Fourth Edition

How Languages are Learned

Oxford Handbooks for Language Teachers

Patsy M. Lightbown & Nina Spada

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Fourth edition

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To the teachers and students from whom
we have learned so much

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PREFACE TO THE FOURTH EDITION

How Languages Are Learned (HLAL) started out as a series of professional development workshops for teachers in Quebec, Canada, where we both worked for many years. Three editions of the book have now travelled far from those origins. When we were working on the first edition in the 1980s and 1990s we were still in the early days of remarkable growth of research in second language acquisition. In updating the research for each new edition, the decisions about what to include have grown more difficult. Keeping the book to a reasonable length has often meant choosing between classics in the field and important new studies, of which there are now so many. In this edition, we have annotated some 'Suggestions for further reading' at the end of each chapter. We encourage readers to follow these readings and the reference list to deepen their understanding of topics that we can only introduce here.

In this fourth edition of HLAL, we have added 'Questions for reflection' at the end of each chapter, and we have included some new 'Activities' that give readers opportunities to explore some of the topics. Another new feature of this edition is a companion website which contains additional activities, readings, and other web-based material and resources to enhance your reading and understanding of the contents of the book. It will also provide opportunities for readers to interact with others and to share their ideas for teaching and learning languages.

The website for *How Languages are Learned* can be accessed at www.oup.com/elt/teacher/hlal.

We are currently working on a new series of books for teachers, the *Oxford Key Concepts for the Language Classroom.* Each volume, written by a different author, will focus on a specific topic (such as assessment, content-based language teaching, literacy, and oral interaction), reviewing the relevant research and linking the findings to classroom

practice. We hope that the books in this series will encourage teachers to continue learning about some of the topics that are introduced in HLAL.

We hope that both new readers and those who have read the previous editions of HLAL will find ideas and information that will challenge and inspire them to make their own contributions to second language learning, teaching, and research.

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INTRODUCTION

When new methods and textbooks for second and foreign language teaching are introduced, they are often said to be based on the latest research in psychology, linguistics, or pedagogy. Teachers are told that they will be more effective than those that have gone before. In many cases, the new approaches are prescribed for immediate implementation in a school or region. Sometimes, the new materials come with opportunities for extensive training in their implementation. Sometimes, they are simply ordered and distributed to teachers who have to do their best to use them effectively.

Many approaches to language teaching have been proposed and implemented. One approach requires students to learn rules of grammar and lists of vocabulary to use in translating literary texts. Another emphasizes the value of having students imitate and practise a set of correct sentences and memorize entire dialogues. Yet another encourages 'natural' communication between students as they engage cooperatively in tasks or projects while using the new language. In some classrooms, the second language is used as the medium to teach subject matter, with the assumption that the language itself will be learned incidentally as students focus on the academic content.

How are teachers to evaluate the potential effectiveness of different instructional practices? To be sure, the most important influence on teachers' decisions is their own experience with previous successes or disappointments, as well as their understanding of the needs and abilities of their students. We believe that ideas drawn from research and theory in second language acquisition are also valuable in helping teachers to evaluate claims made by proponents of various language teaching methods. The goal of this book is to introduce teachers—both novice and experienced—to some of the language acquisition research that may help them not only to evaluate existing textbooks and materials but also to

adapt them in ways that are more consistent with our understanding of how languages are learned.

The book begins with a chapter on language learning in early childhood. This background is important because both second language research and second language teaching have been influenced by our understanding of how children acquire their first language. Several theories about **first language** (L1) learning are presented in this chapter and they are revisited later in the book in relation to **second language** (L2) learning.

In Chapter 2 we look at second language learners' developing knowledge, their ability to use that knowledge, and how this compares with L1 learning. In Chapter 3, we turn our attention to how individual learner characteristics may affect success. In Chapter 4, several theories that have been advanced to explain second language learning are presented and discussed. Chapter 5 begins with a comparison of natural and instructional environments for second language learning. We then examine some different ways in which researchers have observed and described teaching and learning practices in second language classrooms.

In Chapter 6, we examine six proposals that have been made for second language teaching. Examples of research related to each of the proposals are presented, leading to a discussion of the evidence available for assessing their effectiveness. The chapter ends with a discussion of what research findings suggest about the most effective ways to teach and learn a second language in the classroom.

In Chapter 7, we will provide a general summary of the book by looking at how research can inform our response to some 'popular opinions' about language learning and teaching that are introduced below.

A Glossary provides a quick reference for a number of terms that may be new or have specific technical meanings in the context of language acquisition research. Glossary words are shown in bold letters where they first appear in the text. For readers who would like to find out more, an annotated list of suggestions for further reading is included at the end of each chapter. The Bibliography provides full reference information for the suggested readings and all the works that are referred to in the text.

We have tried to present the information in a way that does not assume that readers are already familiar with research methods or theoretical

issues in second language learning. Examples and case studies are included throughout the book to illustrate the research ideas. Many of the examples are taken from second language classrooms. We have also included a number of activities for readers to practise some of the techniques of observation and analysis used in the research that we review in this book. At the end of each chapter are 'Questions for reflection' to help readers consolidate and expand their understanding of the material.

Before we begin …

It is probably true, as some have claimed, that most of us teach as we were taught or in a way that matches our ideas and preferences about how we learn. Take a moment to reflect on your views about how languages are learned and what you think this means about how they should be taught. The statements in the activity below summarize some popular opinions about language learning and teaching. Think about whether you agree or disagree with each opinion. Keep these statements and your reactions to them in mind as you read about current research and theory in second language learning.

ACTIVITY Give your opinion on these statements

Indicate the extent to which you agree with each statement by marking an X in the box associated with your opinion:

SA–strongly agree

A–agree somewhat

D–disagree somewhat

SD–strongly disagree

	SA	A	D	SD
1 Languages are learned mainly through imitation.				
2 Parents usually correct young children when they make grammatical errors.				
3 Highly intelligent people are good language learners.				
4 The most important predictor of success in second language acquisition is motivation.				
5 The earlier a second language is introduced in school programmes, the greater the likelihood of success in learning.				
6 Most of the mistakes that second language learners make are due to interference from their first language.				
7 The best way to learn new vocabulary is through reading.				
8 It is essential for learners to be able to pronounce all the individual sounds in the second language.				
9 Once learners know 1,000 words and the basic structure of a language, they can easily participate in conversations with native speakers.				
10 Teachers should present grammatical rules one at a time, and learners should practise examples of each one before going on to another.				
11 Teachers should teach simple language structures before complex ones.				

12 Learners' errors should be corrected as soon as they are made in order to prevent the formation of bad habits.				
13 Teachers should use materials that expose students only to language structures they have already been taught.				
14 When learners are allowed to interact freely (for example, in group or pair activities), they copy each other's mistakes.				
15 Students learn what they are taught.				
16 Teachers should respond to students' errors by correctly rephrasing what they have said rather than by explicitly pointing out the error.				
17 Students can learn both language and academic content (for example, science and history) simultaneously in classes where the subject matter is taught in their second language.				
18 Classrooms are good places to learn about language but not for learning how to use language.				

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LANGUAGE LEARNING IN EARLY CHILDHOOD

Preview

In this chapter, we will look briefly at the language development of young children. We will then consider several theories that have been offered as explanations for how language is learned. There is an immense amount of research on child language. Although much of this research has been done in middle-class North American and European families, there is a rich body of cross-linguistic and cross-cultural research as well. Our purpose in this chapter is to touch on a few main points in this research, primarily as a preparation for the discussion of second language acquisition (SLA), which is the focus of this book.

First language acquisition

Language acquisition is one of the most impressive and fascinating aspects of human development. We listen with pleasure to the sounds made by a three-month-old baby. We laugh and 'answer' the conversational 'ba-ba-ba' babbling of older babies, and we share in the pride and joy of parents whose one-year-old has uttered the first 'bye-bye'. Indeed, learning a language is an amazing feat—one that has attracted the attention of linguists and psychologists for generations. How do children accomplish this? What enables a child not only to learn words, but to put them together in meaningful sentences? What pushes children to go on developing complex grammatical language even though their early simple communication is successful for most purposes? Does child language develop similarly around the world? How do bilingual children acquire more than one language?

The first three years: Milestones and developmental sequences

One remarkable thing about first language acquisition is the high degree of similarity in the early language of children all over the world. Researchers have described **developmental sequences** for many aspects of first language acquisition. The earliest vocalizations are simply the involuntary crying that babies do when they are hungry or uncomfortable. Soon, however, we hear the cooing and gurgling sounds

of contented babies, lying in their beds looking at fascinating shapes and movement around them. Even though they have little control over the sounds they make in these early weeks of life, infants are able to hear subtle differences between the sounds of human languages. Not only do they distinguish the voice of their mothers from those of other speakers, they also seem to recognize the language that was spoken around their mother before they were born. Furthermore, in cleverly designed experiments, researchers have demonstrated that tiny babies are capable of very fine **auditory discrimination.** For example, they can hear the difference between sounds as similar as 'pa' and 'ba'.

Janet Werker, Patricia Kuhl, and others have used new technologies that allow us to see how sensitive infants are to speech sounds. What may seem even more remarkable is that infants stop making distinctions between sounds that are not **phonemic** in the language that is spoken around them. For example, by the time they are a year old, babies who will become speakers of Arabic stop reacting to the difference between 'pa' and 'ba' which is not phonemic in Arabic. Babies who regularly hear more than one language in their environment continue to respond to these differences for a longer period (Werker, Weikum, and Yoshida 2006). One important finding is that it is not enough for babies to hear language sounds from electronic devices. In order to learn—or retain—the ability to distinguish between sounds, they need to interact with a human speaker (Conboy and Kuhl 2011). The Internet abounds with remarkable videos of infants reacting to language sounds.

Whether they are becoming monolingual or bilingual children, however, it will be many months before their own vocalizations begin to reflect the characteristics of the language or languages they hear and longer still before they connect language sounds with specific meaning. However, by the end of their first year, most babies understand quite a few frequently repeated words in the language or languages spoken around them. They wave when someone says 'bye-bye'; they clap when someone says 'pat-a-cake'; they eagerly hurry to the kitchen when 'juice and cookies' are mentioned.

At 12 months, most babies will have begun to produce a word or two that everyone recognizes. By the age of two, most children reliably produce at least 50 different words and some produce many more. About this time, they begin to combine words into simple sentences such as

'Mommy juice' and 'baby fall down'. These sentences are sometimes called 'telegraphic' because they leave out such things as articles, prepositions, and auxiliary verbs. We recognize them as sentences because, even though **function words** and **grammatical morphemes** are missing, the word order reflects the word order of the language they are hearing and the combined words have a meaningful relationship that makes them more than just a list of words. Thus, for an English-speaking child, 'kiss baby' does not mean the same thing as 'baby kiss'. Remarkably, we also see evidence, even in these early sentences that children are doing more than imperfectly imitating what they have heard. Their two- and three-word sentences show signs that they can creatively combine words. For example, 'more outside' may mean 'I want to go outside again.' Depending on the situation, 'Daddy uh-oh' might mean 'Daddy fell down' or 'Daddy dropped something' or even 'Daddy, please do that funny thing where you pretend to drop me off your lap.'

As children progress through the discovery of language in their first three years, there are predictable patterns in the emergence and development of many features of the language they are learning. For some language features, these patterns have been described in terms of developmental sequences or 'stages'. To some extent, these stages in language acquisition are related to children's cognitive development. For example, children do not use temporal adverbs such as 'tomorrow' or 'last week' until they develop some understanding of time. In other cases, the developmental sequences seem to reflect the gradual acquisition of the linguistic elements for expressing ideas that have been present in children's cognitive understanding for a long time. For example, children can distinguish between singular and plural long before they reliably add plural endings to nouns. Correct use of irregular plurals (such as 'feet') takes even more time and may not be completely under control until the school years.

Grammatical morphemes

In the 1960s, several researchers focused on how children acquire grammatical morphemes in English. One of the best-known studies was carried out by Roger Brown and his colleagues and students. In a **longitudinal study** of the language development of three children (called Adam, Eve, and Sarah) they found that 14 grammatical

morphemes were acquired in a similar sequence. The list below (adapted from Brown’s 1973 book) shows some of the morphemes they studied.

present progressive *-ing* (Mommy running)
plural *-s* (two books)
irregular past forms (Baby *went*)
possessive *-s* (Daddy*’s* hat)
copula (Mommy *is* happy)
articles *the* and *a*
regular past *-ed* (she walk*ed*)
third person singular simple present *-s* (she runs)
auxiliary *be* (he *is* coming)

Brown and his colleagues found that a child who had mastered the grammatical morphemes at the bottom of the list had also mastered those at the top, but the reverse was not true. Thus, there was evidence for a ‘developmental sequence’ or **order of acquisition.** However, the children did not acquire the morphemes at the same age or rate. Eve had mastered nearly all the morphemes before she was two-and-a-half years old, while Sarah and Adam were still working on them when they were three-and-a-half or four.

Brown’s longitudinal work was confirmed in a **cross-sectional study** of 21 children. Jill and Peter de Villiers (1973) found that children who correctly used the morphemes that Adam, Eve, and Sarah had acquired late were also able to use the ones that Adam, Eve, and Sarah had acquired earlier. The children mastered the morphemes at different ages, just as Adam, Eve, and Sarah had done, but the order of their acquisition was very similar.

Many **hypotheses** have been advanced to explain why these grammatical morphemes are acquired in the observed order. Researchers have studied the frequency with which the morphemes occur in parents’ speech, the cognitive complexity of the meanings represented by each morpheme, and the difficulty of perceiving or pronouncing them. In the end, there has been no simple satisfactory explanation for the sequence, and most researchers agree that the order is determined by an interaction among a number of different factors.

To supplement the evidence we have from simply observing children, some carefully designed procedures have been developed to further explore children's knowledge of grammatical morphemes. One of the first and best known is the so-called 'wug test' developed by Jean Berko Gleason (1958). In this 'test', children are shown drawings of imaginary creatures with novel names or people performing mysterious actions. For example, they are told, 'Here is a wug. Now there are two of them. There are two____' or 'Here is a man who knows how to bod. Yesterday he did the same thing. Yesterday, he____'. By completing these sentences with 'wugs' and 'bodded', children demonstrate that they know the patterns for plural and simple past in English. By **generalizing** these patterns to words they have never heard before, they show that their language is more than just a list of memorized word pairs such as 'book/books' and 'nod/nodded'.

ACTIVITY Try out the 'wug' test

A web search for 'wug test' will turn up many examples of the pictures and the text created for this landmark research. If you know some English-speaking children under the age of five years, try using the test with them.

1 What similarities and differences do you notice among the children at different ages?

2 Which grammatical morphemes do they find easy and which ones are more difficult?

The acquisition of other language features also shows how children's language develops systematically, and how they go beyond what they have heard to create new forms and structures.

Negation

Children learn the functions of negation very early. That is, they learn to comment on the disappearance of objects, to refuse a suggestion, or to reject an assertion, even at the single word stage. However, as Lois Bloom's (1991) longitudinal studies show, even though children understand these functions and express them with single words and gestures, it takes some time before they can express them in sentences,

using the appropriate words and word order. The following stages in the development of negation have been observed in the acquisition of English. Similar stages have been observed in other languages as well (Wode 1981).

Stage 1

Negation is usually expressed by the word ‘no’, either all alone or as the first word in the utterance.

No. No cookie. No comb hair.

Stage 2

Utterances grow longer and the sentence subject may be included. The negative word appears just before the verb. Sentences expressing rejection or prohibition often use ‘don’t’.

Daddy no comb hair. Don’t touch that!

Stage 3

The negative element is inserted into a more complex sentence. Children may add forms of the negative other than ‘no’, including words like ‘can’t’ and ‘don’t’. These sentences appear to follow the correct English pattern of attaching the negative to the auxiliary or modal verb. However, children do not yet vary these forms for different persons or tenses.

I can’t do it. He don’t want it.

Stage 4

Children begin to attach the negative element to the correct form of auxiliary verbs such as ‘do’ and ‘be’.

You didn’t have supper. She doesn’t want it.

Even though their language system is by now quite complex, they may still have difficulty with some other features related to negatives.

I don’t have no more candies.

Questions

The challenge of learning complex language systems is also illustrated in the developmental stages through which children learn to ask questions.

There is a remarkable consistency in the way children learn to form questions in English. For one thing, there is a predictable order in which the '*wh-* words' emerge (Bloom 1991). 'What' is generally the first *wh-* question word to be used. It is often learned as part of a **chunk** ('Whassat?') and it is some time before the child learns that there are variations of the form, such as 'What is that?' and 'What are these?'.

'Where' and 'who' emerge very soon. Identifying and locating people and objects are within the child's understanding of the world. Furthermore, adults tend to ask children just these types of questions in the early days of **language learning,** for example, 'Where's Mommy?' or 'Who's that?'

'Why' emerges around the end of the second year and becomes a favourite for the next year or two. Children seem to ask an endless number of questions beginning with 'why', having discovered how effectively this little word gets adults to engage in conversation, for example, 'Why that lady has blue hair?'

Finally, when the child has a better understanding of manner and time, 'how' and 'when' emerge. In contrast to 'what', 'where', and 'who' questions, children sometimes ask the more cognitively difficult 'why', 'when', and 'how' questions without understanding the answers they get, as the following conversation with a four-year-old clearly shows.

CHILD When can we go outside?

PARENT In about five minutes.

CHILD 1-2-3-4-5! Can we go now?

The ability to use these question words is at least partly tied to children's cognitive development. It is also predicted in part by the questions children are asked and the linguistic complexity of questions with different *wh-* words. Thus it does not seem surprising that there is consistency in the sequence of their acquisition. Perhaps more surprising is the consistency in the acquisition of word order in questions. This development is not based on learning new meanings, but rather on learning different linguistic patterns to express meanings that are already understood.

Stage 1

Children's earliest questions are single words or simple two- or three-word sentences with rising intonation:

Cookie? Mommy book?

At the same time, they may produce some correct questions—correct because they have been learned as chunks:

Where's Daddy? What's that?

Stage 2

As they begin to ask more new questions, children use the word order of the declarative sentence, with rising intonation.

You like this? I have some?

They continue to produce the correct chunk-learned forms such as 'What's that?' alongside their own created questions.

Stage 3

Gradually, children notice that the structure of questions is different and begin to produce questions such as:

Can I go?

Are you happy?

Although some questions at this stage match the adult pattern, they may be right for the wrong reason. To describe this, we need to see the pattern from the child's perspective rather than from the perspective of the adult grammar. We call this stage 'fronting' because the child's rule seems to be that questions are formed by putting something (a verb or question word) at the 'front' of a sentence, leaving the rest of the sentence in its statement form.

Is the teddy is tired? Do I can have a cookie?

Why you don't have one? Why you catched it?

Stage 4

At Stage 4, some questions are formed by subject–auxiliary inversion. The questions resemble those of Stage 3, but there is more variety in the

auxiliaries that appear before the subject.

Are you going to play with me?

At this stage, children can even add ‘do’ in questions in which there would be no auxiliary in the declarative version of the sentence.

Do dogs like ice cream?

Even at this stage, however, children seem able to use either inversion or a *wh*-word, but not both (for example, ‘Is he crying?’ but not ‘Why is he crying?’

Therefore, we may find inversion in *yes/no* questions but not in *wh*-questions, unless they are **formulaic** units such as ‘What’s that?’

Stage 5

At Stage 5, both *wh*- and *yes/no* questions are formed correctly.

Are these your boots?
Why did you do that?
Does Daddy have a box?

Negative questions may still be a bit too difficult.

Why the teddy bear can’t go outside?

And even though **performance** on most questions is correct, there is still one more hurdle. When *wh*- words appear in subordinate clauses or embedded questions, children **overgeneralize** the inverted form that would be correct for simple questions and produce sentences such as:

Ask him why can’t he go out.

Stage 6

At this stage, children are able to correctly form all question types, including negative and complex embedded questions.

Passage through developmental sequences does not always follow a steady uninterrupted path. Children appear to learn new things and then fall back on old patterns when there is added stress in a new situation or when they are using other new elements in their language. But the overall path takes them toward a closer and closer approximation of the language that is spoken around them.

The pre-school years

By the age of four, most children can ask questions, give commands, report real events, and create stories about imaginary ones, using correct word order and grammatical markers most of the time. In fact, it is generally accepted that by age four, children have acquired the basic structures of the language or languages spoken to them in these early years. Three- and four-year-olds continue to learn vocabulary at the rate of several words a day. They begin to acquire less frequent and more complex linguistic structures such as passives and relative clauses.

Much of children's language acquisition effort in the late pre-school years is spent in developing their ability to use language in a widening social environment. They use language in a greater variety of situations. They interact more often with unfamiliar adults. They begin to talk sensibly on the telephone to invisible grandparents (younger children do not understand that their telephone partner cannot see what they see). They acquire the aggressive or cajoling language that is needed to defend their toys in the playground. They show that they have learned the difference between how adults talk to babies and how they talk to each other, and they use this knowledge in elaborate pretend play in which they practise using these different 'voices'. In this way, they explore and begin to understand how and why language varies.

In the pre-school years, children also begin to develop **metalinguistic awareness,** the ability to treat language as an object separate from the meaning it conveys. Three-year-old children can tell you that it's 'silly' to say 'drink the chair', because it doesn't make sense. However, although they would never say 'cake the eat', they are less sure that there's anything wrong with it. They may show that they know it's a bit odd, but they will focus mainly on the fact that they can understand what it means. Five-year-olds, on the other hand, know that 'drink the chair' is wrong in a different way from 'cake the eat'. They can tell you that one is 'silly' but the other is 'the wrong way around'.

Language acquisition in the pre-school years is impressive. It is also noteworthy that children have spent thousands of hours interacting with language—participating in conversations, eavesdropping on others' conversations, being read to, watching television, etc. A quick mathematical exercise will show you just how many hours children

spend in language-rich environments. If children are awake for ten or twelve hours a day, we may estimate that they are in contact with the language of their environment for 20,000 hours or more by the time they go to school.

Although pre-school children acquire complex knowledge and skills for language and language use, the school setting requires new ways of using language and brings new opportunities for language development.

The school years

Children develop the ability to use language to understand others and to express their own meanings in the pre-school years, and in the school years, this ability expands and grows. Learning to read gives a major boost to metalinguistic awareness. Seeing words represented by letters and other symbols on a page leads children to a new understanding that language has form as well as meaning. Reading reinforces the understanding that a 'word' is separate from the thing it represents. Unlike three-year-olds, children who can read understand that 'the' is a word, just as 'house' is. They understand that 'caterpillar' is a longer word than 'train', even though the object it represents is substantially shorter! Metalinguistic awareness also includes the discovery of such things as ambiguity. Knowing that words and sentences can have multiple meaning gives children access to word jokes, trick questions, and riddles, which they love to share with their friends and family.

One of the most impressive aspects of language development in the school years is the astonishing growth of vocabulary. Children enter school with the ability to understand and produce several thousand words, and thousands more will be learned at school. In both the spoken and written language at school, words such as 'homework' or 'ruler' appear frequently in situations where their meaning is either immediately or gradually revealed. Words like 'population' or 'latitude' occur less frequently, but they are made important by their significance in academic subject matter.

Vocabulary grows at a rate of between several hundred and more than a thousand words a year, depending mainly on how much and how widely children read (Nagy, Herman, and Anderson 1985). The kind of vocabulary growth required for school success is likely to come from

both reading for assignments and reading for pleasure, whether narrative or non-fiction. Dee Gardner (2004) suggests that reading a variety of text types is an essential part of vocabulary growth. His research has shown how the range of vocabulary in narrative texts is different from that in non-fiction. There are words in non-fiction texts that are unlikely to occur in stories or novels. In addition, non-fiction tends to include more opportunities to see a word in its different forms (for example, 'mummy', 'mummies', 'mummified'). The importance of reading for vocabulary growth is seen when observant parents report a child using a new word but mispronouncing it in a way that reveals it has been encountered only in written form.

Another important development in the school years is the acquisition of different language **registers.** Children learn how written language differs from spoken language, how the language used to speak to the principal is different from the language of the playground, how the language of a science report is different from the language of a narrative. As Terry Piper (2006) and others have documented, some children will have even more to learn if they come to school speaking an ethnic or regional **variety** of the school language that is quite different from the one used by the teacher. They will have to learn that another variety, often referred to as the **standard variety,** is required for successful academic work. Other children arrive at school speaking a different language altogether. For these children, the work of language learning in the early school years presents additional opportunities and challenges. We will return to this topic when we discuss **bilingualism** in early childhood.

Explaining first language acquisition

These descriptions of language development from infancy through the early school years show that we have considerable knowledge of *what* children learn in their early language development. More controversial, however, are questions about *how* this development takes place. What abilities does the child bring to the task and what are the contributions of the environment? Since the middle of the 20th century, three main theoretical positions have been advanced to explain language development: behaviourist, innatist, and interactional/developmental perspectives.

The behaviourist perspective

Behaviourism is a theory of learning that was influential in the 1940s and 1950s, especially in the United States. With regard to language learning, the best-known proponent of this psychological theory was B. F. Skinner (1957). Traditional behaviourists hypothesized that when children imitated the language produced by those around them, their attempts to reproduce what they heard received 'positive reinforcement'. This could take the form of praise or just successful communication. Thus encouraged by their environment, children would continue to imitate and practise these sounds and patterns until they formed 'habits' of correct language use. According to this view, the quality and quantity of the language the child hears, as well as the consistency of the reinforcement offered by others in the environment, would shape the child's language behaviour. This theory gives great importance to the environment as the source of everything the child needs to learn.

Analysing children's speech: Definitions and examples

The behaviourists viewed *imitation* and *practice* as the primary processes in language development. To clarify what is meant by these two terms, consider the following definitions and examples.

Imitation: word-for-word repetition of all or part of someone else's utterance.

MOTHER Shall we play with the dolls?
LUCY Play with dolls

Practice: repetitive manipulation of form.

CINDY He eat carrots. The other one eat carrots. They both eat carrots.

Now examine the transcripts from Peter, Cindy, and Kathryn. They were all about 24 months old when they were recorded as they played with a visiting adult. Using the definitions above, notice how Peter imitates the adult in the following dialogue.

Peter (24 months) is playing with a dump truck while two adults, Patsy and Lois, look on.

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