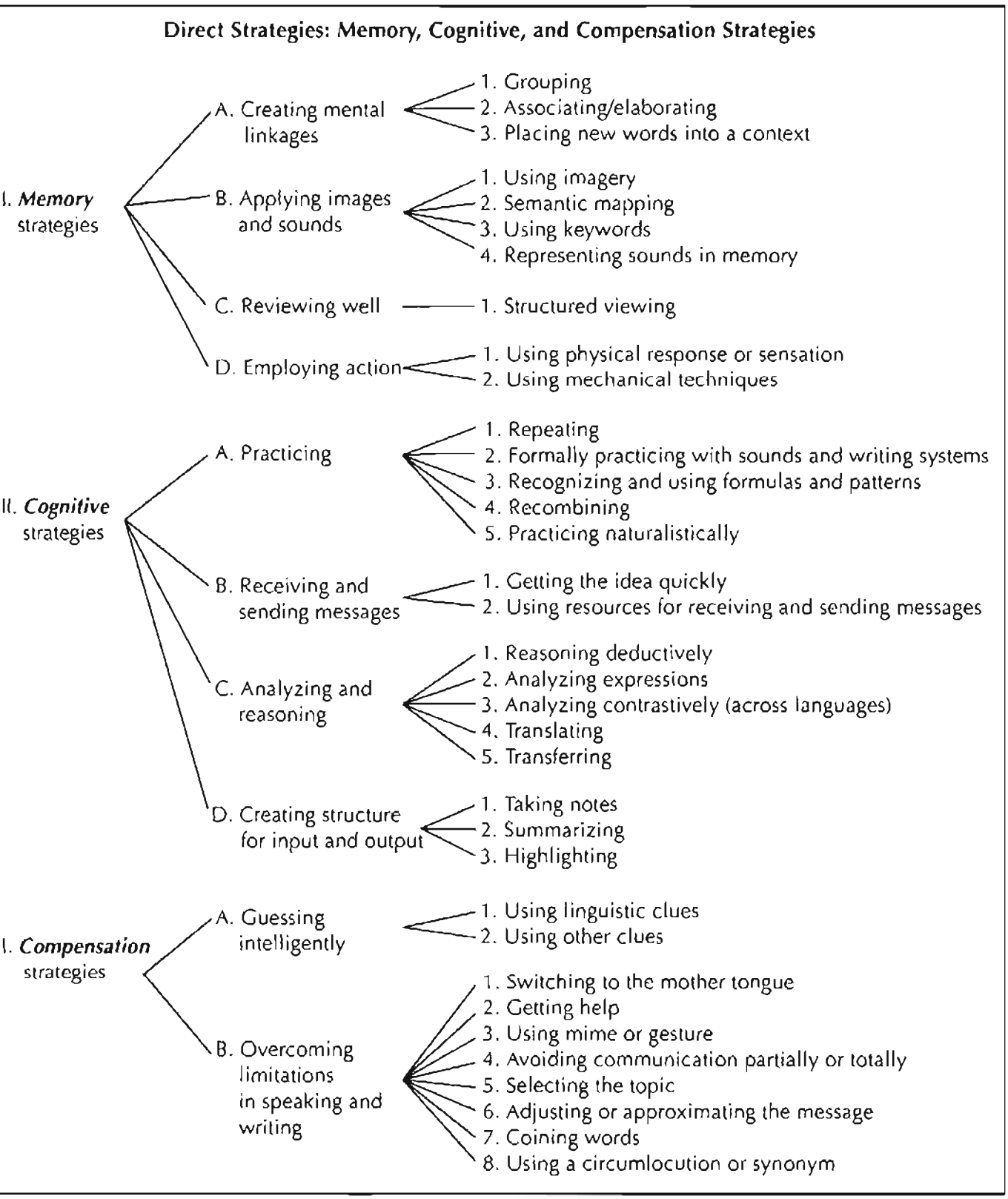

Figure 5.1. Oxford's strategy classification system (Oxford, 1990a)

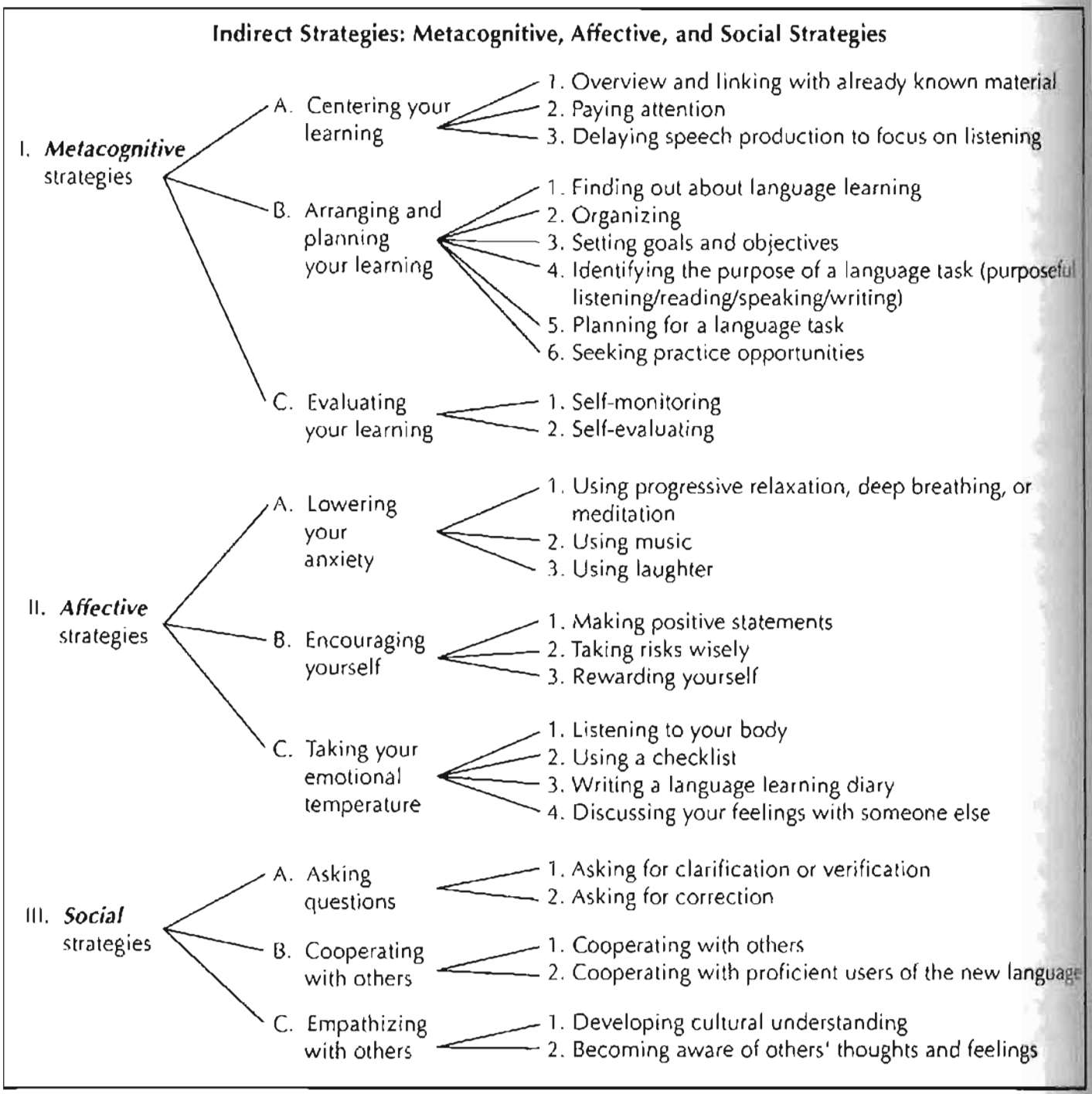

Figure 5.1. Oxford's strategy classification system (Oxford, 1990a) (*continued*)

and (3) do not consider its implementation to be overly difficult (MacIntyre & Noels, 1996). Therefore our efforts to teach students some technical know-how about how to tackle a language are well advised.

The effective implementation of SBI in language classrooms involves several steps and considerations: (1) identifying learners' styles and potential strategies; (2) incorporating SBI in communicative language courses and classrooms; (3) providing extra-class assistance for learners.

CLASSROOM CONNECTIONS

Research Findings: The research literature shows mounting evidence that a certain degree of awareness of styles is valuable in language learners. Research on styles and strategies (Chamot, 2005) very strongly supports learners' becoming aware of their preferences, strengths, weaknesses, and further suggests that they need to distinguish between styles that work *for* them and those that may work *against* them.

Teaching Implications: Strategies-based instruction (SBI) is increasingly successful when teachers help learners not only to become aware of their styles and preferences, but also to take *action* on the basis of that awareness. In what ways have you been helped by a teacher (or through your own effort) to become aware of your language learning strengths and weaknesses? What action (strategies) can you take to capitalize on your strengths and compensate for your weaknesses?

Identifying Learners' Styles and Strategies

A number of options are available for helping learners to identify their own styles, preferences, strengths, and weaknesses. The most common method is a self-check questionnaire in which the learner responds to various questions, usually along a scale of points of agreement and disagreement. Oxford's (1995) Style Analysis Survey and Wintergerst, DeCapua, and Verna's (2002) Learning Styles Indicator offer classic examples of directing learners to identify their own style preferences. A similar questionnaire can be found in Brown's (2002) *Strategies for Success*, a self-help guide for English language learners. The latter is patterned after the questionnaire in Figure 5.2, which asks learners to choose a point between two poles on a continuum that describes themselves.

The most widely used instrument for learners to identify strategies is Oxford's (1990a) Strategy Inventory for Language Learning (SILL), a questionnaire that has now been tested in many countries and translated into several languages. The SILL's 50 items, divided into six categories, each present a possible strategy (i.e., "I use rhymes to remember new English words.") which responders must indicate on a five-point scale of "never true of me" to "always true of me." The identification of preferred strategies for learners is, in one sense, a logical follow-up to a styles inventory. Once style preferences have been identified, a learner can proceed to take action through strategies. However, looking at this issue in another way, will learners figure out how to use a strategy simply by filling out a questionnaire like

Check one box in each item that best describes you. Boxes A and E would indicate that the sentence is very much like you. Boxes B and D would indicate that the sentence is somewhat descriptive of you. Box C would indicate that you have no inclination one way or another.

	A	B	C	D	E	
1. I don't mind if people laugh at me when I speak.	☐	☐	☐	☐	☐	I get embarassed if people laugh at me when I speak.
2. I like to try out new words and structures that I'm not completely sure of.	☐	☐	☐	☐	☐	I like to use only language that I am certain is correct.
3. I feel very confident in my ability to succeed in learning this language.	☐	☐	☐	☐	☐	I feel quite uncertain about my ability to succeed in learning this language.
4. I want to learn this language because of what I can personally gain from it.	☐	☐	☐	☐	☐	I am learning this language only because someone else is requiring it.
5. I really enjoy working with other people in groups.	☐	☐	☐	☐	☐	I would much rather work alone than with other people.
6. I like to "absorb" language and get the general "gist" of what is said or written.	☐	☐	☐	☐	☐	I like to analyze the many details of language and understand exactly what is said or written.
7. If there is an abundance of language to master, I just try to take things one step at a time.	☐	☐	☐	☐	☐	I am very annoyed by an abundance of language material presented all at once.
8. I am not overly conscious of myself when I speak.	☐	☐	☐	☐	☐	I "monitor" myself very closely and consciously when I speak.
9. When I make mistakes, I try to use them to learn something about the language.	☐	☐	☐	☐	☐	When I make a mistake, it annoys me because that's a symbol of how poor my performance is.
10. I find ways to continue learning language outside of the classroom.	☐	☐	☐	☐	☐	I look to the teacher and the classroom activities for everything I need to be successful.

Figure 5.2. Learning styles checklist

the SILL? The SILL serves as an instrument to expose learners to possibilities, but teachers must assume the responsibility for seeing to it that learners are aided in putting certain strategies into practice.

Other forms of identifying styles and strategies, and for raising them to the consciousness of learners, include self-reports through interviews (Macaro, 2001), written diaries and journals (Carson & Longhini, 2002; Halbach, 2000), think-aloud protocols (Macaro, 2000; O'Malley & Chamot, 1990) in which an interviewer or teacher prompts the learner with questions like, "Why did you hesitate and restate that verb form?" and through student portfolios. Chamot (2005) offered a useful summary of these options.

Incorporating SBI into the Language Classroom

Several different manifestations of SBI can be found in language classes around the world. Through checklists, and other methods discussed above, teachers can become aware of students' tendencies and then offer informal, unplanned advice on beneficial in-class and extra-class strategies. They can essentially be attuned to their role as facilitators of strategic action through tips and pointers and perhaps even anecdotes about "how I learned . . . when I was in your shoes."

Teachers can also help students to put the results of a styles questionnaire, such as the one in Figure 5.2, to immediate practical use. Once students have had a chance, with no advance "coaching," to fill out the checklist, you can engage them in any or all of the following: (1) a discussion of why they responded as they did, (2) small-group sharing of feelings underlying their responses, (3) an informal tabulation of how people responded to each item, (4) some advice, from your own experience, on why certain practices may be successful or unsuccessful, or (5) reaching the general consensus that responses in the A and B categories are usually indicative of successful approaches to language learning.

The style preference questionnaire in Figure 5.2 is actually designed so that each item highlights a "maxim" for good language learning. Item by item, numbered 1 through 10, the questionnaire serves to highlight the following 10 suggestions:

1. Lower inhibitions.
2. Encourage risk taking.
3. Build self-confidence.
4. Develop intrinsic motivation.
5. Engage in cooperative learning.
6. Use right-brain processes.
7. Promote ambiguity tolerance.
8. Practice intuition.
9. Process error feedback.
10. Set personal goals.

Another option being used by language teachers is to embed strategy awareness and practice into their pedagogy (Brown, 2002, 2001, 1991, 1989; Rubin & Thompson, 1994; Ellis & Sinclair, 1989) in more formal ways. Many current textbooks now include strategy awareness modules as part of the ongoing curriculum. Even without such overt material, as teachers utilize such techniques as communicative games, rapid reading, fluency exercises, and error analysis, they can help students both consciously

Table 5.4. Building strategic techniques

1. To lower inhibitions: Play guessing games and communication games; do role plays and skits; sing songs; use plenty of group work; laugh with your students; have them share their fears in small groups.
2. To encourage risk taking: Praise students for making sincere efforts to try out language; use fluency exercises where errors are not corrected at that time; give outside-of-class assignments to speak or write or otherwise try out the language.
3. To build students' self-confidence: Tell students explicitly (verbally and nonverbally) that you do indeed believe in them; have them make lists of their strengths, of what they know or have accomplished so far in the course.
4. To help students develop intrinsic motivation: Remind them explicitly about the rewards for learning English; describe (or have students look up) jobs that require English; play down the final examination in favor of helping students to see rewards for themselves beyond the final exam.
5. To promote cooperative learning: Direct students to share their knowledge; play down competition among students; get your class to think of themselves as a team; do a considerable amount of small-group work.
6. To encourage students to use right-brain processing: Use movies and tapes in class; have students read passages rapidly; do skimming exercises; do rapid "free writes"; do oral fluency exercises where the object is to get students to talk (or write) a lot without being corrected.
7. To promote ambiguity tolerance: Encourage students to ask you, and each other, questions when they don't understand something; keep your theoretical explanations very simple and brief; deal with just a few rules at a time; occasionally resort to translation into a native language to clarify a word or meaning.
8. To help students use their intuition: Praise students for good guesses; do not always give explanations of errors—let a correction suffice; correct only selected errors, preferably just those that interfere with learning.
9. To get students to make their mistakes work FOR them: Tape-record students' oral production and get them to identify errors; let students catch and correct each other's errors—do not always give them the correct form; encourage students to make lists of their common errors and to work on them on their own.
10. To get students to set their own goals: Explicitly encourage or direct students to go beyond the classroom goals; have them make lists of what they will accomplish on their own in a particular week; get students to make specific time commitments at home to study the language; give "extra credit" work.

and subconsciously to practice successful strategies. So for example, when students are playing a guessing game, performing a skit, or even singing songs, the teacher can remind them that they are practicing strategies for lowering inhibitions. Table 5.4 provides a list of ways to "build strategic techniques" in a language classroom.

Stimulating Strategic Action Beyond the Classroom

Finally, it is important to note that style awareness and strategic action are not limited to the classroom. Many so-called successful learners have reached their goals of mastery through their own self-motivated efforts to extend learning well beyond the confines of a classroom. Teachers can help learners to achieve this further step toward *autonomy* by helping learners to look beyond the classroom and the language course they are in. The ultimate purpose in engaging students in SBI is not simply to complete one language course. Teachers can help learners to see that raising their conscious awareness of styles and strategies aids them in the authentic use of language "out there." The classroom is an opportunity for learners to *begin* the journey toward success, and to grasp the reality that beyond those classroom hours are dozens of hours weekly that can be devoted to practice meaningful uses of the new language.

We have much to learn in the creation of practical techniques for teaching learners how to identify their styles and use strategies effectively, but this remains a very exciting and promising area of pedagogical research at the present time.

In this chapter we have looked at a number of relevant and salient cognitive variables in the learning of a foreign language. It should by now be apparent that cognitive variables alone represent a complex system of factors that must be channeled into an understanding of the total second language acquisition process. An awareness of these factors will help you, the teacher, to perceive in your learners some wide-ranging individual differences. Not all learners are alike. No one can be neatly pigeonholed into a cognitive type. With many styles and strategies operating within a person, hundreds of cognitive "profiles" might be identified! If we could discover some overriding and all-pervading variable that classifies learners neatly into categories of "successful" and "unsuccessful," then of course we could make a case for "typing" language learners. But, as Earl Stevick (1989) showed in his profile of seven successful language learners, such is not the case. Instead, teachers need to recognize and understand a multiplicity of cognitive variables active in the second language learning process and to make appropriate judgments about individual learners, meeting them where they are and providing them with the best possible opportunities for learning.

TOPICS AND QUESTIONS FOR STUDY AND DISCUSSION

Note: (I) individual work; (G) group or pair work; (C) whole-class discussion.

1. (I) In order to make sure you understand the continuum of process, style, and strategy, make a list of some of the universal processes you have read in previous chapters, then a list of styles and strategies from this chapter. How do they differ?
2. (G) In a small group, share what each of you perceives to be your more dominant cognitive style along the continua presented here: FID, right/left brain, ambiguity tolerance, reflective/impulsive, and visual/auditory. Talk about examples of how you manifest those styles both in your approach in general to problems and in your approach to SLA.
3. (I) Look at the list of differences between right- and left-brain processing in Table 5.1. Check or circle the side that corresponds to your own preference, and total the items on each side. Are you right- or left-brain dominant? Does this result match your general perception of yourself?
4. (G) Form five groups, with one of the five cognitive styles assigned to each group. Each group will list the types of activities or techniques in foreign language classes that illustrate its style, then decide which list of activities is better for what kinds of purposes. Share the results with the rest of the class.
5. (I) Some have claimed that brain dominance for cognitive contexts is related to handedness (left- and right-handed dominance). Others have suggested that field dependence is correlated with farsightedness. Can you find any research to support such claims? If not, what would your intuitive explanation be for such potential correspondences?
6. (C) Look at the list of "good language learner" characteristics on pages 132–133 as enumerated by Rubin and Thompson. Which ones seem the most important? Which the least? Would you be able to add some items to this list, from your own or others' experiences?
7. (G) In a small group, share your own opinion, from a cultural perspective, about the importance of learner autonomy as an avenue to success in learning a foreign language. Can learners from any culture develop the autonomy that researchers recommend?
7. (C) Discuss any instances in which you have used any of the 13 communication strategies listed in Table 5.3. Are there some other strategies that you could add?
8. (I/G/C) First, individually take the Learning Styles Checklist (Figure 5.2). Then, in pairs look at a partner's responses and find one item on which you differ greatly (e.g., A vs. E, A vs. D, or B vs. E). Next, talk about experiences in your own language learning that illustrate your choice. Finally, decide which side of the continuum (the "A–B" side or the "D–E" side)

gives you more of an advantage. Share the results with the rest of the class.

9. (C) When you were learning a foreign language, what strategically-based advice would you like to have had that you did not have at the time? Which of the pedagogical suggestions for SBI discussed at the end of the chapter appeal to you, and why?

SUGGESTED READINGS

Anderson, N. (2005). L2 learning strategies. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 757–771). Mahwah, NJ: Lawrence Erlbaum Associates.

Chamot, A. (2005). Language learning strategy instruction: Current issues and research. *Annual Review of Applied Linguistics, 25*, 112–130.

In these two review articles, Neil Anderson and Anna Chamot summarize the state of the art in research on learning strategies and strategies-based instruction, and offer extensive sets of references on the topic.

Benson, P., & Voller, P. (Eds.). (1997). *Autonomy and independence in language learning*. London: Longman.

Palfreyman, D., & Smith, R. (Eds.). (2003). *Learner autonomy across cultures: Language education perspectives*. Basingstoke, England: Palgrave Macmillan.

These two anthologies offer a compendium of research on autonomy in language learning from many perspectives. In particular, the question of how successfully students can develop autonomy across divergent cultures is treated in many of the articles in both volumes.

Oxford, R. (Ed.). (1996). *Learning strategies around the world: Cross-cultural perspectives.* Honolulu: University of Hawaii Press.

Oxford, R., & Anderson, N. (1995). A crosscultural view of learning styles. *Language Teaching, 28*, 201–215.

These two publications offer a comprehensive summary of cross-cultural research on learning styles, and more than a dozen specific cross-cultural studies of style awareness and strategy use.

Oxford, R. (1990a). *Language learning strategies: What every teacher should know.* New York: Newbury House.

Don't let the copyright date of 1990 fool you—it's a classic. Rebecca Oxford's book is still contemporary and a must read for a wealth of practical information on strategies-based instruction along with explanations of dozens of types

of strategies. Information is conveniently organized around the four skills of listening, speaking, reading, and writing.

Brown, H. D. (2002). ***Strategies for success: A practical guide to learning English.*** White Plains, NY: Pearson Education.

This little guide for students, with an introduction for teachers, gives an idea of how to get learners strategically involved in their acquisition process. It also contains a number of self-check tests that introduce the concept of awareness, and then students are led to take action through specific strategies.

LANGUAGE LEARNING EXPERIENCE: JOURNAL ENTRY 5

Note: See pages 21 and 22 of Chapter 1 for general guidelines for writing a journal on a previous or concurrent language learning experience.

- List each of the five learning styles discussed in the chapter (FID, right/left brain, ambiguity tolerance, reflectivity/impulsivity, visual/auditory/kinesthetic). Write a few sentences about which side you think is dominant for you, and list some examples in your language learning to illustrate.
- Which of your preferences, styles, or tendencies, if any, do you think might be working against you? Make a short list of specific things you could do to help push yourself to a more favorable position.
- Take the Learning Styles Checklist (Figure 5.2). Do you think you should try to change some of your styles, as they are described on the checklist? How would you do that?
- How autonomous are you as a language learner? Make a list of ways that you could become more autonomous. And, for a challenge, write about what a teacher can do to help a learner develop autonomy.
- If you are now taking a foreign language, you are becoming quite aware of your own learning processes. In previous language learning experiences, how overtly aware were you of factors like "good language learner" characteristics, your own styles, and strategies you could consciously apply? What would you have done differently then, knowing what you know now? What can you do differently in a current language learning situation, given what you now know from reading this chapter on styles and strategies?
- Using the list of learning strategies (Table 5.2), describe examples of two or three of them that you have already used. Pick one or two that you don't use very much and list them as your challenge for the near future.

- Write about communication strategies that you have used. Does the list of communication strategies in Table 5.3 give you some ideas about what you could be doing to advance your communicative success? Try to write down one or two specific things you will try out in the near future in a foreign language.
- How does your teacher (either now or in the past) measure up as a strategies-based instructor? What does this tell you about how your own teaching might help students to be more successful learners?

CHAPTER 6

PERSONALITY FACTORS

CHAPTERS 4 and 5 dealt with two facets of the cognitive domain of language learning: human learning processes in general, and cognitive variations in learning—styles and strategies. Similarly, this chapter and Chapter 7 deal with two facets of the affective domain of second language acquisition. The first of these is the intrinsic side of affectivity: personality factors within a person that contribute in some way to the success of language learning. The second facet, treated in Chapter 7, encompasses extrinsic factors—sociocultural variables that emerge as the second language learner brings not just two languages into contact but two cultures, and in some sense must learn a second culture along with a second language.

If we were to devise theories of second language acquisition or teaching methodologies that were based only on cognitive considerations, we would be omitting the most fundamental side of human behavior. Ernest Hilgard, well known for his study of human learning and cognition, once noted that "purely cognitive theories of learning will be rejected unless a role is assigned to affectivity" (1963, p. 267). In recent thinking (Dörnyei & Skehan, 2003; Arnold, 1999), there is no doubt at all about the importance of examining personality factors in building a theory of second language acquisition.

The affective domain is difficult to describe scientifically. A large number of variables are implied in considering the emotional side of human behavior in the second language learning process. One problem in striving for affective explanations of language success is presented by the task of subdividing and categorizing the factors of the affective domain. We are often tempted to use rather sweeping terms as if they were carefully defined.

For example, it is easy enough to say that "culture conflict" accounts for many language learning problems, or that "motivation" is the key to success in a foreign language; but it is quite another matter to define such terms with precision. Psychologists also experience a difficulty in defining terms. Abstract concepts such as empathy, aggression, extroversion, and other common labels are difficult to define empirically. Standardized psychological tests often form an operational definition of such concepts, but constant revisions are evidence of an ongoing struggle for validity. Nevertheless, the elusive nature of affective and cognitive concepts need not deter us

from seeking answers to questions. Careful, systematic study of the role of personality in second language acquisition has already led to a greater understanding of the language learning process and to improved language teaching designs.

THE AFFECTIVE DOMAIN

Affect refers to emotion or feeling. The **affective domain** is the emotional side of human behavior, and it may be juxtaposed to the cognitive side. The development of affective states or feelings involves a variety of personality factors, feelings both about ourselves and about others with whom we come into contact.

Benjamin Bloom and his colleagues (Krathwohl, Bloom, & Masia, 1964) provided a useful extended definition of the affective domain that is still widely used today.

1. At the first and fundamental level, the development of affectivity begins with *receiving*. Persons must be aware of the environment surrounding them and be conscious of situations, phenomena, people, objects; be willing to receive—to tolerate a stimulus, not avoid it—and give a stimulus their controlled or selected attention.
2. Next, persons must go beyond receiving to *responding*, committing themselves in at least some small measure to a phenomenon or a person. Such responding in one dimension may be in acquiescence, but in another higher dimension, the person is willing to respond voluntarily without coercion, and then receives satisfaction from that response.
3. The third level of affectivity involves *valuing:* placing worth on a thing, a behavior, or a person. Valuing takes on the characteristics of beliefs or attitudes as values are internalized. Individuals do not merely accept a value to the point of being willing to be identified with it, but commit themselves to the value to pursue it, seek it out, and want it, finally, to the point of conviction.
4. The fourth level of the affective domain is the *organization* of values into a system of beliefs, determining interrelationships among them, and establishing a hierarchy of values within the system.
5. Finally, individuals become characterized by and understand themselves in terms of their *value system*. Individuals act consistently in accordance with the values they have internalized and integrate beliefs, ideas, and attitudes into a total philosophy or worldview. It is at this level that problem solving, for example, is approached on the basis of a total, self-consistent system.

Bloom's taxonomy was devised for educational purposes, but it has been used for a general understanding of the affective domain in human behavior. The fundamental notions of receiving, responding, and valuing are universal. Second language learners need to be receptive both to those with whom they are communicating and to the language itself, responsive to persons and to the context of communication, and willing and able to place a certain value on the communicative act of interpersonal exchange.

Lest you feel at this point that the affective domain as described by Bloom is a bit too far removed from the essence of language, it is appropriate to recall that language is inextricably woven into the fabric of virtually every aspect of human behavior. Language is so pervasive a phenomenon in our humanity that it cannot be separated from the larger whole—from the whole persons that live and breathe and think and feel. Kenneth Pike (1967, p. 26) said that language is behavior, that is, a phase of human activity which must not be treated in essence as structurally divorced from the structure of nonverbal human activity. The activity of man constitutes a structural whole in such a way that it cannot be subdivided into neat "parts" or "levels" or "compartments" with language in a behavioral compartment insulated in character, content, and organization from other behavior.

AFFECTIVE FACTORS IN SECOND LANGUAGE ACQUISITION

Understanding how human beings feel and respond and believe and value is an exceedingly important aspect of a theory of second language acquisition.We turn now to a consideration of specific affective factors in human behavior and how they relate to second language acquisition.

Self-Esteem

Self-esteem is probably the most pervasive aspect of any human behavior. It could easily be claimed that no successful cognitive or affective activity can be carried out without some degree of self-esteem, self-confidence, knowledge of yourself, and self-efficacy—belief in your own capabilities to successfully perform that activity. Malinowski (1923) noted that all human beings have a need for **phatic communion**—defining oneself and finding acceptance in expressing that self in relation to valued others. Personality development universally involves the growth of a person's concept of self, acceptance of self, and reflection of self as seen in the interaction between self and others.

The following is a well-accepted definition of self-esteem (Coopersmith, 1967, pp. 4–5):

> By self-esteem, we refer to the evaluation which individuals make and customarily maintain with regard to themselves; it expresses an attitude of approval or disapproval, and indicates the extent to which individuals believe themselves to be capable, significant, successful and worthy. In short, self-esteem is a personal judgment of worthiness that is expressed in the attitudes that individuals hold toward themselves. It is a subjective experience which the individual conveys to others by verbal reports and other overt expressive behavior.

People derive their sense of self-esteem from the accumulation of experiences with themselves and with others and from assessments of the external world around them. Three general levels of self-esteem have been described in the literature to capture its multidimensionality:

1. General or **global self-esteem** is said to be relatively stable in a mature adult, and is resistant to change except by active and extended therapy. It is the general or prevailing assessment one makes of one's own worth over time and across a number of situations. In a sense, it might be analogized to a statistical mean or median level of overall self-appraisal.
2. **Situational** or **specific self-esteem** refers to one's self-appraisals in particular life situations, such as social interaction, work, education, home, or on certain relatively discretely defined traits, such as intelligence, communicative ability, athletic ability, or personality traits like gregariousness, empathy, and flexibility. The degree of specific self-esteem a person has may vary depending upon the situation or the trait in question.
3. **Task self-esteem** relates to particular tasks within specific situations. For example, within the educational domain, task self-esteem might refer to one subject-matter area. In an athletic context, skill in a sport—or even a facet of a sport such as net play in tennis or pitching in baseball—would be evaluated on the level of task self-esteem. Specific self-esteem might encompass second language acquisition in general, and task self-esteem might appropriately refer to one's self-evaluation of a particular aspect of the process: speaking, writing, a particular class in a second language, or even a special kind of classroom exercise.

Adelaide Heyde (1979) studied the effects of the three levels of self-esteem on performance of an oral production task by American college students learning French as a foreign language. She found that all three levels of self-esteem correlated positively with performance on the oral production measure, with the highest correlation occurring between task self-esteem and performance on oral production measures. Watkins, Biggs, and Regmi (1991), Brodkey and Shore (1976), and Gardner and Lambert (1972) all included measures of self-esteem in their studies of success in language learning. The results revealed that self-esteem appears to be an important variable in second language acquisition, particularly in view of cross-cultural factors of second language learning that will be discussed in Chapter 7.

What we do not know at this time is the answer to the classic chicken-or-egg question: Does high self-esteem cause language success, or does language success cause high self-esteem? Clearly, both are interacting factors. It is difficult to say whether teachers should try to "improve" global self-esteem or simply improve a learner's proficiency and let self-esteem take care of itself. Heyde (1979) found that certain sections of a beginning college French course had better oral production and self-esteem scores than other sections after only eight weeks of instruction. This finding suggests that teachers really can have a positive and influential effect

on both the linguistic performance and the emotional well-being of the student. Andrés (1999, p. 91) concurred and suggested classroom techniques that can help learners to "unfold their wings." Perhaps these teachers succeeded because they gave optimal attention both to linguistic goals and to the personhood of their students.

Attribution Theory and Self-Efficacy

Underlying the issues and questions about the role of self-esteem in language learning are the foundational concepts of attribution and self-efficacy. Based on the seminal work of psychologist Bernard Weiner (1986, 1992, 2000), **attribution theory** focuses on how people explain the causes of their own successes and failures. Weiner and others (Slavin, 2003; Dörnyei, 2001b; Williams & Burden, 1997) describe attribution theory in terms of four explanations for success and/or failure in achieving a personal objective: ability, effort, perceived difficulty of a task, and luck. Two of those four factors are internal to the learner: ability and effort; and two are attributable to external circumstances outside of the learner: task difficulty and luck. According to Weiner, learners tend to explain, that is, to *attribute*, their success on a task on these four dimensions. Depending on the individual, a number of causal determinants might be cited. Thus, failure to get a high grade on a final exam in a language class might for some be judged to be a consequence of their poor ability or effort, and by others to difficulty of exam ("that was a 'bear' of an exam!"), and perhaps others to just plain old bad luck.

This is where **self-efficacy** comes in. If a learner feels he or she is capable of carrying out a given task, in other words, a high sense of self-efficacy, an appropriate degree of effort may be devoted to achieving success. Falling short of one's personal goals may then be attributable to not enough effort expended, but rarely, in the case of students with high self-efficacy, would an "excuse" be made attributing the bad performance to something like bad luck. Conversely, a learner with low self-efficacy may quite easily attribute failure to external factors, a relatively unhealthy psychological attitude to bring to any task. Students with low self-efficacy might also attribute failure to an initial lack of ability. Both of the latter attributions can create a self-fulfilling sense of failure at the outset.

What these strands of psychological theory say, in simple terms, is that it is essential for learners to *believe in themselves* in order to succeed at a set of tasks. The prospect of learning a second language is itself potentially so overwhelming that learners can—and often do—lose momentum in the face of a number of forms of self-doubt. One of the most important roles of successful teachers is to facilitate high levels of self-efficacy in their students.

Willingness to Communicate

A factor related to attribution and self-efficacy, one that has seen a surge of recent interest in the research literature, is the extent to which learners display a **willingness to communicate** as they tackle a second language. Willingness to communicate

(WTC) may be defined as "an underlying continuum representing the predisposition toward or away from communicating, given the choice" (MacIntyre et al., 2002, p. 538). Or, more simply put, "the intention to initiate communication, given a choice" (MacIntyre et al., 2001, p. 369). Emerging from studies and assertions about language learners' *un*willingness to communicate and what we in common lay terms sometimes label as "shyness," researchers have now been examining the extent to which WTC is a factor not just in second language acquisition, but one that may have its roots in a learner's first language communication patterns (MacIntyre et al., 2002).

In an earlier study on WTC, MacIntyre et al. (1998) found that a number of factors appear to contribute to predisposing one learner to seek, and another learner to avoid, second language communication. Noting that a high level of communicative ability does not necessarily correspond with a high WTC, MacIntyre et al. proposed a number of cognitive and affective factors that underlie the latter: motivation, personality, intergroup climate, and two levels of self-confidence. The first level resembles what has already been described as situational self-esteem, or "state communicative self-confidence" (MacIntyre et al., 1998, p. 547), and the second, an overall global level simply labeled "L2 self-confidence." Both self-confidence factors assume important roles in determining one's willingness to communicate.

Other studies of WTC generally confirm its relationship to self-efficacy and self-confidence (Yashima, Zenuk-Nishide, & Shimizu, 2004). Cross-culturally, some questions have been raised about WTC, especially in what is described by Wen and Clément (2003) as the Confucian culture of China. One can quite easily see that an individualistic, as opposed to a collectivist (see Chapter 7 for an explanation of these two terms) culture would view constructs of self-efficacy from markedly different perspectives. In one interesting finding, MacIntyre et al. (2001) found that higher levels of WTC were associated with learners' who experienced social support, particularly from friends, offering further evidence of the power of socially constructed conceptions of self.

Inhibition

Yet another variable that is closely related to, and in some cases subsumed under, the notion of self-esteem and self-efficacy is the concept of **inhibition**. All human beings, in their understanding of themselves, build sets of defenses to protect the ego. The newborn baby has no concept of its own self; gradually it learns to identify a self that is distinct from others. In childhood, the growing degrees of awareness, responding, and valuing begin to create a system of affective traits that individuals identify with themselves. In adolescence, the physical, emotional, and cognitive changes of the preteenager and teenager bring on mounting defensive inhibitions to protect a fragile ego, to ward off ideas, experiences, and feelings that threaten to dismantle the organization of values and beliefs on which appraisals of self-esteem have been founded. The process of building defenses continues into adulthood. Some persons—those with higher self-esteem and ego strength—are

CLASSROOM CONNECTIONS

Research Findings: The research spearheaded by Peter MacIntyre and his colleagues suggests that saying a learner has a high WTC must be distinguished from simply describing a learner as extroverted, confident, or risk-taking. One of the key contributors to building WTC, as reported in MacIntyre et al. (2001) seems to be social support.

Teaching Implications: Current language teaching methodology strongly supports such communicative techniques such as group and pair work and related interactive activities, all of which can potentially provide social support. What has been the extent of social support in your language classroom? What techniques has your teacher used—or have you used, if you have taught—to promote social support? Have they led to students' greater willingness to communicate?

more able to withstand threats to their existence, and thus their defenses are lower. Those with weaker self-esteem maintain walls of inhibition to protect what is self-perceived to be a weak or fragile ego, or a lack of self-confidence in a situation or task.

The human ego encompasses what Alexander Guiora et al. (1972a) and Ehrman (1996) referred to as **language ego** or the very personal, egoistic nature of second language acquisition. Meaningful language acquisition involves some degree of identity conflict as language learners take on a new identity with their newly acquired competence. An adaptive language ego enables learners to lower the inhibitions that may impede success.

In a classic study, ostensibly designed to measure the effect of *empathy* on second language acquisition, but in actuality one that highlighted inhibition, Guiora et al. (1972a) designed an experiment using small quantities of alcohol to induce temporary states of less-than-normal inhibition in an experimental group of subjects. The performance on a pronunciation test in Thai of subjects given the alcohol was significantly better than the performance of a control group. Guiora and colleagues concluded that a direct relationship existed between empathy (a component of language ego, closely linked, as noted above, to inhibition) and pronunciation ability in a second language.

But there were some serious problems in the researchers' conclusions—shortcomings noted years later in a critique by Thomas Scovel, one of the original five researchers in the 1972 Guiora study (Guiora et al., 1972a). Scovel (2001, pp. 133–138) noted, among other things, some questions about the presumably controlled

conditions of the study and its experimental design. Also, it has already been noted that empathy and inhibition are closely linked, which raises questions about whether it was indeed empathy or inhibition that was being measured. Further, we know that alcohol may lower inhibitions, but alcohol also tends to affect muscular tension, and while "mind" and "body" in this instance may not be clearly separable, the physical effect of the alcohol may have been a more important factor than the mental effect in accounting for the superior pronunciation performance of the subjects given alcohol. Furthermore, pronunciation may be a rather poor indicator of overall language competence. Nevertheless, the Guiora research team provided an important hypothesis that has tremendous intuitive—if not experimental—support.

In another experiment (Guiora et al., 1980), Guiora and his associates studied the effect of Valium on pronunciation of a second language. Inspired by a study (Schumann et al., 1978) that showed that hypnotized subjects performed well on pronunciation tests, Guiora and colleagues hypothesized that various dosages of a chemical relaxant would have a similar effect on subjects' pronunciation performance. It is unfortunate that the results were non-significant, but it is interesting that the tester made a significant difference. In other words, the person doing the testing made a bigger difference on scores than did the dosage of Valium. I wonder if this result says something about the importance of teachers!

Some have facetiously suggested that the moral to Guiora's experiments is that we should provide cocktails—or prescribe tranquilizers—for foreign language classes! While students might be delighted by such a proposal, the experiments have highlighted a most interesting possibility: that the inhibitions, the defenses, that we place between ourselves and others are important factors contributing to second language success. Ehrman (1999, 1993) provided further support for the importance of language ego in studies of learners with **thin** (permeable) and **thick** (not as permeable) **ego boundaries**. While neither extreme has been found to have necessarily beneficial or deleterious effects on success, Ehrman has suggested that the openness, vulnerability, and ambiguity tolerance of those with thin ego boundaries create different pathways to success from those with hard-driving, systematic, perfectionistic, thick ego boundaries.

Such findings, coupled with Guiora's earlier work, have given rise to a number of steps that have been taken in practices to create techniques that reduce inhibition in the foreign language classroom. Language teaching approaches in the last several decades have been characterized by the creation of contexts in which students are encouraged to take risks, to orally try out hypotheses, and in so doing to break down some of the barriers that often make learners reluctant to try out their new language.

Anyone who has learned a foreign language is acutely aware that second language learning actually necessitates the making of mistakes. We test out hypotheses about language by trial and many errors; children learning their first language and adults learning a second can really make progress only by learning from their mistakes. If we never ventured to speak a sentence until we were absolutely certain of its total correctness, we would likely never communicate productively at all. But

mistakes can be viewed as threats to one's ego. They pose both internal and external threats, to hearken back to attribution theory described earlier. Internally, one's critical self and one's performing self can be in conflict: the learner performs something "wrong" and becomes critical of his or her own mistake. Externally, learners perceive others to be critical, even judging their very person when they blunder in a second language.

Earl Stevick (1976b) spoke of language learning as involving a number of forms of "alienation": alienation between the critical me and the performing me, between my native culture and my target culture, between me and my teacher, and between me and my fellow students. This alienation arises from the defenses that we build around ourselves. These defenses inhibit learning, and their removal can therefore promote language learning, which involves self-exposure to a degree manifested in few other endeavors.

Risk Taking

In Chapter 5 we saw that one of the prominent characteristics of good language learners, according to Rubin and Thompson (1982), was the ability to make intelligent guesses. Impulsivity was also described as a style that could have positive effects on language success. And we have just seen that inhibitions, or building defenses around our egos, can be a detriment. These factors suggest that **risk taking** is an important characteristic of successful learning of a second language. Learners have to be able to gamble a bit, to be willing to try out hunches about the language and take the risk of being wrong.

Beebe (1983, p. 40) described some of the negative ramifications that foster fear of risk taking both in the classroom and in natural settings.

> In the classroom, these ramifications might include a bad grade in the course, a fail on the exam, a reproach from the teacher, a smirk from a classmate, punishment or embarrassment imposed by oneself. Outside the classroom, individuals learning a second language face other negative consequences if they make mistakes. They fear looking ridiculous; they fear the frustration coming from a listener's blank look, showing that they have failed to communicate; they fear the danger of not being able to take care of themselves; they fear the alienation of not being able to communicate and thereby get close to other human beings. Perhaps worst of all, they fear a loss of identity.

The classroom antidote to such fears, according to Dufeu (1994, pp. 89–90), is to establish an adequate affective framework so that learners "feel comfortable as they take their first public steps in the strange world of a foreign language. To achieve this, one has to create a climate of acceptance that will stimulate self-confidence, and encourage participants to experiment and to discover the target language, allowing themselves to take risks without feeling embarrassed."

On a continuum ranging from high to low risk taking, we may be tempted to assume with Ely (1986) that high risk taking will yield positive results in second language learning; however, such is not usually the case. Beebe (1983, p. 41) cited a study which claimed that "persons with a high motivation to achieve are . . . moderate, not high, risk-takers. These individuals like to be in control and like to depend on skill. They do not take wild, frivolous risks or enter into no-win situations." Successful second language learners appear to fit the same paradigm. A learner might be too bold in blurting out meaningless verbal garbage that no one can quite understand, while success lies in an optimum point where calculated guesses are ventured. As Rubin & Thompson (1994) noted, successful language learners make willing and *accurate* guesses.

Risk-taking variation seems to be a factor in a number of issues in second language acquisition and pedagogy. The silent student in the classroom is one who is unwilling to appear foolish when mistakes are made. Self-esteem seems to be closely connected to a risk-taking factor: when those foolish mistakes are made, a person with high global self-esteem is not daunted by the possible consequences of being laughed at. Beebe (1983) noted that fossilization, or the relatively permanent incorporation of certain patterns of error, may be due to a lack of willingness to take risks. It is "safe" to stay within patterns that accomplish the desired function even though there may be some errors in those patterns. (See Chapter 8 for further discussion of fossilization.) The implications for teaching are important. In a few uncommon cases, overly high risk takers, as they dominate the classroom with wild gambles, may need to be "tamed" a bit by the teacher. But most of the time our problem as teachers will be to encourage students to guess somewhat more willingly than the usual student is prone to do, and to value them as persons for those risks that they take.

Anxiety

Intricately intertwined with self-esteem, self-efficacy, inhibition, and risk taking, the construct of **anxiety** plays a major affective role in second language acquisition. Even though we all know what anxiety is and we all have experienced feelings of anxiousness, anxiety is still not easy to define in a simple sentence. Spielberger (1983, p. 1) defined anxiety as "the subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the autonomic nervous system." More simply put, anxiety is associated with feelings of uneasiness, frustration, self-doubt, apprehension, or worry (Scovel, 1978, p. 134).

The research on anxiety suggests that anxiety, like self-esteem, can be experienced at various levels (Horwitz, 2001; Oxford, 1999). At the deepest, or global, level, **trait anxiety** is a more permanent predisposition to be anxious. Some people are predictably and generally anxious about many things. At a more momentary, or situational level, **state anxiety** is experienced in relation to some particular event or act. As we learned in the case of self-esteem, then, it is important in a classroom for a teacher to try to determine whether a student's anxiety stems from a more global trait or whether it comes from a particular situation at the moment.

Trait anxiety, because of its global and somewhat ambiguously defined nature, has not proved to be useful in predicting second language achievement (MacIntyre & Gardner, 1991c). However, recent research on **language anxiety**, as it has come to be known, focuses more specifically on the situational nature of state anxiety. Three components of foreign language anxiety have been identified (Horwitz, Horwitz, & Cope, 1986; MacIntyre & Gardner, 1989, 1991c) in order to break down the construct into researchable issues:

1. Communication apprehension, arising from learners' inability to adequately express mature thoughts and ideas
2. Fear of negative social evaluation, arising from a learner's need to make a positive social impression on others
3. Test anxiety, or apprehension over academic evaluation

Two decades of research (MacIntyre & Gardner, 1988, 1989, 1991a, 1991b, 1991c, 1994; Gardner & MacIntyre, 1993b; MacIntyre, Noels, & Clément, 1997; Horwitz & Young, 1991; Young, 1991; Phillips, 1992; Ganschow et al., 1994; Ganschow & Sparks, 1996; Vogely, 1998; Oxford, 1999; Horwitz, 2001) have now given us useful information on foreign language anxiety. Most of these studies conclude that "foreign language anxiety can be distinguished from other types of anxiety and that it can have a negative effect on the language learning process" (MacIntyre & Gardner, 1991c, p. 112).

Yet another important insight to be applied to our understanding of anxiety lies in the distinction between **debilitative** and **facilitative anxiety** (Alpert and Haber, 1960; Scovel, 1978), or what Oxford (1999) called "harmful" and "helpful" anxiety. More recently, Spielmann & Radnofsky (2001) preferred to identify **tension** as a more neutral concept to describe the possibility of both "dysphoric" (detrimental) and "euphoric" (beneficial) effects in learning a foreign language. We may be inclined to view anxiety as a negative factor, something to be avoided at all costs. But the notion of facilitative anxiety and euphoric tension is that some concern—some apprehension—over a task to be accomplished is a positive factor. Otherwise, a learner might be inclined to be "wishy-washy," lacking that facilitative tension that keeps one poised, alert, and just slightly unbalanced to the point that one cannot relax entirely. The feeling of nervousness before giving a public speech is, in experienced speakers, often a sign of facilitative anxiety, a symptom of just enough tension to get the job done.

Several studies have suggested the benefit of facilitative anxiety in learning foreign languages (Spielmann & Radnofsky, 2001; Ehrman & Oxford, 1995; Young, 1992; Horwitz, 1990). In Bailey's (1983) study of competitiveness and anxiety in second language learning, facilitative anxiety was one of the keys to success, closely related to competitiveness. I noted in Chapter 4 that Rogers's humanistic theory of learning promotes low anxiety among learners and a nondefensive posture where learners do not feel they are in competition with one another. Bailey found in her self-analysis, however, that while competitiveness sometimes hindered her progress (for

example, the pressure to outdo her peers sometimes caused her to retreat even to the point of skipping class), at other times it motivated her to study harder (as in the case of carrying out an intensive review of material in order to feel more at ease in oral work in the classroom). She explained the positive effects of competitiveness by means of the construct of facilitative anxiety.

So the next time your language students are anxious, you would do well to ask yourself if that anxiety is truly debilitative. It could well be that a little nervous tension in the process is a good thing. Once again, we find that a construct has an optimal point along its continuum: both too much and too little anxiety may hinder the process of successful second language learning.

A further by-product of ongoing research on language anxiety has been a debate over whether anxiety is the *cause* of poor performance in a second language, or the *product* of less than satisfactory performance. Sparks and Ganschow (Sparks & Ganschow, 2001; Sparks, Ganschow, & Javorsky, 2000) and their colleagues have maintained that language anxiety is a consequence of their foreign language learning difficulties. They argued (Ganschow et al., 1994; Sparks & Ganschow, 1995, 1993a, 1993b, 1991) that anxiety in a foreign language class could be the result of *first* language deficits, namely, difficulties that students may have with language "codes" (phonological, syntactic, lexical, semantic features). In a series of studies (capsulized in Sparks, Ganschow, & Javorsky, 2000), Sparks, Ganschow, and colleagues have attempted to prove their point by examining what they call the **Linguistic Deficit Coding Hypothesis** (LCDH).

Others (Horwitz, 2000, 2001; MacIntyre, 1995a, 1995b) were not ready to accept the LCDH explanation, and raised strong objections to the validity of the research cited in support of it. While their arguments did not go so far as to assert clearly that anxiety is the cause of poor language performance, they rejected the LCDH, showing that anxiety is a common source of interference in all kinds of learning. Research has shown that highly proficient language learners nevertheless experience various degrees of anxiety. They further note that with over one-third of language learners reporting forms of anxiety, it seems highly implausible to attribute anxiety to first language deficits (Horwitz, 2000).

Even with some controversies about causes and effects of language anxiety, and some questions about how to avoid or ameliorate anxiety in foreign language classes, some progress has been made over the last few years toward a better understanding of the phenomenon. Spielmann and Radnofsky (2001) found that students of French in Vermont who were able to "reinvent" themselves in their foreign language were able to garner more euphoric tension. Levine (2003) suggested in a study of German as a foreign language that anxiety varied depending on whether students were speaking with other students or with teachers. Rodríguez and Abreu (2003) looked at the stability of anxiety across different foreign languages. In a study of native Spanish speakers learning English, Gregersen (2003) observed that anxious learners made more errors, overestimated the number of their errors, and corrected themselves more than less anxious learners. Among college students in Japan, Kitano (2001) found

that anxiety levels were higher as learners reported greater fear of negative evaluation and as they perceived their ability to be lower than others'. Similar findings reported by Gregersen and Horwitz (2002) linked anxiousness with perfectionism, suggesting that those who set unrealistically high standards for themselves were likely to develop greater anxiety. Finally, anxiety was correlated with low-perceived self-worth, competence, and intelligence in a study by Bailey, Onwuegbuzie, and Daley (2000). Many of these findings reinforce the assertion earlier that self-efficacy and attribution are keys to other affective variables, especially to anxiety.

CLASSROOM CONNECTIONS

Research Findings: The LCDH proposed and defended by Sparks and Ganschow and their colleagues is controversial in singling out native language "deficits" as a potential cause of anxiety. Some researchers (Horwitz, MacIntyre) object to the LCDH. They point out that a number of other significant sources of anxiety may be present in a language learning situation: a quest for perfection, fear of negative evaluation, and identity conflict, among others.

Teaching Implications: In your learning, or in your experience with students in a foreign language classroom, have you seen evidence of any native language deficiency that could account for anxiety? More important, have you identified other sources that could account for anxiety? If anxieties are debilitative, what approaches and activities can help to alleviate them?

Empathy

The human being is a social animal, and the chief mechanism for maintaining the bonds of society is language. Some approaches to language teaching fail to accomplish the goal of communicativity in the learner by overlooking the social nature of language. While we tend to recognize the importance of the social aspect of language, we also tend to oversimplify that aspect by not recognizing the complexity of the relation between language and society, or by considering socially oriented problems in language learning as a simple matter of "acculturation." Chapter 7 demonstrates that acculturation is no simple process, and it will become clear in this chapter that the social **transactions** that the second language learner is called upon to make constitute complex endeavors.

Transaction is the process of reaching out beyond the self to others, and language is a major tool used to accomplish that process. A variety of transactional variables may apply to second language learning: imitation, modeling, identification, empathy, extroversion, aggression, styles of communication, and others. Two of these variables, chosen for their relevance to a global understanding of second language acquisition, will be treated here: empathy and extroversion.

In common terminology, **empathy** is the process of "putting yourself into someone else's shoes," of reaching beyond the self to understand what another person is feeling. It is probably the major factor in the harmonious coexistence of individuals in society. Language is one of the primary means of empathizing, but nonverbal communication facilitates the process of empathizing and must not be overlooked.

In more sophisticated terms, empathy is usually described as the projection of one's own personality into the personality of others in order to understand them better. Empathy is not synonymous with **sympathy**. Empathy implies more possibility of detachment; sympathy connotes an agreement or harmony between individuals. Guiora et al. (1972b, p. 142) defined empathy as "a process of comprehending in which a temporary fusion of self-object boundaries permits an immediate emotional apprehension of the affective experience of another." Psychologists generally agree with Guiora's definition and add that there are two necessary aspects to the development and exercising of empathy: first, an awareness and knowledge of one's own feelings, and second, identification with another person (Hogan, 1969). In other words, you cannot fully empathize—or know someone else—until you adequately know yourself.

Communication requires a sophisticated degree of empathy. In order to communicate effectively, you need to be able to understand the other person's affective and cognitive states; communication breaks down when false presuppositions or assumptions are made about the other person's state. From the very mechanical, syntactic level of language to the most abstract, meaningful level, we assume certain structures of knowledge and certain emotional states in any communicative act. In order to make those assumptions correctly, we need to transcend our own ego boundaries, or, using Guiora's term, to "permeate" our ego boundaries so that we can send and receive messages clearly.

Oral communication is a case in which, cognitively at least, it is easy to achieve empathetic communication because there is immediate feedback from the hearer. A misunderstood word, phrase, or idea can be questioned by the hearer and then rephrased by the speaker until a clear message is interpreted. Written communication requires a special kind of empathy—a "cognitive" empathy in which the writer, without the benefit of immediate feedback from the reader, must communicate ideas by means of a very clear empathetic intuition and judgment of the reader's state of mind and structure of knowledge.

So in a second language learning situation, the problem of empathy becomes acute. Not only must learner-speakers correctly identify cognitive and affective sets in

the hearer, but they must do so in a language in which they are insecure. Then, learner-hearers, attempting to comprehend a second language, often discover that their own states of thought are misinterpreted by a native speaker, and the result is that linguistic, cognitive, and affective information easily passes in one ear and out the other.

Guiora and his colleagues (1972a, 1972b) found that a modified version of the Micro-Momentary Expression (MME) test, a test claiming to measure degrees of empathy, successfully predicted authenticity of pronunciation of a foreign language. Naiman, Fröhlich, Stern, and Todesco (1978, reprinted 1996) included an empathy measure (Hogan's Empathy Scale—see Hogan, 1969) in their battery of tests used to try to discover characteristics of the "good language learner," but found no significant correlation between empathy and language success as measured by an imitation test and a listening test. Their finding was not unexpected, however, since they found field independence to be positively correlated with language success; the presumed antithesis of field independence—field dependence—has been shown to correlate highly with empathy (Witkin, 1962; Witkin & Goodenough, 1981). But a great deal of the problem of the study of most personality variables lies in the accuracy of the tests used to measure traits. Serious methodological problems surround such measurement; the MME and Hogan's Empathy Scale are cases in point. It has been shown that such tests accurately identify personality extremes (schizophrenic, paranoid, or psychotic behavior, for example) but fail to differentiate among the vast "normal" population.

Certainly one of the more interesting implications of the study of empathy is the need to define empathy cross-culturally—to understand how different cultures express empathy. Most of the empathy tests devised in the United States are culture-bound to Western, North American, middle-class society. Chapter 7 will deal more specifically with empathy in cross-cultural settings, particularly with the role of empathy in defining the concept of acculturation.

Extroversion

Extroversion and its counterpart, introversion, are also potentially important factors in the acquisition of a second language. The terms are often misunderstood because of a tendency to stereotype extroversion. We are prone to think of an extroverted person as a gregarious, "life of the party" person. Introverts, conversely, are thought of as quiet and reserved, with tendencies toward reclusiveness. Western society values the stereotypical extrovert. Nowhere is this more evident than in the classroom where teachers admire the talkative, outgoing student who participates freely in class discussions. On the other hand, introverts are sometimes thought of as not being as bright as extroverts.

Such a view of extroversion is misleading. **Extroversion** is the extent to which a person has a deep-seated need to receive ego enhancement, self-esteem, and a sense of wholeness *from other people* as opposed to receiving that affirmation within oneself. Extroverts actually need other people in order to feel "good." But extroverts are not necessarily loudmouthed and talkative. They may be relatively

shy but still need the affirmation of others. **Introversion**, on the other hand, is the extent to which a person derives a sense of wholeness and fulfillment apart from a reflection of this self from other people. Contrary to our stereotypes, introverts can have an inner strength of character that extroverts do not have.

It is unfortunate that these stereotypes have influenced teachers' perceptions of students. Ausubel (1968, p. 413) noted that introversion and extroversion are a "grossly misleading index of social adjustment," and other educators have warned against prejudging students on the basis of perceived extroversion. In language classes, where oral participation is highly valued, it is easy to view active participants with favor and to assume that their visibility in the classroom is due to an extroversion factor (which may not be so). Culturally, American society differs considerably from a number of other societies where it is improper to speak out in the classroom. Teachers need to consider cultural norms in their assessment of a student's presumed "passivity" in the classroom.

Extroversion is commonly thought to be related to empathy, but such may not be the case. The extroverted person may actually behave in an extroverted manner in order to protect his or her own ego, with extroverted behavior being symptomatic of defensive barriers and high ego boundaries. At the same time the introverted, quieter, more reserved person may show high empathy—an intuitive understanding and apprehension of others—and simply be more reserved in the outward and overt expression of empathy.

It is not clear then, that extroversion or introversion helps or hinders the process of second language acquisition. The Toronto study (Naiman et al., 1978, 1996) found no significant effect for extroversion in characterizing the good language learner. In a comprehensive study on extroversion, Busch (1982) explored the relationship of introversion and extroversion to English proficiency in adult Japanese learners of English in Japan. She hypothesized that extroverted students (as measured by a standard personality inventory) would be more proficient than introverts. Her hypothesis was not supported by her findings. In fact, introverts were significantly *better* than extroverts in their pronunciation (one of four factors which were measured in an oral interview)! This latter result clouded our stereotype of the extroverted language learner as a frequent and willing participant in class activities. But more appropriately, it suggested that introverts may have the patience and focus to attend to clear articulation in a foreign language. In yet another study, Wakamoto (2000) found that junior college English majors in Japan who were extroverted were likely to make better use of learning strategies than introverts. This finding suggests that extroverts may have a strategic edge over introverts, but it masks the possibility that extroverts may simply *need* the strategies in question—as measured by Oxford's (1990a) SILL—more than introverts.

Even in the light of an appropriate definition of extroversion, it is nevertheless conceivable that extroversion may be a factor in the development of general oral communicative competence (see Dewaele & Furnham, 1998), which requires face-to-face interaction, but not in listening, reading, and writing. It is also readily apparent that cross-cultural norms of nonverbal and verbal interaction vary widely, and what

in one culture (say, the United States) may appear as introversion is, in another culture (say, Japan), respect and politeness. Nevertheless, on a practical level, the facilitating or interfering effects of certain language teaching practices that invoke extroversion need to be carefully considered. How effective are techniques that incorporate drama, pantomime, humor, role plays, and overt personality exposure? A teacher needs to beware of trying to "create" in a student more so-called extroversion than is really necessary. We need to be sensitive to cultural norms, to a student's willingness to speak out in class, and to optimal points between extreme extroversion and introversion that may vary from student to student.

MOTIVATION

Motivation is yet another affective variable to consider, but one that is so central and with research foundations that are so pervasive that it deserves a separate category here. Undoubtedly the most frequently used catch-all term for explaining the success or failure of virtually any complex task, motivation is a star player in the cast of characters assigned to second language learning scenarios around the world. Such assumptions are of course not erroneous, for countless studies and experiments in human learning have shown that motivation is a key to learning in general (Weiner, 1986; Deci, 1975; Maslow, 1970). In the field of second language acquisition, in particular, the subject of motivation has garnered plenty of attention (see Dörnyei, 2005, 2001a, 2001b, 1998; Dörnyei & Skehan, 2003; Dörnyei & Schmidt, 2001; Spolsky, 2000; Gardner & Lambert, 1972). But broad claims can gloss over a detailed understanding of exactly what motivation is and what the subcomponents of motivation are. What does it mean to say that someone is motivated? How do you create, foster, and maintain motivation?

Theories of Motivation

Various theories of **motivation** have been proposed over the course of decades of research. Following the historical schools of thought described in Chapter 1, three different perspectives emerge:

1. From a *behavioral* perspective, motivation is seen in very matter of fact terms. It is quite simply the anticipation of reward. Driven to acquire positive reinforcement, and driven by previous experiences of reward for behavior, we act accordingly to achieve further reinforcement. Skinner, Pavlov, and Thorndike put motivation at the center of their theories of human behavior. In a behavioral view, performance in tasks—and motivation to do so—is likely to be at the mercy of external forces: parents, teachers, peers, educational requirements, job specifications, and so forth.
2. In *cognitive* terms, motivation places much more emphasis on the individual's decisions, "the choices people make as to what experiences or goals they will

approach or avoid, and the degree of effort they will exert in that respect" (Keller, 1983, p. 389). Some cognitive psychologists see underlying needs or drives as the compelling force behind our decisions. Ausubel (1968, pp. 368-379), for example, identified six needs undergirding the construct of motivation:

a. The need for *exploration*, for seeing "the other side of the mountain," for probing the unknown
b. The need for *manipulation*, for operating—to use Skinner's term—on the environment and causing change
c. The need for *activity*, for movement and exercise, both physical and mental
d. The need for *stimulation*, the need to be stimulated by the environment, by other people, or by ideas, thoughts, and feelings
e. The need for *knowledge*, the need to process and internalize the results of exploration, manipulation, activity, and stimulation, to resolve contradictions, to quest for solutions to problems and for self-consistent systems of knowledge
f. Finally, the need for *ego enhancement*, for the self to be known and to be accepted and approved of by others, or, what Dörnyei (2005, pp. 93) calls the "self-system"

3. A *constructivist* view of motivation places even further emphasis on social context as well as individual personal choices (Williams & Burden, 1997, p. 120). Each person is motivated differently, and will therefore act on his or her environment in ways that are unique. But these unique acts are always carried out within a cultural and social milieu and cannot be completely separated from that context. Several decades ago, Abraham Maslow (1970) viewed motivation as a construct in which ultimate attainment of goals was possible only by passing through a hierarchy of needs, three of which were solidly grounded in community, belonging, and social status. Motivation, in a constructivist view, is derived as much from our interactions with others as it is from one's self-determination.

The "needs" concept of motivation in some ways belongs to all three schools of thought: the fulfillment of needs is rewarding, requires choices, and in many cases must be interpreted in a social context. Consider children who are motivated to learn to read. They are motivated because they perceive the value (reward) of reading, they meet the needs of exploration, stimulation, knowledge, self-esteem, and autonomy, and they do so in widely varying ways and schedules and in the context of a society that values literacy. On the other hand, you may be unmotivated to learn a foreign language because you fail to see the rewards, connect the learning only to superficial needs (e.g., fulfilling a requirement), and see no possibility of a social context in which this skill is useful. (See Table 6.1 for a schematic representation of views of motivation.)

Table 6.1. Three views of motivation

Behavioristic	Cognitive	Constructivist
Anticipation of reward	Driven by basic human needs (exploration, manipulation, etc.)	Social context
Desire to receive positive reinforcement	Degree of effort expended	Community
External, individual forces in control	Internal, individual forces in control	Social status
		Security of group
		Internal, interactive forces in control

Motivation is something that can, like self-esteem, be global, situational, or task-oriented. Learning a foreign language requires some of all three levels of motivation. For example, a learner may possess high "global" motivation but low "task" motivation to perform well on, say, the written mode of the language. Motivation is also typically examined in terms of the intrinsic and extrinsic motives of the learner. Those who learn for their own self-perceived needs and goals are intrinsically motivated, and those who pursue a goal only to receive an external reward from someone else are extrinsically motivated. (We will return to this extremely important concept below.) Finally, studies of motivation in second language acquisition often refer to the distinction between integrative and instrumental orientations of the learner, which we now consider.

Instrumental and Integrative Orientations

One of the best-known and historically significant studies of motivation in second language learning was carried out by Robert Gardner and Wallace Lambert (1972). Over a period of 12 years they extensively studied foreign language learners in Canada, several parts of the United States, and the Philippines in an effort to determine how attitudinal and motivational factors affected language learning success. Motivation was examined as a factor of a number of different kinds of attitudes. Two different clusters of attitudes divided two basic types of what Gardner and Lambert identified as **instrumental** and **integrative orientations** to motivation. The instrumental side of the dichotomy referred to acquiring a language as a means for attaining instrumental goals: furthering a career, reading technical material, translation, and so forth. The integrative side described learners who wished to integrate themselves into the culture of the second language group and become involved in social interchange in that group.

It is important to note that instrumentality and integrativeness are not actually types of *motivation* as such, but rather, as Dörnyei (2001b), Gardner and MacIntyre (1991), and others have noted, are more appropriately termed **orientations**. That is, depending on whether a learner's context or orientation is (1) academic or career related (instrumental), or (2) socially or culturally oriented (integrative), different needs might be fulfilled in learning a foreign language. The importance of distinguishing

orientation from motivation is that within either orientation, one can have either high or low **motivational intensity**. One learner may be only mildly motivated to learn within, say, a career context, while another learner with the same orientation may be intensely driven to succeed in the same orientation.

Gardner and Lambert (1972) and Spolsky (1969) found that integrativeness generally accompanied higher scores on proficiency tests in a foreign language. The conclusion from these studies was that integrativeness was indeed an important requirement for successful language learning. But evidence quickly began to accumulate that challenged such a claim. Lukmani (1972) demonstrated that among Marathi-speaking Indian students learning English in India, those with instrumental orientations scored higher in tests of English proficiency. Braj Kachru (1992, 1977) noted that Indian English is but one example of a variety of "Englishes," which, especially in countries where English has become an international language, can be acquired very successfully for instrumental purposes alone.

In the face of claims and counterclaims about integrative and instrumental orientations, Au (1988) reviewed 27 different studies of the integrative-instrumental construct and concluded that both its theoretical underpinnings and the instruments used to measure motivation were suspect. Because the dichotomy was based on notions about cultural beliefs, numerous ambiguities had crept into the construct, making it difficult to attribute foreign language success to certain presumably integrative or instrumental causes. Gardner and MacIntyre (1993b) disputed Au's claims with strong empirical support for the validity of their measures.

To further muddy these waters, a number of subsequent investigations have produced ambiguous results. Even Gardner found that certain contexts pointed toward instrumental orientation as an effective context for language success (Gardner & MacIntyre, 1991), and that others favored an integrative orientation (Gardner, Day, & MacIntyre, 1992). Warden and Lin (2000) found no support for an integrative orientation among university English majors in Taiwan. Then, Masgoret and Gardner (2003) demonstrated that integrativeness was not as significant a factor as motivational intensity. In a later study, Gardner and his colleagues (Gardner et al., 2004) found integrative and instrumental orientation to have roughly the same impact on university learners of French in Canada. Similarly, Lamb (2004) reported integrative and instrumental constructs to be almost indistinguishable. Finally, in a recent study, Csizér and Dörnyei (2005) found that, among 13- and 14-year-old Hungarian students of foreign language, integrativeness was the single most important factor contributing to success!

Such variable findings in empirical investigations do not necessarily invalidate the integrative-instrumental construct. They point out once again that there is no single means of learning a second language: some learners in some contexts are more successful in learning a language if they are integratively oriented, and others in different contexts benefit from an instrumental orientation. The findings also suggest that the two orientations are not necessarily mutually exclusive. Second language learning is rarely taken up in contexts that are exclusively instrumental or exclusively integrative. Most situations involve a mixture of each orientation. For

example, international students learning English in the United States for academic purposes may be relatively balanced in their desire to learn English both for academic (instrumental) purposes and to understand and become somewhat integrated with the culture and people of the United States. We are left with the conclusion that both integrative and instrumental orientations may be important factors accounting for successful language learning, and that the degree of impact of either orientation will depend on individual learners, educational contexts, cultural milieu, teaching methodology, and social interaction.

A further perspective on the integrative–instrumental construct may be gained by regarding the two orientations simply as two out of a number of possible orientations. Several research studies (Dörnyei, 2005; Noels et al., 2000) now advocate as many as *four* orientations: travel, friendship, knowledge, and instrumental orientations. McClelland (2000), citing the difficulty of defining integrativeness, asserted that integration with a global community of speakers may be quite different from integration with native speakers. Much earlier, Graham (1984) also claimed that integrativeness was too broadly defined and suggested that some integrative orientations may be simply a moderate desire to socialize with or find out about speakers of the target language, while deeper, **assimilative orientations** may describe a more profound need to identify almost exclusively with the target language culture, possibly over a long-term period. Likewise, instrumentality might describe an academic orientation on the one hand, and a career or business orientation, on the other. Motivational intensity, then, can have varying degrees within any one of these orientations or contexts, and possibly more.

Intrinsic and Extrinsic Motivation

Yet another, but arguably the most powerful, dimension of the whole motivation construct in general is the degree to which learners are intrinsically or extrinsically motivated to succeed in a task. Edward Deci (1975, p. 23) defined **intrinsic motivation**:

> Intrinsically motivated activities are ones for which there is no apparent reward except the activity itself. People seem to engage in the activities for their own sake and not because they lead to an extrinsic reward. . . . Intrinsically motivated behaviors are aimed at bringing about certain internally rewarding consequences, namely, feelings of *competence* and *self-determination*.

On the other hand, **extrinsic motivation** is fueled by the anticipation of a reward from outside and beyond the self. Typical extrinsic rewards are money, prizes, grades, and even certain types of positive feedback. Behaviors initiated solely to avoid punishment are also extrinsically motivated, even though numerous intrinsic benefits can ultimately accrue to those who, instead, view punishment avoidance as a challenge that can build their sense of competence and self-determination.

Which form of motivation is more powerful? Our growing stockpile of research on motivation (Wu, 2003; Noels et al. 2000; Noels, Clément, & Pelletier, 1999; Dörnyei, 2001a, 2001b, 1998; Dörnyei & Csizér, 1998; Crookes & Schmidt, 1991; Brown, 1990) strongly favors intrinsic orientations, especially for long-term retention. Jean Piaget (1972) and others pointed out that human beings universally view incongruity, uncertainty, and "disequilibrium" as motivating. In other words, we seek out a reasonable challenge. Then we initiate behaviors intended to conquer the challenging situation. Incongruity is not itself motivating, but *optimal* incongruity—or what Krashen (1985) called "$i + 1$" (see Chapter 10)—presents enough of a possibility of being resolved that learners will pursue that resolution.

CLASSROOM CONNECTIONS

Research Findings: An unpublished study once reported an experiment in which two matched groups of junior high school girls were asked to teach a simple game to kindergarteners. One group was promised a reward in the form of a movie ticket; the other group received no such promise. The results showed that the latter group did a better job of successfully teaching the game and reported greater satisfaction in doing so than the first group. Conclusion: The first group was too focused on the reward, and the (presumed) intrinsic motivation in the second group was a stronger motivator.

Teaching Implications: We can probably never completely remove extrinsic motives, and some extrinsic motives may be useful. Every classroom context has its share of extrinsic motives, and successful classrooms usually incorporate both. What kinds of approaches do you think would help to promote intrinsic motivation on the part of students in a foreign language class? How would you promote a balance between extrinsic and intrinsic rewards?

Maslow (1970) claimed that intrinsic motivation is clearly superior to extrinsic. According to his hierarchy of needs mentioned above, motivation is dependent on the satisfaction first of fundamental physical necessities (air, water, food), then of community, security, identity, and self-esteem, the fulfillment of which finally leads to **self-actualization**, or, to use a common phrase, "being all that you can be." Maslow represented these needs in the form of a pyramid with the physical needs at the bottom, or foundation, of the pyramid, and self-actualization—the culmination of human attainment—at the top.

A more recent offshoot of Maslow's view of motivation is seen in Csikszentmihalyi's (1990; Egbert, 2003; Csikszentmihalyi & Csikszentmihalyi, 1988) investigations of the effect of "flow" on ultimate attainment. **Flow theory**, as it has come to be called, highlights the importance of "an experiential state characterized by intense focus and involvement that leads to improved performance on a task. . . . Flow theory claims that as a result of the intrinsically rewarding experience associated with flow, people push themselves to higher levels of performance" (Egbert, 2003, p. 499). Others have characterized flow as "optimal experience," being "in the groove," when "everything gelled." Flow research has found that such optimal performance is a result of such factors as a perceived balance of skills and challenge, ability to focus intently on clear task goals, and positive feedback that one is succeeding at a task. All of this research supports the ultimate importance of intrinsic involvement of learners in attaining one's proficiency goals in a foreign language.

Jerome Bruner (1966b), praising the "autonomy of self-reward," claimed that one of the most effective ways to help both children and adults think and learn is to free them from the control of rewards and punishments. One of the principal weaknesses of extrinsically driven behavior is its addictive nature. Once captivated, as it were, by the lure of an immediate prize or praise, our dependency on those tangible rewards increases, even to the point that their withdrawal can then extinguish the desire to learn. Ramage (1990), for example, found that foreign language high school students who were interested in continuing their study beyond the college entrance requirement were positively and intrinsically motivated to succeed. In contrast, those who were in the classes only to fulfill entrance requirements exhibited low motivation and weaker performance.

It is important to distinguish the intrinsic-extrinsic construct from Gardner's integrative-instrumental orientation. While many instances of intrinsic motivation may indeed turn out to be integrative, some may not. For example, one could, for highly developed intrinsic purposes, wish to learn a second language in order to advance in a career or to succeed in an academic program. Likewise, one could develop a positive affect toward the speakers of a second language for extrinsic reasons, such as parental reinforcement or a teacher's encouragement. Kathleen Bailey (1986) illustrated the relationship between the two dichotomies with the diagram in Table 6.2.

The intrinsic-extrinsic continuum in motivation is applicable to foreign language classrooms around the world (for example, Warden & Lin, 2000; Wu, 2003; Csizér & Dörnyei, 2005). Regardless of the cultural beliefs and attitudes of learners and teachers, intrinsic and extrinsic factors can be easily identified. Dörnyei and Csizér (1998), for example, in a survey of Hungarian teachers of English, proposed a taxonomy of factors by which teachers could motivate their learners. They cited factors such as developing a relationship with learners, building learners' self-confidence and autonomy, personalizing the learning process, and increasing learners' goal-orientation. These all fall into the intrinsic side of motivation. Our ultimate quest in this language teaching business is, of course, to see to it that our pedagogical tools can harness the power of intrinsically motivated learners who are striving for excellence, autonomy, and self-actualization.

Table 6.2. Motivational dichotomies

	Intrinsic	Extrinsic
Integrative	L2 learner wishes to integrate with the L2 culture (e.g., for immigration or marriage)	Someone else wishes the L2 learner to know the L2 for integrative reasons (e.g., Japanese parents send kids to Japanese language school)
Instrumental	L2 learner wishes to achieve goals utilizing L2 (e.g., for a career)	External power wants L2 learner to learn L2 (e.g., corporation sends Japanese businessman to U.S. for language training)

THE NEUROBIOLOGY OF AFFECT

It would be neglectful to engage in a discussion of personality and language learning without touching on the neurological bases of affect. The last part of the twentieth century saw significant advances in the empirical study of the brain through such techniques as positron emission tomography (PET) and magnetic resonance imaging (MRI). Using such techniques, some connections have been made between affectivity and mental/emotional processing in general (Schumann, 1998), as well as second language acquisition in particular. "Neurobiology, including neuroanatomy, neurochemistry and neurophysiology,... informs several areas of interest for language acquisition studies, for example, plasticity, affect, memory and learning" (Schumann, 1999, p. 28).

John Schumann's (1999, 1998, 1997; Schumann et al., 2004) work in this area has singled out one section of the temporal lobes of the human brain, the *amygdala*, as a major player in the relationship of affect to language learning. The amygdala is instrumental in our ability to make an appraisal of a stimulus. In other words, if you see or hear or taste something, the amygdala helps you decide whether or not your perception is novel, pleasant, relevant to your needs or goals, manageable (you can potentially cope with it), and compatible with your own social norms and self-concept. So, when a teacher in a foreign language class suddenly asks you to perform something that is, let's say, too complex, your reaction of fear and anxiety means that the amygdala has sent neural signals to the rest of the brain indicating that the stimulus is too novel, unpleasant, unmanageable at the moment, and a potential threat to self-esteem.

Schumann (1999) examined a number of foreign language motivation scales in terms of their neurobiological properties. He noted how certain questions about motivation refer to pleasantness ("I enjoy learning English very much"), goal relevance ("Studying French can be important to me because it will allow me to ..."), coping potential ("I never feel quite sure of myself when ..."), and norm/self-compatibility ("Being able to speak English will add to my social status"). His conclusion: "positive appraisals of the language learning situation ... enhance language learning and negative appraisals inhibit second language learning" (p. 32).

In more recent work, Schumann and Wood (2004) provided further explanation of the neurobiological bases of motivation as **sustained deep learning** (SDL), the kind of learning that requires an extended period of time to achieve. SDL, not unlike intrinsic motivation, is rooted in the biological concept of *value*. Value is a bias that leads humans to certain preferences and to choosing among alternatives. We have, for example, what Schumann and Wood call *homeostatic* value that promotes an organism's survival, and *sociostatic* value that leads us to interact with others, and to seek social affiliation.

Research in the near future on the neurobiology of affect is likely to enlighten our current understanding of the physiology of the brain and its effect on human behavior. Even more specifically, we can look forward to verifying what we now hypothesize to be important connections between affect and second language acquisition.

PERSONALITY TYPES AND LANGUAGE ACQUISITION

Within the affective domain, another subarea of interest over the past half-century or so has been the measurement of personality characteristics and the hypothesized relationship of such traits to success in various kinds of endeavors. Among dozens of tests and questionnaires designed to tell you more about yourself is the widely popular Myers-Briggs Type Indicator (Myers, 1962), commonly referred to as the "Myers-Briggs test." Borrowing from some of Carl Jung's (1923) "types," the Myers-Briggs team tested four dichotomous styles of functioning in the Myers-Briggs test: (1) introversion vs. extroversion, (2) sensing vs. intuition, (3) thinking vs. feeling, and (4) judging vs. perceiving. Table 6.3 defines the four categories (Keirsey & Bates, 1984, pp. 25–26) in simple words and self-explanatory phrases.

With four two-dimensional categories, 16 personality profiles, or combinations, are possible. Disciples of the Myers-Briggs research (Keirsey & Bates, 1984, for example) described the implications of being an "ENFJ" or an "ISTP," for example. Managers may be aided in their understanding of employees by understanding their character type. ISTJs, for example, make better behind-the-scenes workers, while ENFPs might be better at dealing with the public. Lawrence (1984) stressed the importance of a teacher's understanding the individual differences of learners in a classroom: Es will excel in group work; Is will prefer individual work; SJs are "linear learners with a strong need for structure" (p. 52); NTs are good at paper-and-pencil tests. The generalizations were many.

What might all this have to do with the second language learner? In the last decade of the twentieth century, a number of studies (Carrell, Prince, & Astika, 1996; Ehrman & Oxford, 1995, 1990, 1989; Ehrman, 1990, 1989; Moody, 1988; Oxford & Ehrman, 1988) sought to discover a link between Myers-Briggs types and second language learning. Notable among these is Ehrman and Oxford's (1990) study of 79 foreign language learners at the Foreign Service Institute. They found that their subjects exhibited some differences in strategy use, depending on their Myers-Briggs type. For example, extroverts (E) used social strategies consistently and easily, while introverts (I) rejected them, a finding that was replicated in Wakamoto's (2000) more recent study. Sensing (S) students displayed a strong liking for memory strategies; intuitives

Table 6.3. Myers-Briggs character types

Extroversion (E)	**Introversion(I)**
Sociability	Territoriality
Interaction	Concentration
External	Internal
Breadth	Depth
Extensive	Intensive
Multiplicity of relationships	Limited relationships
Expenditure of energies	Conservation of energies
Interest in external events	Interest in internal reaction
Sensing (S)	**Intuition (N)**
Experience	Hunches
Past	Future
Realistic	Speculative
Perspiration	Inspiration
Actual	Possible
Down to earth	Head in clouds
Utility	Fantasy
Fact	Fiction
Practicality	Ingenuity
Sensible	Imaginative
Thinking (T)	**Feeling (F)**
Objective	Subjective
Principles	Values
Policy	Social values
Laws	Extenuating circumstances
Criterion	Intimacy
Firmness	Persuasion
Impersonal	Personal
Justice	Humane
Categories	Harmony
Standards	Good or bad
Critique	Appreciative
Analysis	Sympathy
Allocation	Devotion
Judging (J)	**Perceiving (P)**
Settled	Pending
Decided	Gather more data
Fixed	Flexible
Plan ahead	Adapt as you go
Run one's life	Let life happen
Closure	Open options
Decision-making	Treasure hunting
Planned	Open ended

(*continued on next page*)

Table 6.3. Myers-Briggs character types (*continued*)

Judging (J)	Perceiving (P)
Completed	Emergent
Decisive	Tentative
Wrap it up	Something will turn up
Urgency	There's plenty of time
Deadline!	What deadline?
Get the show on the road	Let's wait and see . . .

(N) were better at compensation strategies. The T/F distinction yielded the most dramatic contrast: thinkers (T) commonly used metacognitive strategies and analysis, while feelers (F) rejected such strategies; and feelers used social strategies while thinkers did not. And judgers (J) rarely used the affective strategies that the perceivers (P) found so useful. These findings notwithstanding, we should not be too quick to conclude that psychological type can predict successful and unsuccessful learning, as

Table 6.4. Assets and liabilities of Myers-Briggs types

Major Assets Associated with Each Preference	
Extroversion	Willing to take conversational risks
Introversion	Concentration, self-sufficiency
Sensing	Hard, systematic work; attention to detail, close observation
Intuition	Inferencing and guessing from context, structuring own training, conceptualizing, and model building
Thinking	Analysis, self-discipline; instrumental motivation
Feeling	Integrative motivation, bonding with teachers, good relations lead to good self-esteem
Judging	Systematic work, get the job (whatever it is) done
Perceiving	Open, flexible, adaptable to change and new experiences
Major Liabilities Associated with Each Preference[a]	
Extroversion	Dependent on outside stimulation and interaction
Introversion	Need to process ideas before speaking sometimes led to avoidance of linguistic risks in conversation
Sensing	Hindered by lack of clear sequence, goals, syllabus, structure in language or course
Intuition	Inaccuracy and missing important details, sought excessive complexity of discourse
Thinking	Performance anxiety because self-esteem was attached to achievement, excessive need for control (language, process)
Feeling	Discouraged if not appreciated, disrupted by lack of interpersonal harmony
Judging	Rigidity, intolerance of ambiguous stimuli
Perceiving	Laziness, inconsistent pacing over the long haul

Source: Ehrman, 1989.

[a]Note: Not all students showed these liabilities.

the authors readily admit. In another study, Ehrman (1989) outlined both the assets *and* the liabilities of each side of the Myers-Briggs continuum (see Table 6.4).

It would appear that success in a second language depends on the "mobilization of (a) the strategies associated with one's native learning style preferences (indicated by the four MBTI letters) and (b) the strategies associated with the less preferred functions that are the opposites of the four letters of a person's type" (Ehrman & Oxford, 1990, p. 323). In other words, successful learners know their preferences, their strengths, and their weaknesses, and effectively utilize strengths and compensate for weaknesses regardless of their "natural" preferences.

MEASURING AFFECTIVE FACTORS

The above discussion of the Myers-Briggs test leads us to probe issues surrounding the measurement of affective factors, which has for many decades posed a perplexing problem. Some affective factors can be reliably measured by means of indirect measures or by formal interviews. But these methods are expensive and require a highly trained expert to administer them. And so, in a spirit of practicality, the language teaching profession has quite consistently relied on "paper-and-pencil" tests, such as the Myers-Briggs, that ask for self-ratings by the learner. In Keirsey & Bates's (1984) spin-off of the Myers-Briggs test, for example, we are asked to decide if we tend to "stay late, with increasing energy" at parties or "leave early, with decreased energy," an item designed to measure extroversion vs. introversion. Or, to indicate a judging vs. perceiving style, we must choose between "arriving on time" for meetings and usually being "a little late." Typical tests of self-esteem ask you to agree or disagree with a statement like "My friends have no confidence in me" and for empathy to indicate if the sentence, "I am generally very patient with people" accurately describes you. Such tests can be conveniently administered to hundreds of subjects, scored by computer, and analyzed statistically.

While self-check tests have a number of inherent assessment problems, they represent a standard for applied linguistics research today. One test frequently used in research on anxiety is the Foreign Language Classroom Anxiety Scale (FLCAS), developed by Horwitz, Horwitz, and Cope (1986), to measure the construct of language anxiety as distinct from anxieties associated with other nonlanguage performance. It, too, poses situations and descriptions representing potential anxiety ("Speaking in class makes me feel uneasy") to which the student must respond across a scale of agreement to disagreement. Unlike the MBTI, the FLCAS was specifically designed for use within the field of second language acquisition. It has now seen about two decades of productive use in research. Likewise, Gardner's (1985) Attitude/Motivation Test Battery (AMTB), which had its roots in the original Gardner and Lambert (1972) study, asks learners to judge themselves across a number of categories. Those variables include attitudes toward French Canadians, desire to learn French, French-use anxiety, integrative orientation, and instrumental orientation.

Tests such as the MBTI, FLCAS, and AMTB have been well validated across contexts and cultures. However, they represent a number of inherent shortcomings

worth noting. First, the most important issue in measuring affectivity is the problem of validity. Because most tests use a self-rating method, one can justifiably ask whether or not self-perceptions are accurate. True, external assessments that involve interview, observation, indirect measures, and multiple methods (Campbell & Fiske, 1959) have been shown to be more accurate, but often only at great expense. In Gardner and MacIntyre's (1993b) study of a large battery of self-check tests of affective variables, the validity of such tests was upheld. We can conclude, cautiously, that paper-and-pencil self-ratings may be valid if (1) the tests have been widely validated previously and (2) we do not rely on only one instrument or method to identify a level of affectivity.

A second related problem in the measurement of affective variables lies in what has been called the "self-flattery" syndrome (Oller, 1982, 1981b). In general, test takers will try to discern "right" answers to questions (that is, answers that make them look "good" or that do not "damage" them), even though test directions say there are no right or wrong answers. In so doing, perceptions of self are likely to be considerably biased toward what the test taker perceives as a highly desirable personality type.

Finally, tests of extroversion, anxiety, motivation, and other factors can be quite culturally ethnocentric, using concepts and references that are difficult to interpret cross-culturally. One item testing empathy, for example, requires the subject to agree or disagree with the following statement: "Disobedience to the government is sometimes justified." In societies where one never under any circumstances criticizes the government, such an item is absurd. The extroversion item mentioned earlier that asks whether you like to "stay late" at parties or "leave early" also requires sociocultural schemata that may vary from culture to culture. Even the concept of "party" carries cultural connotations that may not be understood by all test takers.

INTRINSIC MOTIVATION IN THE CLASSROOM

There are so many applications and implications of affective variables at work (or at play!) in the classroom that it is difficult to know where to begin. You could not begin to instruct a classroom of students without attending to their self-efficacy, anxieties, motivations, and other personality variables. Teacher training courses and books universally cite the importance of emotion as a key factor for success in the classroom (Brown, 2001). Carl Rogers (1983) based his theory of education almost exclusively on the fundamental importance of affect in learning. Dörnyei (2005) recently penned a book on individual differences in second language acquisition, and previously (Dörnyei, 2001a) compiled a complete volume addressing motivational strategies in the classroom. DeCapua and Wintergerst (2004) devoted several hundred pages to addressing affectively related issues of culture in the language classroom. And the list could go on.

For a brief classroom-related set of comments for this chapter, I will limit myself to just one issue presented in the chapter: intrinsic motivation. Consider a few of the applications of this construct in the language classroom.

First, think about the interplay in the classroom between intrinsic and extrinsic motives. Every educational institution brings with it certain extrinsically driven factors: a prescribed school curriculum, a teacher's course goals and objectives, parental expectations (in the case of younger learners), institutional assessment requirements, and perhaps even messages from society at large that tell us to compete against others, and to avoid failure. In a language course, extrinsic pressures are most often manifested in foreign language requirements set by the institution and in established standardized test scores that must be achieved.

How are you, as a teacher, to handle these extrinsic motives that are well established in most students? One attitude that would be useful is to recognize that such extrinsic drives are not necessarily "bad" or harmful, and your job may be to capitalize on such factors through your own innovations. If school policy mandates a certain "boring" teacher-centered textbook, for example, perhaps your own creative efforts can add interesting learner-centered group and pair activities that gives students *choices* in topics and approaches. If institutional tests are a bit distasteful in their multiple-choice, impersonal format, your innovative action could add some peer evaluation, self-assessment, and/or portfolio compilation that would build intrinsic interest in achieving goals. In my own second language acquisition class, I require students to take a concurrent foreign language; this is my extrinsic demand of students. But I have found that by frequently discussing their successes, failures, happy moments, and frustrations, and by asking students to write a diary of their language learning journey, they tend to develop a good deal of intrinsic interest in learning the language.

A second way to apply issues of intrinsic motivation is to consider how your own design of classroom techniques can have an added dimension of intrinsic motivation. Consider the following suggestions for creating intrinsically motivating classroom activities:

1. Does the activity appeal to the genuine interests of your students? Is it relevant to their lives?
2. Do you present the activity in a positive, enthusiastic manner?
3. Are students clearly aware of the purpose of the activity?
4. Do students have some choice in (a) choosing some aspect of the activity and/or (b) determining how they go about fulfilling the goals of the activity?
5. Does the activity encourage students to discover for themselves certain principles or rules (rather than simply being "told")?
6. Does it encourage students in some way to develop or use effective strategies of learning and communication?
7. Does it contribute—at least to some extent—to students' ultimate autonomy and independence (from you)?
8. Does it foster cooperative negotiation with other students in the class? Is it a truly interactive activity?
9. Does the activity present a "reasonable challenge"?
10. Do students receive sufficient feedback on their performance (from each other or from you)?

A third and final suggestion is to consider the "10 commandments" for motivating learners that Dörnyei and Csizér (1998, p. 215) offered, following a survey of Hungarian foreign language teachers:

1. Set a personal example with your own behavior.
2. Create a pleasant, relaxed atmosphere in the classroom.
3. Present the tasks properly.
4. Develop a good relationship with the learners.
5. Increase the learners' linguistic self-confidence.
6. Make the language classes interesting.
7. Promote learner autonomy.
8. Personalize the learning process.
9. Increase the learners' goal orientedness.
10. Familiarize learners with the target language culture.

Perhaps the above suggestions can begin to offer a picture of the direct application of affective factors in the second language classroom, even if in this section only one of many possible subareas within the affective domain has been addressed.

It is certainly easy to see why Carl Rogers and Daniel Goleman and others have so strongly emphasized affect and emotion in their theories of human behavior. A plausible conclusion to the study of affective factors in second language acquisition contains both a word of caution and a challenge to further research. Caution is in order lest we assume that the identification, measurement, and application of affective constructs are simple tasks. The challenge for teachers and researchers is to maintain the quest for defining those personality factors that are significant for the acquisition of a second language, and to continue to find effective means for infusing those findings into our classroom pedagogy.

TOPICS AND QUESTIONS FOR STUDY AND DISCUSSION

Note: (I) individual work; (G) group or pair work; (C) whole-class discussion.

1. (C) Look at Bloom's five levels of affectivity, described at the beginning of the chapter. Try to put language into each level and give examples of how language is inextricably bound up in our affective processes of receiving, responding, valuing, organizing values, and creating value systems. How do such examples help to highlight the fact that second language acquisition is more than just the acquisition of language forms (nouns, verbs, rules, etc.)?
2. (G) Divide into pairs or groups for the following discussion. Each group should take one of the following factors: self-esteem, self-efficacy, willingness to communicate, inhibition, risk taking, anxiety, empathy, and extroversion. In your group, (a) define each factor and (b) agree on a generalized

conclusion about the relevance of each factor for successful second language acquisition. In your conclusion, be sure to consider how your generalization needs to be qualified by some sort of "it depends" statement. For example, one might be tempted to conclude that low anxiety is necessary for successful learning, but depending on certain contextual and personal factors, facilitative anxiety may be helpful. Each group should report back to the rest of the class.

3. (C) What are some examples of learning a foreign language in an *integrative* orientation and in an *instrumental* orientation? Offer further examples of how within both orientations one's motivation might be either high or low. Is one orientation necessarily better than another? Think of situations where either orientation could contain powerful motives.
4. (G) In pairs, make a quick list of activities or other things that happen in a foreign language class. Then decide whether each activity fosters *extrinsic* motivation or *intrinsic* motivation, or degrees of each type. Through class discussion, make a large composite list. Which activities seem to offer deeper, more long-term success?
5. (C) Look again at the brief discussion of Flow Theory, and from your own language learning experiences provide examples of being "in the groove" or "in the swing of things."
6. (I) One person in the class might want to consult John Schumann's (1999, 1998, 1997; Schumann & Wood, 2004) work on the neurobiology of affect and give a report to the rest of the class that spells out some of the findings in more detail. Of special interest might be the importance of the amygdala in determining our affective response to a stimulus.
7. (I) Review the personality characteristics listed in Table 6.3. Make a checkmark by either the left- or right-column descriptor; total up your checks for each of the four categories and see if you can come up with a four-letter "type" that describes you. For example, you might be an "NFJ" or an "INTJ" or any of 16 possible types. If you have a tie in any of the categories, allow your own intuition to determine which side of the fence you are on most of the time.
8. (G) Make sure you do item 7 above. Then, in groups, share your personality type. Is your own four-letter combination a good description of who you are? Share this with the group and give others in the group examples of how your type manifests itself in problem solving, interpersonal relations, the workplace, etc. Offer examples of how your type explains how you might typically behave in a foreign language class.
9. (I) Several students could be assigned to find tests of self-esteem, empathy, anxiety, extroversion, and the Myers-Briggs test, and bring copies of these self-rating tests to class for others to examine or take themselves. Follow-up discussion should include an intuitive evaluation of the validity of such tests.
10. (G) Think of some techniques or activities that you have experienced in learning a foreign language and then, as a group, pick one or two and analyze

them in terms of each of the points on the checklist for intrinsically motivating techniques on page 181. Report your findings to the rest of the class.

SUGGESTED READINGS

Arnold, J. (Ed.). (1999). *Affect in language learning.* Cambridge, UK: Cambridge University Press.

Jane Arnold's anthology gives some background on a variety of different perspectives on the affective domain. It includes chapters on anxiety (Oxford), ego boundaries (Ehrman), neurobiology (Schumann), self-esteem (Andrés), plus many other reader-friendly essays.

Sparks, R., & Ganschow, L. (1991). Foreign language learning differences: Affective or native language aptitude differences? *Modern Language Journal, 75*, 3–16.

Sparks, R., & Ganschow, L. (1993a). The impact of native language learning problems on foreign language learning: Case study illustrations of the linguistic deficit coding hypothesis. *Modern Language Journal, 77*, 58–74.

Sparks, R., & Ganschow, L. (1993b). Searching for the cognitive locus of foreign language learning difficulties: Linking first and second language learning. *Modern Language Journal, 77*, 289–302.

MacIntyre, P. (1995a). How does anxiety affect second language learning? A reply to Sparks and Ganschow. *Modern Language Journal, 79*, 90–99.

Sparks, R., & Ganschow, L. (1995). A strong inference approach to causal factors in foreign language learning: A response to MacIntyre. *Modern Language Journal, 79*, 235–244.

MacIntyre, P. (1995b). On seeing the forest and the trees: A rejoinder to Sparks and Ganschow. *Modern Language Journal, 79*, 245–248.

This may seem like a long list of articles to suggest as additional reading, but they represent an interesting exchange in which Peter MacIntyre responds to the Linguistic Coding Deficit Hypothesis proposed, in the first three articles listed, by Richard Sparks and Lenore Ganschow, and then a response from the latter, followed by MacIntyre's response to the response!

Dörnyei, Z. (2001a). *Motivational strategies in the language classroom.* Cambridge, U. K. Cambridge University Press.

Dörnyei, Z. (2001b). *Teaching and researching motivation.* Harlow, England: Pearson Education.

Dörnyei, Z., & Schmidt, R. (2001). *Motivation and second language acquisition.* Honolulu: University of Hawaii at Manoa.

Zoltan Dörnyei has for over a decade been one of the leading researchers in the area of motivation as it applies to second language learning and

teaching. These three books synopsize research on the topic and offer insights into incorporating motivational techniques into language teaching.

Schumann, J., et al. (Eds.). (2004). ***The neurobiology of learning: Perspectives from second language acquisition***. Mahwah, NJ: Lawrence Erlbaum Associates.

This anthology of research articles presents neurobiological research on human behavior. Two chapters in particular, both by John Schumann, are germane to the affective domain: aptitude and motivation. Other chapters deal with the neurobiology of memory and attention. Most of these chapters are difficult, technical reading, but unique in their perspective.

Keirsey, D., & Bates, M. (1984). ***Please understand me: Character and temperament types***. Del Mar, CA: Prometheus Nemesis Book Company.

Lawrence, G. (1984). ***People types and tiger stripes: A practical guide to learning styles***. Gainesville, FL: Center for Applications of Psychological Type.

These two little books written for the layperson, although over two decades old, still offer practical primers on applications of the Myers-Briggs personality types. The Keirsey and Bates book includes a Myers-Briggs spin-off test; the Lawrence book is full of pedagogical applications of Myers-Briggs types.

LANGUAGE LEARNING EXPERIENCE: JOURNAL ENTRY 6

Note: See pages 21 and 22 of Chapter 1 for general guidelines for writing a journal on a previous or concurrent language learning experience.

- Consider each of the following affective factors: self-esteem, self-efficacy, willingness to communicate, inhibition, risk taking, anxiety, empathy, and extroversion. Intuitively assess your own level (from high to low on the first seven; either extroversion or introversion on the last) on each factor. Then, in your journal, write your conclusions in a chart, and follow up with comments about how each factor manifests itself in you in your foreign language class (past or present).
- Look at the section on inhibition and write about the extent to which you have felt or might feel a sense of a second language ego—or second identity—developing within you as you use a foreign language. What are the negative and positive effects of that new language ego?
- How can you change affective characteristics that are working against you? For example, if you have low task self-esteem when doing certain kinds of exercises, how might you change your general affective style so that you could be more successful? Or do you see strengths in your tendencies that you should maintain? Explain.

- Think about any present or past foreign language learning experiences. Pick one of them and assess the extent to which you feel (felt) intrinsically motivated or extrinsically motivated to learn. What specific factors make (made) you feel that way? Is there anything you could do (have done) to change that motivational intensity—to get yourself more into the "flow" of learning?
- Check your own Myers-Briggs type by doing item 7 of Topics and Questions, on page 183. In your journal, discuss the relevance of your personality type to typical language classroom activities. Evaluate the extent to which your characteristics are in your favor or not, and what you think you can do to lessen the liabilities.
- In your language learning experiences, past or present, to what extent has your teacher promoted intrinsic motivation through activities or techniques, or through the teacher's attitude toward students?

PART III

SOCIOCULTURAL FACTORS

CHAPTER 7

SOCIOCULTURAL FACTORS

CHAPTER 6, with its focus on the affective domain of second language acquisition, looked at how the personal variables within oneself and the reflection of that self to other people affect our communicative interaction. This chapter touches on another affective aspect of the communicative process: the intersection of culture and affect. How do learners overcome the personal and transactional barriers presented by two cultures in contact? What is the relationship of culture learning to second language learning?

CULTURE: DEFINITIONS AND THEORIES

Culture is a way of life. It is the context within which we exist, think, feel, and relate to others. It is the "glue" that binds a group of people together. Several centuries ago, John Donne (1624) had this to say about culture: "No man is an island, entire of itself; every man is a piece of the continent, a part of the main;... any man's death diminishes me, because I am involved in mankind; and therefore never send to know for whom the bell tolls; it tolls for thee."

Culture is our continent, our collective identity. Larson and Smalley (1972, p. 39) described culture as a "blueprint" that "guides the behavior of people in a community and is incubated in family life. It governs our behavior in groups, makes us sensitive to matters of status, and helps us know what others expect of us and what will happen if we do not live up to their expectations. Culture helps us to know how far we can go as individuals and what our responsibility is to the group."

Culture might also be defined as the ideas, customs, skills, arts, and tools that characterize a given group of people in a given period of time. But culture is more than the sum of its parts. According to Matsumoto (2000, p. 24):

> Culture is a dynamic system of rules, explicit and implicit, established by groups in order to ensure their survival, involving attitudes, values, beliefs, norms, and behaviors, shared by a group but harbored differently by each specific unit within the group, communicated across generations, relatively stable but with the potential to change across time.

Matsumoto follows his definition (pp. 24-26) with an explication of the key concepts that are embedded in the definition:

Dynamic
System of rules
Groups and units
Survival
Attitudes, values, beliefs, norms, and behaviors
Shared by a group
Harbored differently by each specific unit
Communicated across generations, relatively stable
Potential to change across time

The fact that no society exists without a culture reflects the need for culture to fulfill certain biological and psychological needs in people. Consider the bewildering host of confusing and contradictory facts and propositions and ideas that present themselves every day to anyone; some organization of these facts is necessary to provide some order to potential chaos, and therefore conceptual networks of reality evolve within a group of people for such organization. The mental constructs that enable us thus to survive are a way of life that we call "culture."

Culture establishes for each person a context of cognitive and affective behavior, a template for personal and social existence. But we tend to perceive reality within the context of our own culture, a reality that we have "created," and therefore not necessarily a reality that is empirically defined. "The meaningful universe in which each human being exists is not a universal reality, but 'a category of reality' consisting of selectively organized features considered significant by the society in which he lives" (Condon, 1973, p. 17). Although the opportunities for world travel in the last several decades have increased markedly, there is still a tendency for us to believe that our own reality is the "correct" perception.

Perception, though, is always subjective. Perception involves the filtering of information even before it is stored in memory, resulting in a selective form of consciousness. What appears to you to be an accurate and objective perception of an individual, a custom, an idea, might be "jaded" or "stilted" in the view of someone from another culture. Misunderstandings are therefore likely to occur between members of different cultures. People from other cultures may appear, in your eyes, to be "loud" or "quiet," "conservative" or "liberal" in reference to your own point of view.

It is apparent that culture, as an ingrained set of behaviors and modes of perception, becomes highly important in the learning of a second language. A language is a part of a culture, and a culture is a part of a language; the two are intricately interwoven so that one cannot separate the two without losing the significance of either language or culture. The acquisition of a second language, except for specialized, instrumental acquisition (as may be the case, say, in acquiring a reading knowledge of a language for examining scientific texts), is also the

acquisition of a second culture. Both linguists and anthropologists bear ample testimony to this observation (Uber-Grosse, 2004; Schecter & Bayley, 2002; Littlewood, 2001; Dlaska, 2000; Hinenoya & Gatbonton, 2000; Matsumoto, 2000; Kubota, 1999; Robinson-Stuart & Nocon, 1996; Scollon & Scollon, 1995).

Some of those same researchers disagree on theoretical conceptualizations of the construct of culture (see Atkinson, 1999; Siegal, 2000; Sparrow, 2000; Atkinson, 2000; for an interesting debate). One of the hot spots in the debate centers on what Atkinson (1999) would like to call an "ecumenical" approach to culture—that is, viewing cultures not as oppositional or mutually exclusive, but rather somewhat as hues and colors covering a wide spectrum. At first blush, ecumenism appears to be an appropriate metaphor to serve as a foundation for a theory of culture. However, Atkinson's critics (Siegal, 2000; Sparrow, 2000) prefer to see culture framed more in constructivist terms, which would place greater emphasis on learners' socially constructed identities within learning communities and native cultural milieu. "The prospect of looking at culture as 'ecumenical' is a contradiction in terms," according to Sparrow (2000, p. 750), who goes on to say, "We should neither teach received views of culture nor place our profession in the quicksands of moral relativity." Atkinson's (2000) response puts the arguments into balance by noting, among other things, that his principles of culture outlined in the original article (Atkinson, 1999) were heavily imbued with notions of identity, community, and social interaction, with a hearty endorsement of qualitative, ethnographic approaches to cultural research for their "ability to capture some of the complex uniqueness characterizing every cultural scene" (p. 647).

This chapter attempts to highlight some of the important aspects of the relationship between learning a second language and learning the cultural context of the second language. Among topics to be covered are the problem of cultural stereotypes, attitudes, learning a second culture, sociopolitical considerations, and the relationship among language, thought, and culture.

STEREOTYPES OR GENERALIZATIONS?

Mark Twain gave us some delightful politically incorrect vignettes on other cultures and other languages in *The Innocents Abroad*. In reference to the French language, Twain commented that the French "always tangle up everything to that degree that when you start into a sentence you never know whether you are going to come out alive or not." In *A Tramp Abroad*, Twain noted that German is a most difficult language: "A gifted person ought to learn English (barring spelling and pronouncing) in 30 hours, French in 30 days, and German in 30 years." So he proposed to reform the German language, for "if it is to remain as it is, it ought to be gently and reverently set aside among the dead languages, for only the dead have time to learn it."

Twain, like all of us at times, expressed caricatures of linguistic and cultural stereotypes. In the bias of our own culture-bound **worldview**, we too often picture other cultures in an oversimplified manner, lumping cultural differences into exaggerated categories, and then view every person in a culture as possessing

stereotypical traits. Thus Americans are all rich, informal, materialistic, overly friendly, and drink coffee. Italians are passionate, demonstrative, great lovers, and drink red wine. Germans are stubborn, industrious, methodical, and drink beer. The British are stuffy, polite, thrifty, and drink tea. And Japanese are reserved, unemotional, take a lot of pictures, and also drink tea.

François Lierres, writing in the Paris newsmagazine *Le Point*, gave some tongue-in-cheek advice to French people on how to get along with Americans. "They are the Vikings of the world economy, descending upon it in their jets as the Vikings once did in their drakars. They have money, technology, and nerve ... We would be wise to get acquainted with them." And he offered some *do's* and *don't's*. Among the *do's*: Greet them, but after you have been introduced once, don't shake hands, merely emit a brief cluck of joy—"Hi." Speak without emotion and with self-assurance, giving the impression you have a command of the subject even if you haven't. Check the collar of your jacket—nothing is uglier in the eyes of an American than dandruff. Radiate congeniality and show a good disposition—a big smile and a warm expression are essential. Learn how to play golf. Among the *don't's*: Don't tamper with your accent—Americans find French accents very romantic. And don't allow the slightest smell of perspiration to reach the offended nostrils of your American friends.

How do **stereotypes** form? Our cultural milieu shapes our worldview—our *Weltanschauung*—in such a way that reality is thought to be objectively perceived through our own cultural pattern, and a differing perception is seen as either false or "strange" and is thus oversimplified. If people recognize and understand differing worldviews, they will usually adopt a positive and open-minded attitude toward cross-cultural differences. A closed-minded view of such differences often results in the maintenance of a stereotype—an oversimplification and blanket assumption. A stereotype assigns group characteristics to individuals purely on the basis of their cultural membership.

The stereotype may be accurate in depicting the "typical" member of a culture, but it is inaccurate for describing a particular individual, simply because every person is unique and all of a person's behavioral characteristics cannot be accurately predicted on the basis of an overgeneralized median point along a continuum of cultural norms. To judge a single member of a culture by overall traits of the culture is both to prejudge and to misjudge that person. Worse, stereotypes have a way of potentially devaluing people from other cultures. Mark Twain's comments about the French and German languages, while written in a humorous vein and without malice, could be interpreted by some to be insulting.

Sometimes our oversimplified concepts of members of another culture are downright false. Americans sometimes think of Japanese as being unfriendly because of their cultural norms of respect and politeness. Asian students in the perception of American students in the United States are too often lumped together under the misguided notion that many countries and cultures in Asia share much in common. Even in the TESOL literature, according to Kumaravadivelu (2003), common stereotypes of Asian students are depicted: They (1) are obedient to authority, (2) lack critical thinking skills, and (3) do not participate in classroom interaction

(pp. 710–713). Such attitudes need to be replaced by "a critical awareness of the complex nature of cultural understanding" (Kumaravadivelu, 2003, p. 717).

While stereotyping or overgeneralizing people from other cultures should be avoided, cross-cultural research has shown that there are indeed characteristics of culture that make one culture different from another (Atkinson, 1999, 2002; Matsumoto, 2000). For example, Condon (1973) concluded from cross-cultural research that American, French, and Hispanic worldviews are quite different in their concepts of time and space. Americans tend to be dominated by a "psychomotor" view of time and space that is dynamic, diffuse, and nominalistic. French orientation is more "cognitive" with a static, centralized, and universalistic view. The Hispanic orientation is more "affectively" centered with a passive, relational, and intuitive worldview. We will see later in this chapter that cultures can also differ according to degrees of collectivism, power distance, uncertainty avoidance, and gender role prescriptions.

Both learners and teachers of a second language need to understand cultural differences, to recognize openly that people are not all the same beneath the skin. Language classrooms can celebrate cultural differences, and even engage in a critical analysis of the use and origin of stereotypes (Abrams, 2002). As teachers and researchers we must strive to understand the *identities* of our learners in terms of their sociocultural background (Atkinson, 1999). When we are sensitively attuned to perceiving cultural identity, we can then perhaps turn perception into appreciation.

ATTITUDES

Stereotyping usually implies some type of attitude toward the culture or language in question. The following passage, an excerpt from an item on "Chinese literature" in the *New Standard Encyclopedia* published in 1940, is a shocking example of a negative attitude stemming from a stereotype:

> The Chinese Language is monosyllabic and uninflectional. . . . With a language so incapable of variation, a literature cannot be produced which possesses the qualities we look for and admire in literary works. Elegance, variety, beauty of imagery—these must all be lacking. A monotonous and wearisome language must give rise to a forced and formal literature lacking in originality and interesting in its subject matter only. Moreover, a conservative people . . . profoundly reverencing all that is old and formal, and hating innovation, must leave the impress of its own character upon its literature (vol. VI).

Fortunately such views would probably not be expressed in encyclopedias today. Such biased attitudes are based on insufficient knowledge, misinformed stereotyping, and extreme ethnocentric thinking.

Attitudes, like all aspects of the development of cognition and affect in human beings, develop early in childhood and are the result of parents' and peers' attitudes,

of contact with people who are "different" in any number of ways, and of interacting affective factors in the human experience. These attitudes form a part of one's perception of self, of others, and of the culture in which one is living.

Gardner and Lambert's (1972) extensive studies were systematic attempts to examine the effect of attitudes on language learning. After studying the interrelationships of a number of different types of attitudes, they defined motivation as a construct made up of certain attitudes. The most important of these is group specific, the attitude learners have toward the members of the cultural group whose language they are learning. Thus, in Gardner and Lambert's model, an English-speaking Canadian's positive attitude toward French-Canadians—a desire to understand them and to empathize with them—will lead to an integrative orientation to learn French, which in the 1972 study was found to be a significant correlate of success.

John Oller and his colleagues (see Oller, Hudson, & Liu, 1977; Chihara & Oller, 1978; Oller, Baca, & Vigil, 1978) conducted several large-scale studies of the relationship between attitudes and language success. They looked at the relationship between Chinese, Japanese, and Mexican students' achievement in English and their attitudes toward self, the native language group, the target language group, their reasons for learning English, and their reasons for traveling to the United States. The researchers were able to identify a few meaningful clusters of attitudinal variables that correlated positively with attained proficiency. Each of the three studies yielded slightly different conclusions, but for the most part, positive attitudes toward self, the native language group, and the target language group enhanced proficiency. There were mixed results on the relative advantages and disadvantages of integrative and instrumental orientations. For example, in one study they found that better proficiency was attained by students who did not want to stay in the United States permanently.

It seems clear that second language learners benefit from positive attitudes and that negative attitudes may lead to decreased motivation and, in all likelihood, because of decreased input and interaction, to unsuccessful attainment of proficiency. Yet the teacher needs to be aware that everyone has both positive and negative attitudes. The negative attitudes can be changed, often by exposure to reality—for example, by encounters with actual persons from other cultures. Negative attitudes usually emerge from one's indirect exposure to a culture or group through television, movies, news media, books, and other sources that may be less than reliable. Teachers can aid in dispelling what are often myths about other cultures, and replace those myths with an accurate understanding of the other culture as one that is different from one's own, yet to be respected and valued. Learners can thus move through the hierarchy of affectivity as described by Bloom in Chapter 6, through awareness and responding, to valuing, and finally to an organized and systematic understanding and appreciation of the foreign culture.

SECOND CULTURE ACQUISITION

Because learning a second language implies some degree of learning a second culture, it is important to understand what we mean by the process of culture learning.

Robinson-Stuart and Nocon (1996) synthesized some of the perspectives on culture learning that we have seen in recent decades. They observed that the notion that culture learning is a "magic carpet ride to another culture," achieved as an automatic by-product of language instruction, is a misconception. Many students in foreign language classrooms learn the language with little or no sense of the depth of cultural norms and patterns of the people who speak the language. Another perspective was the notion that a foreign language curriculum could present culture as "a list of facts to be cognitively consumed" (p. 434) by the student, devoid of any significant interaction with the culture. Casting those perspectives aside as ineffective and misconceived, Robinson-Stuart and Nocon suggested that language learners undergo culture learning as a "process, that is, as a way of perceiving, interpreting, feeling, being in the world, . . . and relating to where one is and who one meets" (p. 432). Culture learning is a process of creating shared meaning between cultural representatives. It is experiential, a process that continues over years of language learning, and penetrates deeply into one's patterns of thinking, feeling, and acting.

Second language learning, as we saw in Chapter 6 in the discussion of language ego, involves the acquisition of a second identity. This creation of a new identity is at the heart of culture learning, or what some might call **acculturation**. If a French person is primarily cognitive oriented and an American is psychomotor oriented and a Spanish speaker is affective oriented, as claimed by Condon (1973, p. 22), it is not difficult on this plane alone to understand the complexity of the process of becoming oriented to a new culture. A reorientation of thinking and feeling, not to mention communication, is necessary. Consider the implications: To a European or a South American, the overall impression created by American culture is that of a frantic, perpetual round of actions which leave practically no time for personal feeling and reflection. But, to an American, the reasonable and orderly tempo of French life conveys a sense of hopeless backwardness and ineffectuality; and the leisurely timelessness of Spanish activities represents an appalling waste of time and human potential. And, to Spanish speakers, the methodical essence of planned change in France may seem cold-blooded, just as much as their own proclivity toward spur-of-the-moment decisions may strike their French counterparts as recklessly irresponsible (Condon 1973, p. 25).

The process of acculturation can be more acute when language is brought into the picture. To be sure, culture is a deeply ingrained part of the very fiber of our being, but language—the means for communication among members of a culture—is the most visible and available expression of that culture. And so a person's worldview, self-identity, and systems of thinking, acting, feeling, and communicating can be disrupted by a contact with another culture.

Sometimes that disruption is severe, in which case a person may experience culture shock. **Culture shock** refers to phenomena ranging from mild irritability to deep psychological panic and crisis. Culture shock is associated with feelings of estrangement, anger, hostility, indecision, frustration, unhappiness, sadness, loneliness, homesickness, and even physical illness. Persons undergoing culture shock view their new world out of resentment and alternate between self-pity and anger at others for not understanding them. Edward Hall (1959, p. 59) described a

hypothetical example of an American living abroad for the first time:

> At first, things in the cities look pretty much alike. There are taxis, hotels with hot and cold running water, theaters, neon lights, even tall buildings with elevators and a few people who can speak English. But pretty soon the American discovers that underneath the familiar exterior there are vast differences. When someone says "yes" it often doesn't mean yes at all, and when people smile it doesn't always mean they are pleased. When the American visitor makes a helpful gesture he may be rebuffed; when he tries to be friendly nothing happens. People tell him that they will do things and don't. The longer he stays, the more enigmatic the new country looks.

This case of an American in Japan illustrates the point that persons in a second culture may initially be comfortable and delighted with the "exotic" surroundings. As long as they can perceptually filter their surroundings and internalize the environment in their own worldview, they feel at ease. As soon as this newness wears off and the cognitive and affective contradictions of the foreign culture mount up, they become disoriented.

It is common to describe culture shock as the second of four successive stages of culture acquisition:

1. Stage 1 is a period of excitement and euphoria over the newness of the surroundings.
2. Stage 2—culture shock—emerges as individuals feel the intrusion of more and more cultural differences into their own images of self and security. In this stage individuals rely on and seek out the support of their fellow countrymen in the second culture, taking solace in complaining about local customs and conditions, seeking escape from their predicament.
3. Stage 3 is one of gradual, and at first tentative and vacillating, recovery. This stage is typified by what Larson and Smalley (1972) called "culture stress": some problems of acculturation are solved while other problems continue for some time. But general progress is made, slowly but surely, as individuals begin to accept the differences in thinking and feeling that surround them, slowly becoming more empathic with other persons in the second culture.
4. Stage 4 represents near or full recovery, either assimilation or adaptation, acceptance of the new culture and self-confidence in the "new" person that has developed in this culture.

Wallace Lambert's (1967) work on attitudes in second language learning referred often to Durkheim's (1897) concept of **anomie**—feelings of social uncertainty or dissatisfaction—as a significant aspect of the relationship between language learning and attitude toward the foreign culture. As individuals begin to lose some of the ties of their native culture and to adapt to the second culture, they experience feelings of chagrin or regret, mixed with the fearful anticipation of entering

a new group. Anomie might be described as the first symptom of the third stage of acculturation, a feeling of homelessness, where one feels neither bound firmly to one's native culture nor fully adapted to the second culture.

Lambert's research supported the view that the strongest dose of anomie is experienced when linguistically a person begins to "master" the foreign language. In Lambert's (1967) study, for example, when English-speaking Canadians became so skilled in French that they began to "think" in French and even dream in French, feelings of anomie were markedly high. For Lambert's subjects the interaction of anomie and increased skill in the language sometimes led persons to revert or to "regress" back to English—to seek out situations in which they could speak English. Such an urge corresponds to the tentativeness of the third stage of acculturation—periodic reversion to the escape mechanisms acquired in the earlier stage of culture shock. Not until a person is well into the third stage do feelings of anomie decrease because the learner is "over the hump" in the transition to adaptation.

The culture shock stage of acculturation need not be depicted as a point when learners are unwitting and helpless victims of circumstance. Peter Adler (1972, p. 14) noted that culture shock, while surely possessing manifestations of crisis, can also be viewed more positively as a profound cross-cultural learning experience, a set of situations or circumstances involving intercultural communication in which the individual, as a result of the experiences, becomes aware of his own growth, learning and change. As a result of the culture shock process, the individual has gained a new perspective on himself, and has come to understand his own identity in terms significant to himself. The cross-cultural learning experience, additionally, takes place when the individual encounters a different culture and as a result (1) examines the degree to which he is influenced by his own culture, and (2) understands the culturally derived values, attitudes and outlooks of other people.

SOCIAL DISTANCE

The concept of social distance emerged as an affective construct to give explanatory power to the place of culture learning in second language learning. **Social distance** refers to the cognitive and affective proximity of two cultures that come into contact within an individual. "Distance" is obviously used in a metaphorical sense to depict dissimilarity between two cultures. On a very superficial level one might observe, for example, that people from the United States are culturally similar to Canadians, while U.S. natives and Chinese are, by comparison, relatively dissimilar. We could say that the social distance of the latter case exceeds the former.

John Schumann (1976c, p. 136) described social distance as consisting of the following parameters:

1. **Dominance.** In relation to the TL (target language) group, is the L2 (second language learning) group politically, culturally, technically, or economically dominant, nondominant, or subordinate?

2. **Integration**. Is the integration pattern of the L2 group assimilation, acculturation, or preservation? What is the L2 group's degree of *enclosure*—its identity separate from other contiguous groups?
3. **Cohesiveness**. Is the L2 group cohesive? What is the size of the L2 group?
4. **Congruence**. Are the cultures of the two groups congruent—similar in their value and belief systems? What are the attitudes of the two groups toward each other?
5. **Permanence**. What is the L2 group's intended length of residence in the target language area?

Schumann used the above factors to describe hypothetically "good" and "bad" language learning situations, and illustrated each situation with two actual cross-cultural contexts. His two hypothetical "bad" language learning situations:

1. The TL group views the L2 group as dominant and the L2 group views itself in the same way. Both groups desire preservation and high enclosure for the L2 group, the L2 group is both cohesive and large, the two cultures are not congruent, the two groups hold negative attitudes toward each other, and the L2 group intends to remain in the TL area only for a short time.
2. The second bad situation has all the characteristics of the first except that in this case, the L2 group considers itself subordinate and is considered subordinate by the TL group.

The first situation, according to Schumann, is typical of Americans living in Riyadh, Saudi Arabia. The second situation is descriptive of Navajo Indians living in the southwestern part of the United States.

A "good" language learning situation, according to Schumann's model (p. 141), is one in which the L2 group is nondominant in relation to the TL group, both groups desire assimilation (or at least acculturation) for the L2 group, low enclosure is the goal of both groups, the two cultures are congruent, the L2 group is small and noncohesive, both groups have positive attitudes toward each other, and the L2 group intends to remain in the target language area for a long time. Under such conditions social distance would be minimal and acquisition of the target language would be enhanced. Schumann cites as a specific example of a "good" language learning situation the case of American Jewish immigrants living in Israel. Lybeck (2002), through research that measured acculturation by means of social exchange networks, recently obtained support for Schumann's hypothesis among second language learners of Norwegian in Norway.

Schumann's hypothesis was that the greater the social distance between two cultures, the greater the difficulty the learner will have in learning the second language, and conversely, the smaller the social distance (the greater the social solidarity between two cultures), the better will be the language learning situation.

One of the difficulties in Schumann's hypothesis of social distance is the measurement of actual social distance. How can one determine degrees of social

distance? By what means? And how would those means be quantifiable for comparison of relative distances? To this day the construct has remained a rather subjectively defined phenomenon that, like empathy, self-esteem, and so many other psychological constructs, defies definition even though one can intuitively grasp the sense of what is meant.

William Acton (1979) proposed a solution to the dilemma. Instead of trying to measure *actual* social distance, he devised a measure of **perceived social distance**. His contention was that the actual distance between cultures is not particularly relevant since it is what learners perceive that forms their own reality. We have already noted that human beings perceive the cultural environment through the filters and screens of their own worldview and then act upon that perception, however biased it may be. According to Acton, when learners encounter a new culture, their acculturation process is a factor of how they perceive their own culture in relation to the culture of the target language, and vice versa. For example, objectively there may be a relatively large distance between Americans and Saudi Arabians, but an American learning Arabic in Saudi Arabia might for a number of reasons perceive little distance and in turn act on that perception.

By asking learners to respond to three dimensions of distance, Acton devised a measure of perceived social distance—the Professed Difference in Attitude Questionnaire (PDAQ)—which characterized the "good" or successful language learner (as measured by standard proficiency tests) with remarkable accuracy. Basically the PDAQ asked learners to quantify what they perceived to be the differences in attitude toward various concepts ("the automobile," "divorce," "socialism," "policemen," for example) on three dimensions: (1) distance (or difference) between themselves and their countrymen in general; (2) distance between themselves and members of the target culture in general; and (3) distance between their countrymen and members of the target culture. By using a semantic differential technique, three distance scores were computed for each dimension.

Acton found that in the case of learners of English who had been in the United States for four months, there is an *optimal* perceived social distance ratio (among the three scores) that typifies the "good" language learner. If learners perceived themselves as either too close to or too distant from either the target culture or the native culture, they fell into the category of "bad" language learners as measured by standard proficiency tests. The implication is that successful language learners see themselves as maintaining some distance between themselves and both cultures. That Acton's PDAQ did not predict success in language is no surprise since we know of no adequate instrument to predict language success or to assess language aptitude. But the PDAQ did describe empirically, in quantifiable terms, a relationship between social distance and second language acquisition.

Acton's theory of optimal perceived social distance supported Lambert's (1967) contention that mastery of the foreign language takes place hand in hand with feelings of anomie or homelessness, where learners have moved away from their native culture but are still not completely assimilated into or adjusted to the target culture. More important, Acton's model led us closer to an understanding of

culture shock and the relationship of acculturation to language learning by supplying an important piece of a puzzle. If we combine Acton's research with Lambert's, an interesting hypothesis emerges—namely, that mastery or skillful fluency in a second language (within the second culture) occurs somewhere at the beginning of the third—recovery—stage of acculturation. The implication of such a hypothesis is that mastery might not effectively occur before that stage or, even more likely, that learners might never be successful in their mastery of the language if they have proceeded beyond early Stage 3 without accomplishing that linguistic mastery. Stage 3 may provide not only the optimal distance but the optimal cognitive and affective tension to produce the necessary pressure to acquire the language, pressure that is neither too overwhelming (such as the culture shock typical of Stage 2) nor too weak (which would be found in Stage 4, adaptation/assimilation). Language mastery at Stage 3, in turn, would appear to be an instrument for progressing psychologically through Stage 3 and finally into Stage 4.

According to this **optimal distance model** (Brown, 1980) of second language acquisition, an adult who fails to master a second language in a second culture may for a host of reasons have failed to synchronize linguistic and cultural development. Adults who have achieved nonlinguistic means of coping in the foreign culture will pass through Stage 3 and into Stage 4 with an undue number of *fossilized* forms of language (see Chapter 8 for a discussion of fossilization), never achieving mastery. They have no reason to achieve mastery since they have learned to cope without sophisticated knowledge of the language. They may have acquired a sufficient number of functions of a second language without acquiring the correct forms. What is suggested in this optimal distance model might well be seen as a culturally based critical-period hypothesis, that is, a critical period that is independent of the age of the learner. While the optimal distance model applies more appropriately to adult learners, it could pertain to children, although less critically so. Because they have not built up years and years of a culture-bound worldview (or view of themselves), children have fewer perceptive filters to readjust and therefore move through the stages of acculturation more quickly. They nevertheless move through the same stages, and it is plausible to hypothesize that their recovery stages are also crucial periods of acquisition.

Some research evidence has been gathered in support of the optimal distance construct. In a study of returning Peace Corps volunteers who had remained in their assigned countries for two or more years, Day (1982) garnered some observational evidence of the coinciding of critical leaps in language fluency and cultural anomie. And Svanes (1987, 1988) found that university foreign students studying in Norway appeared to achieve higher language proficiency if they had "a balanced and critical attitude to the host people" (1988, p. 368) as opposed to uncritical admiration for all aspects of the target culture. The informal testimony of many teachers of ESL in the United States also confirms the plausibility of a motivational tension created by the need to "move along" in the sometimes long and frustrating process of adaptation to a new homeland. Teachers in similar contexts could benefit from a careful assessment of the current cultural stages of learners with due attention to possible optimal periods for language mastery.

TEACHING INTERCULTURAL COMPETENCE

While most learners can indeed find positive benefits in cross-cultural living or learning experiences, a number of people experience psychological blocks and other inhibiting effects of the second culture. Stevick (1976b) cautioned that learners can feel alienation in the process of learning a second language, alienation from people in their home culture, the target culture, and from themselves. In teaching an "alien" language, we need to be sensitive to the fragility of students by using techniques that promote cultural understanding.

A number of recent research studies have shown the positive effects of incorporating cultural awareness in language classrooms (Byram & Feng, 2005). An excellent set of practical activities, all grounded in research on cultural awareness, is provided in DeCapua and Wintergerst's (2004) reference book for teachers. Savignon and Sysoyev (2002) promoted sociocultural competence in their learners of English in Russia by introducing sociocultural strategies such as initiating contact, anticipating cultural misunderstandings, and using diplomacy in discussions. Wright (2000) found that teaching learners of German as a foreign language, using process-oriented tasks promoted cross-cultural adaptability. Abrams (2002) successfully used Internet-based culture portfolios to promote cultural awareness and to defuse cultural stereotypes. Interviews of native speakers of the target language helped learners in Bateman's (2002) study to develop more positive attitudes toward the target culture. Choi (2003) used drama as a "gateway" to intercultural awareness and understanding for her Korean students of English as a second language.

The above studies complement earlier work along the same lines. Teachers who followed an experiential or process model (Robinson-Stuart & Nocon, 1996) of culture learning in the classroom were able to help students turn such an experience into one of increased cultural- and self-awareness. Donahue and Parsons (1982) examined the use of role play in ESL classrooms as a means of helping students to overcome cultural "fatigue"; role play promotes the process of cross-cultural dialog while providing opportunities for oral communication. Numerous other materials and techniques—readings, films, simulation games, culture assimilators, "culture capsules," and "culturgrams"—are available to language teachers to assist them in the process of acculturation in the classroom (Fantini, 1997; Ramirez, 1995; Levine et al., 1987; McGroarty & Galvan, 1985; Kohls, 1984).

Perhaps the most productive model of the combination of second language and second culture learning is found among students who learn a second language in a country where that language is spoken natively. In many countries, thousands of foreign students are enrolled in institutions of higher education and must study the language of the country in order to pursue their academic objectives. Or one might simply consider the multitude of immigrants who enter the educational stream of their new country after having received their early schooling in their previous country. They bring with them the cultural mores and patterns of "good" behavior learned in their home culture, and tend to apply those expectations to their new

situation. What is the nature of those students' expectations of behavior in their new educational system?

Consider Kenji, a university student from Japan who is studying at a pre-university language institute in the United States. During his previous 12 years of schooling, he was taught some very specific behaviors. He was taught to give the utmost "respect" to his teacher, which means a number of things: never to contradict the teacher; never to speak in class unless spoken to—always let the teacher initiate communication; let the teacher's wisdom be "poured into" him; never call a teacher by a first name; respect older teachers even more than younger teachers. But in his new U.S. language school, his youngish teachers are friendly and encourage a first-name basis; they ask students to participate in group work, they try to get students to come up with answers to problems, rather than just giving the answer, and so on. Kenji is confused. Why?

Some means of conceptualizing such mismatches in expectations were outlined in a thought-provoking article by Geert Hofstede (1986), who used four different conceptual categories to study the cultural norms of fifty different countries. Each category was described as follows:

1. **Individualism** as a characteristic of a culture opposes *collectivism* (the word is used here in an anthropological, not a political, sense). Individualist cultures assume that any person looks primarily after his or her own interest and the interest of his or her immediate family (husband, wife, and children). Collectivist cultures assume that any person through birth and possible later events belongs to one or more tight "in-groups," from which he or she cannot detach him or herself. The "in-group" (whether extended family, clan, or organization) protects the interest of its members, but in turn expects their permanent loyalty. A collectivist society is tightly integrated; an individualist society is loosely integrated.
2. **Power distance** as a characteristic of a culture defines the extent to which the less powerful persons in a society accept inequality in power and consider it as normal. Inequality exists within any culture, but the degree of it that is tolerated varies between one culture and another. "All societies are unequal, but some are more unequal than others" (Hofstede, 1986, p. 136).
3. **Uncertainty avoidance** as a characteristic of a culture defines the extent to which people within a culture are made nervous by situations they perceive as unstructured, unclear, or unpredictable, situations which they therefore try to avoid by maintaining strict codes of behavior and a belief in absolute truths. Cultures with a strong uncertainty avoidance are active, aggressive, emotional, compulsive, security seeking, and intolerant; cultures with a weak uncertainty avoidance are contemplative, less aggressive, unemotional, relaxed, accepting of personal risks, and relatively tolerant.
4. **Masculinity** as a characteristic of a culture opposes *femininity*. The two differ in the social roles associated with the biological fact of the existence of two sexes, and in particular in the social roles attributed to men. The cultures

> which I labeled as "masculine" strive for maximal distinction between what men are expected to do and what women are expected to do. They expect men to be assertive, ambitious, and competitive, to strive for material success, and to respect whatever is big, strong, and fast. They expect women to serve and to care for the nonmaterial quality of life, for children, and for the weak. Feminine cultures, on the other hand, define relatively overlapping social roles for the sexes, in which men need not be ambitious or competitive, but may go for a different quality of life than material success; men may respect whatever is small, weak, and slow. So, in masculine cultures these political/organizational values stress material success and assertiveness; in feminine cultures they stress other types of quality of life, interpersonal relationships, and concern for the weak.

Table 7.1 shows Hofstede's conception of the manifestation of the first of the above four categories, individualism/collectivism, with particular focus on classroom manifestations of these two factors in contrast.

Teachers who are charged with educating students whose cultural backgrounds differ from their own must of course attend to such factors as those that Hofstede has brought to our attention. The climate for effective classroom language acquisition may be considerably clouded by what students see as contradictory expectations for their participation, and as a result, certain unnecessary blocks stand in the way of their success.

CLASSROOM CONNECTIONS

Research Findings: The research cited by Hofstede (1986) offers widespread support for collectivism/individualism and power distance as important factors contributing to cross-cultural misunderstanding in classrooms. American teachers, for example, not only expect students to volunteer questions and comments in the classroom but may also express smaller power distance in their friendliness and openness to students.

Teaching Implications: In current language teaching classrooms that follow communicative methodology and incorporate a considerable amount of pair and group work, teachers may inadvertently be sending mixed messages to students who expect to be lectured to by a teacher who should not be questioned. In your learning or teaching experiences, have you encountered situations where cultural classroom expectations have been misunderstood?

Table 7.1. Differences in teacher/student and student/student interaction related to the individualism vs. collectivism dimension

Collectivist Societies	Individualist Societies
Positive association in society with whatever is rooted in tradition	Positive association in society with whatever is "new"
The young should learn; adults cannot accept student role	One is never too old to learn; "permanent education"
Students expect to learn how to do	Students expect to learn how to learn
Individual students will only speak up in class when called upon personally by the teacher	Individual students will speak up in class in response to a general invitation by the teacher
Individuals will only speak up in small groups	Individuals will only speak up in large groups
Large classes split socially into smaller, cohesive subgroups based on particularist criteria (e.g., ethnic affiliation)	Subgroupings in class vary from one situation to the next based on universalist criteria (e.g., the task "at hand")
Formal harmony in learning situations should be maintained at all times	Confrontation in learning situations can be salutary; conflicts can be brought into the open
Neither the teacher nor any student should ever be made to lose face	Face-consciousness is weak
Education is a way of gaining prestige in one's social environment and of joining a higher-status group	Education is a way of improving one's economic worth and self-respect based on ability and competence
Diploma certificates are important and displayed on walls	Diploma certificates have little symbolic value
Acquiring certificates even through (dubious) means is more important than acquiring competence	Acquiring competence is more important than acquiring certificates
Teachers are expected to give preferential treatment to some students (e.g., based on ethnic affiliation or on recommendation by an influential person)	Teachers are expected to be strictly impartial

Source: Hofstede, 1986, p. 312.

LANGUAGE POLICY AND POLITICS

The relationship between language and society cannot be discussed for long without touching on the political ramifications of language and language policy. Virtually every country has some form of explicit, "official," or implicit, "unofficial," policy affecting the status of its native language(s) and one or more foreign languages. Ultimately those language policies become politicized as special interest groups vie for power and economic gain. Into this mix, English, now the major worldwide *lingua franca*, is the subject of international debate as policy makers struggle over the legitimization of varieties of English. Some strands of research even suggest that English teaching worldwide threatens to form an elitist cultural

hegemony, widening the gap between "haves" and "have nots." The surface of these issues will be scratched in this section, with the suggestion that the reader turn to other sources for further enlightenment. Some excellent overviews can be found in Kachru (2005), Byram and Feng (2005), Siegel (2003), Matsuda (2003), Higgins (2003), McKay (2002), and McArthur (2001).

World Englishes

The rapid growth of **English as an international language** (EIL) has stimulated interesting but often controversial discussion about the status of English in its varieties of what is now commonly called **world Englishes** (Kachru, 2005; McKay, 2002; McArthur, 2001; Kachru & Nelson, 1996; Kachru, 1992, 1985). Learning English in India, for example, really does not involve taking on a new culture since one is acquiring *Indian* English in India. According to Kachru, the "Indianization" of English in India has led to a situation in which English has few if any British cultural attributes. This process of **nativization** or "indigenization" (Richards, 1979) of English has spread from the **inner circle** of countries (such as the United States, United Kingdom, Australia, New Zealand) to an **outer circle** (Kachru, 1985) of countries that includes India, Singapore, the Philippines, Nigeria, Ghana, and others. In such contexts English is commonly learned by children at school age and is the medium for most of their primary, secondary, and tertiary education.

The spread and stratification of EIL led Kachru and others who have joined in the process of exploration (Major et al., 2005; Higgins, 2003; Nunan, 2003; McKay, 2002; Tollefson, 1995; Phillipson, 1992; Davies, 1989; Quirk, 1988, for example) to a fresh conceptualization of contexts of English language use:

> The traditional dichotomy between native and non-native is functionally uninsightful and linguistically questionable, particularly when discussing the functions of English in multilingual societies. The earlier distinction of English as a native language (ENL), second (ESL) and foreign (EFL) has come under attack for reasons other than sociolinguistic (Kachru, 1992, p. 3).

Instead, we are advised to view English in terms of a broad range of its functions and the degree of its penetration into a country's society.

The question of whether or not to distinguish between **native** and **nonnative** speakers in the teaching profession has grown into a common and productive topic of research in the last decade. For many decades the English language teaching profession assumed that **native English-speaking teachers** (NESTs), by virtue of their superior model of oral production, comprised the ideal English language teacher. Then, Medgyes (1994), among others, showed in his research that nonnative English-speaking teachers (non-NESTs) offered as many if not more inherent advantages. Higgins (2003), McArthur (2001), Cook (1999), Crystal (1999, 1997), Pakir (1999), and Liu (1999) concur by noting not only that multiple varieties of

English are now considered legitimate and acceptable, but also that teachers who have actually gone through the process of learning English possess distinct advantages over native speakers.

As we move into a new paradigm in which the concepts of native and nonnative "speaker" become less relevant, it is perhaps more appropriate to think in terms of the proficiency level of a *user* of a language. Speaking is one of four skills and may not deserve in all contexts to be elevated to the sole criterion for proficiency. So, with Kachru (2005), McKay (2002), and others, the profession is better served by considering a person's communicative proficiency across the four skills. Teachers of any language, regardless of their own variety of English, can then be judged accordingly, and in turn, their pedagogical training and experience can occupy focal attention.

ESL and EFL

As the above discussion shows, the spread of EIL has indeed muddied the formerly clear waters that separated what we still refer to as **English as a second language** (ESL) and **English as a foreign language** (EFL). Learning ESL—English within a culture where English is spoken natively—may be clearly defined in the case of, say, an Arabic speaker learning English in the United States or the United Kingdom, but not as easily identified where English is already an accepted and widely used language for education, government, or business within the country (for example, learning English in the Philippines or India). According to Nayar (1997), we need to add yet another ESL context, English in Scandinavia, where English has no official status but occupies such a high profile that virtually every educated person can communicate competently with native speakers of English.

Learning EFL, that is, English in one's native culture with few immediate opportunities to use the language within the environment of that culture (for example, a Japanese learning English in Japan), may at first also appear to be easy to define. Two global developments, however, mitigate the clarity of identifying a simple "EFL" context: (1) The current trend toward immigrant communities establishing themselves within various countries (e.g., Spanish or Chinese or Russian communities in a large city in the United States) provides ready access to users of so-called foreign languages. (2) In the case of English, the penetration of English-based media (especially television, the Internet, and the motion picture industry) provides further ready access to English even in somewhat isolated settings.

The problem with the ESL/EFL terminology, as Nayar (1997, p. 22) pointed out, is that it "seems to have created a worldview that being a native speaker of English will somehow bestow on people not only unquestionable competence in the use and teaching of the language but also expertise in telling others how English ought to be taught." As we saw in earlier chapters and in the preceding discussion, native-speaker models do not necessarily exemplify the idealized competence that was once claimed for them. The multiplicity of contexts for the use of English worldwide demands a careful look at the variables of each situation before making the blanket generalization that one of two possible models, ESL or EFL, applies. By specifying

country, language policy, and status of English, we can at least begin to guard against falling prey to the myth that native-speaker models are to be emulated at all costs.

In terms of degrees of acculturation, on the surface one could conclude that second language learning in a culture foreign to one's own potentially involves the deepest form of culture acquisition. Learners must survive in a strange culture as well as learn a language on which they are totally dependent for communication. On the other hand, one should not too quickly dismiss second language learning in the native culture (e.g., Nigerians learning English in Nigeria) from having a potential acculturation factor. In such contexts, the learner could experience considerable culture stress, depending upon the country, the cultural and sociopolitical status of both the native and target language, the purposes for which one is learning the language (career, academic, social), and the intensity of the motivation of the learner.

Linguistic Imperialism and Language Rights

One of the more controversial issues to rear its head in the global spread of EIL is the extent to which the propagation of English as a medium of education, commerce, and government "has impeded literacy in mother tongue languages, has thwarted social and economic progress for those who do not learn it, and has not generally been relevant to the needs of ordinary people in their day-to-day or future lives" (Ricento, 1994, p. 422). Linguistic imperialism, or "linguicism," as this issue has come to be named (Scollon, 2004; Canagarajah, 1999; Skutnabb-Kangas, & Phillipson, 1994; Phillipson, 1992; Skutnabb-Kangas & Cummins, 1988), calls attention to the potential consequences of English teaching worldwide when Eurocentric ideologies are embedded in instruction, having the effect of legitimizing colonial or establishment power and resources, and of reconstituting "cultural inequalities between English and other languages" (Phillipson, 1992, p. 47).

A central issue in the linguistic imperialism debate is the devaluing, if not "genocide" (Skutnabb-Kangas, 2000), of native languages through the colonial spread of English. For more than a century, according to Phillipson (1992), there was little or no recognition of the imperialistic effect of the spread of English (and French) in colonial contexts. But in recent years, there have been some signs of hope for the preservation of indigenous languages as seen, for example, in the Council of Europe's 1988 European Charter for Regional and Minority Languages, which assumes a multilingual context and support for minority languages. Likewise, within the United Nations, the Universal Declaration of Linguistic Rights has endorsed the right of all people to develop and promote their own languages and to offer children access to education in their own languages (Ricento, 1994).

As teachers venture into the far corners of the earth and teach English, one of our primary tenets should be the highest respect for the languages and cultures of our students. One of the most worthy causes we can espouse is the preservation of diversity among human beings. At every turn in our curricula, we must beware of imposing a foreign value system on our learners for the sake of bringing a common language to

CLASSROOM CONNECTIONS

Research Findings: Although Skutnabb-Kangas's (2000) warning that the spread of English is the cause of linguistic "genocide" of indigenous languages may be an overstatement, nevertheless it is clear that dozens of languages are vanishing every year. Other researchers (e.g., Phillipson, 1992) place some of the blame for such attrition on worldwide English language teaching.

Teaching Implications: Should schools, institutes, and universities refrain from teaching English so that heritage languages and cultures can be preserved? Probably not, if Ricento (1994) and others are correct. But our zeal for spreading English needs to be accompanied by concurrent efforts to value home languages and cultures. In the United States, movements such as English Plus emphasize the benefits of bilingualism and the enriching effects of cross-cultural communication and exchange. In what way has your language learning or teaching experience valued home languages and cultures?

all (Canagarajah, 1999). We can indeed break down barriers of communication with English, but we are reminded that the two-edged sword of EIL carries with it the danger of the imperialistic destruction of a global ecology of languages and cultures.

Language Policy and the "English Only" Debate

Yet another manifestation of the sociopolitical domain of second language acquisition is found in **language policies** around the world. Questions in this field range from the language of the education of children to the adoption of "official" status for a language (or languages) in a country. The first topic, the language of education, involves the decision by some political entity (e.g., a ministry of education, a state board of education) to offer education in a designated language or languages. Such decisions inevitably require a judgment on the part of the policy-making body on which language(s) is (are) deemed to be of value for the future generation of wage earners (and voters) in that society. We can visualize the potential twists and turns of the arguments that are mounted to justify a particular language policy for education. A tremendous clash of value systems is brought to bear on the ultimate decision: linguistic diversity, cultural pluralism, ethnicity, race, power, status, politics, economics, and the list goes on. In the final analysis, "history indicates that restricting language rights can be divisive and can lead to segregationist tendencies in a society. At the same time, such legislation rarely results in a unified society speaking solely the mandated language(s)" (Thomas, 1996, p. 129).

In the United States, one of the most misunderstood issues in the last decade of the twentieth century was the widespread move to establish English as an "official" language. Noting that the United States had never declared English to be official, proponents of "**English only**" ballots across many states argued that an official English policy was needed to unify the country and end decades-long debates over bilingual education. The campaigns to pass such ballots, heavily funded by well-heeled right-wing organizations, painted a picture of the unity and harmony of people communicating in a common tongue. What those campaigns did not reveal was the covert agenda of the ultimate devaluing of minority languages and cultures. (See Crawford, 1998; Thomas, 1996; Tollefson, 1995; Auerbach, 1995, for further information.) In related legislative debates across the United States, bilingual education was singled out by the same groups as a waste of time and money. In 1998, for example, in the state of California, a well-financed campaign to severely restrict bilingual education programs managed to seduce the public by promoting myths and misunderstandings about language acquisition and multilingualism (Scovel, 1999). Once again, those who end up suffering from such moves toward "English only" are the already disenfranchised minority cultures.

LANGUAGE, THOUGHT, AND CULTURE

No discussion about cultural variables in second language acquisition is complete without some treatment of the relationship between language and thought. We saw in the case of first language acquisition that cognitive development and linguistic development go hand in hand, each interacting with and shaping the other. It is commonly observed that the manner in which an idea or "fact" is stated affects the way we conceptualize the idea. On the other hand, many of our ideas, issues, inventions, and discoveries create the need for new words. Can we tease this interaction apart?

Framing Our Conceptual Universe

Words shape our lives. The advertising world is a prime example of the use of language to shape, persuade, and dissuade. "Weasel words" tend to glorify very ordinary products into those that are "unsurpassed," "ultimate," "supercharged," and "the right choice." In the case of food that has been sapped of most of its nutrients by the manufacturing process, we are told that these products are now "enriched" and "fortified." A foreigner in the United States once remarked that in the United States there are no "small" eggs, only "medium," "large," "extra large," and "jumbo."

Euphemisms abound in American culture where certain thoughts are taboo or certain words connote something less than desirable. We are persuaded by industry, for example, that "receiving waters" are the lakes or rivers into which industrial wastes are dumped and that "assimilative capacity" refers to how much of the waste can be dumped into the river before it starts to show. Garbage collectors are "sanitary

engineers"; toilets are "rest rooms"; slums are "substandard dwellings." And when it comes to reporting on military conflicts like the recent Afghanistan and Iraq wars, deaths are referred to as "collateral damage," and commando SWAT teams are called "peace-keeping forces." Politicians have recently decided that the phrase "tax cuts" does not garner nearly as much sympathy as the phrase "tax relief."

George Lakoff's (2004) poignant book on **framing** reminds us of the importance of language and verbal labels in shaping the way people think. Lakoff convincingly shows how political rhetoric is carefully framed to invoke positive images and feelings. We are a complex amalgamation of frames, or, to use Ausubel's (1963) terminology discussed in Chapter 4, meaningful cognitive structures, through which we conceptualize the universe around us. Much of the composition of those conceptual hierarchies is framed with linguistic symbols—words, phrases, and other verbal associations.

Early research showed how verbal labels can shape the way we store events for later recall. In a classic study, Carmichael, Hogan, and Walter (1932) found that when subjects were briefly exposed to figures like those in Figure 7.1 and later asked to reproduce them, the reproductions were influenced by the labels assigned to the figures.

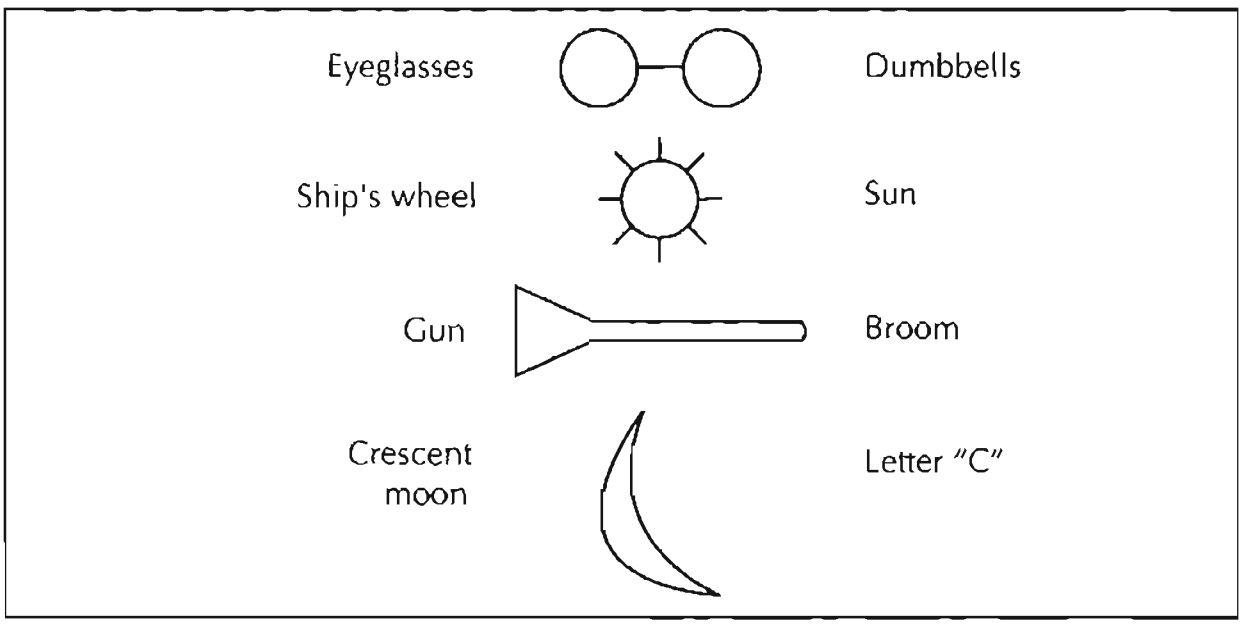

Figure 7.1. Sample stimulus figures used by Carmichael, Hogan, and Walter (1932)

For example, the first drawing tended to be reproduced as something like this if subjects had seen the "eyeglasses" label:

Or like this if they had seen the "dumbbells" label:

Words are not the only linguistic category affecting thought. The way a sentence is structured will affect nuances of meaning. Elizabeth Loftus (1976) discovered that subtle differences in the structure of questions can affect the answer a person gives. For example, after viewing a film of an automobile accident, subjects were asked questions like "Did you see the broken headlight?" in some cases, and in other cases, "Did you see a broken headlight?" Questions using *the* tended to produce more false recognition of events. The presence of the definite article led subjects to believe that there must have been a broken headlight whether they saw it or not. Similar results were found for questions like "Did you see some people watching the accident?" vs. "Did you see any people watching the accident?" or even for questions containing a presupposition: "How fast was the car going when it hit the stop sign?" (presupposing both the existence of a stop sign and that the car hit a stop sign whether the subject actually saw it or not).

On the discourse level of language, we are familiar with the persuasiveness of an emotional speech or a well-written novel. How often has a gifted orator swayed opinion and thought? Or a powerful editorial moved one to action or change? These are common examples of the influence of language on our cognitive and affective states.

Culture is really an integral part of the interaction between language and thought. Cultural patterns of cognition and customs are sometimes explicitly coded in language. Conversational discourse styles, for example, may be a factor of culture. Consider the "directness" of discourse of some cultures: in the United States, for example, casual conversation is said to be less frank and more concerned about face-saving than conversation in Greece (Kakava, 1995), and therefore a Greek conversation may be more confrontational than a conversation in the United States. In Japanese, the relationship of one's interlocutor is almost always expressed explicitly, either verbally and/or nonverbally. Perhaps those forms shape one's perception of others in relation to self.

Lexical items may reflect something about the intersection of culture and cognition. Color categorization has been cited as a factor of one's linguistic lexicon. Gleason (1961, p. 4) noted that the Shona of Rhodesia and the Bassa of Liberia have fewer color categories than speakers of European languages and they break up the spectrum at different points. Of course, the Shona or Bassa are able to perceive and describe other colors, in the same way that an English speaker might describe a "dark bluish green," but according to Gleason the labels that the language provides tend to shape the person's overall cognitive organization of color and to cause varying degrees of color discrimination.

You might be tempted at this point to say, "Ah, yes, and I hear that the Eskimos have many different words for 'snow,' which explains why they are able to discriminate

types of snow better than English speakers." This claim is one of the myths about language "that refuses to die" (Scovel, 1999, p. 1), a vocabulary "hoax" (Pullum, 1991) perpetuated along with other myths about Eskimos, such as rubbing noses and throwing Grandma out to be eaten by polar bears (Pinker, 1994, p. 64). In fact, according to Scovel (1999, p. 1), "languages spoken in northeastern Canada like Inuit do *not* have a disproportionately large number of words for this cold white stuff."

Another popular misconception about language and cognition came from Whorf's (1956) claims about the expression of time in Hopi. Arguing that Hopi contains no grammatical forms that refer to "time," Whorf suggested that Hopi had "no general notion or intuition of time" (Carroll, 1956, p. 57). The suggestion was so enticingly supportive of the linguistic determinism hypothesis (see below) that gradually Whorf's claim became accepted as fact. It is interesting that several decades later, Malotki (1983) showed that Hopi speech does contain tense, metaphors for time, units of time, and ways to quantify units of time!

The Whorfian Hypothesis

A tantalizing question emerges from such observations. Does language *reflect* a cultural worldview, or does language actually *shape* the worldview? Drawing on the ideas of Wilhelm von Humboldt (1767–1835), who claimed that language shaped a person's *Weltanschauung*, or worldview, Edward Sapir and Benjamin Whorf proposed a hypothesis that has now been given several alternative labels: the Sapir-Whorf hypothesis, the Whorfian Hypothesis, Linguistic Relativity, or Linguistic Determinism, or, for the sake of simplicity, what most now refer to as the **Whorfian Hypothesis**. Whorf (1956, pp. 212–214) summed up the hypothesis:

> The background linguistic system (in other words, the grammar) of each language is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the program and guide for the individual's mental activity, for his analysis of impressions, for his synthesis of his mental stock in trade. . . . We dissect nature along lines laid down by our native languages. . . . We cut nature up, organize it into concepts, and ascribe significance as we do, largely because we are parties to an agreement to organize it in this way—an agreement that holds through our speech community and is codified in the patterns of our language.

Over the years, the Whorfian Hypothesis has unfortunately been overstated and misinterpreted. Guiora (1981, p. 177) criticized Whorf's claim that the influence of language on behavior was "undifferentiated, all pervasive, permanent and absolute"; Guiora called these claims "extravagant." It would appear that **it was** Guiora's interpretation that was extravagant, for he put ideas into Whorf's writings that were never there. Clarke, Losoff, McCracken, and Rood (1984, p. 57), in a careful review of Whorf's writings, eloquently demonstrated that the Whorfian Hypothesis was not

nearly as monolithic or causal as some would interpret it to be. "The 'extravagant claims' made in the name of linguistic relativity were not made by Whorf, and attributing to him simplistic views of linguistic determination serves only to obscure the usefulness of his insights."

The language teaching profession today has actually subscribed to a more moderate view of the Whorfian Hypothesis, if only because of the mounting evidence of the interaction of language and culture. In the spirit of those who have exposed the mythical nature of many of the claims about linguistic determinism, Ronald Wardhaugh (1976, p. 74) offered the following alternative to a strong view of the Whorfian hypothesis:

> The most valid conclusion to all such studies is that it appears possible to talk about anything in any language provided the speaker is willing to use some degree of circumlocution. . . . Every natural language provides both a language for talking about every other language, that is, a metalanguage, and an entirely adequate apparatus for making any kinds of observations that need to be made about the world. If such is the case, every natural language must be an extremely rich system which readily allows its speakers to overcome any predispositions that exist.

So, while some aspects of language seem to provide us with potential cognitive mind-sets (e.g., in English, the passive voice, the tense system, "weasel words," and lexical items), we can also recognize that through both language and culture, some

CLASSROOM CONNECTIONS

Research Findings: Ever since Benjamin Whorf suggested in the mid 1950s that language has a strong effect on one's thinking and worldview, debates have been raging on both sides of the issue. While the current consensus is that language and thinking are interdependent, the fact remains that learning a second language may very well involve learning new ways of thinking, feeling, and acting.

Teaching Implications: Most foreign language programs recognize the importance of the language-culture connection, but sometimes fall short of recognizing deep-seated and often subtle predispositions that are embedded in a language. To what extent have your foreign language learning or teaching experiences involved internalizing cultural thought patterns along with the language forms themselves?

universal properties bind us all together in one world. The act of learning to think in another language may require a considerable degree of mastery of that language, but a second language learner does not have to learn to think, in general, all over again. As in every other human learning experience, the second language learner can make positive use of prior experiences to facilitate the process of learning by retaining that which is valid and valuable for second culture learning and second language learning.

CULTURE IN THE LANGUAGE CLASSROOM

In the previous sections a number of applications of cultural issues have made it to the language classroom. One of best resources available to direct you further in injecting culture into your classroom is in DeCapua and Wintergerst's (2004) *Crossing Cultures in the Language Classroom*. In this practical resource guide for teachers, the authors provide direct training in designing lessons and activities in terms of defining culture, collectivism and individualism, culture shock, cultural attributes of nonverbal communication, societal roles, and pragmatic communication.

Consider another possible application of the language-culture connection, one that acts as a "keystone" in one's approach to language teaching. How does that keystone interact with classroom activities? In a number of ways, the language-culture connection points toward certain techniques and away from others. The checklist below, following the same format as the checklist on motivation offered in Chapter 6, illustrates how lessons and activities may be generated, shaped, and revised according to just this one principle.

1. Does the activity value the customs and belief systems that are presumed to be a part of the culture(s) of the students?
2. Does the activity refrain from any demeaning stereotypes of any culture, including the culture(s) of your students?
3. Does the activity refrain from any possible devaluing of the students' native language(s)?
4. Does the activity recognize varying degrees of willingness of students to participate openly due to factors of collectivism/individualism and power distance?
5. If the activity requires students to go beyond the comfort zone of uncertainty avoidance in their culture(s), does it do so empathetically and tactfully?
6. Is the activity sensitive to the perceived roles of males and females in the culture(s) of your students?
7. Does the activity sufficiently connect specific language features (e.g., grammatical categories, lexicon, discourse) to cultural ways of thinking, feeling, and acting?
8. Does the activity in some way draw on the potentially rich background experiences of the students, including their own experiences in other cultures?

The eight criteria in the checklist represent various facets of the language-culture connection as discussed in this chapter. As each item is applied to an activity that is either being planned or has already been taught, evaluation takes place and the activity thereby becomes a manifestation of a principled approach. All of the principles in your approach could easily lead to similar checklists for the validation of activities.

In the process of actual teaching in the classroom, it is quite possible that you will be led to modify certain aspects of your approach. For example, suppose you were a secondary school teacher in a country in which the concept of equal rights for men and women was simply never discussed openly, how would you design an activity that calls for reading and interpreting a passage that describes the women's suffrage movement in the United States? Or suppose a group-work task in your textbook calls for a description of people from different countries. How would you prepare your students for this, in light of the need to avoid demeaning stereotypes? You can see that items on the checklist might lead you to redesign or alter an activity. Classroom experience then might stir you to further refinement.

TOPICS AND QUESTIONS FOR STUDY AND DISCUSSION

Note: (I) individual work; (G) group or pair work; (C) whole-class discussion.

1. (G) The class should be divided into groups of five or six people per group. Each group is assigned a country; countries should be as widely varying as possible, but at least one of the countries should be geographically close to the country you are now in. First, each group should be warned to suspend their usual tact and diplomacy for the sake of making this activity more enlightening. The task is for each group to brainstorm stereotypes for the people of their assigned country. The stereotypes can be negative and demeaning and/or positive and complimentary.
2. (C) Groups in item 1 now write their list of stereotypes on the blackboard; each group reports on (a) any difficulties they had in agreeing on stereotypes, (b) what the sources of these stereotypes are, (c) any guilty feelings about some of the items on the list and the reasons for the guilt, and (d) comments on any of the other lists. The ultimate objective is to get stereotypes out in the open, discuss their origins, and become sensitive to how oversimplified and demeaning certain stereotypes can be.
3. (C) Anyone in the class who has lived for a year or more in another country (and another language) might share with the class the extent to which he or she experienced any or all of the stages of culture acquisition discussed in this chapter. Were the stages easily identifiable? Was there an optimal period for language breakthrough?
4. (I) Look again at Hofstede's categories: collectivism/individualism, power distance, uncertainty avoidance, masculinity/femininity. Try to find one example

of each in your own past experiences in language classrooms (or in any other classroom). What did the teacher do? Was it effective in bridging any gaps? If not, how could you have made a more effective bridge?

5. (G) In considering varieties of world Englishes, where do you draw the line in recognizing the "legitimacy" of a variety of English? If Indian English, for example, is a legitimate variety of English, is "Singlish" (English in Singapore) in the same category? What about Japanese English ("Japlish")? With a partner, think of other examples and try to arrive at a conclusion.
6. (C) Why is language learning and teaching a political issue? In countries with which you are familiar, discuss in class the extent to which government dictates language policies either in education in particular or in the country in general.
7. (G) In groups of 3 to 5, review Phillipson's (1992) contention that English teaching efforts around the world can be viewed as fostering linguistic imperialism. Do you agree? Provide examples and counterexamples to illustrate your answer. Report your findings back to the whole class.
8. (C) If you are familiar with the "English only" debates in the United States or with similar language policy issues in another country, share with others your perceptions of how special interest groups further their cause in their attempts to influence voting.
9. (C) In foreign languages represented in the class, find examples that support the contention that language (specific vocabulary items, perhaps) seems to shape the way the speaker of a language views the world. On the other hand, in what way does the Whorfian hypothesis present yet another chicken-or-egg issue?
10. (G) Think of some techniques or activities that you have experienced in learning a foreign language and then, as a group, pick one or two and analyze them in terms of each of the points on the checklist for culturally appropriate activities on page 213. Report your findings to the rest of the class.

SUGGESTED READINGS

Matsumoto, D. (2000). *Culture and psychology: People around the world.* Belmont, CA: Wadsworth.

David Matsumoto's textbook, with an audience of university students in cross-cultural psychology, provides a comprehensive survey of issues and findings. Topics include ethnocentrism, stereotypes, prejudice, gender issues, culture and physical and mental health, emotion, language and nonverbal behavior, personality, social behavior, and culture and organizations.

Atkinson, D. (1999). TESOL and culture. *TESOL Quarterly, 33*, 625-654.

Siegal, M. (2000). Comments on Dwight Atkinson's "TESOL and culture": A reader reacts. *TESOL Quarterly, 34*, 744-747.

Sparrow, L. (2000). Comments on Dwight Atkinson's "TESOL and culture": Another reader reacts. *TESOL Quarterly, 34*, 747–752.

Atkinson, D. (2000). Comments on Dwight Atkinson's "TESOL and culture": The author responds. *TESOL Quarterly, 34*, 752–755.

This exchange features two divergent understandings of how to define culture. Dwight Atkinson's view of culture as hues in a rainbow is challenged by Sparrow and Siegal, who argue for a more constructivist view of people whose identities are socially constructed.

Kachru, Y. (2005). Teaching and learning of world Englishes. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 149–173). Mahwah, NJ: Lawrence Erlbaum Associates.

McArthur, T. (2001). World English and world Englishes: Trends, tensions, varieties, and standards. *Language Teaching, 34*, 1–20.

These two articles survey research and practice in teaching English as an international language. Both offer an extensive bibliography of useful references.

Canagarajah, A. (1999). *Resisting linguistic imperialism*. Oxford: Oxford University Press.

Skutnabb-Kangas, T. (2000). *Linguistic genocide in education—or worldwide diversity and human rights?* Mahwah, NJ: Lawrence Erlbaum Associates.

For a comprehensive overview of recent issues on the potentially "imperialistic" nature of the spread of English worldwide, these two books by Suresh Canagarajah and Tove Skutnabb-Kangas are very useful. They offer critiques as well as possible solutions to the dilemma facing many English language teachers, especially in developing countries.

McKay, S. (2002). *Teaching English as an international language: Rethinking goals and approaches.* Oxford: Oxford University Press.

Sandra McKay's book is an excellent overview of the pedagogical issues involved in teaching English as an international language. In well-researched historical backdrops, she described current approaches that address some of the dilemmas of English as a worldwide lingua franca.

DeCapua, A., & Wintergerst, A. (2004). *Crossing cultures in the language classroom.* Ann Arbor: The University of Michigan Press.

Fantini, A. (1997). *New ways of teaching culture.* Alexandria, VA: Teachers of English to Speakers of Other Languages.

Andrea DeCapua and Ann Wintergerst offer an insightful and practical manual for teachers in search of approaches and activities that will enrich cultural communication and understanding in the English language classroom. Alvino Fantini's book is a collection of many teachers' practical classroom

activities, categorized into different types and coded for appropriate levels of proficiency.

LANGUAGE LEARNING EXPERIENCE: JOURNAL ENTRY 7

Note: See pages 21 and 22 of Chapter 1 for general guidelines for writing a journal on a previous or concurrent language learning experience.

- In your journal, describe any cross-cultural living experiences you have had, even just a brief visit in another country. Describe any feelings of euphoria, uneasiness or stress, culture shock, and a sense of recovery if you felt such. How did those feelings mesh with any language learning processes?
- Think of one or two languages you're familiar with or you've tried to learn. How do you feel about the people of the culture of that language? Any mixed feelings?
- Look at item 4 of Topics and Questions on page 214 and write about an example of one or more of Hofstede's categories in your own current or past experiences in language classrooms.
- Do you personally think the spread of English in the colonial era had imperialistic overtones? How can you as an English teacher in this new millennium avoid such cultural imperialism?
- Make a list of words, phrases, or language rules in your foreign language that are good examples of the Whorfian Hypothesis. Take two or three of those and write about whether or not you think the language itself shapes the way speakers of that language think or feel.
- In a foreign language you are taking (or have taken), how, if at all, has your teacher incorporated culture learning into the curriculum?

CHAPTER 8

COMMUNICATIVE COMPETENCE

CHAPTER 7, on sociocultural issues in second language acquisition, and this one are closely linked. Even though communicative competence is a construct that has been a topic of interest for at least four decades, recent trends have put less emphasis on structural and cognitive characteristics of communication and more on the myriad social, cultural, and pragmatic implications of what it means to communicate in a second language. As Mondada and Doehler (2004, pp. 502–503) stated it, "If interactional activities are the fundamental organizational tissue of learners' experience, then their competence cannot be defined in purely individual terms as a series of potentialities located in the mind/brain of a lone individual." Both Zuengler and Cole (2005) and Watson-Gegeo and Nielsen (2003) assert that the concept of language socialization in second language acquisition is of paramount importance in researching language acquisition, and that it "stands to contribute the most to an understanding of the cognitive, cultural, social, and political complexity of language learning" (Watson-Gegeo & Nielsen, 2003, p. 155).

This new wave of interest brings social constructivist perspectives into central focus and draws our attention to language as interactive communication among individuals, each with a sociocultural identity. Researchers are looking at discourse, interaction, pragmatics, and negotiation, among other things. Teachers and materials writers are treating the language classroom as a locus of meaningful, authentic exchanges among users of a language. Foreign language learning is viewed not just as a potentially predictable developmental process but also as the creation of meaning through interpersonal negotiation among learners. Communicative competence became a household phrase in SLA, and with its pedagogical counterpart, communicative language teaching, still stands as an appropriate term to capture many of the most recent trends in research and teaching.

DEFINING COMMUNICATIVE COMPETENCE

The term **communicative competence** (CC) was coined by Dell Hymes (1972, 1967), a sociolinguist who was convinced that Chomsky's (1965) notion of competence

(see Chapter 2) was too limited. Chomsky's "rule-governed creativity" that so aptly described a child's mushrooming grammar at the age of 3 or 4 did not, according to Hymes, account sufficiently for the social and functional rules of language. So Hymes referred to CC as that aspect of our competence that enables us to convey and interpret messages and to negotiate meanings interpersonally within specific contexts. Savignon (1983, p. 9) noted that "communicative competence is relative, not absolute, and depends on the cooperation of all the participants involved." It is not so much an intrapersonal construct as we saw in Chomsky's early writings but rather a dynamic, interpersonal construct that can be examined only by means of the overt performance of two or more individuals in the process of communication.

In the 1970s, research on CC distinguished between *linguistic* and *communicative* competence (Paulston, 1974; Hymes, 1967) to highlight the difference between knowledge "about" language forms and knowledge that enables a person to communicate functionally and interactively. In a similar vein, James Cummins (1980, 1979) proposed a distinction between **cognitive/academic language proficiency** (CALP) and **basic interpersonal communicative skills** (BICS). CALP is that dimension of proficiency in which the learner manipulates or reflects upon the surface features of language outside of the immediate interpersonal context. It is what learners often use in classroom exercises and tests that focus on form. BICS, on the other hand, is the communicative capacity that all children acquire in order to be able to function in daily interpersonal exchanges. Cummins later (1981) modified his notion of CALP and BICS in the form of **context-reduced** and **context-embedded** communication, where the former resembles CALP and the latter BICS, but with the added dimension of considering the context in which language is used. A good share of classroom, school-oriented language is context reduced, while face-to-face communication with people is context embedded. By referring to the context of our use of language, then, the distinction becomes more feasible to operationalize.

Seminal work on defining CC was carried out by Michael Canale and Merrill Swain (1980), still the reference point for virtually all discussions of CC in relation to second language teaching. In Canale and Swain's and later in Canale's (1983) definition, four different components, or subcategories, made up the construct of CC. The first two subcategories reflected the use of the linguistic system itself; the last two defined the functional aspects of communication.

1. **Grammatical competence** is that aspect of CC that encompasses "knowledge of lexical items and of rules of morphology, syntax, sentence-grammar semantics, and phonology" (Canale & Swain, 1980, p. 29). It is the competence that we associate with mastering the linguistic code of a language, the "linguistic" competence of Hymes and Paulston, referred to above.
2. The second subcategory is **discourse competence**, the complement of grammatical competence in many ways. It is the ability we have to connect sentences in

stretches of discourse and to form a meaningful whole out of a series of utterances. Discourse means everything from simple spoken conversation to lengthy written texts (articles, books, and the like). While grammatical competence focuses on sentence-level grammar, discourse competence is concerned with intersentential relationships.

3. **Sociolinguistic competence** is the knowledge of the sociocultural rules of language and of discourse. This type of competence "requires an understanding of the social context in which language is used: the roles of the participants, the information they share, and the function of the interaction. Only in a full context of this kind can judgments be made on the appropriateness of a particular utterance" (Savignon, 1983, p. 37).
4. The fourth subcategory is **strategic competence**, a construct that is exceedingly complex. Canale and Swain (1980, p. 30) described strategic competence as "the verbal and nonverbal communication strategies that may be called into action to compensate for breakdowns in communication due to performance variables or due to insufficient competence." Savignon (1983, p. 40) paraphrased this as "the strategies that one uses to compensate for imperfect knowledge of rules—or limiting factors in their application such as fatigue, distraction, and inattention." In short, it is the competence underlying our ability to make repairs, to cope with imperfect knowledge, and to sustain communication through "paraphrase, circumlocution, repetition, hesitation, avoidance, and guessing, as well as shifts in register and style" (pp. 40–41).

Strategic competence occupies a special place in an understanding of communication. Actually, definitions of strategic competence that are limited to the notion of "compensatory strategies" fall short of encompassing the full spectrum of the construct. In a follow-up to the previous (Canale & Swain, 1980) article, Swain (1984, p. 189) amended the earlier notion of strategic competence to include "communication strategies that may be called into action either to enhance the effectiveness of communication or to compensate for breakdowns." Similarly, Yule and Tarone (1990, p. 181) referred to strategic competence as "an ability to select an effective means of performing a communicative act that enables the listener/reader to identify the intended referent." So all communication strategies—such as those discussed in Chapter 5—may be thought of as arising out of a person's strategic competence. In fact, strategic competence is the way we manipulate language in order to meet communicative goals. An eloquent speaker possesses and uses a sophisticated strategic competence. A salesperson utilizes certain strategies of communication to make a product seem irresistible. A friend persuades you to do something extraordinary because he or she has mustered communicative strategies for the occasion.

Canale and Swain's (1980) model of CC has undergone some other modifications over the years. These newer views are perhaps best captured in Lyle Bachman's

(1990) schematization of what he simply calls "language competence," as shown in Figure 8.1. Bachman places grammatical and discourse (renamed "textual") competence under one node, which he appropriately calls **organizational competence**: all those rules and systems that dictate what we can do with the forms of language, whether they be sentence-level rules (grammar) or rules that govern how we "string" sentences together (discourse). Canale and Swain's sociolinguistic competence is now broken down into two separate **pragmatic** categories: functional aspects of language (**illocutionary competence**, pertaining to sending and receiving intended meanings) and sociolinguistic aspects (which deal with such considerations as politeness, formality, metaphor, register, and culturally related aspects of language). And, in keeping with current waves of thought, Bachman adds strategic competence as an entirely separate element of communicative language ability (see Figure 8.2). Here, strategic competence almost serves an "executive" function of making the final "decision," among many possible options, on wording, phrasing, and other productive and receptive means for negotiating meaning.

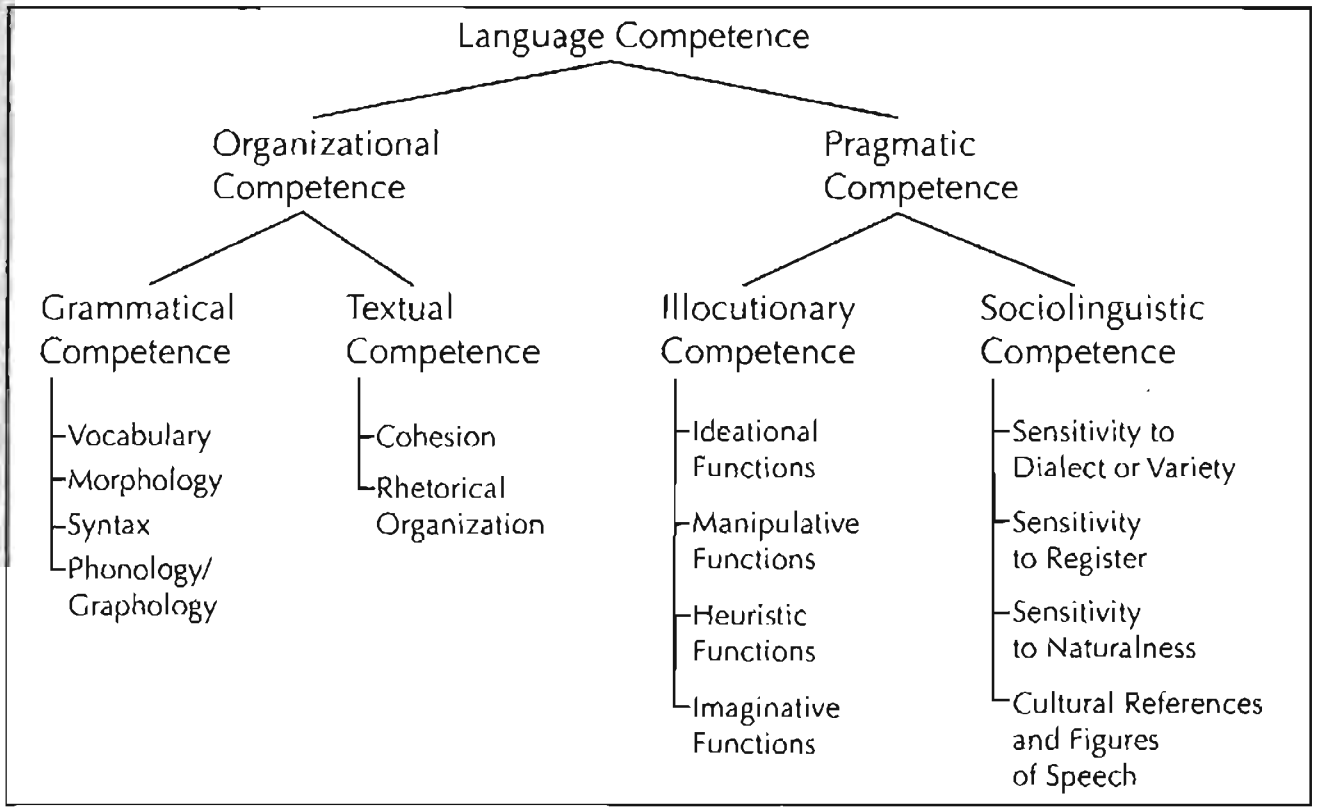

Figure 8.1. Components of language competence (Bachman, 1990, p. 87)

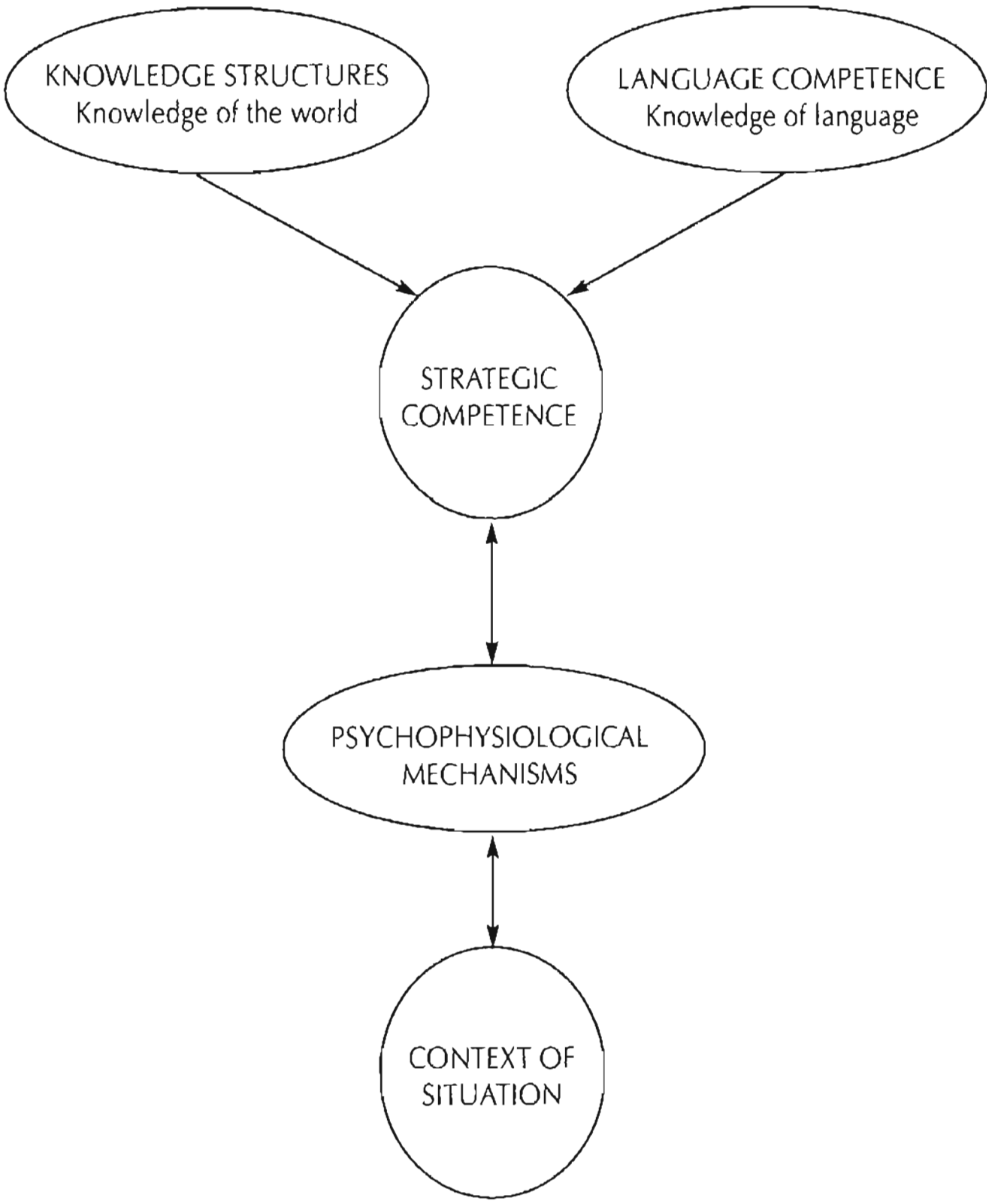

Figure 8.2. Components of communicative language ability in communicative language use (Bachman, 1990, p. 85)

LANGUAGE FUNCTIONS

In Bachman's model of CC, illocutionary competence consists of the ability to manipulate the functions of language, a component that Canale and Swain subsume under discourse and sociolinguistic competence. **Functions** are essentially the purposes that we accomplish with language, e.g., stating, requesting, responding, greeting, parting, etc. Functions cannot be accomplished, of course, without the **forms** of language: morphemes, words, grammar rules, discourse rules, and other organizational competencies. While forms are the outward manifestation of language, functions are the realization of those forms.

Functions are sometimes directly related to forms. "How much does that cost?" is usually a form functioning as a question, and "He bought a car" functions as a statement. But linguistic forms are not always unambiguous in their function. "I can't find my umbrella," uttered in a high-pitched voice by a frustrated adult who is late for work on a rainy day may be a frantic request for all in the household to join in a search. A child who says "I want some ice cream" is rarely stating a simple fact or observation but requesting ice cream in the child's own intimate style. A sign on the street that says "one way" functions to guide traffic in only one direction. A sign in a church parking lot in a busy downtown area was subtle in form but direct in function: "We forgive those who trespass against us, but we also tow them"; that sign functioned effectively to prevent unauthorized cars from parking there!

Communication may be regarded as a combination of acts, a series of elements with purpose and intent. Communication is not merely an event, something that happens; it is functional, purposive, and designed to bring about some effect—some change, however subtle or unobservable—on the environment of hearers and speakers. Communication is a series of communicative acts or **speech acts**, to use John Austin's (1962) term, which are used systematically to accomplish particular purposes. Austin stressed the importance of consequences, the **perlocutionary force**, of linguistic communication. Researchers have since been led to examine communication in terms of the effect that utterances achieve. That effect has implications for both the production and comprehension of an utterance; both modes of performance serve to bring the communicative act to its ultimate purpose. Second language learners need to understand the purpose of communication, developing an awareness of what the purpose of a communicative act is and how to achieve that purpose through linguistic forms.

Halliday's Seven Functions of Language

The functional approach to describing language is one that has its roots in the traditions of British linguist J. R. Firth, who viewed language as interactive and interpersonal, "a way of behaving and making others behave" (quoted by Berns, 1984a, p. 5). Since then the term "function" has been variously interpreted. Michael Halliday (1973), who provided one of the best expositions of language functions, used the

term to mean the purposive nature of communication, and outlined seven different functions of language:

1. The **instrumental function** serves to manipulate the environment, to cause certain events to happen. Sentences like "This court finds you guilty," "On your mark, get set, go!" or "Don't touch the stove" have an instrumental function; they are communicative acts that have a specific perlocutionary force; they bring about a particular condition.
2. The **regulatory function** of language is the control of events. While such control is sometimes difficult to distinguish from the instrumental function, regulatory functions of language are not so much the "unleashing" of certain power as the maintenance of control. "I pronounce you guilty and sentence you to three years in prison" serves an instrumental function, but the sentence "Upon good behavior, you will be eligible for parole in 10 months" serves more of a regulatory function. The regulations of encounters among people—approval, disapproval, behavior control, setting laws and rules—are all regulatory features of language.
3. The **representational function** is the use of language to make statements, convey facts and knowledge, explain, or report—that is, to "represent" reality as one sees it. "The sun is hot," "The president gave a speech last night," or even "The world is flat" all serve representational functions, although the last representation may be highly disputed.
4. The **interactional function** of language serves to ensure social maintenance. "Phatic communion," Malinowski's term referring to the communicative contact between and among human beings that simply allows them to establish social contact and to keep channels of communication open, is part of the interactional function of language. Successful interactional communication requires knowledge of slang, jargon, jokes, folklore, cultural mores, politeness and formality expectations, and other keys to social exchange.
5. The **personal function** allows a speaker to express feelings, emotions, personality, "gut-level" reactions. A person's individuality is usually characterized by his or her use of the personal function of communication. In the personal nature of language, cognition, affect, and culture all interact.
6. The **heuristic function** involves language used to acquire knowledge, to learn about the environment. Heuristic functions are often conveyed in the form of questions that will lead to answers. Children typically make good use of the heuristic function in their incessant "why" questions about the world around them. Inquiry is a heuristic method of eliciting representations of reality from others.
7. The **imaginative function** serves to create imaginary systems or ideas. Telling fairy tales, joking, or writing a novel are all uses of the imaginative function. Poetry, tongue twisters, puns, and other instances of the pleasurable uses of language also fall into the imaginative function. Through the imaginative dimensions of language we are free to go beyond the real world to soar

to the heights of the beauty of language itself, and through that language to create impossible dreams if we so desire.

These seven different functions of language are neither discrete nor mutually exclusive. A single sentence or conversation might incorporate many different functions simultaneously. Yet it is the understanding of how to use linguistic forms to achieve these functions of language that comprises the crux of second language learning. A learner might acquire correct word order, syntax, and lexical items, but not understand how to achieve a desired and intended function through careful selection of words, structure, intonation, nonverbal signals, and astute perception of the context of a particular stretch of discourse.

Functional Approaches to Language Teaching

The most apparent practical classroom application of functional descriptions of language was found in the development of functional syllabuses, more popularly **notional-functional syllabuses** ("syllabus," in this case, is a term used mainly in the United Kingdom to refer to what is commonly known as a "curriculum" in the United States). Beginning with the work of the Council of Europe (Van Ek & Alexander, 1975) and later followed by numerous interpretations of "notional" syllabuses (Wilkins, 1976), notional-functional syllabuses attended to functions as organizing elements of a foreign language curriculum. Grammar, which was the primary element in the historically preceding **structural syllabus**, was relegated to a secondary focus. "Notions" referred both to abstract concepts such as existence, space, time, quantity, and quality and to what we also call "contexts" or "situations," such as travel, health, education, shopping, and free time.

The "functional" part of the notional-functional syllabus corresponded to what we have defined above as language functions. Curricula were organized around such functions as identifying, reporting, denying, declining an invitation, asking permission, apologizing, etc. Van Ek and Alexander's (1975) exhaustive list of language functions became a basic reference for notional-functional syllabuses, now simply referred to as **functional syllabuses**. Functional syllabuses remain today in modified form. A typical current language textbook will list a sequence of communicative functions that are covered. For example, the following functions are covered in the first several lessons of an advanced-beginner's textbook, *New Vistas 1* (Brown, 1999):

1. Introducing self and other people
2. Exchanging personal information
3. Asking how to spell someone's name
4. Giving commands
5. Apologizing and thanking
6. Identifying and describing people
7. Asking for information

A typical unit in this textbook includes an eclectic blend of conversation practice with a classmate, interactive group work, role plays, grammar and pronunciation focus exercises, information-gap techniques, Internet activities, and extra-class interactive practice.

In the early days of functional syllabuses, there was some controversy over their effectiveness. Some language courses, as Campbell (1978, p. 18) wryly observed, could turn out to be "structural lamb served up as notional-functional mutton." And Berns (1984b, p. 15) echoed some of Widdowson's (1978a) earlier complaints when she warned teachers that textbooks that claim to have a functional base may be "sorely inadequate and even misleading in their representation of language as interaction." Berns went on to show how *context* is the real key to giving meaning to both form and function, and therefore just because a function is "covered" does not mean that learners have internalized it for authentic, unrehearsed use in the real world. Communication is qualitative and infinite; a syllabus is quantitative and finite.

DISCOURSE ANALYSIS

Berns's (1984) comments above were prophetic. Two decades or so later, the language teaching profession is immersed in social, contextual, and pragmatic issues in communicative language teaching. As Larsen-Freeman (2004) noted, we can focus on the object of learning as a set of *a priori* rules and structures, or as "evolving a bond between the individual and others—becoming a member of a community" (p. 606). The latter emphasis has recently fascinated both researchers and teachers in relating CC to the language classroom.

We'll begin to unravel the sometimes tangled threads of social constructivist views of CC by first looking at **discourse analysis**—the examination of the relationship between forms and functions of language. Discourse is language beyond the sentence. A single sentence can seldom be fully analyzed without considering its context. We use language in stretches of discourse. We string many sentences together in interrelated, cohesive units. In most oral language, our discourse is marked by exchanges with another person or several persons in which a few sentences spoken by one participant are followed and built upon by sentences spoken by another. Both the production and comprehension of language are a factor of our ability to perceive and process stretches of discourse, to formulate representations of meaning not just from a single sentence but from referents in both previous sentences and following sentences.

Consider the following three different exchanges:

1. **A:** Got the time?
   B: Ten-fifteen.

2. **Waiter:** More coffee?
   Customer: I'm okay.

3. **Parent:** Dinner!
   Child: Just a minute!

In so many of our everyday exchanges, a single sentence sometimes contains certain presuppositions or entailments that are not overtly manifested in surrounding sentence-level surface structure, but that are clear from the total context. All three of the above conversations contained such presuppositions (how to ask what time of day it is; how to say "no more coffee"; how to announce that dinner is ready and then indicate one will be there in a minute). So while linguistic science in the 1960s, to 1980s centered on the sentence for the purpose of analysis, in the last couple of decades trends in linguistics have increasingly emphasized the importance of intersentential relations in discourse. In written language, similar intersentential discourse relations hold true as the writer builds a network of ideas or feelings and the reader interprets them.

Without the pragmatic contexts of discourse, our communications would be extraordinarily ambiguous. A stand-alone sentence such as "I didn't like that casserole" could, depending on context, be agreement, disagreement, argument, complaint, apology, insult, or simply a comment. A second language learner of English might utter such a sentence with perfect pronunciation and grammar, but fail to achieve the communicative function of, say, apologizing to a dinner host or hostess, and instead be taken as an unrefined boor who most certainly would not be invited back!

With the increasing communicative emphasis on the discourse level of language in classrooms, we saw that approaches that emphasized only the formal aspects of learner language overlooked important discourse functions. Wagner-Gough (1975), for example, noted that acquisition by a learner of the *-ing* morpheme of the present progressive tense does not necessarily mean acquisition of varying functions of the morpheme: to indicate present action, action about to occur immediately, future action, or repeated actions. Formal approaches have also tended to shape our conception of the whole process of second language learning. Evelyn Hatch (1978a, p. 404) spoke of the dangers.

> In second language learning the basic assumption has been . . . that one first learns how to manipulate structures, that one gradually builds up a repertoire of structures and then, somehow, learns how to put the structures to use in discourse. We would like to consider the possibility that just the reverse happens. One learns how to do conversation, one learns how to interact verbally, and out of this interaction syntactic structures are developed.

Of equal interest to second language researchers is the discourse of the written word, and the process of acquiring reading and writing skills. The last few years have seen a great deal of work on second language reading strategies. Techniques in the teaching of reading skills have gone far beyond the traditional passage, comprehension questions, and vocabulary exercises. Text attack skills now include sophisticated techniques for recognizing and interpreting cohesive devices (for example, reference and ellipsis), discourse markers (*then, moreover, therefore*), rhetorical organization, and other textual discourse features (Nuttall, 1996). Cohesion and coherence are

common terms that need to be considered in teaching reading. Likewise the analysis of writing skills has progressed to a recognition of the full range of pragmatic and organizational competence that is necessary to write effectively in a second language.

Conversation Analysis

The above comments on the significance of acquiring literacy competence notwithstanding, conversation still remains one of the most salient and significant modes of discourse. Conversations are excellent examples of the social and interactive nature of communication. "Conversations are cooperative ventures" (Hatch & Long, 1980, p. 4). What are the rules that govern our conversations? How do we get someone's attention? How do we initiate topics? Terminate topics? Avoid topics? How does a person interrupt, correct, or seek clarification? These questions relate to an area of linguistic competence possessed by every adult native speaker of a language, yet few foreign language curricula traditionally deal with these important aspects of CC. And until recently, few efforts had been made to conduct research in conversation analysis (Markee, 2005; Markee & Kasper, 2004), an area that "invites the reconceptualization of language" (Larsen-Freeman, 2004, p. 603). In this chapter, our consideration of the importance of conversation in second language acquisition will be general, since specific languages differ, as aptly noted in a recent study by He (2004).

Very early in life, children learn the first and essential rule of conversation: **attention getting**. If you wish linguistic production to be functional and to accomplish its intended purpose, you must of course have the attention of your audience. The attention-getting conventions within each language—both verbal and nonverbal—need to be carefully assimilated by learners. Without knowledge and use of such conventions, second language learners may be reluctant to participate in a conversation because of their own inhibitions, or they may become obnoxious in securing attention in ways that "turn off" their hearer to the topic they wish to discuss.

Once speakers have secured the hearer's attention, their task becomes one of **topic nomination**. Rules for nominating topics in conversation, which involve both verbal and nonverbal cues, are highly contextually constrained. It is odd that only in recent years have language curricula included explicit instruction on how to secure the attention of an audience. Typical classroom activities in English include teaching students verbal gambits like "xcuse me," "Say," "Oh, sir," "Well, I'd like to ask you something," and nonverbal signals such as eye contact, gestures, and proxemics (see a discussion of these categories later in this chapter).

Once a topic is nominated, participants in a conversation then embark on **topic development**, using conventions of **turn-taking** to accomplish various functions of language. Allwright (1980) showed how students of English as a second language failed to use appropriate turn-taking signals in their interactions with each other and with the teacher. Turn-taking is another culturally oriented sets of rules that require finely tuned perceptions in order to communicate effectively. Aside from turn-taking itself, topic development, or maintenance of a conversation, involves clarification, shifting, avoidance, and interruption. Topic **clarification** manifests itself in various

forms of heuristic functions. In the case of conversations between second language learners and native speakers, topic clarification often involves seeking or giving repair of linguistic forms that contain errors. **Repair**, to be discussed in Chapter 9, involves a continuum of possibilities ranging from indirect signals to outright correction. It is what Canale and Swain (1980) labeled "strategic competence," and comprises a part of what Bachman (1990) included in strategic competence. Topic **shifting** and **avoidance** may be effected through both verbal and nonverbal signals. **Interruptions**, a form of attention getting, are a typical feature of all conversations. Rules governing appropriate, acceptable interruption vary widely across cultures and languages.

Topic termination is an art that even native speakers of a language have difficulty in mastering at times. We commonly experience situations in which a conversation has ensued for some time and neither participant seems to know how to terminate it. Usually, in American English, conversations are terminated by various interactional functions—a glance at a watch, a polite smile, or a "Well, I have to be going now." Each language has verbal and nonverbal signals for termination. It is important for teachers to be acutely aware of the rules of conversation in the second language and to aid learners to both perceive those rules and follow them in their own conversations.

CLASSROOM CONNECTIONS

Research Findings: Research on language-specific rules for carrying out successful conversations continues to analyze the complexity that faces learners of English, among other languages (Markee, 2005). It is no simple matter to acquire the ability to "get into" conversations, interrupt, take turns, and end conversations.

Teaching Implications: How often in your learning or teaching of a foreign language have you specifically been taught language forms that enable you to carry on a conversation? Most of the time learners have to acquire such competencies on their own, in the process of natural encounters with others in the real world. What language forms do you think would be useful for teaching learners of English (or whatever your target language is) how to negotiate a conversation?

H. P. Grice (1967) once noted that certain conversational "maxims" enable the speaker to nominate and maintain a topic of conversation:

1. Quantity: Say only as much as is necessary for understanding the communication.
2. Quality: Say only what is true.

(continued)

3. Relevance: Say only what is relevant.
4. Manner: Be clear.

Grice's maxims have been widely used as criteria for analyzing why speakers are sometimes ineffective in conversations, and as suggestions for improvement of one's "power" over others through conversation.

One aspect of the acquisition of conversation competence is the recognition and production of conventions for accomplishing certain functions. Second language researchers have studied such varied conversational purposes as retaining control in classroom situations (Markee, 2004), compensating for lack of lexical knowledge (Mori, 2004), nonverbal aspects of conversations (Roth & Lawless, 2002), turn-taking (Ford, 2002), apologizing (Olshtain & Cohen, 1983), complimenting (Wolfson, 1981), disapproving (D'Amico-Reisner, 1983), inviting (Wolfson, D'Amico-Reisner, & Huber, 1983), and even "how to tell when someone is saying 'no'" (Rubin, 1976). There is no end to the possibility for research on such topics. The applications to teaching are equally numerous, apparent in a perusal of the many foreign language textbooks now aimed at focusing on conversational discourse.

Corpus Linguistics

A branch of discourse analysis that has experienced phenomenal growth and interest over the last decade or so is **corpus linguistics**, an approach to linguistic research that relies on computer analyses of language. The corpus is "a collection of texts—written, transcribed speech, or both—that is stored in electronic form and analyzed with the help of computer software programs" (Conrad, 2005, p. 393). The emphasis in corpus linguistics is on *naturally occurring* language, that is, texts created by users of the language for a communicative purpose. Corpora can be looked at in terms of varieties of language, dialects, styles, and registers. Corpora can consist of either written or spoken language and therefore offer tremendous possibilities for analysis of language across many different **genres**, or types of language use within specified contexts (see Johns, 2002, for information on genre analysis). In written form, corpora can be classified into academic, journalistic, or literary prose, for example. Speech corpora have been classified into conversations of many kinds: theater/television scripts, speeches, and even classroom language (Conrad, 2005; Meyer, 2002; Biber & Conrad, 2001; Biber, Conrad, & Reppen, 1998; Kennedy, 1998).

The advent of computer science presents almost endless possibilities for analysis. With some data banks boasting hundreds of millions of words (Conrad, 2005, p. 394), our capacity to analyze language as it is actually used, and not as it may occur in language textbooks that are sometimes guilty of manufacturing linguistic examples to illustrate a form, is greatly enhanced. We are now able to identify word frequencies and co-occurrences. For example, according to the *Longman Dictionary of Contemporary English* (1995), the word *idea* co-occurs with the word *good* (as in "good idea"), four times more often than with any other word, such as *great idea*, or *right idea*. Grammatical patterns can also be identified. Biber *et al.* (1999)

noted that the use of the word *get* as a passive verb rarely includes a *by* prepositional phrase that identifies an agent, and that most commonly, verbs in the *get* passive describe negative circumstances (*get hit, get stuck, get involved*) and are much more common in conversation than in fiction, news, or academic prose.

For teaching foreign languages, the benefits of corpus linguistics have been and will continue to be explored as this field grows (Conrad, 2005). A special-topic issue of the *TESOL Quarterly* (Autumn 2003) was recently dedicated exclusively to research on the applications and implications of corpus linguistics in the English language classroom. Some interesting possibilities have emerged: access by textbook writers and curriculum developers to naturally occurring language subcategorized into very specific varieties, styles, registers, and genres (O'Keefe & Farr, 2003); integration of grammar and vocabulary teaching (Conrad, 2000); studies of learner language (Conrad, 2005); and even corpus-based classroom activities that use "concordancing" and other techniques as the focus of classroom lessons (Aston, 2001; Burnard & McEnery, 2000).

Of course, some caveats and disadvantages need to be noted. First, we do well to be reminded that frequency may not be equivalent to what Widdowson (1991) called "usefulness." Just because words, forms, and co-occurrences are highly frequent may not mean they are highly useful in a language learner's progress to proficiency. Second, so far many of the data that have been amassed reflect English in the Inner Circle, described in Chapter 7, and may not represent the reality of English encountered by learners in the Outer and Expanding circles (McCarthy & Carter, 1995). Finally, we have to note that even decisions by corpus linguists of what to include in their corpora can be the result of their intuitive decisions or even their biases. Despite these drawbacks, corpus linguistics holds promise for enlightening not only our language teaching methodology, but for understanding the nature of linguistics discourse in general.

Contrastive Rhetoric

Yet another dimension of the analysis of discourse is a subfield that has long attracted a great deal of attention. **Contrastive rhetoric** "starts from the assumption that language occurs not in isolated syntactic structures but rather in naturally occurring discourses, whether spoken or written, although admittedly Contrastive Rhetoric has focused almost exclusively on written varieties" (Kaplan, 2005, p. 375). Launching a now decades-long investigation of writing conventions across different languages and cultures, Robert Kaplan's (1966) seminal article on the topic prodded others (Connor & Kaplan, 1987; Connor, 2002, 1996; Li, 1996) to scrutinize cross-cultural aspects of writing, and in particular the difficulties learners may experience in acquiring conventions of writing in a second language.

In the original article, Kaplan (1966) presented a schematic diagram of how two different languages and three language families conventionally organize an essay. English and Russian (languages) and Semitic, Oriental, and Romance (language families) were described through what have now been dubbed "doodles" to

characterize the structure of an essay. So, for example, English was depicted through a straight line from one point to another, Semitic languages with a jagged set of lines, and Oriental languages through a spiral. Kaplan's descriptions were clearly inspired by the Whorfian Hypothesis, as Connor (2002) attests; the writing conventions of a language may in some ways define a culture.

The doodles, graphically interesting but overgeneralized, became the object of a good deal of criticism (Leki, 2000; Raimes, 1998) for being ethnocentric and culturally deterministic, among other problems. But even by Kaplan's own admission, his characterizations were "notions" (Connor & Kaplan, 1987), and according to Kaplan himself, "much more detailed and accurate descriptions would be needed before a meaningful contrastive rhetorical system could be developed" (Kaplan, 2005, p. 388).

Connor (2002, 1996), Panetta (2001), Grabe and Kaplan (1996), and Leki (1991) were among those who have taken significant steps to explore the possibility of such a meaningful system, and to take a comprehensive look at contrastive rhetoric from multiple perspectives, not the least of which was a social constructivist perspective. One difficulty in such research is describing conventions for writing that are truly language specific. Every language has genres of writing, and even within, say, an academic genre, disciplines vary in their views of acceptable writing. Writing contexts (who is writing, to whom, and for what purpose) and specific conventions within subgroups of genres (e.g., a scientific laboratory report; a personal narrative essay) may prove to be far more important for learners to attend to than a possible contrasting native language convention. Another difficulty lies in the assumption that the second language writer's task is to follow certain conventional models, as opposed to engaging in a "socially grounded framework" (Hedgcock, 2005, p. 601) that more creatively encourages writers to develop their own voice as they simultaneously develop the kind of empathy toward the specific intended audience.

PRAGMATICS

Implicit in the above discussions of language functions, discourse analysis, conversation analysis, corpus studies, and contrastive rhetoric is the importance of **pragmatics** in conveying and interpreting meaning. Pragmatic constraints on language comprehension and production may be loosely thought of as the effect of *context* on strings of linguistic events. Consider the following conversation:

[*Phone rings, a 10-year-old child picks up the phone*]
Stefanie: Hello.
Voice: Hi, Stef, is your Mom there?
Stefanie: Just a minute. [*cups the phone and yells*] Mom! Phone!
Mom: [*from upstairs*] I'm in the tub!
Stefanie: [*returning to the phone*] She can't talk now. Wanna leave a message?
Voice: Uh, [*pause*] I'll call back later. Bye.

Pragmatic considerations allowed all three participants to interpret what would otherwise be ambiguous sentences. "Is your Mom there?" is not, in a telephone context, a question that requires a yes or no answer. Stefanie's "Just a minute" confirmed to the caller that her mother was indeed home, and let the caller know that she would either (1) check to see if she was home and/or (2) get her to come to the phone. Then, Stefanie's "Mom! Phone!" was easily interpreted by her mother as "Someone is on the phone who wants to talk with you." Mom's response, otherwise a rather worthless bit of information, in fact informed Stefanie that she couldn't come to the phone, which was then conveyed to the caller. The caller didn't explicitly respond "no" to Stefanie's offer to take a message, but implicitly did so with "I'll call back later."

Sociopragmatics and Pragmalinguistics

Second language acquisition becomes an exceedingly difficult task when **sociopragmatic** (the interface between pragmatics and social organization) and **pragmalinguistic** (the intersection of pragmatics and linguistic forms) features are brought to bear. Kasper and Roever (2005), Kasper and Rose (2002), Bardovi-Harlig (1999a), Kasper (1998), LoCastro (1997), Turner (1996, 1995), Scollon and Scollon (1995), Kasper and Blum-Kulka (1993), Harlow (1990), and Holmes and Brown (1987) have all demonstrated the difficulty of such conventions because of subtle cross-cultural contrasts. Variations in politeness and formality are particularly touchy:

American: What an unusual necklace. It's beautiful!
Samoan: Please take it. (Holmes & Brown, 1987, p. 526)

American teacher: Would you like to read?
Russian student: No, I would not. (Harlow, 1990, p. 328)

In both cases the nonnative English speakers misunderstood the **illocutionary force** (intended meaning) of the utterance within the contexts.

Grammatical knowledge, or in Bachman's terms, the organizational rules of a second language, are fundamental to learning the pragmalinguistic features of a language (Bardovi-Harlig, 1999a). But grammar is almost simple when compared to the complexity of catching on to a seemingly never-ending list of pragmatic constraints. Pragmatic conventions from a learner's first language can transfer both positively and negatively. Address forms (how to address another person in conversation), for example, can prove to be problematic for English speakers learning a language like German (Belz & Kinginger, 2003), and other languages that distinguish between formal and informal forms of "you" (German: *Sie* and *du*). Apologizing, complimenting, thanking, face-saving conventions, and conversational cooperation strategies (Turner, 1995) often prove to be difficult for second language learners to acquire. Japanese learners of English may express gratitude by saying "I'm sorry," a direct transfer from *Sumimasen*, which in Japanese commonly conveys a sense of gratitude, especially to persons of higher status (Kasper, 1998,

p. 194). Cooperation principles are especially difficult to master: the difference between "Rake the leaves" and "Don't you think you could rake the leaves?" (Turner, 1996, p. 1) is an example of how, in English, cooperation is sometimes given precedence over directness.

CLASSROOM CONNECTIONS

Research Findings: Pragmatics includes such contextual skills as using address forms, polite requests, persuading, and disagreeing, as Kasper and Roever (2005) show in their review of research.

Teaching Implications: One pragmatic element of language that is useful for classroom learners of a foreign language is how to disagree politely. Have you ever been taught forms such as, "I see your point, but . . ." and "I think I understand what you are saying, but have you considered . . ."? What other phrases or sentences do we commonly use to politely disagree? How would you teach such classroom language?

Language and Gender

One of the major pragmatic factors affecting the acquisition of CC in virtually every language, and one that has received considerable attention recently, is the effect of one's sex on both production and reception of language. Differences between the way males and females speak have been noted for some time now (McKay, 2005; Davis & Skilton-Sylvester, 2004; Sunderland, 2000; Tannen, 1996, 1990; Holmes, 1991, 1989; Nilsen et al., 1977; Lakoff, 1975). Among American English speakers, girls have been found to produce more "standard" language than boys, a pattern that continues on through adulthood. Women appear to use language that expresses more uncertainty (hedges, tag questions, rising intonation on declaratives, etc.) than men, suggesting less confidence in what they say. Men have been reported to interrupt more than women, and to use stronger expletives, while the latter use more polite forms. Tannen (1996) and others have found that males place more value, in conversational interaction, on status and report talk, competing for the floor, while females value connection and rapport, fulfilling their role as more "cooperative and facilitative conversationalists, concerned for their partner's positive face needs" (Holmes, 1991, p. 210).

These studies of language and gender, which were conducted in English-speaking cultures, do not even begin to deal with some of the more overtly formal patterns for men's and women's talk in other languages. Among the Carib Indians in the Lesser Antilles, for example, males and females must use entirely different gender markings for abstract nouns. In several languages males and females use different

syntactic and phonological variants. In Japanese, women's and men's language is differentiated by formal (syntactic) variants, intonation patterns, and nonverbal expression. It is not uncommon for American men who learned Japanese from a female native-speaking Japanese teacher to inadvertently "say things like a woman" when, say, conducting business with Japanese men, much to their embarrassment.

In English, another twist on the language and gender issue has been directed toward "sexist" language: language that either calls unnecessary attention to gender or is demeaning to one gender. Writers are cautioned to refrain from using what we used to call the "generic" *he* and instead to pluralize or to use *he or she*. What used to be *stewardesses, chairmen,* and *policemen* are now more commonly called *flight attendants, chairs,* and *police officers*. Words/phrases like *broads, skirt chasers, the wife,* etc., are now marked as demeaning perpetuations of negative stereotypes of women. The list of sexist terms, phrases, and metaphors goes on and on. Fortunately, the research of linguists like Janet Holmes, Robin Lakoff, and Deborah Tannen has called the attention of the public to such sexism, and we are seeing signs of the decline of this sort of language.

Research on language and gender has historically seen some theoretical shifts (McKay, 2005; Davis & Skilton-Sylvester, 2004). Reacting to views of women's language as *deficient* or inferior to men's, Robin Lakoff's (1975) work established the notion that women's language was *different* from men's language. Then theoretical positions evolved to emphasize the relationship between language and power, especially power as viewed by men in society their social *domination* of women (Tannen, 1996, 1990, for example). Current research on language and gender tends to go beyond all three of the above theoretical positions to acknowledge the socially constructed nature of language in any context (Cameron & Kulick, 2003). Current constructivist positions generally prefer to view gender as one of many factors that enter into communication: "the speaker, the setting, the cultural context, and the interactions of ethnicity, class, gender, power, sexual orientation, and a wide array of other social phenomena" (Davis & Skilton-Sylvester, 2004, p. 386). For an excellent overview of issues in gender and language education, consult *TESOL Quarterly*'s (2004) special-topic issue.

All these factors in discourse and pragmatics are subtleties that a second language learner must contend with. They all form a significant, intricately interwoven tapestry in our sociopragmatic competence.

DISCOURSE STYLES

Another important issue in describing CC is the way we use language in different styles depending on the context of a communicative act in terms of subject matter, audience, occasion, shared experience, and purpose of communication. **Styles** are not social or regional dialects, but sets of conventions for selecting words, phrases, discourse, and nonverbal language in specified contexts. Styles vary considerably within a single language user's idiolect. When you converse informally with a friend, you use a style that is different from what you use in an interview for a job

with a prospective employer. Native speakers, as they mature into adulthood, learn to adopt appropriate styles for widely different contexts. An important difference between a child's and an adult's fluency in a native language is the degree to which an adult is able to vary styles for different occasions and persons. Adult second language learners must acquire stylistic adaptability in order to be able to encode and decode the discourse around them correctly.

Martin Joos (1967) provided one of the most common classifications of speech styles using the criterion of formality, which tends to subsume subject matter, audience, and occasion. Joos described five levels of formality.

1. An **oratorical style** is used in public speaking before a large audience; wording is carefully planned in advance, intonation is somewhat exaggerated, and numerous rhetorical devices are appropriate.
2. A **deliberative style** is also used in addressing audiences, usually audiences too large to permit effective interchange between speaker and hearers, although the forms are normally not as polished as those in an oratorical style. A typical university classroom lecture is often carried out in a deliberative style.
3. A **consultative style** is typically a dialog, though formal enough that words are chosen with some care. Business transactions, doctor-patient conversations, and the like are usually consultative in nature.
4. A **casual style** is typical of conversations between friends or colleagues or sometimes members of a family; in this context words need not be guarded and social barriers are moderately low.
5. An **intimate style** is one characterized by complete absence of social inhibitions. Talk with family, loved ones, and very close friends, where the inner self is revealed, is usually in an intimate style.

Categories of style can apply to written discourse as well. Most writing is addressed to readers who cannot respond immediately; that is, stretches of discourse—books, essays, letters, e-mails—are read from beginning to end before the reader gives a response. Written style is therefore usually more deliberative with the exception of friendly letters, notes, e-mails, or literature intended to capture a more personal style. With the notable exception of e-mail style, these more common every day written genres, still carry with them conventional expectations of reasonably well-chosen wording with relatively few performance variables. E-mail writing, oddly enough, has evolved into a culture in which one is almost obligated *not* to correct performance slips!

Styles are manifested by both verbal and nonverbal features. Differences in style can be conveyed in body language, gestures, eye contact, and the like—all very difficult aspects of "language" for the learner to acquire. (Nonverbal communication is discussed below.) Verbal aspects of style are difficult enough to learn. Syntax in many languages is characterized by contractions and other deletions in intimate and casual styles. Lexical items vary, too. Bolinger (1975) gave a somewhat

tongue-in-cheek illustration of lexical items that have one semantic meaning but represent each of the five styles: *on the ball, smart, intelligent, perceptive, and astute*—from intimate to frozen, respectively. He of course recognized other meanings besides those of style that intervene to make the example somewhat overstated. Style distinctions in pronunciation are likely to be most noticeable in the form of hesitations and other misarticulations, phonological deletion rules in informal speech, and perhaps a more affected pronunciation in formal language.

Related to stylistic variation is another factor, **register**, sometimes incorrectly used as a synonym for style. Registers are commonly identified by certain phonological variants, vocabulary, idioms, and other expressions that are associated with different occupational or socioeconomic groups. Registers sometimes enable people to identify with a particular group and to maintain solidarity. Colleagues in the same occupation or profession will use certain jargon to communicate with each other, to the exclusion of eavesdroppers. Truckers, airline pilots, salespersons, and farmers, for example, use words and phrases unique to their own group. Register is also sometimes associated with social class distinctions, but here the line between register and dialect is difficult to define (see Wardhaugh, 1992, and Chaika, 1989, for further comments). The acquisition of styles and registers poses no simple problem for second language learners. Cross-cultural variation is a primary barrier—that is, understanding cognitively and affectively what levels of formality are appropriate or inappropriate. North American culture generally tends to accept more informal styles for given occasions than some other cultures.

Some English learners in the United States consequently experience difficulty in gauging appropriate formality distinctions and tend to be overly formal. Such students are often surprised by the level of informality expressed by their American professors. The acquisition of both styles and registers thus combines a linguistic and culture-learning process.

NONVERBAL COMMUNICATION

We communicate so much information nonverbally in conversations that often the verbal aspect of the conversation is negligible. This is particularly true for interactive language functions in which social contact is of key importance and in which it is not *what* you say that counts but *how* you say it—what you convey with body language, gestures, eye contact, physical distance, and other nonverbal messages. Nonverbal communication, however, is so subtle and subconscious in a native speaker that verbal language seems, by comparison, quite mechanical and systematic. Language becomes distinctly human through its nonverbal dimension, or what Edward Hall (1959) called the "silent language." The expression of culture is so bound up in nonverbal communication that the barriers to culture learning are more nonverbal than verbal. Verbal language requires the use of only one of the five sensory modalities: hearing. But there remain in our communicative repertoire three other senses by which we communicate every day, if we for the moment rule

out taste as falling within a communicative category (though messages are indeed sent and received through the taste modality). We will examine each of these.

Kinesics

Every culture and language uses body language, or **kinesics**, in unique but clearly interpretable ways. "There was speech in their dumbness, language in their very gesture," wrote Shakespeare in *The Winter's Tale*. All cultures throughout the history of humankind have relied on kinesics for conveying important messages. Books like Dresser's *Multicultural Manners* (1996) join a long string of manuals (e.g., Fast, 1970; Hall, 1966, 1959) offering lighthearted but provocative insights on the use of kinesics in North American and other cultures. Today, virtually every book on communication explains how you communicate—and miscommunicate—when you fold your arms, cross your legs, stand, walk, move your eyes and mouth, and so on.

But as universal as kinesic communication is, there is tremendous variation cross-culturally and cross-linguistically in the specific interpretations of gestures. Human beings all move their heads, blink their eyes, move their arms and hands, but the significance of these movements varies from society to society. Consider the following categories and how you would express them in American culture.

1. Agreement, "yes"
2. "No!"
3. "Come here"
4. Lack of interest, "I don't know"
5. Flirting signals, sexual signals
6. Insults, obscene gestures

There are conventionalized gestural signals to convey these semantic categories. Are those signals the same in another language and culture? Sometimes they are not. And sometimes a gesture that is appropriate in one culture is obscene or insulting in another. Nodding the head, for example, means "yes" among most European language speakers. But among the Ainu of Japan, "yes" is expressed by bringing the arms to the chest and waving them. The pygmy Negritos of interior Malaya indicate "yes" by thrusting the head sharply forward, and people from the Punjab of India throw their heads sharply backward. The Ceylonese curve their chins gracefully downward in an arc to the left shoulder, whereas Bengalis rock their heads rapidly from one shoulder to the other.

Eye Contact

Is eye contact appropriate between two participants in a conversation? When is it permissible not to maintain **eye contact**? What does eye contact or the absence thereof signal? Cultures differ widely in this particular visual modality of nonverbal communication. In American culture it is permissible, for example, for two

participants of unequal status to maintain prolonged eye contact. In fact, an American might interpret lack of eye contact as discourteous lack of attention, while in Japanese culture eye contact might be considered rude. Intercultural interference in this nonverbal category can lead to misunderstanding.

Not only is eye contact itself an important category, but the gestures, as it were, of the eyes are in some instances keys to communication. Eyes can signal interest, boredom, empathy, hostility, attraction, understanding, misunderstanding, and other messages. The nonverbal language of each culture has different ways of signaling such messages. An important aspect of unfettered and unambiguous conversation in a second language is the acquisition of conventions for conveying messages by means of eye signals.

Proxemics

Physical proximity, or **proxemics**, is also a significant communicative category. Cultures vary widely in acceptable distances for conversation. Edward Hall (1966) calculated acceptable distances for public, social-consultative, personal, and intimate discourse. He noted, for example, that Americans feel that a certain personal space "bubble" has been violated if a stranger stands closer than 20 to 24 inches away unless space is restricted, such as in a subway or an elevator. However, a typical member of a Latin American culture would feel that such a physical distance would be too great. The interesting thing is that neither party is specifically aware of what is wrong when the distance is not right. They merely have vague feelings of discomfort or anxiety.

Sometimes objects—desks, counters, other furniture—serve to maintain certain physical distances. Such objects tend to establish both the overall style and relationship of participants. Thus, a counter between two people maintains a consultative mood. Similarly, the presence of a desk or a computer monitor will set the tone of a conversation. Again, however, different cultures interpret different messages in such objects. In some cultures, objects might enhance the communicative process, but in other cases they impede it.

Artifacts

The nonverbal messages of **artifacts** such as clothing and ornamentation are also important aspects of communication. Clothes often signal a person's sense of self-esteem, socioeconomic class, and general character. Jewelry also conveys certain messages. In a multicultural conversation group, such artifacts, along with other nonverbal signals, can be a significant factor in lifting barriers, identifying certain personality characteristics, and setting a general mood.

Kinesthetics

Touching, sometimes referred to as **kinesthetics**, is another culturally loaded aspect of nonverbal communication. How we touch others and where we touch them is

sometimes the most misunderstood aspect of nonverbal communication. Touching in some cultures signals a very personal or intimate style, while in other cultures extensive touching is commonplace. Knowing the limits and conventions is important for clear and unambiguous communication.

Olfactory Dimensions

Our noses also receive sensory nonverbal messages. The **olfactory** modality is of course an important one for the animal kingdom, but for the human race, too, different cultures have established different dimensions of olfactory communication. The twentieth century has created in most technological societies a penchant for perfumes, lotions, creams, and powders as acceptable and even necessary; natural human odors, especially perspiration, are thought to be undesirable. In some societies, of course, the smell of human perspiration is quite acceptable and even attractive. Second language and especially second culture learners need to be aware of the accepted mores of other cultures in the olfactory modality.

CLASSROOM CONNECTIONS

Research Findings: Common observation and research both point out that nonverbal communication is an extremely important, if not crucial, aspect of face-to-face communication. Edward Hall (1966), Julius Fast (1970), and Norine Dresser (1996) all bear testimony to this critical component of communication.

Teaching Implications: To what extent have you been specifically taught nonverbal language such as gestures, eye contact, and proxemics? Many language courses fail to attend to this significant mode of communication, under the mistaken assumption that verbal forms—sounds, words, phrases, and sentences—are sufficient for a learner to cope in a foreign language. Which nonverbal aspects would you teach, and how would you teach them?

We cannot underestimate the importance of nonverbal communication in second language learning and in conversational analysis (DeCapua & Wintergerst, 2004; Matsumoto, 2000; Kellerman, 1992). CC includes nonverbal competence—knowledge of all the varying nonverbal semantics of the second culture, and an ability both to send and receive nonverbal signals unambiguously.

CC IN THE CLASSROOM: CLT AND TASK-BASED TEACHING

As the field of second language pedagogy has developed and matured over the past few decades, we have experienced a number of reactions and counter-reactions in methods and approaches to language teaching. We can look back over a century of foreign language teaching and observe the trends as they came and went. How will we look back 100 years from now and characterize the present era?

Communicative Language Teaching

The answer may lie in our recent efforts to engage in **communicative language teaching** (CLT). The "push toward communication" (Higgs & Clifford, 1982) has been relentless. Researchers have defined and redefined the construct of communicative competence (Savignon, 2005). They have explored the myriad functions of language that learners must be able to accomplish. They have described spoken and written discourse and pragmatic conventions. They have examined the nature of styles and nonverbal communication. With this storehouse of knowledge we have valiantly pursued the goal of learning how best to teach communication.

One glance at current journals in second language teaching reveals quite an array of material on CLT. Numerous textbooks for teachers and teacher trainers expound on the nature of communicative approaches and offer techniques for varying ages and purposes. In short, wherever you look in the literature today, you will find reference to the communicative nature of language classes.

CLT is best understood as an **approach**, rather than a method (Richards & Rodgers, 2001). It is therefore a unified but broadly based theoretical position about the nature of language and of language learning and teaching. It is nevertheless difficult to synthesize all of the various definitions that have been offered. From the earlier seminal works in CLT (Savignon, 1983; Breen & Candlin, 1980; Widdowson, 1978b) up to more recent work (Savignon, 2005; Ellis, 2005; Nunan, 2004; Brown, 2001), we have definitions enough to send us reeling. For the sake of simplicity and directness, I offer the following four interconnected characteristics as a definition of CLT.

1. Classroom goals are focused on all of the components of CC and not restricted to grammatical or linguistic competence.
2. Language techniques are designed to engage learners in the pragmatic, authentic, functional use of language for meaningful purposes. Organizational language forms are not the central focus but rather aspects of language that enable the learner to accomplish those purposes.
3. Fluency and accuracy are seen as complementary principles underlying communicative techniques. At times fluency may have to take on more importance than accuracy in order to keep learners meaningfully engaged in language use.
4. In the communicative classroom, students ultimately have to use the language, productively and receptively, in unrehearsed contexts.

These four characteristics underscore some major departures from earlier approaches. In some ways those departures were a gradual product of outgrowing the numerous methods (Community Language Learning, the Natural Approach, etc., discussed in earlier chapters) that characterized a long stretch of history. In other ways those departures were radical. Structurally (grammatically) sequenced curricula were a mainstay of language teaching for centuries. CLT suggests that grammatical structure might better be subsumed under various functional categories. CLT pays considerably less attention to the overt presentation and discussion of grammatical rules than traditionally practiced. A great deal of use of authentic language is implied in CLT, as teachers attempt to build fluency (Chambers, 1997). It is important to note, however, that fluency is not encouraged at the expense of clear, unambiguous, direct communication. Finally, much more spontaneity is present in communicative classrooms: students are encouraged to deal with unrehearsed situations under the guidance, but not control, of the teacher.

The fourth characteristic of CLT often makes it difficult for a nonnative speaking teacher who is not very proficient in the second language to teach effectively. Dialogs, drills, rehearsed exercises, and discussions (in the first language) of grammatical rules are much simpler for some nonnative speaking teachers to contend with. This drawback should not deter one, however, from pursuing communicative goals in the classroom. Technology (video, television, audiotapes, the Internet, computer software) can come to the aid of such teachers. Moreover, in the last decade or so, we have seen a marked increase in English teachers' proficiency levels around the world. As educational and political institutions in various countries become more sensitive to the importance of teaching foreign languages for communicative purposes (not just for the purpose of fulfilling a "requirement" or of "passing a test"), we may be better able, worldwide, to accomplish the goals of communicative language teaching.

Task-Based Instruction

Among recent manifestations of CLT, **task-based instruction** has emerged as a major focal point of language teaching practice worldwide (Ellis, 2005; Nunan, 2004; Skehan, 2003; Bygate, Skehan, & Swain, 2001; Willis, 1996). As the profession has continued to emphasize classroom interaction, learner-centered teaching, authenticity, and viewing the learner's own experiences as important contributors to learning, task-based instruction draws the attention of teachers and learners to **tasks** in the classroom. Skehan (2003, p. 3) defines a task as simply "an activity which requires learners to use language, with emphasis on meaning, to attain an objective." But this leaves a great deal of room for interpretation, so perhaps a task is better understood in Skehan's (1998, p. 95) description: a task is an activity in which meaning is primary, there is a problem to solve and relationship to real-world activities, with an objective that can be assessed in terms of an outcome.

David Nunan (2004), among others (Skehan, 2003; Willis, 1996), is careful to distinguish between **target tasks** (uses of language in the world beyond the classroom) and **pedagogical tasks** (those that occur in the classroom). Tasks are a subset of all

the techniques and activities that one might design for the classroom, and themselves might involve several techniques. So, for example, a map-oriented problem-solving task might involve teacher initiated schema setting comments, a review of appropriate grammar and/or vocabulary useful for the task, pair or group work to propose and discuss solutions, and a whole-class reporting procedure. All of these are "communicative" and part of the nature of CLT, but the task itself is designed to equip learners with the communicative language needed to give someone directions. This particular task may be described as a pedagogical task with a relationship to real-world situations, designed to enable learners to complete the target task of giving directions.

Task-based instruction is an approach that urges teachers, in their lesson and curriculum designs, to focus on many of the communicative factors discussed in this chapter. In order to accomplish a task, a learner needs to have sufficient organizational competence, illocutionary competence to convey intended meaning, strategic competence to compensate for unforeseen difficulties, and then all the tools of discourse, pragmatics, and even nonverbal communicative ability.

We have seen in this chapter alone that communicative competence is such an intricate web of psychological, sociocultural, physical, and linguistic features that it is easy to become entangled in just one part of that web. But some of the distinctive features of human discourse are becoming clearer, and language teaching methodology has demonstrated our steadily improving capacity to teach communication in the classroom. I believe we are moving in positive and creative directions. Language teachers and researchers, in dialogue with each other, are in a partnership of fashioning an integrated and cohesive understanding of how learners acquire the ability to communicate clearly and effectively in a second language.

TOPICS AND QUESTIONS FOR STUDY AND DISCUSSION

Note: (I) Individual work; (G) group or pair work; (C) whole-class discussion.

1. (G) With a partner, look at Figure 8.1, which describes language competence, and quickly come up with one example of a current or previous foreign language learning experience for each of the little items in the chart. Share these with the rest of the class.
2. (G) In groups, talk about your current or previous foreign language classes in terms of the extent to which CALP and/or BICS is the primary focus of your class. Identify which activities seem to promote CALP and which promote BICS.
3. (I) Review the discussion of strategic competence. Explain the relationship of strategic competence to language competence. What is the relationship between "compensatory" strategies and "executive" strategies? Finally, how

do the learning and communication strategies discussed in Chapter 5 fit into strategic competence as defined here?

4. (C) Hatch suggested (page 227) that in second language learning, one should learn how to do conversation and interact verbally first, and out of this interaction will emerge grammatical structures. Does this mean that language classes for adults should somehow teach conversation rules and gambits before teaching basic grammatical or phonological structures? If not, how would you see Hatch's suggestion playing out in a foreign language course?
5. (G) To illustrate conversation rules and conventions in action, try this: In groups of 5 to 6, appoint two people to be observers only. The rest of the group then engages in a discussion of a controversial topic: abortion, women's rights, nonviolence, race, a current political issue, or whatever. The observers should note on a piece of paper specifically what linguistic (verbal) and nonverbal features members of the group used to accomplish the following: (a) attention getting, (b) interrupting, (c) turn taking, (d) clarification, (e) topic changing. Observers might also take note of cooperation, face-saving, and politeness conventions that were used. Observers can then report their findings to the rest of the class.
6. (G) In small groups, brainstorm some possible contributions of corpus linguistics to language teaching methodology or materials. Share your group's ideas with the rest of the class.
7. (C) Compare English with other languages that members of the class are familiar with, in terms of gender issues. Are there differences in the way one addresses women and men? in the the way women and men talk? in gender-differentiated grammatical (or morphological) forms? Do other languages reflect sexism, as English does?
8. (C) The class is invited to offer specific examples of verbal and nonverbal features in Joos's five styles. What are some surface linguistic manifestations of differences in style? nonverbal manifestations? How do styles vary cross-culturally? How many styles are appropriate to teach in a foreign language class?
9. (G) Arrange groups of four or five people in such a way that each group has members that are familiar with a variety of languages/cultures. (Alternative: arrange homogeneous groups which then share differences afterward.) Using the categories in this chapter, compare nonverbal expressions in English-speaking culture with those of another language/culture. How might such differences be taught in a foreign language class?
10. (C) Illustrate from your own foreign language classes how the principles of CLT and of task-based instruction (pages 241-243) have been applied—or misapplied.

SUGGESTED READINGS

Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics, 1, 1-47.*

This seminal work on communicative competence by Michael Canale and Merrill Swain was published about three decades ago, yet it remains important reading for the serious student of SLA. It was, appropriately, the first article in the inaugural issue of Applied Linguistics.

Kasper, G. & Roever, C. (2005). Pragmatics in second language learning. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 317-334). Mahwah, NJ: Lawrence Erlbaum Associates.

Watson-Gegeo, K., & Nielsen, S. (2003). Language socialization in SLA. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 155-177). Malden, MA: Blackwell Publishing.

Zuengler, J., & Cole, K-M. (2005). Language socialization and second language learning. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 301-316). Mahwah, NJ: Lawrence Erlbaum Associates.

These three summary articles, from the two recently published handbooks, offer a comprehensive overview of sociolinguistic, sociopragmatic, and sociocultural issues in second language acquisition. Collectively, these chapters offer more bibliographic references than you could ever hope for!

Conrad, S. (2005). Corpus linguistics and L2 teaching. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 393-409). Mahwah, NJ: Lawrence Erlbaum Associates.

Susan Conrad provides a balanced update here on the state of the art of corpus linguistics. The article is of special interest to those who are looking for pedagogical applications and implications of corpus linguistics. An excellent set of references is included.

Connor, U. (2002). New directions in contrastive rhetoric. *TESOL Quarterly, 36,* 493-510.

Panetta, C. (2001). *Contrastive rhetoric revisited and redefined.* Mahwah, NJ: Lawrence Erlbaum Associates.

These two sources offer an update on contrastive rhetoric, a topic thought to be "put to rest" some 30 years ago or so, but now experiencing revived interest from new points of view.

Savignon, S. (2005). Communicative language teaching: Strategies and goals. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 635-651). Mahwah, NJ: Lawrence Erlbaum Associates.

Skehan, P. (2003). Task-based instruction. *Language Teaching, 36,* 1-14.

In the first of these two articles, Sandra Savignon, the original proponent of CLT, provides an updated synopsis of research and practice in CLT around the world. In the second, Peter Skehan, one of the world's leading

researchers in task-based teaching, provides a summary of task-based teaching. Both offer extensive bibliographies.

LANGUAGE LEARNING EXPERIENCE: JOURNAL ENTRY 8

Note: See pages 21 and 22 of Chapter 1 for general guidelines for writing a journal on a previous or concurrent language learning experience.

- In your foreign language, would you say you are "communicatively competent"? Defend your response using some of the categories discussed in the first part of this chapter.
- Make two lists: activities your teacher uses (used) to promote (a) CALP and (b) BICS. Do you agree with the proportion of one to the other, given the purposes of your class?
- Are you satisfied with your progress in acquiring some of the discourse features, conversation rules, and pragmatic conventions of your foreign language? Describe what you think you can "do," in your language, in these domains.
- If you are familiar enough with writing conventions in your foreign language, describe some of the differences you perceive between your native language and the foreign language. To what extent do the differences reflect cultural points of view?
- Is your foreign language gender-loaded in any way? Describe.
- Describe the verbal and nonverbal manifestations of different styles (from intimate to oratorical) in your foreign language.
- Does your teacher engage in CLT? Evaluate the methodology of your class on the basis of the four principles of CLT. Does the teacher use what you could describe as task-based teaching? If so, describe an activity that you think was, to some extent anyway, task based.

PART IV

LINGUISTIC FACTORS

CHAPTER 9

CROSS-LINGUISTIC INFLUENCE AND LEARNER LANGUAGE

Up to this point in the treatment of principles of second language acquisition, our focus has been on psychological (learning, cognition, strategies, emotions) and social (cultural, sociolinguistic, pragmatic) principles of second language acquisition. Psychosocial variables form the foundation stones for building a comprehensive understanding of the acquisition of the linguistic system. In this chapter we will take a different direction as we begin to examine the most salient component of second language acquisition: the language itself. This treatment will first consider, in historical progression, an era of preoccupation with studies of contrasts between the native and target language and the effect of the first language on a second. We will then see how the era of contrastive analysis gave way to an era of error analysis, with its guiding concept of interlanguage, or what is also called learner language. Then, questions about the effect on acquisition of input, interaction, feedback, awareness, and error treatment will be addressed. Finally, we will take a look at research on the effect of classroom instruction, especially debates about focus on form, all of which has some obvious practical implications for the language teacher.

THE CONTRASTIVE ANALYSIS HYPOTHESIS

In the middle of the twentieth century, one of the most popular pursuits for applied linguists was the study of two languages in contrast. Eventually the stockpile of comparative and contrastive data on a multitude of pairs of languages yielded what commonly came to be known as the **Contrastive Analysis Hypothesis** (CAH). Deeply rooted in the behavioristic and structuralist approaches of the day, the CAH claimed that the principal barrier to second language acquisition is the interference of the first language system with the second language system, and that a scientific, structural analysis of the two languages in question would yield a taxonomy of linguistic contrasts between them which in turn would enable linguists and language teachers to predict the difficulties a learner would encounter.

It was at that time considered feasible that the tools of structural linguistics, such as Fries's (1952) slot-filler grammar, would enable a linguist to accurately describe the two languages in question, and to match those two descriptions against each other to determine valid contrasts, or differences, between them. Behaviorism contributed to the notion that human behavior is the sum of its smallest parts and components, and therefore that language learning could be described as the acquisition of all of those discrete units. Moreover, human learning theories highlighted *interfering* elements of learning, concluding that where no interference could be predicted, no difficulty would be experienced since one could *transfer* positively all other items in a language. The logical conclusion from these various psychological and linguistic assumptions was that second language learning basically involved the overcoming of the differences between the two linguistic systems—the native and target languages.

Intuitively the CAH has appeal in that we commonly observe in second language learners a plethora of errors attributable to the negative transfer of the native language to the target language. It is quite common, for example, to detect certain foreign accents and to be able to infer, from the speech of the learner alone, where the learner comes from. Native English speakers can easily identify the accents of English language learners from Germany, France, Spain, and Japan, for example. Such accents can even be represented in the written word. Consider Mark Twain's *The Innocents Abroad* (1869, p. 111), in which the French-speaking guide introduces himself: "If ze zhentlemans will to me make ze grande honneur to me rattain in hees serveece, I shall show to him everysing zat is magnifique to look upon in ze beautiful Paree. I speaky ze Angleesh parfaitmaw." Or William E. Callahan's Juan Castaniegos, a young Mexican, who says: "Help me to leave from thees place. But, Señor Capitán, me, I'ave do notheeng. Notheeng, Señor Capitán." These excerpts also capture the transfer of vocabulary and grammatical rules from the native language.

Some rather strong claims were made of the CAH by language teaching experts and linguists. One of the strongest was made by Robert Lado (1957, p. vii) in the preface to *Linguistics Across Cultures*: "The plan of the book rests on the assumption that we can predict and describe the patterns that will cause difficulty in learning, and those that will not cause difficulty, by comparing systematically the language and the culture to be learned with the native language and culture of the student." Then, in the first chapter of the book, Lado continues: "in the comparison between native and foreign language lies the key to ease or difficulty in foreign language learning. . . . Those elements that are similar to [the learner's] native language will be simple for him and those elements that are different will be difficult" (pp. 1–2). An equally strong claim was made by Banathy, Trager, and Waddle (1966, p. 37): "The change that has to take place in the language behavior of a foreign language student can be equated with the differences between the structure of the student's native language and culture and that of the target language and culture."

Such claims were supported by what some researchers claimed to be an empirical method of prediction. A well-known model was offered by Stockwell, Bowen, and Martin (1965), who posited what they called a **hierarchy of difficulty** by which a teacher or linguist could make a prediction of the relative difficulty of a given aspect of

the target language. For phonological systems in contrast, Stockwell and his associates suggested eight possible degrees of difficulty. These degrees were based upon the notions of transfer (positive, negative, and zero) and of optional and obligatory choices of certain phonemes in the two languages in contrast. Through a very careful, systematic analysis of the properties of the two languages in reference to the hierarchy of difficulty, applied linguists were able to derive a reasonably accurate inventory of phonological difficulties that a second language learner would encounter.

Stockwell and his associates also constructed a hierarchy of difficulty for grammatical structures of two languages in contrast. Their grammatical hierarchy included 16 levels of difficulty, based on the same notions used to construct phonological criteria, with the added dimensions of "structural correspondence" and "functional/semantic correspondence." Clifford Prator (1967) captured the essence of this grammatical hierarchy in six categories of difficulty. Prator's hierarchy was applicable to both grammatical and phonological features of language. The six categories, in ascending order of difficulty, are listed below. Most of the examples are taken from English and Spanish (a native English speaker learning Spanish as a second language); a few examples illustrate other pairs of contrasting languages.

Level 0—Transfer. No difference or contrast is present between the two languages. The learner can simply transfer (positively) a sound, structure, or lexical item from the native language to the target language. Examples: English and Spanish cardinal vowels, word order, and certain words *(mortal, inteligente, arte, americanos)*.

Level 1—Coalescence. Two items in the native language become coalesced into essentially one item in the target language. This requires that learners overlook a distinction they have grown accustomed to. Examples: English third-person possessives require gender distinction *(his/her)*, and in Spanish they do not *(su)*; an English speaker learning French must overlook the distinction between *teach* and *learn* and use just the one word *apprendre* in French.

Level 2—Underdifferentiation. An item in the native language is absent in the target language. The learner must avoid that item. Examples: English learners of Spanish must "forget" such items as English *do* as a tense carrier, possessive forms of *wh-* words *(whose)*, or the use of *some* with mass nouns.

Level 3—Reinterpretation. An item that exists in the native language is given a new shape or distribution. Example: An English speaker learning French must learn a new distribution for nasalized vowels.

Level 4—Overdifferentiation. A new item entirely, bearing little if any similarity to the native language item, must be learned. Example: An English speaker learning Spanish must learn to include determiners in generalized nominals (Man is mortal/*El hombre es mortal*), or, most commonly, to learn Spanish grammatical gender inherent in nouns.

Level 5—Split. One item in the native language becomes two or more in the target language, requiring the learner to make a new distinction. Example: An English speaker learning Spanish must learn the distinction between *ser* and *estar* (to be), or the distinction between Spanish indicative and subjunctive moods.

Prator's reinterpretation, and Stockwell and his associates' original hierarchy of difficulty, were based on principles of human learning as they were understood at the time. The first, or "zero," degree of difficulty represented complete one-to-one correspondence and transfer, while the fifth degree of difficulty was the height of interference. Prator and Stockwell both claimed that their hierarchy could be applied to virtually any two languages and make it possible to predict second language learner difficulties in any language with a fair degree of certainty and objectivity.

CLASSROOM CONNECTIONS

Research Findings: Given the linguistic and psychological mood that characterized the middle part of the twentieth century, it is no surprise to find a paradigm that focused on scientific description and prediction. Stockwell, Bowen, and Martin's (1965) hierarchy of difficulty promised just that: a way to predict the linguistic difficulty that learners would encounter in a foreign language classroom.

Teaching Implications: Today, first language effects are considered important—but not necessarily exclusive—factors in accounting for the learner's acquisition of a second language. In a communicative language classroom, teachers will attend to the potential effects of the first language, but will embed such attention in meaningful communication. To what extent have your foreign language classroom experiences focused on first language interference? How important was that focus?

FROM THE CAH TO CLI

Prediction of difficulty by means of contrastive procedures was soon shown to have glaring shortcomings. For one thing, the process was oversimplified. Subtle phonetic, phonological, and grammatical distinctions were not carefully accounted for. Second, it was very difficult, even with six categories, to determine exactly which category a particular contrast fit into. For example, when a Japanese speaker learns

the English /r/, is it a case of a Level 0, 1, or 3 difficulty? A case can be made for all three. The third and most problematic issue centered on the larger question of whether or not *predictions* of difficulty levels were actually verifiable.

The attempt to predict difficulty by means of contrastive analysis is what Ronald Wardhaugh (1970) called the **strong version** of the CAH, a version that he believed was quite unrealistic and impracticable. Wardhaugh noted (p. 125) that "at the very least, this version demands of linguists that they have available a set of linguistic universals formulated within a comprehensive linguistic theory which deals adequately with syntax, semantics, and phonology." He went on to point out the difficulty (p. 126), already noted, of an adequate procedure, built on sound theory, for actually contrasting the forms of languages: "Do linguists have available to them an overall contrastive system within which they can relate the two languages in terms of mergers, splits, zeroes, over-differentiations, under-differentiations, reinterpretations?" And so, while many linguists claimed to be using a scientific, empirical, and theoretically justified tool in contrastive analysis, in actuality they were operating more out of mentalistic subjectivity.

Wardhaugh noted, however, that contrastive analysis had intuitive appeal, and that teachers and linguists had successfully used "the best linguistic knowledge available . . . in order to account for observed difficulties in second language learning" (p. 126). He termed such observational use of contrastive analysis the **weak version** of the CAH. The weak version does not imply the *a priori* prediction of certain degrees of difficulty. It recognizes the significance of interference across languages, the fact that such interference does exist and can explain difficulties, but it also recognizes that linguistic difficulties can be more profitably explained *a posteriori*—after the fact. As learners are learning the language and errors appear, teachers can utilize their knowledge of the target and native languages to understand sources of error.

The so-called weak version of the CAH is what remains today under the label **cross-linguistic influence** (CLI) (Odlin, 2003; Kellerman, 1995; Kellerman & Sharwood-Smith, 1986), suggesting that we all recognize the significant role that prior experience plays in any learning act, and that the influence of the native language as prior experience must not be overlooked. The difference between today's emphasis on influence, rather than prediction, is an important one. Aside from phonology, which remains the most reliable linguistic category for predicting learner performance, as illustrated at the beginning of the chapter, other aspects of language present more of a gamble. Syntactic, lexical, and semantic interference show far more variation among learners than psychomotor-based pronunciation interference. Even presumably simple grammatical categories like word order, tense, or aspect have been shown to contain a good deal of variation. For example, one might expect a French speaker who is beginning to learn English to say "I am in New York since January"; however, to predict such an utterance from every French learner of English is to go too far.

The most convincing early criticism of the strong version of the CAH was offered by Whitman and Jackson (1972), who undertook to test empirically the

effectiveness of contrastive analysis as a tool for predicting areas of difficulty for Japanese learners of English. The predictions of four separate contrastive analysis rubrics (including that of Stockwell et al., 1965) were applied to a 40-item test of English grammar to determine, *a priori*, the relative difficulty of the test items for speakers of Japanese. The test was administered to 2500 Japanese learners of English who did not know the relative predicted difficulty of each item. The results of the test were compared with the predictions. The result: Whitman and Jackson found no support for the predictions of the contrastive analyses so carefully worked out by linguists! They concluded that "contrastive analysis, as represented by the four analyses tested in this project, is inadequate, theoretically and practically, to predict the interference problems of a language learner" (p. 40).

Another blow to the strong version of the CAH was delivered by Oller and Ziahosseiny (1970), who proposed what one might call a "subtle differences" version of the CAH on the basis of a rather intriguing study of spelling errors. They found that for learners of English as a second language, English spelling proved to be more difficult for people whose native language used a Roman script (for example, French, Spanish) than for those whose native language used a non-Roman script (Arabic, Japanese). The strong form of the CAH would have predicted that the learning of an entirely new writing system (Level 4 in the hierarchy of difficulty) would be more difficult than reinterpreting (Level 3) spelling rules. Oller and Ziahosseiny found the opposite to be true, concluding that "wherever patterns are minimally distinct in form or meaning in one or more systems, confusion may result" (p. 186).

The learning of sounds, sequences, and meanings will, according to Oller and Ziahosseiny's study, be potentially very difficult where subtle distinctions are required either between the target language and native language or within the target language itself. In the case of their research on spelling English, there were more differences between non-Roman writing and Roman writing, but learners from a non-Roman writing system had to make fewer subtle distinctions than did those from the Roman writing system. Examples of subtle distinctions at the lexical level may be seen in false cognates like the French word *parent*, which in the singular means "relative" or "kin," while only the plural *(parents)* means "parents." Consider the Spanish verb *embarazar*, which commonly denotes "to make pregnant," and has therefore been the source of true "embarrassment" on the part of beginners attempting to speak Spanish! In recent years, research on CLI has uncovered a number of instances of subtle differences causing great difficulty (Sjöholm, 1995).

The conclusion that great difference does not necessarily cause great difficulty underscores the significance of **intralingual** (within one language) errors (see subsequent sections in this chapter), which are as much a factor in second language learning as **interlingual** (across two or more languages) errors. The forms within one language are often perceived to be minimally distinct in comparison to the vast differences between the native and target language, yet those intralingual factors can lead to some of the greatest difficulties.

Today we recognize that teachers must certainly guard against *a priori* pigeonholing of learners before we have even given learners a chance to perform. At the

same time, we must also understand that CLI is an important linguistic factor at play in the acquisition of a second language (Odlin, 2003; Jaszczolt, 1995). CLI implies much more than simply the effect of one's first language on a second; the second language also influences the first (Pavlenko & Jarvis, 2002). Moreover, subsequent languages in multilinguals all affect each other in various ways. Specialized research on CLI in the form of contrastive lexicology, syntax, semantics, and pragmatics continues to provide insights into SLA that must not be discounted (Odlin, 2003; Sharwood-Smith, 1996; Sheen 1996). Sheen (1996) found, for example, that in an ESL course for speakers of Arabic, overt attention to targeted syntactic contrasts between Arabic and English reduced error rates. Indeed, the strong form of the CAH was too strong, but the weak form was also perhaps too weak. CLI research offers a cautious middle ground.

MARKEDNESS AND UNIVERSAL GRAMMAR

Fred Eckman (2004, 1981, 1977) has described a useful method for determining directionality of difficulty. His **Markedness Differential Hypothesis** (otherwise known as markedness theory) accounted for relative degrees of difficulty by means of principles of universal grammar. Celce-Murcia and Hawkins (1985, p. 66) sum up markedness theory:

> It distinguishes members of a pair of related forms or structures by assuming that the marked member of a pair contains at least one more feature than the unmarked one. In addition, the unmarked (or neutral) member of the pair is the one with a wider range of distribution than the marked one. For example, in the case of the English indefinite articles (*a* and *an*), *an* is the more complex or marked form (it has an additional sound) and *a* is the unmarked form with the wider distribution.

Eckman (1981) showed that marked items in a language will be more difficult to acquire than unmarked, and that degrees of markedness will correspond to degrees of difficulty. Rutherford (1982) used markedness theory to explain why there seems to be a certain order of acquisition of morphemes in English: marked structures are acquired later than unmarked structures. Major and Faudree (1996) found that the phonological performance of native speakers of Korean learning English reflected principles of markedness universals.

In recent years, the attention of some second language researchers has expanded beyond markedness hypotheses alone to the broader framework of linguistic universals in general (Major & Faudree, 1996; Eckman, 1991; Carroll & Meisel, 1990; Comrie, 1990; Gass, 1989). Some of these arguments focus on the applicability of notions of universal grammar (UG) to second language acquisition (White, 2003, 1990, 1989; Schachter, 1988, among others). As we saw in Chapter 2,

many of the "rules" acquired by children learning their first language are presumed to be universal. By extension, rules that are shared by all languages comprise this UG. Such rules are a set of limitations or parameters (Flynn, 1987) of language. Different languages set their parameters differently, thereby creating the characteristic grammar for that language. The hope is that by discovering innate linguistic principles that govern what is possible in human languages, we may be better able to understand and describe contrasts between native and target languages and the difficulties encountered by adult second language learners. Research on UG has begun to identify such universal properties and principles, and therefore represents an avenue of some promise.

Yet another viable alternative to markedness theory was offered by what has come to be known as the **Competition Model** of second language acquisition (Gass & Selinker, 2001), initially proposed by Bates and MacWhinney (1982). The Competition Model suggested that when strictly formal (e.g., phonological, syntactic) options for interpreting meaning through appeal to the first language have been exhausted, second language learners naturally look for alternative "competing" possibilities to create meaning. So, for example, if a learner's native language grammar fails to yield a possible "translation" of an utterance, the learner turns to meaning, experience, and other competing strategic options in order to make sense of the utterance in question. The Competition Model serves as a reminder to teachers that learners are not exclusively dependent on formal linguistic features as their only tools for deciphering the target language.

Markedness theory, UG perspectives, and the Competition Model provide a more sophisticated understanding of difficulty in learning a second language than we had previously from the early formulations of the CAH, and fit more appropriately into current studies of CLI. But we do well to remember that describing and predicting difficulty amidst all the variables of human learning is still an elusive process. Teachers of foreign languages can benefit from UG and markedness research, but even in this hope-filled avenue of research, an instant map predicting learner difficulties is not right around the corner.

LEARNER LANGUAGE

The CAH stressed the interfering effects of the first language on second language learning and claimed, in its strong form, that second language learning is primarily, if not exclusively, a process of acquiring whatever items are different from the first language. As already noted above, such a narrow view of interference ignored the intralingual and strategic effects of learning, among other factors. In recent years researchers and teachers have come more and more to understand that second language learning is a process of the creative construction of a system in which learners are consciously testing hypotheses about the target language from a number of possible sources of knowledge: knowledge of the native language, limited knowledge of the target language itself, knowledge of the communicative functions

of language, knowledge about language in general, and knowledge about life, people, and the universe around them. Learners, in acting upon their environment, construct what to them is a legitimate system of language in its own right—a structured set of rules that for the time being brings some order to the linguistic chaos that confronts them.

By the late 1960s, SLA began to be examined in much the same way that first language acquisition had been studied for some time: learners were looked on not as producers of malformed, imperfect language replete with mistakes but as intelligent and creative beings proceeding through logical, systematic stages of acquisition, creatively acting upon their linguistic environment as they encountered its forms and functions in meaningful contexts. By a gradual process of trial and error and hypothesis testing, learners slowly and tediously succeed in establishing closer and closer approximations to the system used by native speakers of the language. A number of terms have been coined to describe the perspective that stresses the legitimacy of learners' second language systems. The best known of these is **interlanguage**, a term that Selinker (1972) adapted from Weinreich's (1953) term "interlingual." Interlanguage refers to the separateness of a second language learner's system, a system that has a structurally intermediate status between the native and target languages.

Nemser (1971) referred to the same general phenomenon in second language learning but stressed the successive approximation to the target language in his term **approximative system**. Corder (1971, p. 151) used the term **idiosyncratic dialect** to connote the idea that the learner's language is unique to a particular individual, that the rules of the learner's language are peculiar to the language of that individual alone. While each of these designations emphasizes a particular notion, they share the concept that second language learners are forming their own self-contained linguistic systems. This is neither the system of the native language nor the system of the target language, but a system based upon the best attempt of learners to bring order and structure to the linguistic stimuli surrounding them. The interlanguage hypothesis led to a whole new era of second language research and teaching and presented a significant breakthrough from the shackles of the CAH.

The most obvious approach to analyzing interlanguage is to study the speech and writing of learners, or what is sometimes called **learner language** (Lightbown & Spada, 1993; James, 1990). Production data is publicly observable and is presumably reflective of a learner's underlying competence—production competence, that is. Comprehension of a second language is more difficult to study since it is not directly observable and must be inferred from overt verbal and nonverbal responses, by artificial instruments, or by the intuition of the teacher or researcher.

It follows that the study of the speech and writing of learners is largely the study of the errors of learners. "Correct" production yields little information about the actual linguistic system of learners, only information about the target language system that learners have already acquired. Therefore, the focus of the next part of this chapter will be on the significance of errors in learners' developing systems, otherwise known as error analysis.

ERROR ANALYSIS

Learning is fundamentally a process that involves the making of mistakes. Mistakes, misjudgments, miscalculations, and erroneous assumptions form an important aspect of learning virtually any skill or acquiring information. You learn to swim by first jumping into the water and flailing arms and legs until you discover that there is a combination of movements—a structured pattern—that succeeds in keeping you afloat and propelling you through the water. The first mistakes of learning to swim are giant ones, gradually diminishing as you learn from making those mistakes. Learning to swim, to play tennis, to type, or to read all involve a process in which success comes by profiting from mistakes, by using mistakes to obtain feedback from the environment, and with that feedback to make new attempts that successively approximate desired goals.

Language learning, in this sense, is like any other learning. We have already seen in Chapter 2 that children learning their first language make countless "mistakes" from the point of view of adult grammatical language. Many of these mistakes are logical in the limited linguistic system within which children operate, but, by carefully processing feedback from others, children slowly but surely learn to produce what is acceptable speech in their native language. Second language learning is a process that is clearly not unlike first language learning in its trial-and-error nature. Inevitably learners will make mistakes in the process of acquisition, and that process will be impeded if they do not commit errors and then benefit from various forms of feedback on those errors.

Researchers and teachers of second languages came to realize that the mistakes a person made in this process of constructing a new system of language needed to be analyzed carefully, for they possibly held in them some of the keys to the understanding of the process of second language acquisition (James, 1998). As Corder (1967, p. 167) noted: "A learner's errors ... are significant in [that] they provide to the researcher evidence of how language is learned or acquired, what strategies or procedures the learner is employing in the discovery of the language."

Mistakes and Errors

In order to analyze learner language in an appropriate perspective, it is crucial to make a distinction between mistakes and errors, technically two very different phenomena. A **mistake** refers to a performance error that is either a random guess or a "slip," in that it is a failure to utilize a known system correctly. All people make mistakes, in both native and second language situations. Native speakers are normally capable of recognizing and correcting such "lapses" or mistakes, which are not the result of a deficiency in competence but the result of some sort of temporary breakdown or imperfection in the process of producing speech. These hesitations, slips of the tongue, random ungrammaticalities, and other performance lapses in native-speaker production also occur in second language speech. Mistakes, when attention is called to them, can be self-corrected.

Mistakes must be carefully distinguished from **errors** of a second language learner, idiosyncrasies in the language of the learner that are direct manifestations of a system within which a learner is operating at the time. An error, a noticeable deviation from the adult grammar of a native speaker, reflects the competence of the learner. Learners of English who ask "Does John can sing?" are in all likelihood reflecting a competence level in which all verbs require a pre-posed *do* auxiliary for question formation. As such, it is an error, most likely not a mistake, and an error that reveals a portion of the learner's competence in the target language.

CLASSROOM CONNECTIONS

Research Findings: Mistakes are what researchers have referred to as performance errors (the learner knows the system but fails to use it), while errors are the result of one's systematic competence (the learner's system is incorrect).

Teaching Implications: In some ways, mistakes in learners' speech may be a sign of progress: The learner is aware of what he or she "should" say, and, when questioned or corrected, is cognizant of the "right" way to say it. Teachers can help students to notice their linguistic output in class, and slowly convert systematic errors into appropriate forms. To what extent has your learning or teaching been characterized by a progression of noticing and repair? Can you think of stages when you were in the process of cleaning up your errors and may have made a few random mistakes?

Can you tell the difference between an error and a mistake? Not always. An error cannot be self-corrected, according to James (1998, p. 83), while mistakes can be self-corrected if the deviation is pointed out to the speaker. But the learner's capacity for self-correction is objectively observable only if the learner actually self-corrects; therefore, if no such self-correction occurs, we are still left with no means to identify error vs. mistake. So, can we turn to frequency of a deviant form as a criterion? Sometimes. If, on one or two occasions, an English learner says "John cans sing," but on other occasions says "John can sing," it is difficult to determine whether "cans" is a mistake or an error. If, however, further examination of the learner's speech consistently reveals such utterances as "John wills go," "John mays come," and so forth, with very few instances of correct third-person singular usage of modal auxiliaries, you might safely conclude that "cans," "mays," and other such forms are errors indicating that the learner has not distinguished modals from other verbs. But it is possible, because of the few correct instances of production of this form, that the learner is on the verge of making the necessary differentiation between the two types of verbs.

You can thus appreciate the subjectivity of determining the difference between a mistake and an error in learner speech. That undertaking always bears with it the chance of a faulty assumption on the part of a teacher or researcher.

The fact that learners do make errors, and that these errors can be observed, analyzed, and classified to reveal something of the system operating within the learner, led to a surge of study of learners' errors, called **error analysis**. Error analysis became distinguished from contrastive analysis by its examination of errors attributable to *all* possible sources, not just those resulting from negative transfer of the native language. Error analysis easily superseded contrastive analysis, as we discovered that only *some* of the errors a learner makes are attributable to the mother tongue, that learners do not actually make all the errors that contrastive analysis predicted they should, and that learners from disparate language backgrounds tend to make similar errors in learning one target language. Errors—overt manifestations of learners' systems—arise from several possible general sources: interlingual errors of interference from the native language, intralingual errors within the target language, the sociolinguistic context of communication, psycholinguistic or cognitive strategies, and no doubt countless affective variables.

Errors in Error Analysis

There is a danger in too much attention to learners' errors. While errors indeed reveal a system at work, the classroom language teacher can become so preoccupied with noticing errors that the correct utterances in the second language go unnoticed. In our observation and analysis of errors—for all that they do reveal about the learner—we must beware of placing too much attention on errors and not lose sight of the value of positive reinforcement of clearly expressed language that is a product of the learner's progress and development. While the diminishing of errors is an important criterion for increasing language proficiency, the ultimate goal of second language learning is the attainment of communicative fluency.

Another shortcoming in error analysis is an overemphasis on production data. Language is speaking *and* listening, writing *and* reading. The comprehension of language is as important as production. It so happens that production lends itself to analysis and thus becomes the prey of researchers, but comprehension data is equally important in developing an understanding of the process of SLA.

Over the years, many studies (Gass & Selinker, 2001; Ellis, 2000; James, 1998; Tarone, 1981; Kleinmann, 1977; Schachter, 1974) have shown that error analysis fails to account for the strategy of avoidance. A learner who for one reason or another avoids a particular sound, word, structure, or discourse category may be assumed incorrectly to have no difficulty therewith. Schachter (1974) found, for example, that it was misleading to draw conclusions about relative clause errors among certain English learners; native Japanese speakers were largely avoiding that structure and thus not manifesting nearly as many errors as some native Persian speakers. The absence of error therefore does not necessarily reflect nativelike competence because learners may be avoiding the very structures that pose difficulty for them.

Finally, error analysis can keep us too closely focused on specific languages rather than viewing universal aspects of language. Gass (1989) recommended that researchers pay more attention to linguistic elements that are common to all languages. The language systems of learners may have elements that reflect neither the target language nor the native language, but rather a universal feature of some kind. Such assertions are in keeping with the bioprogramming theories referred to in Chapter 2. But there are problems, of course, with the search for universal properties of learner's errors. "It is not at all clear in any precise way when the influence of the universal will appear in the interlanguage of learners rather than a violation of it based on influence from either the source or target language" (Celce-Murcia & Hawkins, 1985, p. 66).

We do well, therefore, in the analysis of learners' errors, to engage in **performance analysis** or "interlanguage analysis" (Celce-Murcia & Hawkins, 1985, p. 64), a less restrictive concept that places a healthy investigation of errors within the larger perspective of the learner's total language performance. While a significant portion of this chapter deals with error analysis, let us nevertheless remember that production errors are only a subset of the overall performance of the learner.

Identifying and Describing Errors

One of the common difficulties in understanding the linguistic systems of both first and second language learners is the fact that such systems cannot be directly observed. They must be inferred by means of analyzing production and comprehension data. What makes the task even thornier is the **variation** or instability of learners' systems (Romaine, 2003). Systems are in a constant state of flux as new information flows in and, through the process of subsumption, causes existing structures to be revised. Repeated observations of a learner will often reveal apparently unpredictable or even contradictory data. In undertaking the task of performance analysis, the teacher and researcher are called upon to infer order and logic in this unstable and variable system.

The first step in the process of analysis is the identification and description of errors. Corder (1971) provided a model for identifying erroneous or idiosyncratic utterances in a second language. That model is schematized in Figure 9.1. According to Corder's model, any sentence uttered by the learner and subsequently transcribed can be analyzed for idiosyncrasies. A major distinction is made at the outset between **overt** and **covert errors**. Overtly erroneous utterances are unquestionably ungrammatical at the sentence level. Covertly erroneous utterances are grammatically well formed at the sentence level but are not interpretable within the context of communication. Covert errors, in other words, are not really covert at all if you attend to surrounding discourse (before or after the utterance). "I'm fine thank you" is grammatically correct at the sentence level, but as a response to "Who are you?" it is obviously an error. A simpler and more straightforward set of terms then, would be "sentence level" and "discourse level" errors.

Corder's model in Figure 9.1 indicates that, in the case of both overt and covert errors, if a plausible interpretation can be made of the sentence, then one should

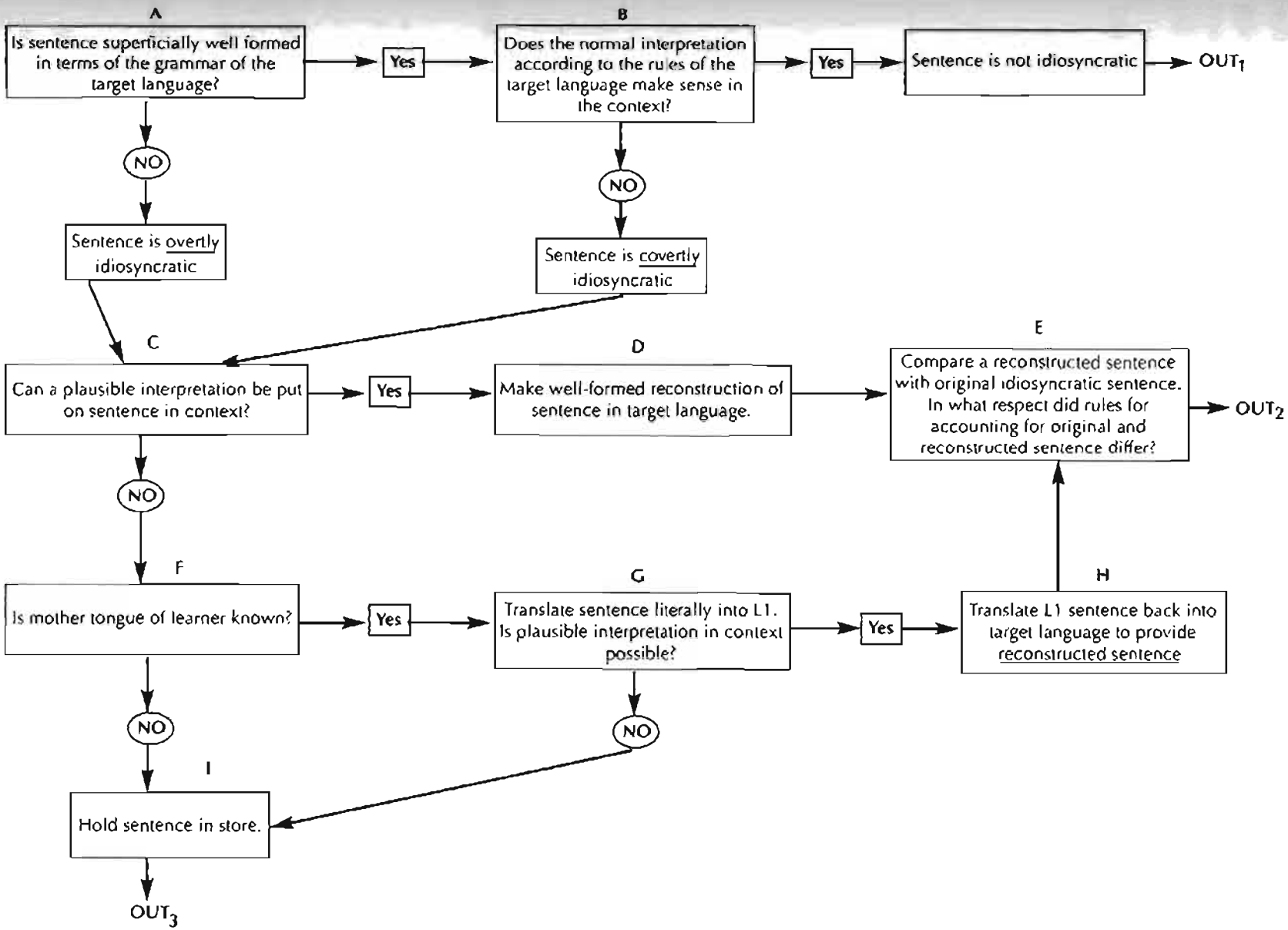

Figure 9.1. Procedure for identifying errors in second language learner production data (Corder, 1971)

form a reconstruction of the sentence in the target language, compare the reconstruction with the original idiosyncratic sentence, and then describe the differences. If the native language of the learner is known, the model indicates using translation as a possible indicator of native language interference as the source of error. In some cases, of course, no plausible interpretation is possible at all, and the researcher is left with no analysis of the error (OUT_3).

Consider the following examples of idiosyncratic utterances of learners, and let us allow them to be fed through Corder's procedure for error analysis:

1. "Does John can sing?"
   A. NO
   C. YES
   D. Can John sing?
   E. Original sentence contained pre-posed *do* auxiliary applicable to most verbs, but not to verbs with modal auxiliaries. OUT_2

2. "I saw their department."
   A. YES
   B. NO (Context was in a conversation about living quarters in Mexico.)
   C. NO
   F. YES, Spanish.
   G. Yo vi su departamento. YES
   H. I saw their apartment.
   E. *Departamento* was translated to false cognate *department*. OUT_2

3. "The different city is another one in the another two."
   A. NO
   C. NO
   F. YES, Spanish.
   G. No plausible translation or interpretation.
   I. No analysis. OUT_3

It can be seen that the model is not complicated and represents a procedure that teachers and researchers might intuitively follow. Of course, once an error is identified, the next step is to describe it adequately, something the above procedure has only begun to accomplish.

A number of different categories for description of errors have been identified in research on learner language (for an overview, see Lennon, 1991).

1. The most generalized breakdown can be made by identifying errors of **addition**, **omission**, **substitution**, and **ordering**, following standard mathematical categories. In English a *do* auxiliary might be added *(Does can he sing?)*, a definite article omitted *(I went to movie)*, an item substituted *(I lost my road)*, or a word order confused *(I to the store went)*. But such categories are clearly very generalized.

2. Within each category, **levels** of language can be considered: phonology or orthography, lexicon, grammar, and discourse. Often, of course, it is difficult to distinguish different levels of errors. A word with a faulty pronunciation, for example, might hide a syntactic or lexical error. A French learner who says "[zhey] suis allé à l'école" might be mispronouncing the grammatically correct "je," or correctly pronouncing a grammatically incorrect "j'ai."
3. Errors may also be viewed as either global or local (Burt & Kiparsky, 1972). **Global errors** hinder communication; they prevent the hearer from comprehending some aspect of the message. For example, "Well, it's a great hurry around," in whatever context, may be difficult to interpret. **Local errors** do not prevent the message from being heard, usually because there is only a minor violation of one segment of a sentence, allowing the hearer/reader to make an accurate guess about the intended meaning. "A scissors," for example, is a local error. The global-local distinction is discussed in the vignette at the end of this chapter.
4. Finally, Lennon (1991) suggests that two related dimensions of error, domain and extent should be considered in any error analysis. **Domain** is the rank of linguistic unit (from phoneme to discourse) that must be taken as context in order for the error to become apparent, and **extent** is the rank of linguistic unit that would have to be deleted, replaced, supplied, or reordered in order to repair the sentence. Lennon's categories help to operationalize Corder's overt-covert distinction discussed above. So, in the example just cited above, "a scissors," the domain is the phrase, and the extent is the indefinite article.

Sources of Error

Having examined procedures of error analysis used to identify errors in second language learner production data, our final step in the analysis of erroneous learner speech is that of determining the source of error. Why are certain errors made? What cognitive strategies and styles or even personality variables underlie certain errors? While the answers to these questions are somewhat speculative in that sources must be inferred from available data, in such questions lies the ultimate value of learner language analysis in general. By trying to identify sources we can take another step toward understanding how the learner's cognitive and affective processes relate to the linguistic system and to formulate an integrated understanding of the process of second language acquisition.

Interlingual Transfer

As we have already seen, **interlingual transfer** is a significant source of error for all learners. The beginning stages of learning a second language are especially vulnerable to interlingual transfer from the native language, or interference. In these early stages, before the system of the second language is familiar, the native language is the only previous linguistic system upon which the learner can draw.

We have all heard English learners say "sheep" for "ship," or "the book of Jack" instead of "Jackbook"; French learners may say "Je sais Jean" for "Je connais Jean," and so forth. All these errors are attributable to negative interlingual transfer. While it is not always clear that an error is the result of transfer from the native language, many such errors are detectable in learner speech. Fluent knowledge or even familiarity with a learner's native language of course aids the teacher in detecting and analyzing such errors.

The learning of a **third language** (and subsequent languages) provides an interesting context for research. Depending upon a number of factors, including the linguistic and cultural relatedness of the languages and the context of learning, there are varying degrees of interlingual interference from both the first and second language to the third language, especially if the second and third languages are closely related or the learner is attempting a third language shortly after beginning a second language.

Intralingual Transfer

One of the major contributions of learner language research has been its recognition of sources of error that extend beyond interlingual errors in learning a second language. It is now clear that **intralingual transfer** (within the target language itself) is a major factor in second language learning. In Chapter 4 we discussed overgeneralization, which is the negative counterpart of intralingual transfer. Researchers (Odlin, 2003; Jaszczolt, 1995; Taylor, 1975) have found that the early stages of language learning are characterized by a predominance of interference (interlingual transfer), but once learners have begun to acquire parts of the new system, more and more intralingual transfer—generalization within the target language—is manifested. This of course follows logically from the tenets of learning theory. As learners progress in the second language, their previous experience and their existing subsumers begin to include structures within the target language itself.

Negative intralingual transfer, or overgeneralization, has already been illustrated in such utterances as "Does John can sing?" Other examples abound—utterances like "He goed," "I don't know what time is it," and "Il a tombé." Once again, the teacher or researcher cannot always be certain of the source of an apparent intralingual error, but repeated systematic observations of a learner's speech data will often remove the ambiguity of a single observation of an error.

The analysis of intralingual errors in a corpus of production data can become quite complex. For example, in Barry Taylor's (1975, p. 95) analysis of English sentences produced by ESL learners, erroneous attempts to produce the main verb following an auxiliary yielded nine different types of error:

1. Past tense form of verb following a modal
2. Present tense *-s* on a verb following a modal
3. *-ing* on a verb following a modal
4. *are* (for *be*) following *will*
5. Past tense form of verb following *do*
6. Present tense *-s* on a verb following *do*

7. *-ing* on a verb following *do*
8. Past tense form of a verb following *be* (inserted to replace a modal or *do*)
9. Present tense *-s* on a verb following *be* (inserted to replace a modal or *do*)

And of course these are limited to the particular data that Taylor was analyzing and are therefore not exhaustive within a grammatical category. Moreover, they pertain only to errors of overgeneralization, excluding another long list of categories of errors that he found attributable to interlingual transfer. Similarly, Jack Richards (1971, pp. 185–187) provided a list of typical English intralingual errors in the use of articles (see Table 9.1). These are not exhaustive either, but are examples of some of the errors commonly encountered in English learners from disparate native language backgrounds. Both Taylor's and Richards's lists are restricted to English, but clearly their counterparts exist in other languages.

Table 9.1. Typical English intralingual errors in the use of articles

1. Omission of *the*	
a. before unique nouns	Sun is very hot Himalayas are . . .
b. before nouns of nationality	Spaniards and Arabs . . .
c. before nouns made particular in context	At the conclusion of article She goes to bazaar every day She is mother of that boy
d. before a noun modified by a participle	Solution given in this article
e. before superlatives	Richest person
f. before a noun modified by an *of* phrase	Institute of Nuclear Physics
2. *the* used instead of Ø	
a. before proper names	The Shakespeare, the Sunday
b. before abstract nouns	The friendship, the nature, the science
c. before nouns behaving like abstract nouns	After the school, after the breakfast
d. before plural nouns	The complex structures are still developing
e. before some	The some knowledge
3. *a* used instead of *the*	
a. before superlatives	a worst, a best boy in the class
b. before unique nouns	a sun becomes red
4. *a* Instead of Ø	
a. before a plural noun qualified by an adjective	a holy places, a human beings, a bad news
b. before uncountables	a gold, a work
c. before an adjective	. . . taken as a definite
5. Omission of *a* before class nouns defined by adjectives	he was good boy he was brave man

Source: Richards, 1971, p. 187.

Context of Learning

A third major source of error, although it overlaps both types of transfer, is the context of learning. "Context" refers, for example, to the classroom with its teacher and its materials in the case of school learning or the social situation in the case of untutored second language learning. In a classroom context the teacher or the textbook can lead the learner to make faulty hypotheses about the language, what Richards (1971) called "false concepts" and what Stenson (1974) termed **induced errors**. Students often make errors because of a misleading explanation from the teacher, faulty presentation of a structure or word in a textbook, or even because of a pattern that was rotely memorized in a drill but improperly contextualized. Two vocabulary items presented contiguously—for example, *point at* and *point out*—might in later recall be confused simply because of the contiguity of presentation. Or a teacher may provide incorrect information—not an uncommon occurrence—by way of a misleading definition, word, or grammatical generalization. Another manifestation of language learned in classroom contexts is the occasional tendency on the part of learners to give uncontracted and inappropriately formal forms of language. We have all experienced foreign learners whose "bookish" language gives them away as classroom language learners.

The sociolinguistic context of natural, untutored language acquisition can give rise to certain dialect acquisition that may itself be a source of error. Corder's term "idiosyncratic dialect" applies especially well here. For example, a Japanese immigrant who lived in a predominantly Mexican American area of a U.S. city produced a learner language that was an interesting blend of Mexican American English and the standard English to which he was exposed in the university, colored by his Japanese accent.

Communication Strategies

In Chapter 5, communication strategies were defined and related to learning styles. Learners obviously use production strategies in order to enhance getting their messages across, but at times these techniques can themselves become a source of error. Once an ESL learner said, "Let us work for the well done of our country." While it exhibited a nice little twist of humor, the sentence had an incorrect approximation of the word *welfare*. Likewise, word coinage, circumlocution, false cognates (from Tarone, 1981), and prefabricated patterns can all be sources of error.

STAGES OF LEARNER LANGUAGE DEVELOPMENT

There are many different ways to describe the progression of learners' linguistic development as their attempts at production successively approximate the target language system. Indeed, learners are so variable in their acquisition of a second language that stages of development defy description. Borrowing some insights from an earlier model proposed by Corder (1973), I have found it useful to think in

terms of four stages, based on observations of what the learner does in terms of errors alone.

1. The first is a stage of **random errors**, a stage that Corder called **presystematic**, in which the learner is only vaguely aware that there is some systematic order to a particular class of items. The written utterance "The different city is another one in the another two" surely comes out of a random error stage in which the learner is making rather wild guesses at what to write. Inconsistencies like "John cans sing," "John can to sing," and "John can singing," all said by the same learner within a short period of time, might indicate a stage of experimentation and inaccurate guessing.
2. The second, or **emergent**, stage of learner language finds the learner growing in consistency in linguistic production. The learner has begun to discern a system and to internalize certain rules. These rules may not be correct by target language standards, but they are nevertheless legitimate in the mind of the learner. This stage is characterized by some **backsliding**, in which the learner seems to have grasped a rule or principle and then regresses to some previous stage. This phenomenon of moving from a correct form to an incorrect form and than back to correctness is referred to as **U-shaped learning** (Gass & Selinker, 2001). In general the learner is still, at this stage, unable to correct errors when they are pointed out by someone else. Avoidance of structures and topics is typical. Consider the following conversation between a learner (L) and a native speaker (NS) of English:

   L: I go New York.
   NS: You're going to New York?
   L: [*doesn't understand*] What?
   NS: You will go to New York?
   L: Yes.
   NS: When?
   L: 1972.
   NS: Oh, you went to New York in 1972.
   L: Yes, I go 1972.

   Such a conversation is reminiscent of those mentioned in Chapter 2, where children in first language situations could not discern any error in their speech.
3. A third stage is a truly **systematic** stage in which the learner is now able to manifest more consistency in producing the second language. While those rules that are stored in the learner's brain are still not all well formed, and some of them conform to the above mentioned U-shaped processes, they are more internally self-consistent and, of course, they more closely approximate the target language system. The most salient difference between the second and third stage is the ability of learners to correct their errors when they are

pointed out—even very subtly—to them. Consider the English learner who described a popular fishing-resort area.

L: Many fish are in the lake. These fish are serving in the restaurants near the lake.
NS: [*laughing*] The *fish* are serving?
L: [*laughing*] Oh, no, the fish are *being served* in the restaurants!

4. A final stage, which some researchers (Long, 2003, for example) call **stabilization,** is akin to what Corder (1973) called a **postsystematic stage**. Here the learner has relatively few errors and has mastered the system to the point that fluency and intended meanings are not problematic. This fourth stage is characterized by the learner's ability to self-correct. The system is complete enough that attention can be paid to those few errors that occur and corrections be made without waiting for feedback from someone else. At this point learners can stabilize too fast, allowing minor errors to slip by undetected, and thus manifest **fossilization** of their language, a concept that will be defined and discussed later in this chapter (see Selinker & Lamendella, 1979).

It should be made clear that the four stages of systematicity outlined above do not describe a learner's total second language system. We would find it hard to assert, for example, that a learner is in an emergent stage, globally, for all of the linguistic subsystems of language. One might be in a second stage with respect to, say, the perfect tense system, and in the third or fourth stage when it comes to simple present and past tenses. Nor do these stages, which are based on error analysis, adequately account for sociolinguistic, functional, pragmatic (see Kasper, 1998), or nonverbal strategies, all of which are important in assessing the total competence of the second language learner. Finally, we need to remember that production errors alone are inadequate measures of overall competence. They happen to be salient features of second language learners' interlanguage and present us with grist for error-analysis mills, but correct utterances warrant our attention and, especially in the teaching-learning process, deserve positive reinforcement.

VARIATION IN LEARNER LANGUAGE

Lest you be tempted to assume that all learner language is orderly and systematic, a caveat is in order. A great deal of attention has been given to the **variation** that learners manifest in their interlanguage development (Romaine, 2003; Bayley & Preston, 1996; James, 1990; Tarone, 1988; Ellis, 1987; Littlewood, 1981). Just as native speakers of a language vacillate between expressions like "It has to be you" and "It must be you," learners also exhibit variation, sometimes within the parameters of acceptable norms, sometimes not. Some variation in learner language can be explained

by what Gatbonton (1983) described as the "gradual diffusion" of incorrect forms of language in emergent and systematic stages of development. First, incorrect forms coexist with correct forms; then the incorrect forms are expunged. Context and style have also been identified as a source of variation, along with gender-based variation (Romaine, 1999). In classrooms, the type of task can affect variation (Tarone & Parrish, 1988). And variation can be caused, in both tutored and untutored learning, by the extent to which a learner is exposed to norms.

While one simply must expect a good proportion of learner language data to fall beyond our capacity for systematic categorization, one of the current debates in SLA theory centers on the extent to which variability can indeed be systematically explained. The essence of the problem is that learners can and do exhibit a tremendous degree of variation in the way they speak (and write) second languages. Is that variation predictable? Can we explain it? Or do we dismiss it all as "free variation"?

Notable among models of variability are Elaine Tarone's (1988) **capability continuum paradigm** and Rod Ellis's (1994, 1986) **variable competence model**, both of which have inspired others to carry out research on the issue (see, for example, Foster & Skehan, 1996; Bayley & Preston, 1996; Preston, 1996; Crookes, 1989; Adamson, 1988; Young, 1988).

Tarone (1988) granted that nonsystematic free variation and individual variation do indeed exist, but chose to focus her research on *contextual* variability, that is, the extent to which both linguistic and situational contexts may help to systematically describe what might otherwise appear simply as unexplained variation. Tarone suggested four categories of variation:

1. Linguistic context
2. Psychological processing factors
3. Social context
4. Language function

The emphasis on context led researchers to look carefully at the conditions under which certain linguistic forms vary. For example, suppose a learner at one point in time says (1) "He must paid for the insurance" and at another time says (2) "He must pay the parking fee." An examination of the linguistic (and conceptual) context (the first of Tarone's categories) might explain the variation. In this case, sentence 1 was uttered in the context of describing an event in the past, and sentence 2 referred to the present moment. Thus the apparent free variation of the main verb form in a modal auxiliary context is explained.

One of the most fruitful areas of learner language research has focused on the variation that arises from the disparity between *classroom* contexts and *natural* situations outside language classes. As researchers have examined instructed second language acquisition (R. Ellis, 2005, 1997, 1990b; Doughty, 2003, 1991; Buczowska & Weist, 1991), it has become apparent not only that instruction makes a difference in learners' success rates but also that the classroom context itself explains a great deal of variability in learners' output.

Rod Ellis (1994b, 1986) has drawn a more "internal" picture of the learner in his variable competence model. Drawing on Bialystok's (1978) earlier work, Ellis hypothesized a storehouse of "variable interlanguage rules" (p. 269) depending on how automatic and how analyzed the rules are. He drew a sharp distinction between planned and unplanned discourse in order to examine variation. The former implies less automaticity, and therefore requires the learner to call upon a certain category of learner language rules, while the latter, more automatic production, predisposes the learner to dip into another set of rules.

Both models garnered criticism. Gregg (1990) quarreled with both Tarone's and Ellis's rejection of Chomsky's "homogeneous competence paradigm" (see the discussion in Chapter 2 about competence and performance). "Why should the fact that a learner's competence changes over time lead us to reject the standard concept of competence?" argued Gregg (1990, p. 367). It would appear from Ellis's arguments that Chomsky's "performance variables" may be better thought of as part of one's "variable competence" and therefore not attributable to mere "slips" in performance. Such arguments and counter arguments (see responses to Gregg by Ellis, 1990a, and Tarone, 1990) will continue, but one lesson we have learned in all this is apparent: even the tiniest of the bits and pieces of learner language, however random or "variable" they may appear to be at first blush, could be quite "systematic" if we only keep on looking. It is often tempting as a teacher or as a researcher to dismiss a good deal of learners' production as a mystery beyond our capacity to explain. Short of engaging in an absurd game of straining at gnats, we must guard against yielding to that temptation.

FOSSILIZATION OR STABILIZATION?

It is quite common to encounter in a learner's language various erroneous features that persist despite what is otherwise a reasonably fluent command of the language. This phenomenon is most saliently manifested phonologically in "foreign accents" in the speech of many of those who have learned a second language after puberty, as we saw in Chapter 3. We also frequently observe syntactic and lexical errors persisting in the speech of those who have learned a language quite well. The relatively permanent incorporation of incorrect linguistic forms into a person's second language competence has been referred to as **fossilization**. Fossilization is a normal and natural stage for many learners, and should not be viewed as some sort of terminal illness, in spite of the forbidding metaphor that suggests an unchangeable situation etched in stone. In fact, as Michael Long (2003, p. 521) suggests, "the more relevant object of study for researchers becomes *stabilization*, not fossilization," which leaves open the possibility for further development at some point in time. For the moment we will stay with the term fossilization, but return to criticisms later in this section.

How do items become fossilized? Fossilization can be seen as consistent with principles of human learning already discussed in this book: conditioning,

reinforcement, need, motivation, self-determination, and others. Vigil and Oller (1976) provided a formal account of fossilization as a factor of positive and negative affective and cognitive feedback. They noted that there are two kinds of information transmitted between sources (learners) and audiences (in this case, native speakers): information about the *affective* relationship between source and audience, and *cognitive* information—facts, suppositions, beliefs. Affective information is primarily encoded in terms of kinesic mechanisms such as gestures, tone of voice, and facial expressions, while cognitive information is usually conveyed by means of linguistic devices (sounds, phrases, structures, discourse). The feedback learners get from their audience can be either positive, neutral, somewhere in between, or negative. The two types and levels of feedback are charted below:

Affective Feedback
Positive: Keep talking; I'm listening.
Neutral: I'm not sure I want to maintain this conversation.
Negative: This conversation is over.

Cognitive Feedback
Positive: I understand your message; it's clear.
Neutral: I'm not sure if I correctly understand you or not.
Negative: I don't understand what you are saying; it's not clear.

Various combinations of the two major types of feedback are possible. For example, a person can indicate positive affective feedback ("I affirm you and value what you are trying to communicate") but give neutral or negative cognitive feedback to indicate that the message itself is unclear. Negative affective feedback, however, regardless of the degree of cognitive feedback, will likely result in the abortion of the communication. This is, of course, consistent with the overriding affective nature of human interaction: if people are not at least affirmed in their attempts to communicate, there is little reason for continuing. So, one of the first requirements for meaningful communication, as has been pointed out in earlier chapters, is an affective affirmation by the other person.

Vigil and Oller's model thus holds that a positive affective response is imperative to the learner's desire to continue attempts to communicate. Cognitive feedback then determines the degree of internalization. Negative or neutral feedback in the cognitive dimension will, with the prerequisite positive affective feedback, encourage learners to try again, to restate, to reformulate, or to draw a different hypothesis about a rule. Positive feedback in the cognitive dimension will potentially result in reinforcement of the forms used and a conclusion on the part of learners that their speech is well formed. Fossilized items, according to this model, are those deviant items in the speech of a learner that first gain positive affective feedback ("Keep talking"), then positive cognitive feedback ("I understand"), reinforcing an incorrect form of language. It is interesting that this internalization of

incorrect forms takes place by means of the same processes as the internalization of correct forms. We refer to the latter, of course, as "learning," but the same elements of input, interaction, and feedback are present. When correct forms are produced, feedback that says "I understand you perfectly" reinforces those forms.

We need to exercise caution in the interpretation and application of Vigil and Oller's model. While it is most helpful, for example, in understanding the effect of error treatment, as we shall see in the next section, there are flaws in attributing such importance to feedback alone. Selinker and Lamendella (1979) noted that Vigil and Oller's model relied on the notion of *extrinsic* feedback, and that other factors internal to the learner affect fossilization. Learners are not merely pawns at the mercy of bigger pieces in the chess game of language learning. Successful language learners tend to take charge of their own attainment, proactively seeking means for acquisition. So fossilization could be the result of the presence or absence of internal motivating factors, of seeking interaction with other people, of consciously focusing on forms, and of one's strategic investment in the learning process. As teachers, we may, and rightly, attach great importance to the feedback we give to students, but we must recognize that there are other forces at work in the process of internalizing a second language.

A further and more serious issue is the question of the theoretical soundness of the notion of fossilization. Reference was made above to Long's (2003) review article in which he concluded that stabilization is a more appropriate construct to apply to learners whose language development has reached an apparent "plateau." Long argued convincingly that "'fossilization' has simply become a general, non-technical name for non-target-like ultimate attainment, that is, . . . a broad brush method for characterizing what a learner did not do" (p. 513). Citing major defining and methodological issues in the research, Long contended that fossilization is an assumption at best, for which there is insufficient data to support it, and inadequate analyses of those data. In a subsequent review article, Han and Selinker (2005) attempted to counter Long's critique with their own understanding of fossilization as a "prerequisite" for second language acquisition theories, but curiously admitted that "fossilization research is still characterized by a plurality of unresolved issues, despite the popularity of the term, . . . notwithstanding its yet-to-be-determined nature" (pp. 465–466).

So, you may be wondering, what are we left with, fossilization or stabilization? The debate among researchers will continue for some time, but for purposes of understanding how and why numerous second language learners reach stages of nondevelopment or even backsliding—another term popularized by Selinker (1972)—we know that such phenomena can be theoretically explained by our knowledge of human learning in general. All learners in all areas experience uneven lines of progress, and in many cases, especially in advanced stages of learning, those lines can flatten out for a considerable period of time. Sometimes those plateaus are rooted in motivational factors, either intrinsic or extrinsic or both, and sometimes other by other variables: age, aptitude, input, attention, and

social context. For now, the concept of stabilization does indeed appear to be safer ground—it "lightens the burden of SLA theory" (Long, 2003, p. 521).

ERRORS IN THE CLASSROOM: A BRIEF HISTORY

Implied in all of the foregoing discussions, from interlanguage research to error analysis to fossilization, is the difficulty of the bumpy and winding road that a language learner travels in the quest for proficiency. The metaphorical bumps and bends in the road are best described as *difficulty* in the process of acquisition, the overcoming of which requires a concerted strategic approach, and with it a "trial and *error*" process. While it is important to accentuate the positive in learners' journeys to success, and not to become obsessed with error, transforming difficulty into success always seems to hinge on how learners perceive their own ability, how they process feedback around them, and how they manage to make their errors work for them and not against them.

In this and the next section of this chapter, we will grapple first with some general background in the form of some approaches to error in the classroom, and then with some of the more recent research and technical questions surrounding the issue of focusing learners on the forms of language in the classroom.

Historically, error treatment in language classrooms has been a hot topic. In the days of the Audiolingual method, errors were viewed as phenomena to be avoided by overlearning, memorizing, and "getting it right" from the start. Then, some methods (Community Language Learning, the Natural Approach) took a *laissez-faire* approach to error, under the assumption that natural processes within the learner will eventually lead to acquisition. CLT approaches, including task-based instruction, now tend to advocate an optimal balance between attention to form (and errors) and attention to meaning.

Vigil and Oller's (1976) communication feedback model offered one of the first models for approaching error in language classrooms. Figure 9.2 metaphorically depicts what happens in that model.

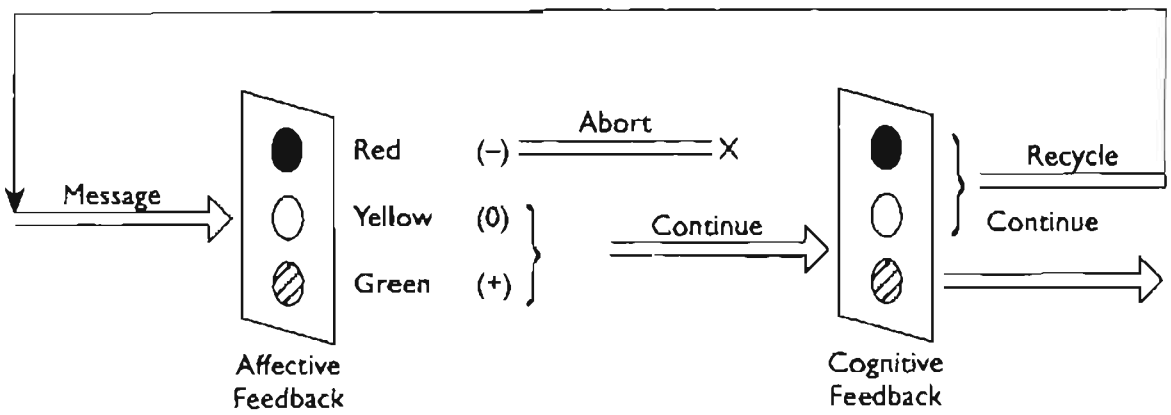

Figure 9.2. Affective and cognitive feedback

The "green light" of the affective feedback mode allows the sender to continue attempting to get a message across; a "red light" causes the sender to abort such attempts. (The metaphorical nature of such a chart is evident in the fact that affective feedback does not precede cognitive feedback, as this chart may lead you to believe; both modes can take place simultaneously.) The traffic signal of cognitive feedback is the point at which error correction enters. A green light here symbolizes noncorrective feedback that says "I understand your message." A red light symbolizes corrective feedback that takes on a myriad of possible forms (outlined below) and causes the learner to make some kind of alteration in production. To push the metaphor further, a yellow light could represent those various shades of color that are interpreted by the learner as falling somewhere in between a complete green light and a red light, causing the learner to adjust, to alter, to recycle, to try again in some way. Note that fossilization may be the result of too many green lights when there should have been some yellow or red lights.

The most useful implication of Vigil and Oller's model for a theory of error treatment is that cognitive feedback must be optimal in order to be effective. Too much negative cognitive feedback—a barrage of interruptions, corrections, and overt attention to malformations—often leads learners to shut off their attempts at communication. They perceive that so much is wrong with their production that there is little hope to get anything right. On the other hand, too much positive cognitive feedback—willingness of the teacher-hearer to let errors go uncorrected, to indicate understanding when understanding may not have occurred—serves to reinforce the errors of the speaker-learner. The result is the persistence, and perhaps the eventual fossilization, of such errors. The task of the teacher is to discern the optimal tension between positive and negative cognitive feedback: providing enough green lights to encourage continued communication, but not so many that crucial errors go unnoticed, and providing enough red lights to call attention to those crucial errors, but not so many that the learner is discouraged from attempting to speak at all.

We do well to recall at this point the application of Skinner's operant conditioning model of learning discussed in Chapter 4. The affective and cognitive modes of feedback are reinforcers to speakers' responses. As speakers perceive "positive" reinforcement, or the "green lights" of Figure 9.2, they will be led to internalize certain speech patterns. Corrective feedback can still be "positive" in the Skinnerian sense, as we shall see below. However, ignoring erroneous behavior has the effect of a positive reinforcer; therefore teachers must be very careful to discern the possible reinforcing consequences of neutral feedback. What we must avoid at all costs is the administration of punitive reinforcement, or correction that is viewed by learners as an affective red light—devaluing, dehumanizing, or insulting them.

In a very practical article on error treatment, Hendrickson (1980) advised teachers to try to discern the difference between global and local errors, already

described earlier in this chapter. Once, a learner of English was describing a quaint old hotel in Europe and said, "There is a French widow in every bedroom." The local error is clearly, and humorously, recognized. Hendrickson recommended that local errors usually need not be corrected since the message is clear and correction might interrupt a learner in the flow of productive communication. Global errors need to be treated in some way since the message may otherwise remain garbled. "The different city is another one in the another two" is a sentence that would certainly need treatment because it is incomprehensible as is. Many utterances are not clearly global or local, and it is difficult to discern the necessity for corrective feedback. A learner once wrote, "The grammar is the basement of every language." While this witty little proclamation may indeed sound more like Chomsky than Chomsky does, it behooves the teacher to ascertain just what the learner meant here (no doubt "basis" rather than "basement"), and to provide some feedback to clarify the difference between the two. The bottom line is that we simply must not stifle our students' attempts at production by smothering them with corrective feedback.

The matter of *how* to correct errors was, historically, and still is, exceedingly complex (Williams, Jessica, 2005; Doughty, 2003). Earlier research on error correction methods was not at all conclusive about the most effective method or technique for error correction. It seemed quite clear that students in the classroom generally want and expect errors to be corrected (Cathcart & Olsen, 1976). Nevertheless, some methods recommended no direct treatment of error at all (Krashen & Terrell, 1983). In "natural," untutored environments, nonnative speakers are usually corrected by native speakers on only a small percentage of errors that they make (Chun, Day, Chenoweth, & Luppescu, 1982). Native speakers were found to attend basically only to global errors and then usually not in the form of interruptions but at transition points in conversations (Day, Chenoweth, Chun, & Luppescu, 1984).

Balancing these various perspectives, it was a safe conclusion by the mid-1980s that a sensitive and perceptive teacher should make the language classroom a happy optimum between some of the overpoliteness of the real world and the expectations that learners bring with them to the classroom, namely, that every error should be "corrected." Kathleen Bailey (1985), for example, suggested that language teachers have a number of "basic options" when confronted with a student error, including to treat or ignore, to treat now or later, to stimulate other learners to initiate treatment, and to test for the effectiveness of the treatment. And Bailey (1985) noted that teachers then had several "features" within those options, such as simply indicating the fact that an error occurred, modeling a correction, or indicating the type of error that occurred.

These basic options and features continue to be viable modes of error correction in the classroom; however, in recent years, as we will see in the next section, researchers have refined the options considerably.

CLASSROOM CONNECTIONS

Research Findings: Practices of error treatment in the classroom may appear at first to be contradictory to Skinner's learning theories. Skinner de-emphasized attention to undesirable "behavior," and by that principle teachers might consider refraining from calling any attention at all to errors made by learners, lest the incorrect forms of language receive reinforcement.

Teaching Implications: In language classrooms, learners' errors should not be classified as undesirable. Linguistic errors are different from "behavior" in the Skinnerian sense. They are better viewed as natural processes of trial-and-error on the part of learners. Unlike pigeons pecking at incorrect levers, language learners can benefit from feedback (from teachers and other learners) indicating that a form is in need of modification. Otherwise, in the absence of treatment, learners could perceive erroneous language as being *positively* reinforced. What kinds of error treatment have you received (as a learner) or delivered (as a teacher)? How effective were those treatments?

FORM-FOCUSED INSTRUCTION

As the focus of classroom instruction has shifted over the past few decades from an emphasis on language forms to attention to functional language within communicative contexts, the question of the place of what has come to be called **form-focused instruction** (FFI) has become more and more important. What do we mean, exactly, by FFI? A number of varying definitions have emerged (Williams, Jessica, 2005; Doughty, 2003; Ellis, 2001; Doughty & Williams, 1998; Spada, 1997), but for the sake of simplifying a complex pedagogical issue, let us rely on Spada's nicely worded definition: "any pedagogical effort which is used to draw the learners' attention to language form either implicitly or explicitly" (1997, p. 73).

Implied in the definition is a range of approaches to form. On one side of a long continuum are explicit, discrete-point **metalinguistic explanations** and discussions of rules and exceptions, or curricula governed and sequenced by grammatical or phonological categories. On the other end of the continuum are (1) implicit, **incidental** references to form; (2) **noticing** (Ellis, 1997; Schmidt, 1990), that is, the learner's paying **attention** to specific linguistic features in input; and (3) the incorporation of forms into communicative tasks, or what Ellis (1997) calls **grammar consciousness raising**.

Also implied in a discussion of FFI is whether or not it is a feature of instruction that is *planned* or *spontaneous* (Williams, Jessica, 2005). In some cases, communicative lessons build in certain exercises or activities in which focus on form is laid out in advance, possibly even to the extent that a teacher's comments are scripted. Some courses designate certain modules for focus on predefined pronunciation, grammar, or vocabulary points, and some curricula even designate a separate course for, say, grammar focus. At the other end of this continuum is an array of possible spontaneous focus on form, ranging from reactive, teacher-initiated feedback to preemptive comments made in anticipation of student error. In evaluating the effectiveness of FFI, one must, at the very least, be specific in identifying the point, on this long and complex continuum, that is under scrutiny.

Categories of Error Treatment

Before attempting to synopsize the research on FFI, it is important to briefly define the more salient concepts and terms that have appeared in the literature over the last decade or so. These terms represent concepts and operational definitions that are the product of a multitude of research on error treatment and FFI. The following descriptions are drawn from Jessica Williams (2005), Ellis (2001), Lyster (2004), and Panova and Lyster (2002). The terms are divided into what Panova and Lyster call feedback types and learner responses to feedback. Examples are provided to show learner (L) and teacher (T) utterances.

Types of Feedback

Recast: An implicit type of **corrective feedback** that reformulates or expands an ill-formed or incomplete utterance in an unobtrusive way.

L: I lost my road.
T: Oh, yeah, I see, you lost your way. And then what happened?

Clarification request: An elicitation of a reformulation or repetition from a student. The example below is from Panova and Lyster (2002, p. 583).

L: I want practice today, today. (grammatical error)
T: I'm sorry? (clarification request)

Metalinguistic feedback: Provides "comments, information, or questions related to the well-formedness of the student's utterance" (Lyster, 2004, p. 405).

L: I am here since January.
T: Well, okay, but remember we talked about the present perfect tense?

Elicitation: A corrective technique that prompts the learner to self-correct. Elicitation and other **prompts** are more overt in their request for a response.

L: [*to another student*] What means this word?
T: Uh, Luis, how do we say that in English? What *does* . . .?
L: Ah, what does this word mean?

Explicit correction: A clear indication to the student that the form is incorrect and provision of a corrected form.

L: When I have 12 years old . . .
T: No, not *have*. You mean, "when I *was* 12 years old . . ."

Repetition: The teacher repeats the ill-formed part of the student's utterance, usually with a change in intonation.

L: When I have 12 years old . . .
T: When I *was* 12 years old . . .

Responses to Feedback

Uptake: "[A] student utterance that immediately follows the teacher's feedback and that constitutes a reaction in some way to the teacher's intention to draw attention to some aspect of the student's initial utterance" (Lyster & Ranta, 1997, p. 49). Uptake is a general term that can have a number of manifestations.

L: [*to another student*] What means this word?
T: Uh, Luis, how do we say that in English? What *does* . . .?
L: Ah, what does this word mean?

Repair: As a result of teacher feedback, a learner corrects an ill-formed utterance, either through **self-repair** or as a result of **peer repair**.

Repetition: The learner repeats the correct form as a result of teacher feedback, and sometimes **incorporates** it into a longer utterance.

With those definitions in mind, we now turn to a brief synopsis of research on FFI.

Effectiveness of FFI

The research on the issue (note an excellent summary by Jessica Williams, 2005) of the effectiveness of FFI perhaps raises more questions than answers. It is easy to lump any attention to form into the category of FFI without considering many

interrelated methodological problems. For the purposes of an introduction to these issues, consider the following questions that must be answered before one can conclude whether or not FFI is beneficial:

1. Are some types of FFI more beneficial than others?
2. Is there an optimal time to provide FFI?
3. Are particular linguistic features more affected by FFI?
4. Does frequency of input/exposure make a difference?
5. Do particular students benefit more from FFI?

While one risks overgeneralization in attempting to summarize the diverse findings on FFI over the years, it may be reasonable to make the following assertions.

First, most of the research of the last three decades or so suggests that communicative language instruction in general, as opposed to simple "exposure" to a language, can indeed increase learners' levels of attainment (Lightbown, 2000). Studies have shown (Doughty, 2003) that rate of acquisition (how long it takes a learner to reach proficiency) and level of ultimate attainment in a language are enhanced by instruction. Error treatment and focus on language forms appear to be most effective when incorporated into a communicative, learner-centered curriculum, and least effective when error treatment is a dominant pedagogical feature—what Long (1988, p. 136) called "Neanderthal" practices—occupying the focal attention of students in the classroom (Williams, Jessica, 2005; Lightbown & Spada, 1990). The research also appears to confirm that a primary factor in determining the effectiveness of FFI is a learner's noticing of form and of the relationship of form to feedback being given, and a secondary but important factor has to do with the quality of the learner's uptake.

Second, very few research studies have been able to identify particular stages in which learners are more ready than others to internalize FFI (Doughty, 2003). A more important question is perhaps "whether there are more propitious pedagogical moments to draw learners' attention to language form" (Spada, 1997, p. 80). Should a teacher interrupt learners in the middle of an attempt to communicate? Should a teacher choose, say, a recast over an elicitation? Should beginning learners be given less corrective feedback than advanced? All these and other questions depend on the context. In a study of children learning English in French Canada, Lightbown and Spada (1990) found that teachers who provided what might be loosely described as an "optimal" form of FFI developed fluency *and* accuracy, with no apparent detriment to communicative fluency. Should FFI come before or after communicative practice? Tomasello and Herron (1989) found evidence to support giving corrective feedback after a communicative task. Other studies (see Jessica Williams, 2005; Doughty, 2003) yield contradictory results.

Third, the possible number of linguistic features in a language and the many potential contexts of learning make this question impossible to answer. One tantalizing suggestion, however, was supported in DeKeyser's (1995) finding that

explicit instruction was more appropriate for easily stated grammar rules and implicit instruction was more successful for more complex rules.

The fourth question is whether the success of FFI—and indeed any form of input and interaction—is a product of the frequency of input. A special issue of *Studies in Second Language Acquisition* (June 2002) was recently devoted entirely to this topic. You may remember reading in Chapters 2 and 3 that for child first language acquisition, many studies have shown that *frequency* of input is not as important a factor in acquisition as *salience*—the meaningfulness attributed to a given form of language. Similar conclusions have been drawn by a number of second language acquisition studies (Eubank & Gregg, 2002), with research citing innate knowledge, instantaneous acquisition, native language effects, conceptual development, and language systematicity as arguments against a positive correlation between frequency and acquisition. However, other researchers, especially Nick Ellis (2002), contended that after "40 years of exile" (p. 143), frequency as an explanatory concept in applied linguistics needed reinstating. Other scholars in the *Studies in Second Language Acquisition* issue (Gass & Mackey, 2002; Larsen-Freeman, 2002) argued pro and con, leaving us with the sense that perhaps frequency is worth considering as a factor, even if the evidence for its status as a foundation stone of acquisition is not overwhelming.

Finally, the wide-ranging research on learner characteristics, styles, and strategies supports the conclusion that certain learners clearly benefit more than others from FFI. Analytic, field-independent, left-brain-oriented learners internalize explicit FFI better than relational, field-dependent, right-brain-oriented learners (Jamieson, 1992). Visual input will favor visual learners (Reid, 1987). Students who are "Js" and "Ts" on the Myers-Briggs scale will more readily be able to focus on form (Ehrman, 1989). The teacher needs to develop the intuition, through experience and solid eclectic theoretical foundations, for ascertaining what kind of corrective feedback is appropriate at a given moment, and what forms of uptake should be expected. Principles of reinforcement theory, human learning, cognitive and sociocultural factors, and of communicative language teaching all combine to form those theoretical foundations.

At least one general conclusion that can be drawn from the study of errors in the linguistic systems of learners is that learners are indeed creatively operating on a second language—constructing, either consciously or subconsciously, a system for understanding and producing utterances in the language. That system should not necessarily be treated as an imperfect system; it is such only insofar as native speakers compare their own knowledge of the language to that of the learners. It should rather be looked upon as a variable, dynamic, approximative system, reasonable to a great degree in the mind of the learners, albeit idiosyncratic. Learners are processing language on the basis of knowledge of their own interlanguage, which, as a system lying between two languages, ought not to have the value judgments of

either language placed upon it. The teacher's task is to value learners, prize their attempts to communicate, and then provide optimal feedback for the system to evolve in successive stages until learners are communicating meaningfully and unambiguously in the second language.

TOPICS AND QUESTIONS FOR STUDY AND DISCUSSION

Note: (I) individual work; (G) group or pair work; (C) whole-class discussion.

1. (C) Pick several languages with which students in the class are familiar, and think about the phonological features of those languages that are most salient in "foreign-accented" English. List the features and, using the hierarchy of difficulty on pages 250 and 251, discuss the possible reasons for the saliency of those features (why particular features get mapped onto English speech performance, and not others).
2. (I) What is the difference between the CAH and CLI? How does the subtle-differences principle (Oller & Ziahosseiny, 1970) move away from the notion that difficulty can be predicted? How does the weak version of the CAH compare to your understanding of what is meant by CLI?
3. (G) In groups of 3 or 4, compile examples, in languages that members of your group know, of (a) mistakes vs. errors, (b) global vs. local errors, and (c) overt vs. covert errors. Share your examples with the rest of the class.
4. (C) For a challenging class discussion, try to come up with examples of errors in four different cells: overt/global, overt/local, covert/global, and covert/local. Your chart would look like this, with examples of errors filled into the four cells:

	Global	Local
Overt		
Covert		

5. (C) If possible, secure an audiotape of a few minutes of the language of an advanced-beginning learner of English. As the class listens to the tape, listen the first time for the general gist. The second time, students should write down errors (phonological, grammatical, lexical, discourse) they hear.

Then, in class discussion, identify the source of each error. Such an exercise should offer a sense of the "messiness" of real language.

6. (C) Has anyone in the class learned, or attempted to learn, a third or fourth language? Those students could share some of the difficulties they encountered, and the extent to which there was L1–L3, L2–L3, etc. cross-linguistic influence.
7. (I) Fossilization and learning are actually the result of the same cognitive processes at work. Explain this. Then try to think of factors other than feedback that could cause or contribute to fossilization. Once a language form is fossilized, can it ever be corrected? Is "stabilization" a better metaphor?
8. (G) Consider all the types of feedback and the categories of responses to feedback that were defined on pages 277–278. In your own experiences learning a foreign language, think of some examples of some of the categories and share them with your group; then report a few of those examples to the rest of the class.
9. (G) Divide into groups such that each group has at least two people in it who have learned or studied a foreign language. Members of the group should share experiences with form-focused instruction (FFI). Try to decide as a group what the features are of the most and least effective FFI.

SUGGESTED READINGS

Kellerman, E. (1995). Cross-linguistic influence: Transfer to nowhere? *Annual Review of Applied Linguistics, 15*, 125–150.

Odlin, T. (2003). Cross-linguistic influence. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 436–486). Malden, MA: Blackwell Publishing.

These two articles offer perspectives on the Contrastive Analysis Hypothesis as it has now evolved into the concept of Cross-linguistic Influence. Both are summaries of issues and current research.

Long, M. (2003). Stabilization and fossilization in interlanguage development. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 487–535). Malden, MA: Blackwell Publishing.

Han, Z-H., & Selinker, L. (2005). Fossilization in L2 learners. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 455–470). Mahwah, NJ: Lawrence Erlbaum Associates.

Michael Long argues that fossilization is not only an inappropriate metaphor, but that theoretical foundations for the construct are lacking. Han and Selinker maintain the viability of the construct. Both chapters provide extensive lists of cross-references.

Ellis, N. (2002). Frequency effects in language processing: A review with implications for theories of implicit and explicit language acquisition. *Studies in Second Language Acquisition, 24*, 143–188.

Eubank, L., & Gregg, K. (2002). News flash—Hume still dead. *Studies in Second Language Acquisition, 24*, 237–247.

In yet another scholarly exchange of ideas and interpretations, Nick Ellis argues in this special issue of Studies in Second Language Acquisition that frequency of input appears to be of greater importance than once thought. Eubank and Gregg voice rather strong disagreement with Ellis, and cite research in support of their contention. The rest of this issue of SSLA contains a number of other articles on the topic of frequency, suggesting that the issue has resurfaced as a "hot topic" in second language research.

Panova, I., & Lyster, R. (2002). Patterns of corrective feedback and uptake in an adult ESL classroom. *TESOL Quarterly, 36*, 573–595.

This article summarizes findings of previous research on corrective feedback and examines the range and types of feedback used by teachers of ESL in Montreal. The results indicated that teachers preferred implicit types of feedback. The authors include informative descriptions of various types of feedback.

Ellis, R. (2001). Investigating form-focused instruction. *Language Learning, 51*, Supplement 1, 1–46.

Williams, Jessica (2005). Form-focused instruction. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 671–691). Mahwah, NJ: Lawrence Erlbaum Associates.

Rod Ellis and Jessica Williams provide comprehensive overviews of FFI, offering balanced synopses of studies on the effectiveness of FFI across a number of varying contexts and languages, with useful bibliographies of related work.

LANGUAGE LEARNING EXPERIENCE: JOURNAL ENTRY 9

Note: See pages 21 and 22 of Chapter 1 for general guidelines for writing a journal on a previous or concurrent language learning experience.

- Make a list of some of the specific contrasts between your native and target languages that have been or still are difficult for you. Can you analyze why they are difficult, using the information in this chapter?
- In your list above, are there examples of "subtle differences" which nevertheless present some difficulty for you? Analyze those differences.

CHAPTER 10

TOWARD A THEORY OF SECOND LANGUAGE ACQUISITION

THE PRINCIPAL purpose of this book is to offer teachers and future teachers information for developing an integrated understanding of the principles of second language acquisition (SLA) that underlie the pedagogical process. That purpose has necessarily involved theoretical considerations. A theory, as I noted in Chapter 1, is essentially an extended definition. We have examined essential components of an extended definition of SLA. That is, we have attempted to answer perplexing questions like: What is SLA? What are the conditions for successful SLA? Why do some people fail to learn a second language? And we have seen that SLA is, among other things, not unlike first language acquisition, is a subset of general human learning, involves cognitive variations, is closely related to one's personality type, is interwoven with second culture learning, involves the learning of discourse and communicative functions of language, and is often characterized by stages of learning and developmental trial and error processes. All these categories and the many subcategories subsumed under them form the basis for structuring an integrated theory of SLA.

Is there such an integrated, unified theory of SLA, a standard set of constructs to which large numbers of researchers and teachers predominantly subscribe? Not exactly. As surely as competing models are typical of all disciplines that attempt to give explanatory power to complex phenomena, so this field has its fair share of claims and hypotheses, each vying for credibility and validity (Gregg, 2003). We can be quite content with this state of affairs, for it reflects the intricacy of the acquisition process itself and the variability of individuals and contexts. On the other hand, we have discovered a great deal about SLA in many contexts, across proficiency levels, and within many specific purposes. We need not be apologetic, therefore, about the remaining unanswered questions, for many of the questions posed in the short half-century of "modern" research on SLA have been effectively answered.

In this chapter we critically examine a number of current generalizations, hypotheses, and models of SLA. Remember that such "opinion" about SLA may represent separate views of that metaphorical mountain of factors we talked about in Chapter 1. From such multiple perspectives we should be able to place a large number of variables (which have been defined and discussed in this book) into a

- Think about some of the errors you are making (made) in learning a foreign language. List as many as you can, up to ten or so, being as descriptive as possible (e.g., the French subjunctive mood, Japanese honorifics, English definite articles, separable two-word verbs). Now, analyze where those errors came from. If they did not come from your native language, what other sources are possible?
- Have you ever reached a stage of fossilization, or in milder form, stabilization of progress where you seemed to just stall for weeks or more? If so, describe that experience. Then tell about what, if anything, propelled you out of those doldrums, or determine what might have helped you if you stayed there or are still there.
- Describe your language teacher's error treatment style. Does/Did your teacher overcorrect or undercorrect? Did your teacher use any of the forms of feedback described in this chapter? If so, which ones and how effective do you think they were in stimulating repair or self-correction?

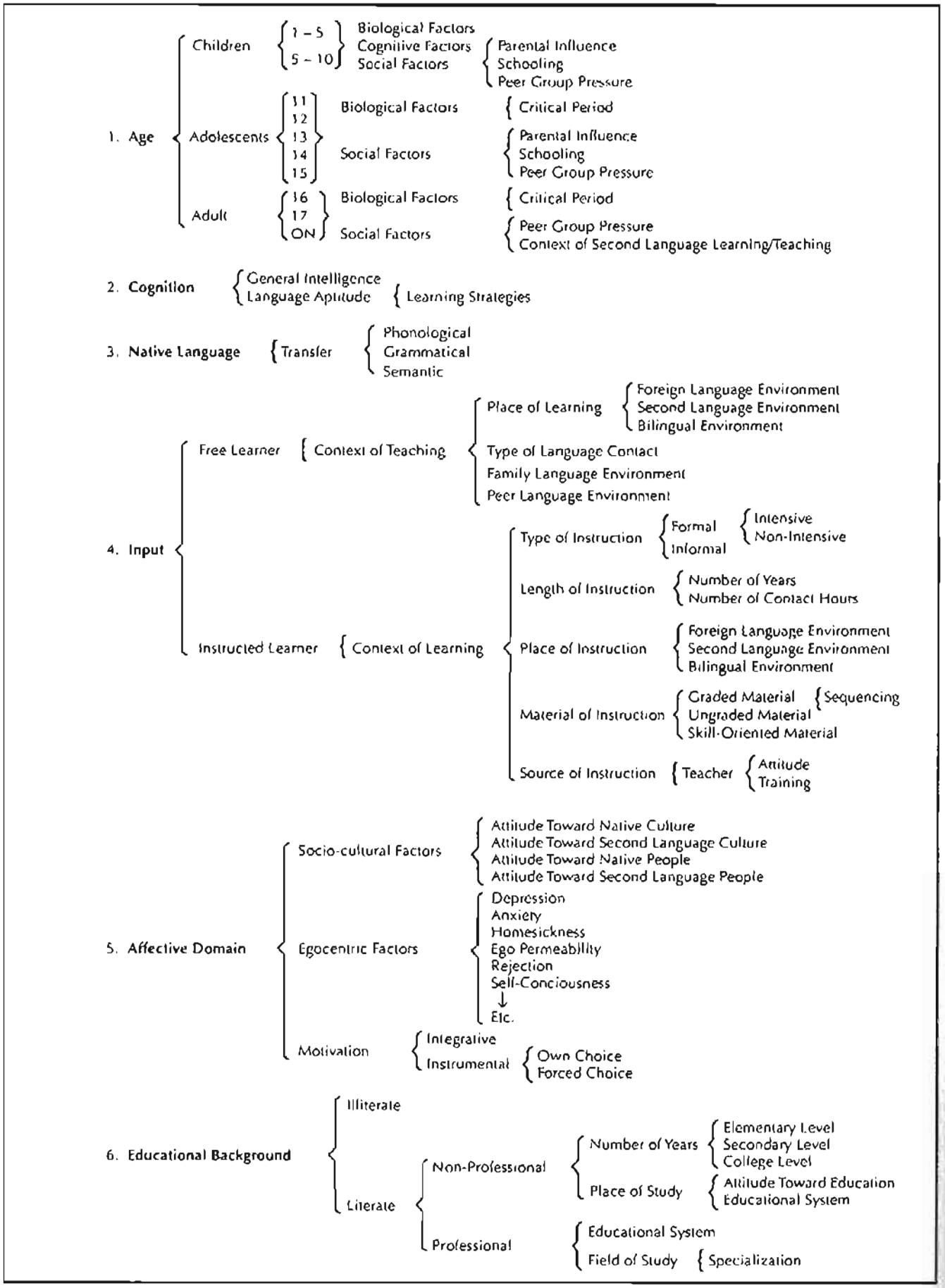

Figure 10.1. Classification of learner variables (Yorio, 1976, p. 61)

reasonably consistent tapestry of factors. Then it's up to you to fashion your own personal understanding of the tapestry—that self-constructed system of variables is *your* theory of SLA.

BUILDING A THEORY OF SLA

To say that second language learning is a complex process is obviously trite. The pages of this book alone bear testimony to that complexity. But complexity means that there are so many separate but interrelated factors within one intricate entity that it is exceedingly difficult to bring order and simplicity to that "chaos" (Larsen-Freeman, 1997). We must nevertheless pursue the task of theory building (Hulstijn, 2003; Doughty & Long, 2003; Gregg, 2003). Consider, for a few moments, some of the domains and generalizations that describe the skeletal structure of a theory.

Domains and Generalizations

First, take a look at a taxonomy that was proposed several decades ago (Yorio, 1976), represented in Figure 10.1. This list of factors, which remains amazingly current, begins to give you an idea of the many different domains of inquiry that must be included in a theory of SLA.

Most of the factors subsumed in the chapter topics of this book are also a set of domains of consideration in a theory of SLA:

1. A theory of SLA includes an understanding, in general, of what language is, what learning is, and for classroom contexts, what teaching is.
2. Knowledge of children's learning of their first language provides essential insights to an understanding of SLA.
3. However, a number of important differences between adult and child learning and between first and second language acquisition must be carefully accounted for.
4. Second language learning is a part of and adheres to general principles of human learning and intelligence.
5. There is tremendous variation across learners in cognitive style and within a learner in strategy choice.
6. Personality, the way people view themselves and reveal themselves in communication, will affect both the quantity and quality of second language learning.
7. Learning a second culture is often intricately intertwined with learning a second language.
8. The acquisition of communicative competence is in many ways language socialization, and is the ultimate goal of learners as they deal with function, discourse, style, and nonverbal aspects of human interaction and linguistic negotiation.

(*continued*)

9. The linguistic contrasts between the native and target language form one source of difficulty in learning a second language. But the creative process of forming an interlanguage system involves the learner in utilizing many facilitative sources and resources. Inevitable aspects of this process are errors, from which learners and teachers can gain further insight.

However general those nine statements are, they, along with taxonomies such as Yorio's, constitute a rudimentary framework for a theory of SLA. That framework has had substance built into it in the course of each chapter of this book. The interrelationships within that framework have either implicitly or explicitly been discussed. One cannot, for example, engage in a specification of beneficial learner strategies without reference to age, human learning in general, and some crucial affective factors. In comparing and contrasting first and second language acquisition, it is impossible to ignore affective and cultural variables and differences between adult and child cognition. Determining the source of a second language learner's error inevitably involves consideration of cognitive strategies and styles, group dynamics, and even the validity of data-gathering procedures. No single component of this "theory" is **sufficient** alone: the interaction and interdependence of the other components are **necessary**.

Hypotheses and Claims

A theory of SLA is really an interrelated set of hypotheses and/or claims about how people become proficient in a second language. In a summary of research findings on SLA, Lightbown (1985, pp. 176-180) made the following claims:

1. Adults and adolescents can "acquire" a second language.
2. The learner creates a systematic interlanguage that is often characterized by the same systematic errors as [those of] the child learning the same language as the first language, as well as others that appear to be based on the learner's own native language.
3. There are predictable sequences in acquisition so that certain structures have to be acquired before others can be integrated.
4. Practice does not make perfect.
5. Knowing a language rule does not mean one will be able to use it in communicative interaction.
6. Isolated explicit error correction is usually ineffective in changing language behavior.
7. For most adult learners, acquisition stops—"fossilizes"—before the learner has achieved nativelike mastery of the target language.
8. One cannot achieve nativelike (or near-nativelike) command of a second language in one hour a day.
9. The learner's task is enormous because language is enormously complex.

10. A learner's ability to understand language in a meaningful context exceeds his or her ability to comprehend decontextualized language and to produce language of comparable complexity and accuracy.

A similar set of statements was made by Lightbown and Spada (1993) outlining some myths about SLA—what one should not conclude to be necessarily a correct generalization. Certain claims about SLA demand caution; our response to them might be prefaced with a "Well, it depends" sort of caveat. Following are some of those "popular ideas" that may not be supported by research (Lightbown & Spada, 1993, pp. 111-116):

1. Languages are learned mainly through imitation.
2. Parents usually correct young children when they make errors.
3. People with high IQs are good language learners.
4. The earlier a second language is introduced in school programs, the greater the likelihood of success in learning.
5. Most of the mistakes that second language learners make are due to interference from their first language.
6. Learners' errors should be corrected as soon as they are made in order to prevent the formation of bad habits.

We have seen in this book that the above statements—if they are not downright false—require considerable expansion, contextualization, and modification before we can claim their veracity.

Since publishing her original list of 10 generalizations in 1985, Lightbown has offered at least two "postscripts" of that list. Her first reassessment (Lightbown, 2000) generally retained the original generalizations but cited further research which lent more pedagogical relevance to the list. Research on error treatment, for example, prompts teachers to seek alternatives to explicit error correction (item 6). The second update (Lightbown, 2003) relates current practices in CLT and in content-based language teaching to the generalizations, but urges caution in wholesale applications of all the generalizations. A series of publications such as this is an excellent illustration of the longitudinal nature of theory building—a process of statement, restatement, review, and refining characteristics of virtually all viable theories.

Unlike Yorio's (1976) list and the nine items that synopsized the chapter topics of this book, most of Lightbown's generalizations and myths do more than define a domain. They hypothesize directionality within a domain, and are therefore the subject of debate. Item 6 in the first (Lightbown 1985) list, for example, stems from studies that fail to show that explicit error correction causes a permanent change in language production. Such a claim, however, may be mitigated by many teachers who have gathered observational evidence of the positive effects of error treatment in the classroom. Nevertheless, all such claims are the beginnings of

theory building. As we carefully examine each claim, add others to it, and then refine them into sets of tenable hypotheses, we begin to build a theory.

Criteria for a Viable Theory

How do we know if we have the appropriate components of a theory of SLA? One answer to this question may lie in an examination of **chaos/complexity theory**. Diane Larsen-Freeman (1997), outlining similarities between chaos theory and SLA, argued that SLA is as much a dynamic, complex, nonlinear system as are physics, biology, and other sciences. The pathway that one learner takes in order to achieve success is different, and sometimes markedly so, from another's. Like predicting the patterns of flocking birds or the course of droplets of water in a waterfall, certain laws are axiomatic, but the sheer number and complexity of the variables involved make SLA exceedingly difficult to predict *a priori*.

Larsen-Freeman (1997) suggested several lessons from chaos theory that can help us to design a theory of SLA. I have synthesized her comments below.

1. Beware of false dichotomies. Look for complementarity, inclusiveness, and interface. We have examined a number of continua in this book; it is important to see them just as that, and not as dichotomies.
2. Beware of linear, causal approaches to theorizing. The "butterfly effect" in chaos theory reminds us that the fluttering wing of a butterfly in the Amazonian forest can have a chain of reactions and interreactions that extend all the way to the path of a hurricane in Hawaii. SLA is so complex with so many interacting factors that to state that there is a single cause for a SLA effect is to go too far.
3. Beware of overgeneralization. Pay attention to details. The smallest, apparently most insignificant of factors in learning a second language may turn out to be important!
4. On the other hand, beware of reductionist thinking. It is very tempting, with any chaotic, complex system, to oversimplify by taking some little part of the whole and extracting it from the whole system.

If a theory avoids just these four pitfalls, then perhaps it is on its way to achieving adequacy.

Michael Long (1990a, pp. 659–660) also tackled the problem of theory building in a number of suggestions about "the least" a theory of SLA needs to explain. He offered eight criteria for a comprehensive theory of SLA:

1. Account for universals.
2. Account for environmental factors.
3. Account for variability in age, acquisition rate, and proficiency level.
4. Explain both cognitive and affective factors.
5. Account for form-focused learning, not just subconscious acquisition.

6. Account for other variables besides exposure and input.
7. Account for cognitive/innate factors which explain interlanguage systematicity.
8. Recognize that acquisition is not a steady accumulation of generalizations.

The process of theory building may be best explored in two ways. First, we will take a quick look at some of the "hot topics" in current SLA research and theory, issues about which there is considerable *dis*agreement. Earlier chapters have already covered a number of such issues: Is nativism to be replaced by emergentism? Does younger mean better? Can we define the ingredients of an aptitude for learning languages? What are the sources of language anxiety? Is stabilization a more appropriate construct than fossilization? A few more issues remain to be discussed, and will be covered here in order to complete the foundations for a second method of considering the process of building a theory of SLA.

That second way of looking at theory building consists of an examination of several models of SLA that have appeared in recent history, models that propose to *unify* our thinking about SLA and resolve disagreements. Those models correspond to schools of thought that have been emphasized throughout the book: an innatist model, two cognitive models, and a social constructivist view of SLA. As you read on, look back at Larsen-Freeman's and Long's lists here and decide for yourself the extent to which each model fulfills the criteria.

HOT TOPICS IN SLA RESEARCH

As an introduction to the subsequent sections of this chapter, in which some models of SLA will be presented, it is important to take a brief look at a number of "hot topics" in SLA—controversies and questions that have evoked serious debates over the years. One purpose in offering this outline of hot topics is to provide a quick set of definitions of some terms not yet specifically covered in previous chapters. Another is to review some terms already covered, but to bring them to the forefront since they are so crucial in understanding theoretical models of SLA.

Explicit and Implicit Learning

A topic of ongoing discussion for perhaps half a century now, questions about the effectiveness of explicit and implicit learning still occupy researchers' attention (Hulstijn, 2005; N. Ellis, 2005; DeKeyser, 2003). The two terms have been variously defined by psychologists (Reber, 1993), but their distinction in SLA research may be best capsulized by saying that **explicit learning** involves conscious awareness and intention. Alternatively, as Hulstijn (2005, p. 131) put it, "explicit learning is input processing to find out whether the input information contains regularities and, if so, to work out the concepts and rules with which these regularities can be captured." **Implicit learning** is the other side of the coin: learning without conscious attention or awareness, or, in the words of John Williams (2005, p. 269),

"implicit learning occurs without intention to learn and without awareness of what has been learned."

Closely allied to this dichotomy of terms are the related concepts of **intentional** and **incidental learning**, which are synonymous to explicit and implicit learning, unless you wish to split hairs as Hulstijn (2003) did by trying to tease the two concepts apart. Indeed it is difficult to find a definition of implicit learning that does not include the word "intention" as noted in Williams's definition above. It seems to be clear, however, that **attention**—the psychological state of focusing on certain stimuli to the exclusion of others—can occur under both conditions. One can attend, for example, to the meaning of someone's utterance either explicitly (in full awareness of the process of attending) or implicitly (without awareness). McLaughlin's (1978) model used the concepts of **focal** and **peripheral attention** in a slightly different way (see the discussion of McLaughlin later in this chapter).

The debate does not so much involve definitions, although some researchers (e.g., DeKeyser, 2003) paint a very complex picture of the intricacies of each type of learning. Nor does the discussion question whether one type is better than the other, since there is universal agreement that both implicit and explicit learning offer advantages (and disadvantages). The central question is a very complex one: under what conditions, for which learners, and for what linguistic elements is one approach, as opposed to the other, advantageous for SLA, and how are we to measure (Ellis, 2004) explicit knowledge? The claims of Krashen (see the next main section of this chapter) notwithstanding, the prevailing research indicates that the multiple answers to that question may be summed up in one phrase: it depends. So far, generalizations are not possible, beyond admitting that the two concepts form a continuum of possibilities, and that one should account for all the specifics of a given context before rendering a conclusion.

Awareness

Another related hot topic in SLA has been the extent to which awareness is a significant factor accounting for acquisition. **Awareness**, for the moment, may be thought of as analogous to **conscious** (vs. **subconscious**) learning, in which learners are in intentional control of their attention to some aspect of input or output. This consciousness continuum is problematic because of the difficulty of defining the construct with its complex set of historical roots in the work of Freud, Jung, and other psychologists of their era. Partly because of these definitional problems, McLaughlin (1978) and other cognitive psychologists (Slavin, 2003, for example) dodge the issue of consciousness in favor of emphasizing focal and peripheral attention—differences of perceptual attention ranging from the "center" to the "periphery." In Schmidt's (1990) proposal of his **noticing hypothesis**, briefly alluded to in the previous chapter, he postulates a central role for focal attention, stemming from awareness, in order for a learner to notice language input. According to Schmidt and others (Robinson, 2003; Ellis, 1997; Leow, 2000), noticing, or focally attending to a linguistic element in a learner's input, may be an

essential prerequisite to a learner's ability to convert input into intake, especially input intended as feedback on form. (See the next section for a definition and discussion of input vs. intake.) Awareness is now the title of a professional journal, *Language Awareness*, and the topic has continued to attract the attention of a number of researchers (Williams, 2005; Rosa & Leow, 2004; Simard & Wong, 2004; Leow, 2000).

As was the case with the previous topic, the debate over requisite levels of awareness in SLA is complex, and demands a careful specification of conditions before any conclusion can be offered. On and off through the checkered history of language teaching, people have proclaimed that language should *never* be learned under conditions of conscious awareness (of the forms of language, that is)—Krashen comes close to such a claim, and those who have maintained the great importance of awareness (of forms) in SLA. Your task as a creator of your own theory of SLA is to specify contexts carefully and then to take pedagogical action accordingly. It seems to be quite advantageous, for example, for learners to become aware of their own strengths and weaknesses and to consciously wield strategic options in their acquisition process (Brown, 2002). We have already noted that a certain degree of (conscious) focus on form can be beneficial. And we also know that many learners worldwide are much too consciously involved in the forms of the target language, to the extent that that awareness of the intricacies of form blocks their ability to focus on meaning. We will continue to look at the concepts of conscious and subconscious learning in a subsequent discussion of McLaughlin's model.

Input and Output

Another topic that has been controversial, but is becoming less so, is the question of the relationship of input to output in SLA. **Input** is simply the process of comprehending language (listening and reading) and **output** is production (speaking and writing). While it was not always the case, it now seems obvious that both input and output are necessary processes, which are in varying degrees of complementary distribution in a second language learner's linguistic journey. But, as we will see in the next section, the optimal proportion of each mode has seen varied recommendations. Further, there is still a great deal of debate over what constitutes optimal *quality* of input and output.

Frequency

It would not be appropriate to list hot topics in SLA without a revisiting of **frequency**, or the number of times a specific word, structure, or other defined element of language draws the attention of a learner. We dealt with the frequency issue briefly in the previous chapter, so suffice it to say here that researchers have resurrected this issue (N. Ellis, 2002), leaving us with the sense that frequency may be more important than we once thought. While **saliency**—the importance of a perceived

input—and the extent to which a learner **notices** input still seem to be more powerful predictors than frequency, teachers cannot simply ignore the possibility that the latter is a potentially causal factor of acquisition.

AN INNATIST MODEL: KRASHEN'S INPUT HYPOTHESIS

One of the most controversial theoretical perspectives in SLA in the last quarter of the twentieth century was proposed by Stephen Krashen (1977, 1981, 1982, 1985, 1992, 1997) in a host of articles and books. Krashen's hypotheses have had a number of different names. In the earlier years the "Monitor Model" and the "Acquisition-Learning Hypothesis" were more popular terms; in recent years the "Input Hypothesis" has come to identify what is really a set of five interrelated hypotheses. Each is summarized below.

Five Hypotheses

1. **Acquisition-Learning Hypothesis**. Krashen claimed that adult second language learners have two means for internalizing the target language. The first is "acquisition," a subconscious and intuitive process of constructing the system of a language, not unlike the process used by a child to "pick up" a language. The second means is a conscious "learning" process in which learners attend to form, figure out rules, and are generally aware of their own process. According to Krashen, "fluency in second language performance is due to what we have acquired, not what we have learned" (1981, p. 99). Adults should, therefore, do as much acquiring as possible in order to achieve communicative fluency; otherwise, they will get bogged down in rule learning and too much conscious attention to the forms of language and to watching their own progress. Moreover, for Krashen (1982), our conscious learning processes and our subconscious acquisition processes are mutually exclusive: learning cannot "become" acquisition. This claim of "no interface" between acquisition and learning is used to strengthen the argument for recommending large doses of acquisition activity in the classroom, with only a very minor role assigned to learning.
2. **Monitor Hypothesis**. The "monitor" is involved in learning, not in acquisition. It is a device for "watchdogging" one's output, for editing and making alterations or corrections as they are consciously perceived. Such explicit and intentional learning, according to Krashen, ought to be largely avoided, as it presumed to hinder acquisition. Only once fluency is established should an optimal amount of monitoring, or editing, be employed by the learner (Krashen, 1981).
3. **Natural Order Hypothesis**. Following the earlier morpheme order studies of Dulay and Burt (1974b, 1976) and others, Krashen has claimed that we acquire language rules in a predictable or "natural" order.

4. **Input Hypothesis**. According to Krashen (1984, p. 61), comprehensible input is "the only true cause of second language acquisition." The Input Hypothesis claims that an important "condition for language acquisition to occur is that the acquirer *understand* (via hearing or reading) input language that contains structure 'a bit beyond' his or her current level of competence.... If an acquirer is at stage or level i, the input he or she understands should contain $i + 1$" (Krashen, 1981, p. 100). In other words, the language that learners are exposed to should be just far enough beyond their current competence that they can understand most of it but still be challenged to make progress. The corollary to this is that input should neither be so far beyond their reach that they are overwhelmed (this might be, say, $i + 2$), nor so close to their current stage that they are not challenged at all ($i + 0$).

   An important part of the Input Hypothesis is Krashen's recommendation that speaking not be taught directly or very early in the language classroom. Speech will "emerge" once the acquirer has built up enough comprehensible input ($i + 1$), as we saw in Chapter 3 in a discussion of the Natural Approach.

CLASSROOM CONNECTIONS

Research Findings: One of the distinguishing marks of Stephen Krashen's Input Hypothesis is the claim that in the presence of enough quantity of input, learners' speech will eventually "emerge" with no elicitation required (or recommended) from the teacher. This assertion very much parallels Skinner's concept of *emitted* responses: *Elicited* responses will produce weaker learning opportunities than those in which learners emit a response (an utterance) of their own free will.

Teaching Implications: The notion that speech will emerge is an integral component of the Natural Approach (summarized at the end of Chapter 3), and stands in contrast to most language methodologies today, in which teachers offer learners enough input to begin to feel comfortable with the language, but at the same time encourage output in order to stimulate interaction. Which approach is better? Or is there a middle ground?

5. **Affective Filter Hypothesis**. Krashen has further claimed that the best acquisition will occur in environments where anxiety is low and defensiveness absent, or, in Krashen's terms, in contexts where the "affective filter" is low.

Evaluations of the Five Hypotheses

Some of Krashen's hypotheses might have some intuitive appeal to teachers in the field. Who can deny that we should have less "learning" in our classrooms than traditional language programs offer? Who in their right mind would refute the importance of learners engaging in somewhat unmonitored meaningful communication in the classroom? And the natural order hypothesis is, after all, supported in some research (Larsen-Freeman & Long, 1991). Finally, the effectiveness of providing a reasonable challenge ($i + 1$) to students in a supportive, low-anxiety environment can hardly be denied by any teacher.

It is unfortunate that SLA is not as simply defined as Krashen would claim, and therefore his assumptions have been hotly disputed (e.g., Swain, 2005; Gass & Selinker, 2001; de Bot, 1996; Swain & Lapkin, 1995; Brumfit, 1992; White, 1987; Gregg, 1984; McLaughlin, 1978, to name but a few). McLaughlin (1990a, 1978), a psychologist, sharply criticized Krashen's rather fuzzy distinction between subconscious (acquisition) and conscious (learning) processes. Psychologists are still in wide disagreement in their definitions of "the notoriously slippery notion" (Odlin, 1986, p. 138) of consciousness. McLaughlin (1990a, p. 627) commented:

> My own bias . . . is to avoid use of the terms conscious and unconscious in second language theory. I believe that these terms are too laden with surplus meaning and too difficult to define empirically to be useful theoretically. Hence, my critique of Krashen's distinction between learning and acquisition—a distinction that assumes that it is possible to differentiate what is conscious from what is unconscious.

In McLaughlin's view, then, a language acquisition theory that appeals to conscious/subconscious distinctions is greatly weakened by our inability to identify just what that distinction is.

A second criticism of Krashen's views arose out of the claim that there is no interface—no overlap—between acquisition and learning. We have already seen over and over again in this book that so-called dichotomies in human behavior almost always define the endpoints of a continuum, and not mutually exclusive categories. As Gregg (1984, p. 82) pointed out,

> Krashen plays fast and loose with his definitions. . . . If unconscious knowledge is capable of being brought to consciousness, and if conscious knowledge is capable of becoming unconscious—and this seems to be a reasonable assumption—then there is no reason whatever to accept Krashen's claim, in the absence of evidence. And there is an absence of evidence.

Second language learning clearly is a process in which varying degrees of learning and of acquisition can both be beneficial, depending upon the learner's

own styles and strategies. Swain (1998), Doughty and Williams (1998), Buczowska and Weist (1991), Doughty (1991), Ellis (1990b), Lightbown and Spada, 1990, and Long (1988, 1983) have all shown, in a number of empirical research studies, that Krashen's "zero option" (don't ever teach grammar) (see Ellis, 1997, p. 47) is not supported in the literature. Instruction in conscious rule learning and other types of form-focused instruction, as we saw in Chapter 8, can indeed aid in the attainment of successful communicative competence in a second language.

A third difficulty in Krashen's hypotheses surrounds the implication that the notion of $i + 1$ is a novel idea when it is simply a reiteration of a general principle of learning that we have already discussed in this book (Chapter 4). Meaningfulness, or "subsumability" in Ausubel's terms, is that which is relatable to existing cognitive structures, neither too far beyond the structures ($i + 2$), nor the existing structures themselves ($i + 0$). But Krashen presents the $i + 1$ formula as if we are actually able to define i and 1, and we are not, as Gregg (1984), White (1987), and others have pointed out. Krashen's $i + 1$ also closely approximates Vygotsky's Zone of Proximal Development (ZPD), the metaphorical space between a learner's current level of development and the next level. However, it is important to note in this instance that the ZPD comes out of an entirely different set of premises, namely, a social interactionist perspective that emphasizes the importance of *others* to aid learners in what they cannot do alone (Kinginger, 2001; Dunn & Lantolf, 1998).

The related notion that speech will "emerge" in a context of comprehensible input sounds promising, and for some learners (bright, highly motivated, outgoing learners), speech will indeed emerge. But we are left with no significant information from Krashen's theories on what to do about the other half (or more) of our language students for whom speech does not "emerge" and for whom the "silent period" might last forever.

The Output Hypothesis

A fourth, and perhaps the most crucial, difficulty in Krashen's Input Hypothesis is found in his explicit claim (1986, p. 62) that "comprehensible input is the only causative variable in second language acquisition." In other words, success in a foreign language must be attributed to input alone. Such a theory ascribes little credit to learners and their own active engagement in the process. Moreover, it is important to distinguish between input and **intake**. The latter is the subset of all input that actually gets assigned to our long-term memory store. Just imagine, for example, reading a book, listening to a conversation, or watching a movie—in any language. This is your input. But your intake is what you take with you over a period of time and can later remember. Krashen (1983) did suggest that input gets converted to intake through a learner's process of linking forms to meaning and noticing "gaps" between the learner's current internalized rule system and the new input. Others have noted, however, that these processes "are not clearly operationalized or consistently proposed" (Mitchell & Myles, 1998, p. 126). So we are still left with a theory that paints a picture of learners at the mercy of the input that others offer.

Seliger (1983) offered a much broader conceptualization of the role of input that gives learners more credit (and blame) for eventual success. Certain learners are what he called **High Input Generators** (HIGs), people who are good at initiating and sustaining interaction, or "generating" input from teachers, fellow learners, and others. **Low Input Generators** (LIGs) are more passive learners who do little to stick their necks out to get input directed toward them. In two studies of second language learners, Seliger (1983) found that "learners who maintained high levels of interaction [HIGs] in the second language, both in the classroom and outside, progressed at a faster rate than learners who interacted little [LIGs] in the classroom" (p. 262).

CLASSROOM CONNECTIONS

Research Findings: Herbert Seliger's comparison of HIGs and LIGs has withstood the test of time. It is clear in Merrill Swain's and others' research that active learners who produce output and "make it happen" in the foreign language are usually successful.

Teaching Implications: What are some strategies for generating input? Can they be taught? How can communicative activities nudge learners in the direction of actively generating communicative situations, rather than passively hoping that others will be the first to speak up?

Such studies, coupled with a great deal of intuitive observation of successful learners, suggest that Krashen's comprehensible input must at the very least be complemented by a significant amount of output that gives credit to the role of the learner's production. While Krashen (1997, p. 7) staunchly maintained that in the language classroom "output is too scarce to make any important impact on language development," many others disagree. Merrill Swain (2005, 2000, 1995, 1993; Swain & Lapkin, 1995), outlining what she dubbed the **Output Hypothesis**, offered convincing evidence that output was at least as significant as input, if not more so, in explaining learner success. In a review of the Output Hypothesis, de Bot (1996, p. 529) argued that "output serves an important role in second language acquisition ... because it generates highly specific input the cognitive system needs to build up a coherent set of knowledge."

Swain (2005, 1995) has suggested three major functions of output in SLA. The first is the claim that while attempting to produce the target language, learners may *notice* their erroneous attempts to convey meaning, and that the act of producing language itself can prompt learners to recognize linguistic shortcomings. Here

learners become self-informed through their own output. The second function of output, according to Swain, is that output serves as a means to "try out" one's language, to test various hypotheses that are forming. The third function fits appropriately in a social constructivist view of SLA: speech (and writing) can offer a means for the learner to reflect (productively) on language itself in interaction with peers. This is a metalinguistic function of output that is often manifested in small groups in classes in which "a student's talk about language crystallizes ideas and . . . makes inconsistencies clear" (Swain, 2005, p. 479).

Research on the efficacy of output in promoting acquisition has continued and certainly will continue for some time to come. Many such studies have shown the positive effects of output (Swain, 2005; Shehadeh, 2001). However, an interesting exchange of ideas appeared in the *TESOL Quarterly*, prompted by Izumi and Bigelow's (2000) study that found that "extended opportunities to produce output and receive relevant input were found to be crucial in improving learners' use of the grammatical structure," but that also found that "output did not always succeed in drawing the learners' attention to the target form" (p. 239). Whitlow (2001) responded with a number of issues that questioned Izumi and Bigelow's methodology, and urged more caution in future research.

Krashen's innatist model of SLA has had wide appeal to teachers who long for something simple and concrete on which to base their methodology. It is easy to see its appeal since, on the surface, the claims that are made seem to reflect accepted principles of SLA. But in their oversimplicity, the claims have been exaggerated. Nevertheless, in the final analysis, oddly enough, perhaps we owe a debt of gratitude to Krashen for his bold, if brash, claims. They have spurred many a researcher to look very carefully at what we do know, what the research evidence is, and then in the process of refutation to propose plausible alternatives. We continue now with several of these alternative theoretical perspectives.

COGNITIVE MODELS

It is quite tempting, with Krashen, to conceptualize SLA in terms of conscious and subconscious processes. In explaining the difference between a child's and an adult's second language acquisition, our first appeal is to children's "knack" for "picking up" a language, which, in everyday terms, appears to refer to what we think of as subconscious. But there are two problems with such an appeal: (1) As both McLaughlin (1990a) and Schmidt (1990) agreed, "consciousness" is a tricky term, and (2) younger (child language acquisition) is not necessarily better (Scovel, 1999).

McLaughlin's Attention-Processing Model

So, if we rule out a consciousness continuum in constructing a viable theory of SLA, and we do not hold child first language acquisition up as the ideal model of

second language acquisition, especially for adults, we must look elsewhere for the foundation stones of a theory. A more sound heuristic for conceptualizing the language acquisition process, and one that did indeed avoid any direct appeal to a consciousness continuum, was proposed by Barry McLaughlin and his colleagues (McLaughlin, 1990b, 1987; McLeod & McLaughlin, 1986; McLaughlin, Rossman, & McLeod, 1983; McLaughlin, 1978). Their model juxtaposes processing mechanisms (controlled and automatic) and categories of attention to form four cells (see Table 10.1).

Controlled processes are "capacity limited and temporary," and **automatic processes** are "relatively permanent" (McLaughlin et al., 1983, p. 142). We can think of controlled processing as typical of anyone learning a brand new skill in which only a very few elements of the skill can be retained. When you first learn to play tennis, for example, you can only manage the elements of, say, making contact between ball and racquet, getting the ball over the net, and hitting the ball into the green space on the other side of the net. Everything else about the game is far too complex for your capacity-limited ability.

Table 10.1. Possible second language performance as a function of information-processing procedures and attention to formal properties of language

Attention to Formal Properties of Language	INFORMATION PROCESSING	
	Controlled	**Automatic**
Focal	(Cell A) Performance based on formal rule learning	(Cell B) Performance in a test situation
Peripheral	(Cell C) Performance based on implicit learning or analogic learning	(Cell D) Performance in communication situations

Source: McLaughlin et al., 1983.

Automatic processes, on the other hand, refer to processing in a more accomplished skill, where the "hard drive" (to borrow a computer metaphor) of your brain can manage hundreds and thousands of bits of information simultaneously. Automatic processing is generally characterized as fast, relatively unstoppable, independent of the amount of information being processed, effortless, and unconscious (Segalowitz, 2003). To extend the tennis example, automatic processing in tennis involves simultaneous attention to one's location on the court, your opponent's location, your and your opponent's abilities, strategies for winning the point, decisions about using forehand or backhand, and the list goes on.

The automatizing of this multiplicity of data is accomplished by a process of **restructuring** (McLaughlin, 1990b, 1987; McLeod & McLaughlin, 1986) in which "the components of a task are coordinated, integrated, or reorganized into new units, thereby allowing the ... old components to be replaced by a more efficient

procedure" (McLaughlin, 1990b, p. 118). Restructuring is conceptually synonymous with Ausubel's construct of subsumption discussed in Chapter 4.

Both ends of this continuum of processing can occur with either focal or peripheral attention to the task at hand, that is, focusing attention either centrally or simply on the periphery. It is easy to fall into the temptation of thinking of focal attention as "conscious" attention, but such a pitfall must be avoided. Both focal and peripheral attention to some task may be quite conscious (Hulstijn, 1990). When you are driving a car, for example, your focal attention may center on cars directly in front of you as you move forward; but your peripheral attention to cars beside you and behind you, to potential hazards, and of course to the other thoughts "running through your mind," is all very much within your conscious awareness.

While many controlled processes are focal, some, like child first language learning or the learning of skills without any instruction, can be peripheral. Similarly, many automatic processes are peripheral, but some can be focal, as in the case of an accomplished pianist performing in a concert or an experienced driver paying particular attention to the road on a foggy night. It is very important to note that in virtually every act of performing something, focal and peripheral attention actually occur simultaneously, and the question is: What, specifically, occupies a person's focal and peripheral attention? So, for example, a very young child who says to a parent "Nobody don't like me" is undoubtedly focally attending to conveying emotion, mental anguish, or loneliness, and peripherally attending to words and morphemes that underlie the central meaning. Other factors that garner attention somewhere in between centrally focal and extremely peripheral may be reading the parent's facial features, mental recall of an uncomfortable incident of rejection, awareness of a sibling overhearing the communication, and even such peripheral nonlinguistic, noncognitive factors as the temperature in the room at the moment, a light in the background, the smell of dinner cooking, or the warmth of the parent's arms enfolding the child. All of these perceptions, from highly focal to very peripheral, are within the *awareness* of the child. McLaughlin (1990a) noted that the literature in experimental psychology indicates that there is no long-term learning (of new material) without awareness, an observation well documented by Loew (1997) and Schmidt (1990) for second language learning in particular. A cognitive perspective of SLA entirely obviates the need to distinguish conscious and subconscious processing.

How does McLaughlin's model apply to practical aspects of learning a second language? I have attempted to "demystify" some of the rather complex constructs of the attention-processing model in Table 10.2. It is important to note that these cells are described in terms of one's processing of and attention to language forms (grammatical, phonological, discourse rules and categories, lexical choices, etc.). If, for example, peripheral attention is given to language forms in a more advanced language classroom, focal attention is no doubt being given to meaning, function, purpose, or person. Child second language learning may consist almost exclusively of peripheral (cells C and D) attention to language forms. Most adult second language learning of language forms in the classroom involves a movement from cell A through

a combination of C and B, to D (DeKeyser, 1997). Peripheral, automatic attention-processing of the bits and pieces of language, also known as **fluency**, is thus an ultimate communicative goal for language learners (Wood, 2001).

Table 10.2 Practical applications of McLaughlin's attention-processing model

	CONTROLLED: New skill, capacity limited	**AUTOMATIC: Well trained, practiced Skill capacity is relatively *un*limited**
Focal Intentional attention	A. Grammatical explanation of a specific point Word definition Copy a written model The *first* stages of "memorizing" a dialog Prefabricated patterns Various discrete-point exercises	B. "Keeping an eye out" for something Advanced L2 learner focuses on modals, formation, etc. Monitoring oneself while talking or writing Scanning Editing, peer-editing
Peripheral	C. Simple greetings The later stages of "memorizing" a dialog TPR/Natural Approach New L2 learner successfully completes a *brief* conversation	D. Open-ended group work Rapid reading, skimming Free writes Normal conversational exchanges of some length

Implicit and Explicit Models

Another set of constructs for conceptualizing the varied processes of second language learning is found in models that make a distinction between **explicit** and **implicit** linguistic knowledge, constructs that were introduced earlier in this chapter. Included in the explicit category are the facts that a person knows *about* language and the ability to articulate those facts in some way. Explicit processing differs from McLaughlin's focal attention in that explicit signals one's knowledge about language. Implicit knowledge is information that is automatically and spontaneously used in language tasks. Children implicitly learn phonological, syntactic, semantic, and pragmatic rules for language, but do not have access to an explanation, explicitly, of those rules. Implicit processes enable a learner to perform language but not necessarily to cite rules governing the performance.

Among those who have proposed models of SLA using the implicit/explicit distinction are Ellen Bialystok (1990a, 1982, 1978), Rod Ellis (1997, 1994a), and Nick Ellis (1994a). Bialystok's (1978) diagrammatic conception of SLA (see Figure 10.2) featured a flowchart showing implicit and explicit processing as central to the total act of learning a second language. Bialystok later (1982, p. 183) equated implicit and explicit with the synonymous terms **unanalyzed** and **analyzed knowledge**:

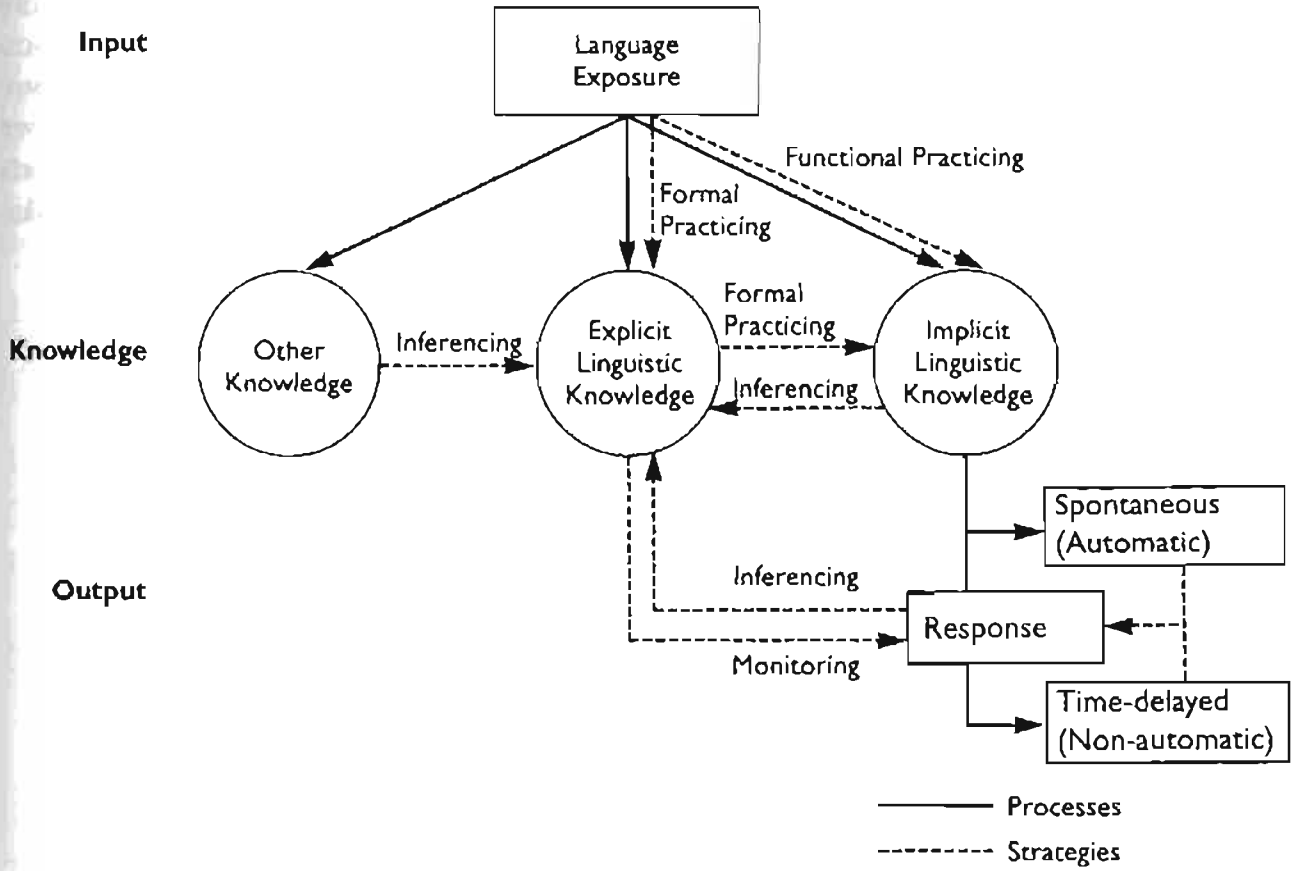

Figure 10.2. Model of second language learning (adapted from Bialystok 1978, p. 71)

"Unanalyzed knowledge is the general form in which we know most things without being aware of the structure of that knowledge"; on the other hand, learners are overtly aware of the structure of analyzed knowledge. For example, at the unanalyzed extreme of this knowledge dimension, learners have little awareness of language rules, but at the analyzed end, learners can verbalize complex rules governing language.

These same models feature a distinction between automatic and nonautomatic processing, building on McLaughlin's conception of automaticity. Automaticity can refer to the learner's access to knowledge. Knowledge that can be retrieved easily and quickly is automatic. Knowledge that takes time and effort to retrieve is **nonautomatic**. As was true for the McLaughlin model, both forms of attention can be either analyzed or unanalyzed. An important dimension of this distinction is *time*. Processing time is a significant factor in second language performance, one that has pedagogical salience in the classroom. The length of time that a learner takes before oral production performance, for example, can be indicative of the perceived complexity of certain language forms in a task. Mehnert (1998) found that planning time had a significant effect on the accuracy and fluency of second language learners' production.

The constructs of automaticity/nonautomaticity and of explicit/implicit knowledge have drawn the attention of numerous researchers over the past decade or so. On the one hand, arguments were raised about the identification of just what we mean by

implicit and explicit (Robinson, 1997, 1995, 1994; Hulstijn, 1990), and responses were offered (see Bialystok, 1990b, for example). On the other hand, some useful applications have emerged in Rod Ellis's (1997, 1994a, pp. 107–133; Han & Ellis, 1998) proposals of a theory of classroom instruction using implicit/explicit continua. Here, we are given some suggestions for grammar consciousness raising, for example, in which some explicit attention to language form is blended with implicit communicative tasks.

CLASSROOM CONNECTIONS

Research Findings: Ellen Bialystok and others have been examining the role of explicit and implicit learning for about three decades. While some questions remain only partially answered, for the most part it is clear that adults stand to gain by mixing explicit and implicit processes, but not by putting undue weight on explicit, analyzed knowledge.

Teaching Implications: Communicative language methodologies emphasize meaningful communication, interaction, risk-taking, and strategic approaches on the part of the learner. Sometimes the important role of explicit instruction and of asking learners to analyze language gets lost in teachers' zeal for interactive classrooms. To what extent have explicit learning processes been a part of your learning or teaching? Did such classroom moments work to your advantage or disadvantage? How can teachers find the perfect blend of explicit and implicit?

A SOCIAL CONSTRUCTIVIST MODEL: LONG'S INTERACTION HYPOTHESIS

The preceding two general theoretical positions, the innatist model and the two cognitive models of SLA, both focus to a considerable extent on the learner. As such, they represent what Firth and Wagner (1997, p. 288) called "SLA's general preoccupation with the *learner*, at the expense of other potentially relevant social identities." The social constructivist perspectives that are associated with more current approaches to both first and second language acquisition (Zuengler & Cole, 2005; Lantolf, 2005; Watson-Gegeo & Nielsen, 2003; Siegel, 2003) emphasize the dynamic nature of the interplay between learners and their peers and their teachers and others with whom they interact. The interpersonal context in which a learner operates takes on great significance, and therefore, the interaction between learners and others is the focus of observation and explanation.

One of the most widely discussed social constructivist positions in the field originally emerged from the work of Michael Long (1996, 1985). Taking up where, in a sense, Krashen left off, Long posits, in what has come to be called the **interaction hypothesis**, that comprehensible input is the result of **modified interaction**. The latter is defined as the various modifications that native speakers and other interlocutors create in order to render their input comprehensible to learners. As we saw in Chapter 2, in first language contexts parents modify their speech to children (Mother to baby: "Mommy go bye bye now"). Native speakers often slow down speech to second language learners, speaking more deliberately. Modifications also include comprehension checks: "Go down to the subway—do you know the word 'subway'?"; clarification/repair requests: "Did you say 'to the *right*'?" or paraphrases: "I went to a party, you know, January 1, I mean, December 31st, the night before the first day of the new year."

In Long's view, interaction and input are two major players in the process of acquisition, a combination emphasized by Gass (2003). In a radical departure from an old paradigm in which second language classrooms might have been seen as contexts for "practicing" grammatical structures and other language forms, conversation and other interactive communication are, according to Long, the basis for the development of linguistic rules. While Gass and Varonis (1994) ably pointed out that such a view is not subscribed to by all, nevertheless a number of studies have supported the link between interaction and acquisition (Swain & Lapkin, 1998; Gass, Mackey, & Pica, 1998; van Lier, 1996; Jordens, 1996; Loschky, 1994; Gass & Varonis, 1994; Pica, 1987). In a strong endorsement of the power of interaction in the language curriculum, van Lier (1996, p. 188) devoted a whole book to "the curriculum as interaction." Here, principles of awareness, autonomy, and authenticity lead the learner into Vygotsky's (1978) zone of proximal development (ZPD) (see Chapter 2), where learners construct the new language through socially mediated interaction.

Lest you assume that this genre of research and teaching possesses unquestionably final answers to dilemmas of how best to teach and learn second languages, a word of precaution is in order. Interactionist research has just begun, and it has begun mostly in the context of Western cultural settings. The studies that are so far available are fragmentary with regard to pinpointing specific linguistic features, stages of learner development, pragmatic contexts, and pedagogical settings. And, as always, one side of the second language mountain of research must be compared with other perspectives. A broadly based theory of SLA must encompass models of learner-internal processing (such as those previously discussed) as well as the socially constructed dynamics of interpersonal communication. (See Table 10.3 for a summary of the previously discussed perspectives.)

The other side of the story is that Long's Interaction Hypothesis has pushed pedagogical research on SLA into a new frontier. It centers us on the language classroom not just as a place where learners of varying abilities and styles and backgrounds mingle, but as a place where the contexts for interaction are carefully designed. It focuses materials and curriculum developers on creating the optimal environments and tasks for input and interaction such that the learner will be stimulated to create his or her own learner language in a socially constructed process.

Further, it reminds us that the many variables at work in an interactive classroom should prime teachers to expect the unexpected and to anticipate the novel creations of learners engaged in the process of discovery.

Table 10.3 Theories and models of SLA

Innatist	Cognitive	Constructivist
[Krashen]	[McLaughlin/Bialystok]	[Long]
Subconscious acquisition superior to "learning" and "monitoring"	Controlled/automatic processing (McL)	Interaction hypothesis
Comprehensible input ($i + 1$)	Focal/peripheral attention (McL)	Intake through social interaction
	Restructuring (McL)	Output hypothesis (Swain)
Low affective filter	Implicit vs. explicit (B)	
Natural order of acquisition	Unanalyzed vs. analyzed knowledge (B)	HIGs (Seliger)
		Authenticity
"Zero option" for grammar instruction	Form-focused instruction	Task-based instruction

OUT ON A LIMB: A LIGHT-HEARTED "HORTICULTURAL" THEORY OF SLA

Before drawing this chapter to a close with some final (and serious) comments about theory and practice in SLA, I want to take this opportunity to engage in some light-hearted, right-brained, "out of the box" musings about SLA. First, a disclaimer: I know of no research that supports the diagrammatic description of SLA that I'm about to present, and make no pretense of asserting anything of a serious, scholarly nature about it. It is simply intended to entertain, amuse, or maybe even to stimulate further creative thinking!

I have struggled over the years with the complexities of the kinds of models of SLA that have been described in this chapter. Such models, in their graphic or flowchart form (Bialystok's model in Figure 10.2, for example), always appear to be so mechanical. Some of them more closely resemble the wiring diagrams pasted on the back of electric stoves than what I like to imagine the human brain must "look" like. Or certainly than the way our *organic* world operates!

So, yielding to my sometimes rebellious spirit, I was moved one day in a SLA class I was teaching to create a different "picture" of language acquisition: one that responded not so much to rules of logic, mathematics, and physics as to botany and ecology. The germination (pun intended) of my picture was the metaphor once used by Derek Bickerton in a lecture at the University of Hawaii about his contention that human beings are "bio-programmed" for language (see Bickerton, 1981) perhaps not unlike the bio-program of a flower seed, whose genetic makeup predisposes it to deliver, in successive stages, roots, stem, branches, leaves, and flowers. In a burst of synapses in my right hemisphere, I went out on a limb (another pun intended) to extend the flower-seed metaphor to language acquisition. My picture of the "ecology" of language acquisition is in Figure 10.3.

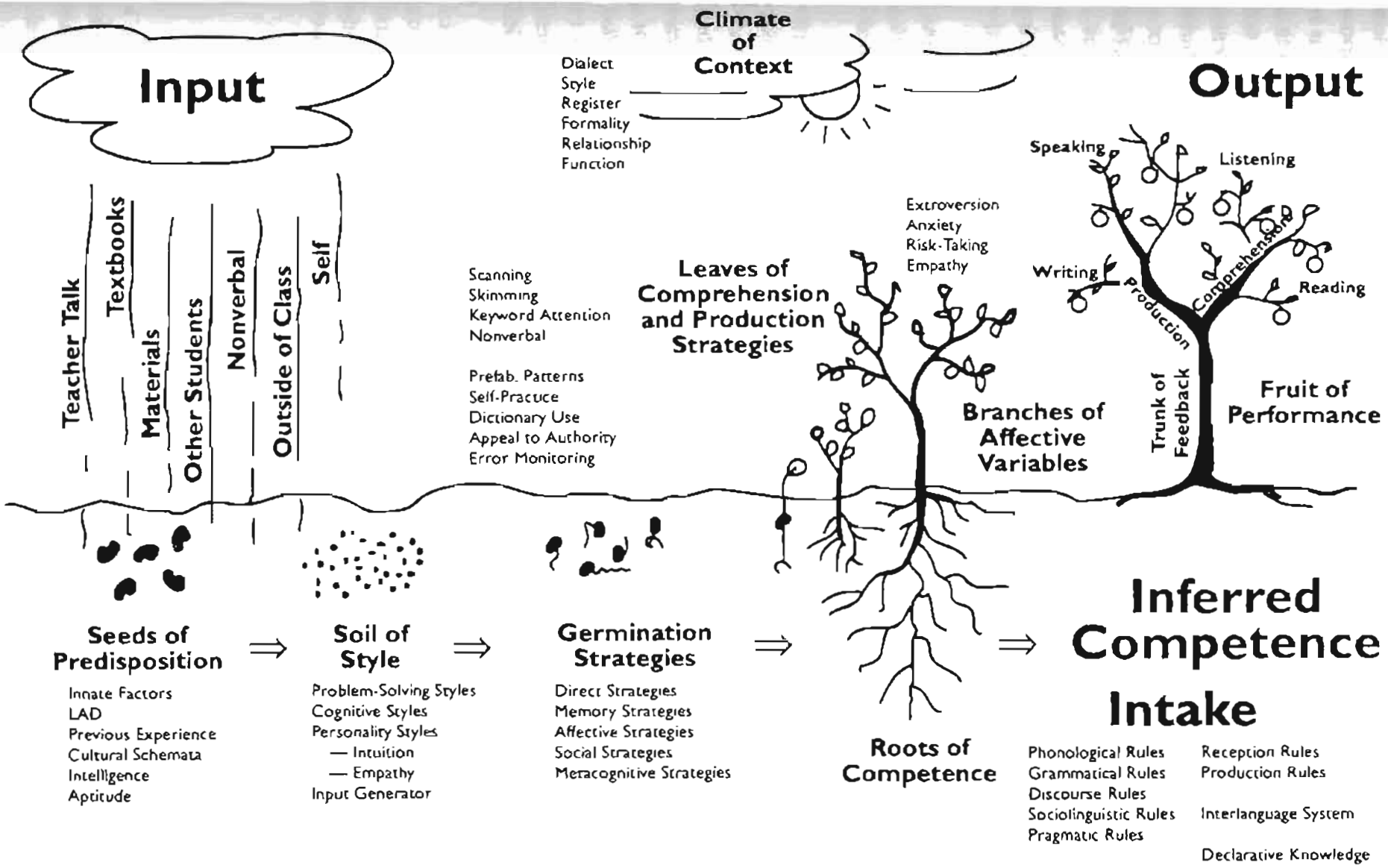

Figure 10.3. The ecology of language acquisition (Brown, 1991)

At the risk of overstating what may already be obvious, I will nevertheless indulge in a few comments. The rain clouds of input stimulate seeds of predisposition (innate, genetically transmitted processes). But the potency of that input is dependent on the appropriate styles and strategies that a person puts into action (here represented as soil). Upon the germination of language abilities (notice not all the seeds of predisposition are effectively activated), networks of competence (which, like underground roots, cannot be observed from above the ground) build and grow stronger as the organism actively engages in the comprehension and production of language. The resulting root system (inferred competence) is what SLA researchers call intake. Notice that several factors distinguish input from intake. Through the use of further strategies and affective abilities, coupled with the feedback we receive from others (note the tree trunk), we ultimately develop full-flowering communicative abilities. The fruit of our performance (or output) is of course conditioned by the climate of innumerable contextual variables.

At any point the horticulturist (teacher) can irrigate to create better input, apply fertilizers for richer soil, encourage the use of effective strategies and affective enhancers, and, in the greenhouses of our classrooms, control the contextual climate for optimal growth!

No, this is not the kind of extended metaphor that one can "prove" or verify through empirical research. But, lest you scoff at such outlandish depictions, think about how many factors in SLA theory are conceptualized and described metaphorically: *deep* and *surface* structure, language acquisition *device*, *pivot* and *open* words, Piaget's *equilibration*, Vygotsky's zone of proximal development, *cognitive pruning*, *transfer*, *prefabricated patterns*, *social distance*, *global* and *local errors*, *fossilization*, *backsliding*, *monitoring*, affective *filter*, *automatic* and *controlled* processing. If a metaphor enables us to describe a phenomenon clearly and to apply it wisely, then we can surely entertain it—as long as we understand that these word-pictures are usually subject to certain breakdowns when logically extended too far. (For comments about metaphor in SLA theory, see Lantolf, 1996.)

So, while you might exercise a little caution in drawing a tight analogy between Earth's botanical cycles and language learning, you might just allow yourself to think of second language learners as budding flowers—plants needing your nurture and care. When the scientific flowcharts and technical terminology of current second language research become excruciatingly painful to understand, try creating your own metaphors, perhaps!

FROM THEORY TO PRACTICE

And now, returning you to the serious business of understanding and creating a theory of SLA, consider some of the ways that your theory relates to classroom instruction. The field of second language learning and teaching has for many decades been plagued by debates about the relationship between theory and practice. People might say, "Well, how do I apply so-and-so's theory in my classroom?"

ask pertinent questions about SLA, you are beginning the process of research that can lead to a theoretical statement.

So, the ages-old theory-practice debate can be put aside. Instead, all technicians in the various subfields of SLA are called upon to assume the responsibility for synthesizing the myriad findings and claims and hypotheses—and, yes, the would-be theories—into a coherent understanding of what SLA is and how learners can be successful in fulfilling their classroom goals. This means you, perhaps as a novice in this field, can indeed formulate an integrated understanding of SLA. You can take the information that has been presented in this book and create a rationale for language teaching. In due course of time, as you engage in professional discourse with your teammates in the field, you will be a part of a community of theory builders that talk with each other in pursuit of a better theory.

Suggestions for Theory Building

How do you begin to join this community of theory builders? Following are some suggestions.

The Believing Game and the Doubting Game

Throughout this book, we have seen that truth is neither unitary nor unidimensional. We have seen that definitions and extended definitions are never simple. Just as a photographer captures many facets of the same mountain by circling around it, truth presents itself to us in many forms, and sometimes those forms seem to conflict.

This elusive nature of truth was addressed by Peter Elbow (1973), who noted that most scholarly traditions are too myopically involved in what he called the "doubting game" of truth-seeking: trying to find something wrong with someone's claim or hypothesis. The doubting game is seen, incorrectly, as rigorous, disciplined, rational, and tough-minded. But Elbow contended that we need to turn such conceptions upside down, to look at the other end of the continuum and recognize the importance of what he called the "believing game." In the believing game you try to find truths, not errors; you make acts of self-insertion and self-involvement, not self-extrication. "It helps to think of it as trying to get inside the head of someone who saw things this way. Perhaps even constructing such a person for yourself. Try to have the experience of someone who made this assertion" (Elbow, 1973, p. 149). Elbow was careful to note the relationship between the believing game and the doubting game: "The two games are interdependent. . . . The two games are only halves of a full cycle of thinking" (p. 190).

If you were to try to unify or to integrate everything that every second language researcher concluded, or even everything listed in the previous sections, you could not do so through the doubting game alone. But by balancing your perspective with a believing attitude toward those elements that are not categorically ruled out, you can maintain a sense of perspective. If someone were to tell you, for example, that your class of adult learners will without question experience difficulty because of the critical period hypothesis ("the younger the better"), you might first play the

believing game by embracing the statement in a genuine dialog with the claimant. After a discussion of context, learner variables, methodology, and other factors, it is quite likely that both of you will become clearer about the claim and will reach a more balanced perspective. The alternative of quickly dismissing the claim as so much "balderdash" leaves little room open for an intelligent exchange.

The Art and Science of SLA

Not unrelated to balancing believing games and doubting games is the notion that SLA can be seen as both an art and a science. Several decades ago, Ochsner (1979) made a plea for a "poetics" of SLA research in which we use two research traditions to draw conclusions. One tradition is a **nomothetic tradition** of empiricism, scientific methodology, and prediction; this is the behavioristic school of thought referred to in Chapters 1 and 4. On the other hand, a **hermeneutic** (or, constructivist) **tradition** provides us with a means for interpretation and understanding in which we do not look for absolute laws. "A poetics of second language acquisition lets us shift our perspectives," according to Ochsner (p. 71), who sounded very much like he had been reading Peter Elbow!

Schumann (1982a) adopted a similar point of view in recommending that we see both the "art" and the "science" of SLA research. Noting that Krashen and McLaughlin have had two different experiences themselves in learning a second language, Schumann suggests that "Krashen's and McLaughlin's views can coexist as two different paintings of the language learning experience—as reality symbolized in two different ways" (p. 113). His concluding remarks, however, lean toward viewing our research as art, advantageous because such a view reduces the need of closure and allows us to see our work in a larger perspective with less dogmatism and ego involvement. In short, it frees us to play the believing game more ardently and more fruitfully.

The artful side of theory building will surely involve us in the creative use of metaphor as we seek to describe that which cannot always be empirically defined, as we saw in my "horticultural" picture of SLA earlier. Some scholars caution against using metaphor in describing SLA because it gives us "license to take one's claims as something less than serious hypotheses" (Gregg, 1993, p. 291). But Lantolf (1996) made a plea for the legitimacy of metaphor in SLA theory building. Much of our ordinary language is metaphorical, whether we realize it or not, and a good many of our theoretical statements utilize metaphor. Think of some of the terms used in this book, referred to earlier: transfer, distance, filter, monitor, equilibration, automatic, device. How would we describe SLA without such terms? It would appear that as long as one recognizes the limitations of metaphors, then they have the power to maintain the vibrancy of theory.

The Role of Intuition

Teachers generally want to "know" that a method is "right," that it will work successfully. We want finely tuned programs that map the pathways to successful learning. In other words, we tend to be born doubters. But the believing game provides us with a contrasting principle, intuition. Psychological research on cognitive styles has shown us that people tend to favor either an intuitive approach or an

Or, as Krashen (1983, p. 261) once said, "When we [Krashen] provide theory, we provide them [teachers] with the underlying rationale for methodology in general." Typically, theories are constructed by professors and researchers who spend lots of time hypothesizing, describing, measuring, and drawing conclusions about learners and learning. Just as typically, practitioners are thought of as teachers who are out there in classrooms every day stimulating, encouraging, observing, and assessing real-live learners.

A Reciprocal Relationship, Not a Dichotomy

The last century of language teaching history, operating within this theory-practice, researcher-teacher dichotomy, has not been completely devoid of dialogue between the two sides. The cycles, trends, and fads were to a great extent the result of the interplay between in-class practice and beyond-class research. We moved in and out of paradigms (Kuhn, 1970) as inadequacies of the old ways of doing things were replaced by better ways. These trends in language teaching were partly the result of teachers and researchers communicating with each other. As pedagogical approaches and techniques were conceived and developed, essential data were provided for the stimulation of research, which in turn suggested more effective ways of teaching and learning, and the interdependent cycle continued.

These historical mileposts notwithstanding, the custom of leaving theory to researchers and practice to teachers has become, in Clarke's (1994) words, "dysfunctional." The unnecessary stratification of laborers in the same vineyard, a dysfunction that has been perpetuated by both sides, has accorded higher status to a researcher/theorist than to a practitioner/teacher. The latter is made to feel that he or she is the recipient of the former's findings and prognostications, with little to offer in return. What is becoming clearer in this profession now is the importance of viewing the process of language instruction as a cooperative dialog among many technicians, each endowed with special skills. Technicians' skills vary widely: program developing, textbook writing, observing, measuring variables of acquisition, teacher educating, synthesizing others' findings, in-class facilitating, designing experiments, assessing, applying technology to teaching, counseling, and the list goes on. There is no set of technical skills here that gets uniquely commissioned to create theory or another set allocated to "practicing" something.

We are all practitioners and we are all theorists. We are all charged with developing a broadly based conceptualization of the process of language learning and teaching. We are all responsible for understanding as much as we can how to create contexts for optimal acquisition among learners. Whenever that understanding calls for putting together diverse bits and pieces of knowledge, you are doing some theory building. Let's say you have some thoughts about the relevance of age factors, cognitive style variations, intercultural communication, and strategic competence to a set of learners and tasks; then you are constructing theory. Or, if you have observed some learners in classrooms and you discern common threads of process among them, you have created a theory. And whenever you, in the role of a teacher,

analytical approach to a problem. Ewing (1977, p. 69) noted that analytical or "systematic" thinkers "generally excel in problems that call for planning and organization, as when one set of numbers must be worked out before another can be analyzed." On the other hand, he went on, "intuitive thinkers are likely to excel if the problem is elusive and difficult to define. They keep coming up with different possibilities, follow their hunches, and don't commit themselves too soon." Sternberg and Davidson (1982) found that "insight"—making inductive leaps beyond the given data—is an indispensable factor of what we call "intelligence," much of which is traditionally defined in terms of analysis.

All this suggests that intuition forms an essential component of our total intellectual endeavor. In looking at the contrasting role of intuition and analysis in educational systems in general, Bruner and Clinchy (1966, p. 71) said, "Intuition is less rigorous with respect to proof, more visual or 'iconic,' more oriented to the whole problem than to particular parts, less verbalized with respect to justification, and based on a confidence in one's ability to operate with insufficient data."

One of the important characteristics of intuition is its non-verbalizability. Often, we are not able to give much verbal explanation of why we have made a particular decision or solution. The implications for teaching are clear. We daily face problems in language teaching that have no ready analysis, no available language or metalanguage to capture the essence of why a particular decision was made. Many good teachers cannot verbalize why they do what they do, in a specific and analytical way, yet they remain good teachers.

Intuition involves a certain kind of risk taking. As we saw in Chapter 6, language learners need to take risks willingly. Language teachers must be willing to risk techniques or assessments that have their roots in a "gut feeling," a hunch, that they are right. In our universe of complex theory, we still perceive vast black holes of unanswerable questions about how people best learn second languages. Intuition, "the making of good guesses in situations where one has neither an answer nor an algorithm for obtaining it" (Baldwin, 1966, p. 84), fills the void.

There is ample evidence that good language teachers have developed good intuition. In an informal study of cognitive styles among ESL learners a few years ago, I asked their teachers to predict the TOEFL score that each of their students would attain when they sat for the TOEFL the following week. The teachers had been with their students for only one semester, yet their predicted scores and the actual TOEFL results yielded the highest (+.90) correlations in the whole study.

How do you "learn" intuition? There is no simple answer to this question, yet some ingredients of a rationale are apparent:

1. First, you need to internalize essential theoretical foundations like those we have been grappling with throughout this book. Intuition is not developed in a vacuum. It is the product, in part, of a firm grounding in what is known, in analytical terms, about how people learn languages and why some people do not learn languages.

2. Second, there is no substitute for the experience of standing on your own two feet (or sitting down!) in the presence of real learners in the real world. Intuitions are formed at the crossroads of knowledge and experience. As you face those day by day, or even minute by minute, struggles of finding out who your learners are, deciding what to teach them, and designing ways to teach, you learn by trial, by error, and by success. You cannot be a master teacher the first time you teach a class. Your failures, near failures, partial successes, and successes all teach you intuition. They teach you to sense what will work and what will not work.
3. A third principle of intuition learning follows from the second. You must be a willing risk taker yourself. Let the creative juices within you flow freely. The wildest and craziest ideas should—perhaps with some caution—be entertained openly. In so doing, intuition will be allowed to germinate and to grow to full fruition.

Our search for an adequate theory of SLA can become thwarted by overzealous attempts to find analytical solutions. We may be looking too hard to find the ultimate system. As Schumann (1982a) said, at times we need to feel, ironically, that our own ideas are *un*important. That way we avoid the panicky feeling that what we do today in class is somehow going to be permanently etched in the annals of foreign language history. The relevance of theory can be perceived by adopting an essential attitude of self-confidence in our ability to form hunches that will probably be "right."

If your hunches about SLA are firmly grounded in a comprehensive understanding of what SLA is and what we know about optimal conditions for learning a second language, you are well on your way to becoming an *enlightened* language teacher. You will plan a lesson, enter a classroom, and engage interactively with students, all with an optimistic attitude that you have formed a *principled* approach to your practice. You may stumble here and there and falter from time to time, but you will use the tools of your SLA theory to *reflect* on your practice and then to learn from those reflections how to better approach the classroom on the next day. I hope you have been enabled, through digesting the pages of this book, to make that enlightened, principled, reflective journey!

TOPICS AND QUESTIONS FOR STUDY AND DISCUSSION

Note: (I) Individual work; (G) group or pair work; (C) whole-class discussion.

1. (G) On pages 288–289, Lightbown's (1985) 10 generalizations about SLA are listed. In pairs or small groups (if numbers permit) assign one generalization

to each pair/group with the task of (a) explaining the generalization further, (b) offering any caveats or "it depends" statements about it, and (c) citing an example or two of the generalization in the language classroom.

2. (G) Likewise (see item 1 above), look at the six "myths" (page 289). In small groups, figure out (a) why it is a myth, (b) caveats or comments that qualify the statement, and (c) some examples or counterexamples in the language classroom.
3. (I) Review the major tenets of the three schools of thought outlined in Chapter 1 and referred to throughout the book: structuralism–behaviorism, rationalism–cognitivism, constructivism. Do Krashen's Input Hypothesis and the cognitive models of people like McLaughlin and Bialystok and Ellis fit the second school of thought? How so? Ask the same questions about Long's Interaction Hypothesis for the third school.
4. (C) Review the five tenets of Krashen's Input Hypothesis. Which ones are most plausible? Least plausible? How would you take the "best" of his theories and apply them in the classroom and yet still be mindful of the various problems inherent in his ideas about SLA? How do Larsen-Freeman's caveats about chaos theory and Long's criteria (pages 290 and 291) enlighten your evaluation of Krashen's model?
5. (G) In pairs, each assigned to one topic below, think of examples in learning a foreign language (inside or outside a classroom) that illustrate: (a) HIGs and LIGs and the Output Hypothesis, (b) McLaughlin's focal and peripheral processes, (c) McLaughlin's controlled and automatic stages, (d) implicit and explicit linguistic knowledge, (e) interaction as the basis of acquisition.
6. (I/G/C) If you have quite a bit of time, try devising a "model" of SLA that doesn't use prose as much as a visual, graphic, or kinesthetic metaphor. For example, you might create an SLA board game in which players have to throw dice and pass through the "pits of puberty," the "mire of mistakes," the "falls of fossilization," and so on. Or, you could create a chart something like Bialystok's (Figure 10.2, page 303) model. Do this individually, or in pairs/groups, for "homework," then share your creation with the rest of the class. Try to defend your model on the basis of at least some of the criteria for a viable theory presented by Larsen-Freeman or Long (pages 290 and 291).
7. (G/C) Suppose you have been invited to an international symposium on SLA, the goal of which is to devise a theory of SLA. Each person can bring three and only three tenets or generalizations to be included in the theory. In groups or pairs, decide on three such tenets (or, at least, domains of consideration) that you consider the most important to include. Defend your three on the basis of Larsen-Freeman's or Long's lists, if appropriate, found on pages 290 and 291. Share findings with the class and see if the class can create a composite picture of the most important features of a theory of SLA.

8. (I) Consider some of the controversies that have been discussed in this book: innateness, defining intelligence, the Whorfian Hypothesis, the strong version of the Contrastive Analysis Hypothesis, Krashen's Input Hypothesis, and others. Play the believing game with what might be labeled the "unpopular side" of the controversy. How does it feel? How does it help to put things into balance? In what way are both games necessary for ultimate understanding?
9. (I) Go back to the definitions of language, learning, and teaching that you formulated at the beginning of this book. How might you revise those definitions now?
10. (G) Pairs or groups should each make a list of characteristics of a "successful language teacher." What steps do you think you could take to train yourself to be more successful? That is, what are your weaknesses and strengths, and how might you work on those weaknesses from what you know so far about foreign language teaching?

SUGGESTED READINGS

Gregg, K. (2003). SLA theory: Construction and assessment. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 831–865). Malden, MA: Blackwell Publishing.

For some challenging and mind-opening reading, try Kevin Gregg's chapter in the Doughty and Long Handbook on theoretical positions in SLA. In this chapter, he deals with philosophical and psychological traditions, the domains of SLA theories, innateness, input, frequency, Universal Grammar, and other fundamental concepts in theory building.

DeKeyser, R. (2003). Implicit and explicit learning. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 313–348). Malden, MA: Blackwell Publishing.

Gass, S. (2003). Input and interaction. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 224–255). Malden, MA: Blackwell Publishing.

Hulstijn, J. (2003). Incidental and intentional learning. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 349–381). Malden, MA: Blackwell Publishing.

Segalowitz, N. (2003). Automaticity and second languages. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 382–408). Malden, MA: Blackwell Publishing.

In these four chapters of the Doughty and Long Handbook, leading scholars in their respective fields provide summaries of some of the "hot

issues" in SLA research. Each presents a balanced view of issues and include extensive lists of related references.

Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 471–483). Mahwah, NJ: Lawrence Erlbaum Associates.

In this survey article, Merrill Swain offers a concise overview of the last two decades or so of research on the Output Hypothesis. She capably demonstrates the inadequacy of a theory of SLA that relies only on input as the causative factor of acquisition.

Lantolf, J. (1996). SLA theory building: Letting all the flowers bloom! *Language Learning, 46*, 713–749.

James Lantolf presents some tough but rewarding reading on the place of metaphor in SLA theories, with a balanced perspective on theories in SLA and other disciplines.

LANGUAGE LEARNING EXPERIENCE: FINAL JOURNAL ENTRY

Note: See pages 21 and 22 of Chapter 1 for general guidelines for writing a journal on a previous or concurrent language learning experience.

- At the beginning of the chapter, nine statements were made that correspond to the previous nine chapters in this book. Choose two or three of those nine (more if you have time), and write about your own language learning experience in relation to the topic.
- What do you think, in your own experience as a language learner, is the most useful aspect of Krashen's Input Hypothesis, and what is the least useful?
- Do you agree with Swain and Seliger that output and the act of generating input is an important feature of a successful learner? How does your own experience support (or contradict) such claims?
- Think of an example in your own learning of each of McLaughlin's four cells: (1) Focal-controlled; (2) Peripheral-controlled; (3) Focal-automatic; (4) Peripheral-automatic. Write them in your journal in a chart format and comment.
- If you didn't do exercise 6 on page 314 already, take on that assignment of creating a largely nonverbal model of SLA.
- As an alternative, try outlining what you think would be the top three or four or five elements/concepts/issues in creating your theory of SLA, and briefly justify your choices.

- Given everything you now know about learning a second language, what are the characteristics of a *successful* teacher? How did your own foreign language teacher measure up?
- What did you like the most about writing this journal? The least? What benefit did you gain from the journal-writing process? How would you change the process if you were to tackle such journal writing again?

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GLOSSARY

acculturation the process of adjusting and adapting to a new culture, usually when one is living in the new culture, and often with the resultant creation of a new cultural identity

affect emotion or feeling

affective domain emotional issues and factors in human behavior, often compared to the cognitive domain

affective filter a condition of low anxiety and nondefensiveness that permits one to acquire a language

ambiguity intolerance a style in which an individual is relatively ill-equipped to withstand or manage a high degree of uncertainty in a linguistic context, and as a result may demand more certainty and structure

ambiguity tolerance a style in which an individual is relatively well suited to withstand or manage a high degree of uncertainty in a linguistic context

analyzed knowledge the general form in which we know most things with awareness of the structure of that knowledge (see **explicit knowledge**)

anomie feelings of social uncertainty, dissatisfaction, or "homelessness" as individuals lose some of the bonds of a native culture but are not yet fully acculturated in the new culture

anxiety the subjective feeling of tension, apprehension, and nervousness connected to an arousal of the autonomic nervous system, and associated with feelings of uneasiness, frustration, self-doubt, apprehension, or worry

appeal to authority a direct appeal for help from a more proficient user of the language

approach a unified but broadly based theoretical position about the nature of language and of language learning and teaching that forms the basis of methodology in the language classroom

approximative system learner language that emphasizes the successive approximation of the learner's output to the target language

artifacts in nonverbal communication, factors external to a person, such as clothing and ornamentation, and their effect on communication

assimilative orientation learning a language in order to form a long-term identity with the culture of a second language group, possibly at the expense of losing one's original cultural identity

attention getting securing the attention of one's audience in a conversation

attention the psychological process of focusing on certain stimuli to the exclusion of others

attitude a set of personal feelings, opinions, or biases about races, cultures, ethnic groups, classes of people, and languages

attribution theory how people explain the causes of their own successes and failures

attrition the loss or forgetting of language skills

Audiolingual Method (ALM) a language teaching method, popular in the 1950s, that placed an extremely strong emphasis on oral production, pattern drills, and conditioning through repetition

auditory learning style the tendency to prefer listening to lectures and audiotapes, as opposed to visual and/or kinesthetic processing

authentic (referring to pronunciation) oral production judged by a speech community to be correct, native or native-like, and appropriate within that speech community

authenticity a principle emphasizing real-world, meaningful language used for genuine communicative purposes

automatic processes relatively permanent cognitive efforts, as opposed to controlled processes

autonomy individual effort and action through which learners initiate language, problem solving, strategic action, and the generation of linguistic input

avoidance (of a topic) in a conversation, steering others away from an unwanted topic; (of a language form) a strategy that leads to refraining from producing a form that speaker may not know, often through an alternative form; as a strategy, options intended to prevent the production of ill-formed utterances, classified into such categories as syntactic, lexical, phonological, and topic avoidance

awareness cognizance of linguistic, mental, or emotional factors through attention and focus; conscious attention

awareness-raising usually, in foreign language classes, calling a learner's attention to linguistic factors that may not otherwise be noticed

backsliding (in learner language) a phenomenon in which the learner seems to have grasped a rule or principle and then regresses to a previous stage

basic interpersonal communicative skills (BICS) the communicative capacity that all humans acquire in order to be able to function in daily interpersonal exchanges; context-embedded performance

behavioral science a paradigm that studies the behavior of organisms (including humans) by focusing centrally on publicly observable responses that can be objectively and scientifically perceived, recorded, and measured

capability continuum paradigm see **variable competence model**

chaining acquiring a chain of two or more stimulus-response connections

chaos/complexity theory an approach to describing a phenomenon that emphasizes its dynamic, complex, nonlinear, and unpredictable nature

clarification request an elicitation of a reformulation or repetition from a student

classical conditioning psychological learning paradigm associated with Pavlov, Thorndike, Watson, and others which highlights the formation of associations between stimuli and responses that are strengthened through rewards

Classical Method a language teaching method in which the focus is on grammatical rules, memorization of vocabulary and other language forms, translation of texts, and performing written exercises

code-switching in bilinguals, the act of inserting words, phrases, or even longer stretches of one language into the other

cognitive constructivism a branch of constructivism that emphasizes the importance of individual learners constructing their own representation of reality

cognitive pruning the elimination of unnecessary clutter and a clearing of the way for more material to enter the cognitive field

cognitive psychology a school of thought in which meaning, understanding, and knowing are significant data for psychological study, and in which one seeks psychological principles of organization and mental and emotional functioning, as opposed to behavioral psychology, which focuses on overt, observable, empirically measurable behavior

cognitive strategies strategic options relating to specific learning tasks that involve direct manipulation of the learning material itself

cognitive style the way a person learns material or solves problems

cognitive/academic language proficiency (CALP) the dimension of proficiency in which a learner manipulates or reflects on the surface features of language in academic contexts, such as test-taking, writing, analyzing, and reading academic texts; context-reduced performance

collectivism a cultural worldview that assumes the primacy of community, social groups, or organizations and places greater value on harmony within such groups than on one's individual desires, needs, or aspirations

communication strategies strategic options relating to output, how one productively expresses meaning, and how one effectively delivers messages to others (see **learning strategies**)

communicative competence (CC) the cluster of abilities that enable humans to convey and interpret messages and to negotiate meanings interpersonally within specific contexts

Communicative Language Teaching (CLT) an approach to language teaching methodology that emphasizes authenticity, interaction, student-centered learning, task-based activities, and communication for real-world, meaningful purposes

Community Language Learning (CLL) language teaching method that emphasizes interpersonal relationships, inductive learning, and views the teacher as a "counselor"

compensatory strategies strategic options designed to overcome self-perceived weaknesses, such as using prefabricated patterns, code-switching, and appeal to authority

competence one's underlying knowledge of a system, event, or fact; the unobservable ability to perform language, but not to be confused with performance

Competition Model the claim that when strictly formal (e.g., phonological, syntactic) options for interpreting meaning through appeal to the first language have been exhausted, second language learners naturally look for alternative "competing" possibilities to create meaning

comprehension the process of receiving language; listening or reading; input

conditioned response in behavioral learning theory, a response to a stimulus that is learned or elicited by an outside agent

connectionism the belief that neurons in the brain are said to form multiple connections

conscious learning see **awareness** and **focal attention**

constructivism the integration of various paradigms with an emphasis on social interaction and the discovery, or construction, of meaning

context-embedded language language forms and functions that are embedded in a set of schemata within which the learner can operate, as in meaningful conversations, real-life tasks, and extensive reading (see **basic interpersonal communicative skills**)

context-reduced language language forms and functions that lack a set of embedded schemata within which the learner can operate, as in traditional test items, isolated reading excerpts, and repetition drills (see **cognitive academic language proficiency**)

Contrastive Analysis Hypothesis (CAH) the claim that the principal barrier to second language acquisition is first language interference, and that a scientific analysis of the two languages in question enables the prediction of difficulties a learner will encounter

contrastive rhetoric naturally occurring discourses, usually written, across different languages and cultures

controlled processes capacity limited and temporary cognitive efforts, as opposed to automatic processes

conversation interactive oral exchange involving two or more persons

corpus linguistics an approach to linguistic research that relies on computer analyses of a collection, or corpus, of texts—written, transcribed speech, or both—stored in electronic form and analyzed with the help of computer software programs

corrective feedback responses to a learner's output that attempt to repair or call attention to an error or mistake

covert error an error that is grammatically well formed at the sentence level but not interpretable within the context of communication; a discourse error

creative construction the hypothesis, in child second language acquisition, that claims the rarity of L1 interference, the emergence of common acquisition orders, perception of systematic features of language, and the production of novel utterances

Critical Period Hypothesis the claim that there is a biological timetable before which and after which language acquisition, both first and second, is more successfully accomplished

critical period a biologically determined period of life when language can be acquired more easily and beyond which time language is increasingly difficult to acquire

cross-linguistic influence (CLI) a concept that replaced the contrastive analysis hypothesis, recognizing the significance of the role of the first language in learning a second, but with an emphasis on the facilitating and interfering effects both languages have on each other

culture the ideas, customs, skills, arts, and tools that characterize a given group of people in a given period of time

culture shock in the process of acculturation, phenomena involving mild irritability, depression, anger, or possibly deep psychological crisis due to the foreignness of the new cultural milieu

debilitative anxiety feelings of worry that are perceived as detrimental to one's self-efficacy or that hinder one's performance

deductive reasoning moving from a generalization to specific instances in which subsumed facts are inferred from a general principle

descriptive adequacy satisfying scientific or empirical principles for describing a phenomenon such as language

descriptive school of linguistics see **structural school of linguistics**

Direct Method a language teaching method popular in the early twentieth century that emphasized direct target language use, oral communication skills, and inductive grammar, without recourse to translation from the first language

discourse analysis the examination of the relationship between forms and functions of language beyond the sentence level

discourse competence the ability to connect sentences in stretches of discourse and to form a meaningful whole out of a series of utterances

discourse a language (either spoken or written) beyond the sentence level; relationships and rules that govern the connection and interrelationship of sentences within communicative contexts

domain (in error analysis) the rank of linguistic unit (from phoneme to discourse) that must be taken as context in order for the error to become apparent

egocentricity characteristic of very young children in which the world revolves around them, and they see all events as focusing on themselves

elicitation a corrective technique that prompts the learner to self-correct

elicited response behavior resulting from a preceding outside stimulus

emergent stage (of learner language) one in which the learner grows in consistency in linguistic production

emergentism a perspective that questions nativism and holds that the complexity of language, like any other human ability, emerges from relatively simple developmental processes being exposed to a massive and complex environment

emitted response behavior freely offered without the presence of an outside stimulus

emotional intelligence associated with Goleman, a mode of intelligence that places emotion, and/or the management of emotions, at the seat of intellectual functioning

empathy "putting yourself into someone else's shoes," reaching beyond the self to understand what another person is thinking or feeling

empiricism see **scientific method**

English as a foreign language (EFL) generic term for English learned as a foreign language in a country or context in which English is not commonly used as a language of education, business, or government, e.g., expanding circle countries

English as a second language (ESL) generic term for English learned as a foreign language within the culture of an English-speaking (inner circle) country

English as an international language (EIL) English as a *lingua franca* worldwide

English only a political movement in the United States arguing for a language policy that compels institutions to use English in ballots, driver's regulations, education, etc., at the exclusion of other languages

EQ see **emotional intelligence**

equilibration progressive interior organization of knowledge in a stepwise fashion; moving from states of doubt and uncertainty (disequilibrium) to stages of resolution and certainty (equilibrium)

error an idiosyncrasy in the language of the learner that is a direct manifestation of a system within which a learner is operating at the time

error analysis the study of learners' ill-formed production (spoken or written) in an effort to discover systematicity

explanatory adequacy satisfying a principled basis, independent of any particular language, for the selection of a descriptively appropriate grammar of a language

explicit correction an indication to a student that a form is incorrect and providing a corrected form

explicit knowledge information that a person knows *about* language, and usually, the ability to articulate that information

explicit learning acquisition of linguistic competence with conscious awareness of, or focal attention on, the forms of language, usually in the context of instruction

extent (in error analysis) the rank of linguistic unit that would have to be deleted, replaced, supplied, or reordered in order to repair the sentence

extrinsic motivation choices made and effort expended on activities in anticipation of a reward from outside and beyond the self

extroversion the extent to which a person has a deep-seated need to receive ego enhancement, self-esteem, and a sense of wholeness from other people, as opposed to receiving that affirmation within oneself, as opposed to introversion

eye contact nonverbal feature involving what one looks at and how one looks at another person in face-to-face communication

facilitative anxiety "helpful" anxiety, euphoric tension, or the beneficial effects of apprehension over a task to be accomplished

field dependence the tendency to be "dependent" on the total field so that the parts embedded in the field are not easily perceived, although that total field is perceived more clearly as a unified whole

field independence ability to perceive a particular, relevant item or factor in a "field" of distracting items

field sensitivity synonymous with **field dependence**

Flow theory school of thought that highlights the importance of an experiential state characterized by intense focus and involvement that leads to improved performance on a task

fluency the unfettered flow of language production or comprehension usually without focal attention on language forms

focal attention giving central attention to a stimulus, as opposed to peripheral attention

form-focused instruction (FFI) any pedagogical effort used to draw a learner's attention to language form either implicitly or explicitly

forms (of language) the "bits and pieces" of language, such as morphemes, words, grammar rules, discourse rules, and other organizational elements of language

fossilization the relatively permanent incorporation of incorrect linguistic forms into a person's second language competence; also referred to as **stabilization**

framing conceptualizing the universe around us with linguistic symbols that shape the way people think—through words, phrases, and other verbal associations

frequency (of input) number of occurrences of a form, in either input or output, in a given amount of time

functional syllabus see **notional-functional syllabus**

functions (of language) the meaningful, interactive purposes within a social (pragmatic) context, that we accomplish with forms of language

generative-transformational linguistics description of language or language acquisition, originally associated with Noam Chomsky, that views language as a system of principled rules, independent of any particular language, that governs its use; human language forms are thus "generated" by these rules and "transformed" through conventional constraints

global error an error that hinders communication or prevents a hearer (or reader) from comprehending some aspect of a message

global self-esteem see **self-esteem**

grammar consciousness raising the incorporation of forms into communicative tasks

Grammar Translation Method a language teaching method in which the central focus is on grammatical rules, paradigms, and vocabulary memorization as the basis for translating from one language to another

grammars descriptions of linguistic systems; rules that account for linguistic performance

grammatical competence an aspect of communicative competence that encompasses knowledge of lexical items and of rules of morphology, syntax, sentence-level grammar, semantics, and phonology

Grice's maxims criteria for analyzing why speakers are sometimes ineffective in conversations

hemisphere the left or right "half" of the brain, each performing different categories of neurological functions

hermeneutic tradition a constructivist research approach that specifies a means for interpreting and understanding the universe without necessarily searching for absolute laws, as opposed to a **nomothetic tradition**

heterogeneous competence multiple abilities, often unsystematic, that are in the process of being formed

hierarchy of difficulty a scale by which a teacher or linguist could make a prediction of the relative difficulty of a given aspect of a target language

High Input Generators (HIGs) people who are adept at initiating and sustaining interaction, or "generating" input from teachers, peers, and other speakers of the language in the arena, as opposed to **Low Input Generators**

idiosyncratic dialect learner language that emphasizes the notion that a learner's language and the rules that govern it are unique to a particular individual

illocutionary competence the ability to send and receive intended meanings

illocutionary force the intended meaning of the utterance or text within its context

implicit knowledge information that is automatically and spontaneously used in language tasks

implicit learning acquisition of linguistic competence without intention to learn and without focal awareness of what has been learned, as opposed to **explicit learning**

impulsive style the tendency to make quick decisions in answer to problems; sometimes, but not always, those decisions involve risk-taking or guessing

incidental learning learning without central attention to form (see **implicit learning**)

incorporation a form of self-repair in learner language in which a learner uses a recently prompted corrected form in a longer utterance

individualism a cultural worldview that assumes the primacy of attending to one's own interests and/or the interests of one's immediate family, and places value on the uniqueness of the individual

induced errors errors caused by something in the learner's environment, such as the teacher, a textbook, or the classroom methodology

inductive reasoning recalling a number of specific instances in order to induce a general law or rule or conclusion that governs or subsumes the specific instances

inhibition apprehension over one's self-identity or fear of showing self-doubt, leading to building mechanisms of protective self-defense

initiation (in conversation) beginning an oral exchange; **topic nomination**

inner circle countries traditionally considered to be dominated by native speakers of English, e.g., United States, United Kingdom, Australia, New Zealand

input the process of comprehending language (listening and reading)

instrumental orientation acquiring a language as a means for attaining instrumental goals, such as acquiring a degree or certificate in an academic institution, furthering a career, reading technical material, translation, etc.

integrative orientation learning a language in order to integrate oneself into the culture of a second language group and become involved in social interchange in that group

intentional learning see **explicit learning**

interaction hypothesis the claim, by Long, that language competence is the result not only of input, but also of interaction between a learner's input and output

interference negative transfer in which a previous item is incorrectly transferred or incorrectly associated with an item to be learned

interlanguage learner language that emphasizes the separateness of a second language learner's system, a system that has a structurally intermediate status between the native and target languages

interlingual the effect of language forms on each other across two or more languages

interlingual transfer the effect of one language (usually the first) on another (usually the second)

interruption (in a conversation) breaking in and "taking the floor"

intralingual pertaining to phenomena that act within one language

intralingual transfer the effect of forms of one language (usually the target language) on other forms within the same language

intrinsic motivation choices made and effort expended on activities for which there is no apparent reward except the activity itself

introversion the extent to which a person derives a sense of wholeness and fulfillment from "within," apart from a reflection of this self from other people, as opposed to **extroversion**

kinesics body language, gesture, eye contact, and other physical features of nonverbal communication

kinesthetic learning style the tendency to prefer demonstrations and physical activity involving bodily movement

kinesthetics in nonverbal communication, conventions for how to touch others and where to touch them

language acquisition device (LAD) an innate, metaphorical "mechanism" in young children's brains that predisposes them to acquire language

language anxiety a feeling of worry experienced in relation to a foreign language, either trait or state in nature (see **anxiety**)

language aptitude inherent ability, either learned or innate, and separate from knowledge of a particular language, to acquire foreign languages

language ego the identity a person develops in reference to the language he or she speaks

language policy the stated position of a government on the official or legal status of a language (or languages) in a country, often including the role of a language in educational, commercial, and political institutions

language a systematic means of communicating ideas or feelings by the use of conventionalized signs, sounds, gestures, or marks having understood meanings

lateralization the assigning of specified neurological functions to the left hemisphere of the brain, and certain other functions to the right hemisphere

Law of Effect Thorndike's theory hypothesizing that stimuli that occur after a behavior have an influence on future behaviors

learner language generic term used to describe a learner's interlanguage or interlanguage system

learning acquiring knowledge of a subject or a skill by study, experience, or instruction

learning strategies strategic options relating to input, processing, storage, and retrieval, or taking in messages from others, as opposed to **communication strategies**

learning style cognitive, affective, and physiological traits that are relatively stable indicators of how learners perceive, interact with, and respond to the learning environment

left-brain dominance a style that favors logical, analytical thought, with mathematical and linear processing of information

level (of language) the rank of linguistic units including phonology, orthography, lexicon, grammar, and discourse

Linguistic Deficit Coding Hypothesis (LCDH) the claim that anxiety in a foreign language class could be the result of first language deficits, namely, difficulties that students may have with language "codes" (phonological, syntactic, lexical, semantic features)

local error an error that does not prevent a message from being understood, usually due to a minor violation of one segment of a sentence, allowing the hearer/reader to make an accurate guess about the intended meaning

Low Input Generators (LIGs) relatively passive learners who do little to create opportunities for input to be directed toward them, as opposed to **High Input Generators**

Markedness Differential Hypothesis an accounting of relative degrees of difficulty of learning a language by means of principles of universal grammar, also known as markedness theory

masculinity (of a culture) the extent to which a culture strictly defines men's and women's roles, with masculine cultures advocating a strong distinction between roles, and feminine cultures a weaker distinction

meaningful learning anchoring and relating new items and experiences to knowledge that exists in the cognitive framework (see **subsumption**)

mentalism an approach to scientific description that allows for the possibility of the veracity of unobservable guesses, hunches, and intuition

metacognitive strategies strategic options that relate to one's "executive" functions; strategies that involve planning for learning, thinking about the learning process as it is taking place, monitoring of one's production or comprehension, and evaluating learning after an activity is completed

metalinguistic explanation in the classroom, linguistic explanations of rules or patterns in a language

metalinguistic feedback responses to a learner's output that provide comments, information, or questions related to the linguistics form(s) of the learner's utterance

method a coherent, prescribed group of activities and techniques for language teaching, unified by a homogeneous set of principles or foundations; sometimes proclaimed to be suitable for all foreign language teaching contexts

mistake a performance error that is a random guess or a failure to utilize a known system correctly

modified interaction the various modifications that native speakers and other interlocutors create in order to render their input comprehensible to learners, similar to Krashen's comprehensible input

monitor hypothesis in Krashen's theory, the assumption of the existence of a device for "watchdogging" one's output, for editing and making alterations or corrections

motivation the anticipation of reward, whether internally or externally administered; choices made about goals to pursue and the effort exerted in their completion

motivational intensity the strength of one's motivational drives and needs

multiple discrimination learning to make a number of different identifying responses to many different stimuli

multiple intelligences associated with Gardner, the hypothesis that intelligence is not unitary, but has multiple modes

native speaker one who uses the language as a first language

native English-speaking teacher (NEST) a teacher teaching his or her native language as a foreign language

nativist a school of thought that rests on the assertion that language acquisition is innately (genetically) determined, and that human beings are therefore predisposed to a systematic perception of language

nativization indigenization of a language; what was once a second language in a culture evolves into a language accepted as "native" or standard

Natural Approach a language teaching method that simulates child language acquisition by emphasizing communication, comprehensible input, kinesthetic activities, and virtually no grammatical analysis

necessity a criterion for legitimizing the conditions of a theory in which a component part *must* be included, and if not, the theory is rendered inadequate, as opposed to **sufficiency**

neobehaviorist behavioral psychological school of thought associated with Skinner and others that asserted the importance of emitted behavior and operant conditioning

nomothetic tradition a research approach that relies on empiricism, scientific methodology, and prediction, as opposed to a **hermeneutic tradition**

nonautomatic knowledge knowledge that takes time and effort to retrieve

nonnative speaker one who uses the language as a second or foreign language

noticing the learner's paying attention to specific linguistic features in input

notional-functional syllabus a language course that attends primarily to functions as organizing elements of a foreign language curriculum

olfactory pertaining to one's sense of smell; in nonverbal communication the effect of natural and artificial odors on communication

operant conditioning conditioning in which an organism (in the case of language acquisition, a human being) emits a response (an utterance, for example), or operant, without necessarily observable stimuli; that operant is maintained (learned) by reinforcement

operant a response, (e.g., an utterance of some kind) emitted without prior elicitation or stimulation

optimal distance model the hypothesis that an adult who fails to master a second language in a second culture may have failed to synchronize linguistic and cultural development

organizational competence the ability to use rules and systems that dictate what we can do with the forms of language

outer circle countries that use English as a common *lingua franca* and in which English is for many people nativized, e.g., India, Singapore, the Philippines, Nigeria, Ghana

output the process of producing language (speaking and writing)

Output Hypothesis the claim, originating with Swain, that output serves as important a role in second language acquisition as input because it generates highly specific input that the cognitive system needs to build up a coherent set of knowledge

overgeneralization the process of generalizing a particular rule or item in the second language, irrespective of the native language, beyond conventional rules or boundaries

overt error an error that is unquestionably ungrammatical at the sentence level

paradigm in Thomas Kuhn's theory, within "normal science," a prevailing or widely accepted method of explaining or examining a phenomenon within a scientific field of inquiry

parallel distributed processing (PDP) the receiving, storing, or recalling of information at several levels of attention simultaneously

parameters characteristics of human language (in Universal Grammar) that vary across languages; built-in options, settings, or values that allow for cross-linguistic variation

pedagogical tasks activities or techniques that occur in the classroom

peer pressure encouragement, often among children, to conform to the behavior, attitudes, language, etc., of those around them

perceived social distance the cognitive and affective proximity that one perceives, as opposed to an objectively measured or "actual" distance between cultures (see **social distance**)

performance analysis analysis of a learner's performance, with emphasis on investigating errors within the larger perspective of the learner's total language performance, including the "positive" or well-formed aspects of a learner's performance

performance one's actual "doing" of language in the form of speaking and writing (production) and listening and reading (comprehension), as opposed to **competence**

peripheral attention attending to stimuli that are not in focal, central attention, but rather on the "periphery," as opposed to **focal attention**

perlocutionary force the effect and importance of the consequences of communicative speech acts

phatic communion defining oneself and finding acceptance in expressing that self in relation to valued others

post-structuralism schools of thought that emerged after the structural schools of the mid-twentieth century, e.g. constructivism

postsystematic stage a stage in which the learner has relatively few errors and has mastered the system to the point that fluency and intended meanings are not problematic; stabilization

power distance the extent to which a culture accepts hierarchical power structures and considers them to be normal

pragmalinguistic the intersection of pragmatics and linguistic forms

pragmatic competence the ability to produce and comprehend functional and sociolinguistic aspects of language; illocutionary competence

pragmatics conventions for conveying and interpreting the meaning of linguistic strings within their contexts and settings

prefabricated patterns memorized chunks of language—words, phrases, short sentences—the component parts of which the speaker is unaware

presystematic error an error in which the learner is only vaguely aware that there is some systematic order to a particular class of items; random error

proactive inhibition failure to retain material because of interfering effects of similar material learned *before* the learning task, as opposed to **retroactive inhibition**

process any number of behaviors, types of learning, needs, neural connections, and emotional sets universally characteristic of all human beings

prompt see **elicitation**

proxemics in nonverbal communication, conventions for acceptable physical distance between persons

punishment withdrawal of a positive reinforcer or presentation of an aversive stimulus

random error see **presystematic error**

rationalism seeking to discover underlying motivations and deeper structures of human behavior by using an approach that employs the tools of logic, reason, extrapolation, and inference in order to derive explanations for human behavior; exploring "why" questions

recast an implicit type of corrective feedback that reformulates or expands an ill-formed or incomplete utterance in an unobtrusive way

reflective style the tendency to take a relatively long time to make a decision or solve a problem, sometimes in order to weigh options before making a decision

register a set of language variants commonly identified by certain phonological features, vocabulary, idioms, and/or other expressions that are associated with an occupational or socioeconomic group

reinforcement in behavioral learning theory, events or stimuli that follow a response or behavior that serve to reward the response or behavior

repair correction by the learner of an ill-formed utterance, either through self-initiated repair, or in response to feedback

repetition (in error treatment) the sequential reiteration of an ill-formed part of a student's utterance by a teacher; reiteration by a student of the correct form as a result of teacher feedback, sometimes including incorporation of the correct form in a longer utterance

respondent conditioning in behavioral learning theory, behavior that is elicited by a preceding stimulus

respondents sets of responses that are elicited by identifiable stimuli

response in behavioral learning theory, any elicited or emitted behavior by an organism

restructuring process by which the components of a task are coordinated, integrated, or reorganized into new units, thereby allowing old components to be replaced by a more efficient procedure

retroactive inhibition failure to retain material because of interfering effects of similar material learned *after* the learning task, as opposed to **proactive inhibition**

right-brain dominance a style in which one favors visual, tactile, and auditory images and is more efficient in processing holistic, integrative, and emotional information

risk taking willingness to gamble, to try out hunches about a language with the possibility of being wrong

rote learning the process of mentally storing facts, ideas, or feelings having little or no association with existing cognitive structure

saliency the importance of a perceived element of input

scientific method a process of describing verifiable, empirically assessable data; accepting as fact only those phenomena that have been subjected to empirical observation or experimentation

second identity an alternate ego, different from one's first language ego, that develops in reference to a second language and/or culture (see **language ego**)

self-actualization reaching the pinnacle of one's potential; the culmination of human attainment

self-efficacy belief in one's own capabilities to successfully perform an activity

self-esteem self-appraisal, self-confidence, knowledge of oneself, usually categorized into **global** (overall), **situational/specific** (in a general context), and **task** (particular activities within a context) self-esteem

Series Method language teaching method created by Gouin, in which learners practiced a number of connected "series" of sentences, which together formed a meaningful story or sequence of events

shifting (of a topic) changing the subject in a conversation

signal learning learning to make a general diffuse response to a signal

situational self-esteem see **self-esteem**

social constructivism a branch of constructivism that emphasizes the importance of social interaction and cooperative learning in constructing both cognitive and emotional images of reality

social distance the cognitive and affective proximity of two cultures that come into contact within an individual

socioaffective strategies strategic options relating to social-mediating activity and interacting with others

sociobiological critical period social and biological explanations for a critical period for language acquisition (see **critical period**)

sociolinguistic competence ability to use or apply sociocultural rules of discourse in a language

sociopragmatics the interface between pragmatics and social organization

specific self-esteem see **self-esteem**

speech acts communicative behaviors used systematically to accomplish particular purposes

stabilization see **postsystematic stage**, and **fossilization**

state anxiety a relatively temporary feeling of worry experienced in relation to some particular event or act, as opposed to trait anxiety

stereotype an overgeneralized, oversimplified view or caricature of another culture or a person from the culture, as perceived through the lens of one's own culture

stimulus in behavioral learning theory, an agent that directly evokes a behavior (activity, emotion, thought, or sensory excitation)

stimulus–response learning acquiring a precise response to a discriminated stimulus

strategic competence (according to Canale & Swain) the ability to use strategies to compensate for imperfect knowledge of rules or performance limitations; (according to Bachman) the ability to assess a communicative context and plan and execute production responses to accomplish intended purposes

strategies-based instruction (SBI) teaching learners with an emphasis on the strategic options that are available for learning; usually implying the teacher's facilitating awareness of those options in the learner and encouraging strategic action

strategy any number of specific methods or techniques for approaching a problem or task; modes of operation for achieving a particular end; planned designs for controlling and manipulating certain information

strong version (of the critical period hypothesis; of the contrastive analysis hypothesis) hypotheses or models that make broad generalizations with few (if any) exceptions, and that make claims, *a priori*, of the application of a model to multiple contexts

structural school of linguistics a school of thought prevailing in the 1940s and 1950s, in which the linguist's task was to identify the structural characteristics of human languages by means of a rigorous application of scientific observation of the language, and using only "publicly observable responses" for the investigation

structural syllabus a language course that attends primarily to forms (grammar, phonology, lexicon) as organizing elements of a foreign language curriculum, as opposed to a **functional syllabus**

style (in psychological functioning) consistent and rather enduring tendencies or preferences within an individual; general characteristics of intellectual and emotional functioning that differentiate one person from another

styles (in speech discourse) conventions for selecting words, phrases, discourse, and nonverbal language in specified contexts, such as intimate, casual, and consultative styles

subconscious learning see **peripheral attention**

subsumption the process of relating and anchoring new material to relevant established entities in cognitive structure (see **meaningful learning**)

subtractive bilingualism proficiency in two languages in which learners rely more and more on a second language, which eventually diminishes their native language

sufficiency a criterion for legitimizing the conditions of a theory in which a component part is "adequate" to meet the specifications of the theory, as opposed to **necessity**

sustained deep learning (SDL) the kind of learning that requires an extended period of time to achieve goals

sympathy understanding what another person is thinking or feeling, but agreement or harmony between individuals is implied, as opposed to **empathy** which implies more possibility of detachment

systematicity consistency and predictability in learner language

target tasks uses of language in the world beyond the classroom

task a classroom activity in which meaning is primary; there is a problem to solve, a relationship to real-world activities, with an objective that can be assessed in terms of an outcome

task self-esteem see **self-esteem**

task-based instruction an approach to language teaching that focuses on tasks (see **task**)

teaching showing or helping someone to learn, giving instructions; guiding; providing with knowledge; causing to know or understand

tension a neutral concept that includes both dysphoric (detrimental) and euphoric (beneficial) effects in learning a foreign language (see **debilitative** and **facilitative anxiety**)

termination (of a topic) in a conversation, strategies for ending the conversation

third language learning acquiring an additional language beyond the second

tolerance of ambiguity see **ambiguity tolerance**

topic clarification in a conversation, asking questions to remove perceived ambiguities in another's utterance

topic development maintaining a topic in a conversation

topic nomination proposing a topic for discussion in a conversation

Total Physical Response (TPR) a language teaching method relying on physical or kinesthetic movement accompanied by language practice

trait anxiety a relatively permanent predisposition to be anxious about a number of things, as opposed to state anxiety

transaction a social interaction through which one "reveals" thoughts, ideas, or feelings to another person

transfer the carryover of previous performance or knowledge to previous or subsequent learning

triarchic theory associated with Sternberg, the hypothesis that intelligence consists of componential, experiential, and contextual abilities

turn-taking in a conversation, conventions in which participants allow appropriate opportunities for others to talk, or "take the floor"

unanalyzed knowledge the general form in which we know most things without being aware of the structure of that knowledge (see **implicit knowledge**)

uncertainty avoidance the extent to which people within a culture are uncomfortable with situations they perceive as unstructured, unclear, or unpredictable; cultural ambiguity intolerance

unconditioned response in behavioral learning theory, a natural biological response to a stimulus, not elicited by an outside agent

uptake a student utterance that immediately follows a teacher's feedback and that constitutes a reaction in some way to the teacher's intention to draw attention to some aspect of the student's initial utterance

U-shaped learning the phenomenon of moving from a correct form to an incorrect form and than back to correctness

variable competence model a model of second language learner development that recognizes and seeks to explain variability in terms of several contextual factors; also called the capability continuum paradigm

variation instability in learners' linguistic systems

verbal association learning of chains of responses that are linguistic

visual learning style the tendency to prefer reading and studying charts, drawings, and other graphic information

weak version (of the contrastive analysis hypothesis, and other models) the belief in the possibility, *a posteriori*, that a model might apply to a specified context, once contextual variables are taken into account, as opposed to a claim for predictive validity (**strong version**) across broad contexts

Whorfian Hypothesis the argument that one's language is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the program and guide for the individual's mental activity

willingness to communicate (WTC) an underlying continuum representing the predisposition toward or away from communicating, given the choice

world Englishes varieties of English spoken and written in many different countries, especially those not in the traditional "inner circle"

worldview a comprehensive conception of the world—especially culturally socially—from one's specific cultural norms; *weltanschauung*

zone of proximal development (ZPD) the distance between a learner's existing developmental state and his or her potential development

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