To my grandson Dakota
whose developmental challenges as a child and young teen
can teach us all about the power of the human spirit

CHAPTER 1

A FUNCTIONAL LANGUAGE APPROACH

*A*ustin is a preschooler who struggles with language. He didn't begin to use words until age 2 years, and although he's progressed with the help of his parents, preschool teacher, and speech-language pathologist (SLP), progress has been slow. In all honesty, his spoken language sounds more like a typical 2-year-old than a child about to begin kindergarten. He did poorly on his school district's kindergarten readiness exam, and his preschool teacher has recommended that he remain in preschool for an additional year.

Although Austin is a sociable child and is well-liked by his teacher, the other children have begun to shun him because of his language. He often plays alone despite his good social skills. He rarely speaks in complete sentences, and words are often lacking their morphological endings, tense markers, and articles, as in "Mommy go store." Shorter words are often omitted. Although he's a bright child, his SLP, preschool teacher, and parents are concerned that he'll do poorly in school, especially with reading and writing.

Austin is a child with a language disorder who's having difficulty figuring out and learning the language code of his family and community. He's just one of the many children with a language disorder that you'll meet as a school-based SLP. It's my hope that this book and the excellent instruction your professor provides will give you some of the tools to address the challenges children like Austin face daily.

I've been an SLP and college professor for well over 40 years, but I began my career just as you are, sitting in classes, taking notes, reading texts, and eager for but fearful of my first clinical experience. This book is my attempt to give you as much information about language disorders as possible in the shortest space possible. The text is thick and filled with information because this topic is complicated.

Remember your language development course and how complicated that was. Now we'll be exploring how that process can go wrong, and how you as an SLP assess a child's language and plan and carry out intervention.

Even after we've spent all these words in discussing the topic, we'll have only skimmed the surface. You will spend your professional career continually updating this knowledge. And yet, each new child with a language disorder that you meet will challenge your knowledge, your skill, and your creativity. It's what makes the field of language disorder so challenging and rewarding.

So, let's proceed together. If you have concerns as we go, if I've made a mistake or confused you, or if I've been insensitive about a topic at some point, please let me know. I value your input.

Throughout this book, to the best of my ability, I have used evidence-based practice (EBP) as the basis for this text. I have attempted to research each topic, weigh the data, and make informed decisions prior to passing the knowledge on to you. If you are unfamiliar with EBP, I'll explain it at the end of the chapter. For now, let's begin with the basic concepts of **language disorder** and **functional language intervention**.

> *Food for Thought:* Stop and think for a moment about language development. Pick one area that might have challenged you. Now imagine that you are 3 or 4 years old. Where might you go astray or struggle. That's what children with language disorders face.

Language and Language Disorders

Communication and language skills are essential to a child's ability to engage in social relationships and access learning experiences. As you'll recall, language is a vehicle for communication and is primarily used in conversations. As such, *language is the social tool* that we use to accomplish our goals when we communicate. In other words, language can be viewed as a dynamic process. If we take this view, it changes our approach to language intervention. We become interested in the *how* more than in the *what*. It is that aspect of language intervention that I wish for us to explore through this book.

In the field of communication disorders, the study and remediation of language disorders are relatively new. Until the mid-1970s, around the time I was a graduate student, there was little emphasis on language disorders in children outside of childhood speech disorders. My academic department's name was "Speech and Hearing Disorders," and I was bluntly told by the chair that my PhD was not in language disorders. That didn't exist. So, I and others, with the help of a few innovative professors, had to teach ourselves.

In the late 1990s, two large studies came out of the University of Iowa demonstrating that language disorders were independent of speech disorders (Shriberg et al., 1999; Tomblin et al., 1997). Co-occurrence of speech and language disorders, adjusting for age expectations, was estimated at less than 2%. Nor are the two conditions likely to share a common cause.

Furthermore, children with language disorders, in the absence of any other disorders, were least likely to receive intervention despite the Iowa study's documentation that around 7% of monolingual American English-speaking kindergarten-age children like Austin, who were without other diagnosed developmental disorders, had language disorders despite having normal or above-normal range nonverbal IQs. An additional 3% of children were in the borderline range of low nonverbal IQs and also had language disorders. Similar estimates have been reported in other population-based studies (Frazier Norbury et al., 2016).

Think of it. Seven to ten or more percent of children had a disorder that only recently had not even been recognized as such.

The wheel turned slowly. Our primary professional organization became the American Speech-Language-Hearing Association (ASHA) in 1978 but left the "L" for language out of the acronym. Two decades later, in 1997, the *Journal of Speech and Hearing Research* became the *Journal of Speech, Language, and Hearing Research*, the premier professional journal in our field. Now there's a special interest group within ASHA devoted solely to language disorders in children. And the caseloads of school-based SLPs are bursting with these children.

ASHA defines *language disorder* as follows:

> A language disorder is impaired comprehension and/or use of spoken, written and/or other symbol systems. This disorder may involve (1) the form of language (phonology, morphology, syntax), (2) the content of language (semantics), and/or (3) the function of language in communication (pragmatics) in any combination. (Ad Hoc Committee on Service Delivery in the Schools, 1993, p. 40)

An international consortium (CATALISE) using a consensus method reached an agreed upon definition (Bishop et al., 2017) in which language disorders refers to difficulties that occur alone or co-occur with other disorders. These disorders cause impairment in daily functioning within the child's environment.

The term *language disorder* does not apply to children with language difference, such as a child who speaks a non-mainstream dialect of American English or is learning English subsequent to using another language.

For our purposes, we'll consider the term *language disorder* to refer to a heterogeneous group of developmental disorders, acquired disorders, delays, or any combination of these principally characterized by deficits and/or immaturities in the use of spoken and/or written language for comprehension and/or production purposes that may involve the form, content, or function of language in any combination. Language disorder may persist across the lifetime of the individual and may vary in symptoms, manifestations, effects, and severity over time and as a consequence of context, content, and learning task. As noted previously, language differences, found in some individuals who are English language learners (ELLs) and those using different dialects, do not in themselves constitute language disorders.

In attempting to clarify the definition of language disorder, we have, no doubt, raised more questions than we have answered. For example, causal factors, such as prematurity, although important, are omitted from the definition because of their diverse nature and the lack of clear causal links in many children with language disorders, such as Austin. In general, causal categories are not directly related to many language behaviors. Likewise, diagnostic categories, such as traumatic brain injury, are not included in my definition for many of the same reasons. The definition also states that language differences are not disorders, even though the general public and some professionals often confuse the two.

We'll explore all of these issues in Chapter 2 and the chapters that follow. For now, relax a little and let's discuss functional language intervention, the subtitle to this text.

Let's begin with a more traditional model of language intervention and compare it to a functional model.

> *Food for Thought:* **Might a child who is learning English as a second language also have a language disorder? How would you determine that fact?**

Traditional and Functional Models

The professional with primary responsibility for assessment and intervention with children with language disorders is the SLP. SLPs, you'll find, wear many hats—team members, team teachers, teachers and parent trainers, collaborators, advocates, and language facilitators, to name a few.

These many roles reflect a growing recognition that viewing a child and their communication as the sole source of the disorder is an outmoded concept. Increasingly, language intervention is becoming family and/or classroom centered and environmentally based. Professional concern is shifting from strictly language targets, such as individual morphological endings or vocabulary words, to a more functional, holistic approach focusing on the child's overall communication effectiveness. Read that last sentence again because it is the essence of this text.

Traditional Intervention Approaches

The traditional approach to teaching language is a highly structured, behavioral one, emphasizing the teaching of specific language features within a stimulus-response-reinforcement model. This approach is presented in Figure 1–1. In practice, this means that the SLP controls the situation and cues the child to respond, after which the adult reinforces correct responses or provides corrective feedback and progresses to the next cue. Thus, language is not seen as a process but a product or response elicited by a stimulus or produced in anticipation of reinforcement. There is a certain logic here.

Stimulus-response-reinforcement models of intervention such as this have often taken the form of questions by an SLP and answers by a child or directives by an SLP for a child to respond. Typical stimulus utterances by an SLP might include "Did you say that correctly?" or "Tell me the whole thing." The SLP's responses are based on the correctness of production and might include "Good talking!" or "Repeat it again correctly three times."

Many SLPs prefer a traditional structured approach because they can predict accurately the response of the child to the teaching stimuli. In addition, structured behavioral approaches increase the probability that the child will make the appropriate, desired response. Language lessons usually are scripted as drills and, therefore, are repetitive and predictable for the SLP.

In a structured behavioral approach, the child can become a passive learner. The SLP's overall style is highly directive. In other words, the clinical procedure is unidirectional

Figure 1–1. Model of a traditional method of language intervention.
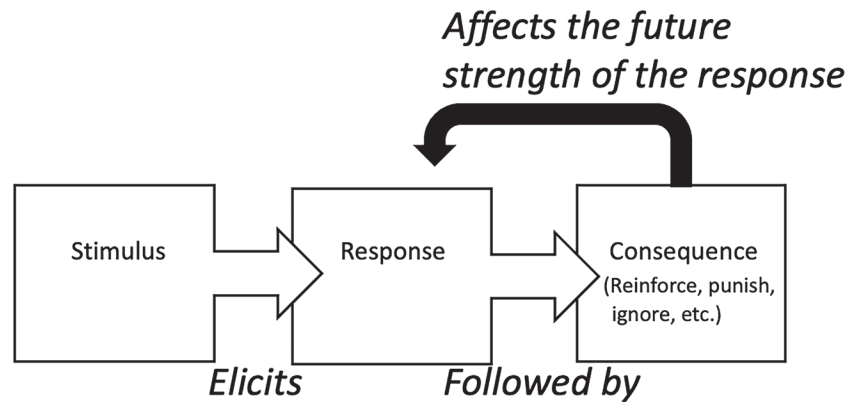
and adult-oriented. Unfortunately, used alone, these approaches are inadequate for developing meaningful uses for the newly acquired language feature. Something's missing.

Although structured behavioral approaches that exhibit intensity, consistency, and organization have been successful in teaching some language skills, they exhibit a major weakness—**generalization**. For example, the failure of language-teaching targets to generalize to other uses is one of the major criticisms of intervention with children with autism spectrum disorders. Could that failing rest with the highly behavioral methods used with these children?

The Functional Approach

In contrast to traditional models, functional approaches give more control to the child and decrease the amount of structure in intervention activities. Measures of improvement are increased successful communication rather than simply the number of correct responses. Procedures used by the SLP and the child's communication partners more closely resemble those in the language-learning environment of children. In addition, the everyday environment of the child is included in the training.

A functional language approach to assessment and intervention, as described in this text, targets language used as a vehicle for communication. It's a communication-first approach. The focus is the overall communication of the child with a language disorder and of those who communicate with the child. As stated, the goal is better communication that works in the child's natural communicative environment.

In a functional language approach, conversation between a child and their communication partners becomes the vehicle for change. By manipulating the linguistic and nonlinguistic contexts within which a child's utterances occur, the partner facilitates the use of certain structures and provides evaluative feedback while maintaining the conversational flow. That last sentence is another one worth rereading. From the early data collection stages through the intervention process, the SLP and other communication partners are concerned with the enhancement of the child's overall communication.

Functional language approaches have been shown in clinical research to increase mean length of utterance and multiword utterance production, the overall quantity of spontaneous communication, pragmatic skills, vocabulary growth, language complexity, receptive labeling, and intelligibility and the use of learned forms in novel utterances in children with a variety of language disorders and causes. Even minimally symbolic children—those using no words or just a few—can benefit from a more conversational milieu.

Interestingly, functional interactive approaches improve generalization even when the immediate results differ little from those of more directive methods. And as an additional benefit, a functional conversational approach can yield more positive behaviors from the child, such as smiling, laughing, and engagement in activities, with significantly more verbal initiation, than does a strictly imitation approach. In contrast, the child learning through a structured traditional approach is more likely to be quiet and passive.

Naturally, the effectiveness of any language-teaching strategy will vary with the characteristics of the child with a language disorder and the content being taught. For example, children with learning disabilities may benefit more from specific language teaching than do other children with language disorders. Similarly, children with more severe language disorders initially benefit more from a structured imitative approach. That doesn't mean that you as an SLP need to stop there. Although imitation is a quick method for getting a desired response, learning doesn't hold and generalization is weak.

I've probably raised more issues than answered your questions. Don't worry. We have a whole book to examine a functional approach and to address your doubts and concerns. My goal in this chapter was simply to pique your interest. To help you digest all this information so far, Table 1–1 offers a simplified comparison of the traditional and functional models.

> ***Food for Thought:*** **Even though I've been vague, can you imagine what the outline of a functional method of language intervention might entail in comparison to a more traditional model. Try to do this without peeking at Table 1–1.**

In the remainder of this chapter, we'll further define a functional language approach and explore a rationale for it. This rationale is based on the primacy of pragmatics in language and language intervention and on the generalization of language intervention to everyday contexts. Then, we'll wrap up the chapter with a brief discussion of EBP, which is the basis of this text and what we practice as a profession.

Role of Pragmatics in Intervention

As you'll recall, pragmatics consists of the intentions or communication goals of each speaker and of the linguistic adjustments made by each speaker for the listener in order

Table 1–1. Comparison of Traditional and Functional Intervention Approaches	
Traditional Model	**Functional Model**
Individual or small group	Individual, small group, large group, or an entire class
Clinical situation	Actual communication situation
Isolated language targets	Relationship of linguistic units stressed as target is used in conversation
Begin with small units of language and build up to conversation	Target conversation as "fixing" the child's language as needed with minimal prompts
Stress on modeling, imitation, practice, and drill	Conversational techniques stressing successful communication
Use in conversations stressed in final stages of intervention	Use is optimized as a vehicle for intervention
Child's behavior and language constrained by adult	Increased opportunity to use the new language feature in a wide variety of contexts
Little real conversation and use	Premised on real conversation and use
Little involvement of significant others	Parents and teachers used as agents of change

to accomplish these goals. Most features of language are affected by pragmatic aspects of the conversational context. For example, a speaker's selection of pronouns involves more than syntactic and semantic considerations. The conversational partners must be aware of the preceding linguistic information and of each other's point of reference. For example, a noun reference is used before the speaker can refer to it with a pronoun. In addition, pronouns such as *I* and *you* depend on who's speaking.

In an earlier era, interest by SLPs in psycholinguistics led to a therapeutic emphasis on increasing syntactic complexity. With a therapeutic shift in interest to semantics or meaning in the early 1970s came a new recognition of the importance of cognitive or intellectual readiness. The influence of sociolinguistics and pragmatics in the late 1970s and 1980s has led to interest in conversational rules and contextual factors. Everyday contexts provide a backdrop for linguistic performance.

Likewise, among those working with individuals with communication disorders, the focus has shifted to the communication process itself. Previously, for example, children's behaviors were considered either appropriate or inappropriate to the stimulus-reinforcement situation. When emphasis shifts to pragmatics and to the processes that underlie language use, however, the child's language can be considered on its own terms. For example, does it serve a purpose for the child within their communication context?

Older approaches have tended to emphasize children's deficits with the goal of fixing what's wrong. In contrast, a functional approach stresses what a child needs in

order to accomplish their communication goals. It follows that intervention should provide contexts for actively engaging children in communication. In shifting the focus away from the disorder, the goal of intervention becomes increasing opportunities for supporting a child's participation in everyday communication situations. It's a new recognition that a language disorder is not a thing residing in a child but a dynamic process reflecting the child and the communication context in which the communication occurs.

Increasingly, SLPs are recognizing that the structure and content of language are heavily influenced by the conversational constraints of the communication context. This view of language necessitates a very different approach to language intervention. In effect, functional intervention moves from an entity approach, which targets discrete isolated bits of language, to a systems or holistic approach, which targets language within the overall communication process. The major implication is a change in both the targets and the methods of teaching. If pragmatics is just one of five equal aspects of language, as seen on the left in Figure 1–2, then it offers yet another set of rules to teach and the methodology need not change much. The teaching still can emphasize the *what* with little change in the *how*, which can continue in a structured behavioral paradigm that I've called a traditional method.

In contrast, an approach in which pragmatics is seen as the overall organizing aspect of language, shown on the right in Figure 1–2, necessitates a more interactive conversational teaching approach, one that mirrors the environment in which the language will be used. Therapy becomes child-oriented rather than error-oriented, and conversation is viewed as both the teaching and transfer environment. I'm calling this a functional approach.

Figure 1–2. Models of how aspects of language are related.

Pragmatics is one of five equal and interrelated aspects of language

Pragmatics is the overall organizing aspect of language
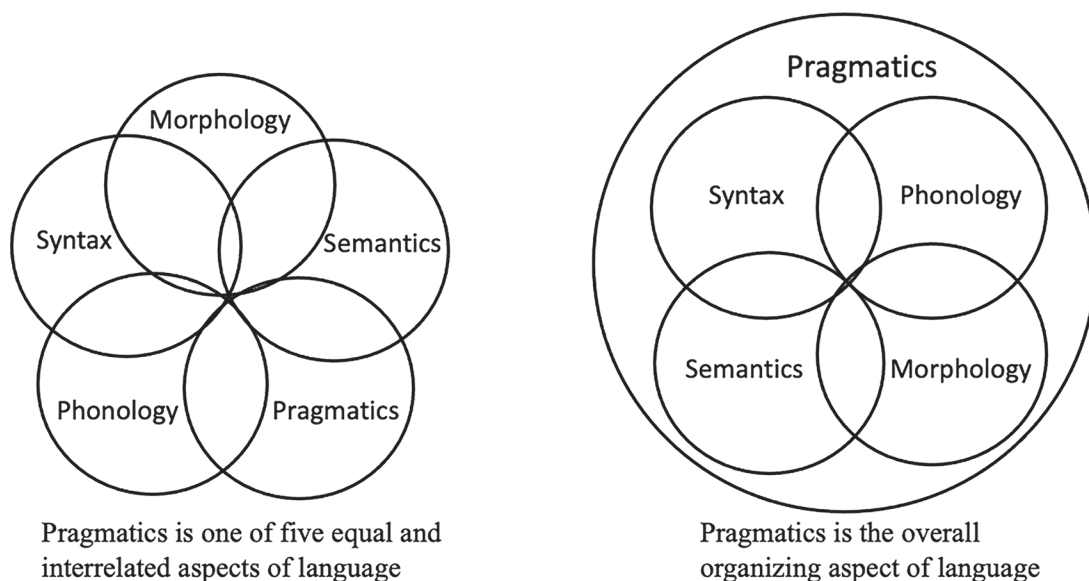
Dimensions of Communication Context

Language is purposeful and takes place within a dynamic context that affects form and content and may, in turn, be affected by them. Context consists of a complex interaction of many factors:

- *Purpose*, which affects what to say and how to say it. Here's pragmatics again.
- *Content* or topic, which affects the form and the style.
- *Type of discourse* or characteristic type of structure related to the purpose. An argument differs from a bedtime story in many ways.
- *Participant characteristics*, such as background knowledge, roles, life experiences, moods, group identity and shared rules, willingness to take risks, relative age, status, familiarity, and relationship in time and space, affect the context.
- *Setting and activity*, including circumstances of the communication situation, can affect language, especially the choice of vocabulary.
- *Mode of discourse*, such as speech, signing, and writing, require very different types of interaction from the participants.

Within a conversation, participants continually must assess these factors and their changing relationships. Now, it should be easier to see why consideration of the pragmatic context is an essential feature of effective language intervention.

> ***Food for Thought:*** **Imagine telling a narrative to a friend. Now imagine the same story being told to a group of seniors whom you've never met and who will not understand some of the words you used. Do these factors affect the story being told?**

An SLP must be a master of the conversational context. Unfortunately, it is too easy to rely on overworked verbal cues that keep the adult in control, such as "Tell me about this picture" or "What do you want?" to elicit certain language structures. There are better, more creative ways to elicit the same structures, but the SLP must be willing to relinquish some of that control and use more creative brain power. If an SLP knows the dimensions of a communication context and understands how these dimensions are likely to affect communication, the SLP can manipulate them more efficiently. I'll explain how later in the text.

Summary

In the clinical setting, SLPs need to be aware of the effects of context on communication. How well children with language disorders regulate their relationships with other people depends on their ability to monitor aspects of the context. Given the dynamic nature of

conversational contexts, it is essential that intervention also address generalization to the child's everyday communication contexts.

Role of Generalization in Intervention

One of the most challenging aspects of language intervention is generalization, or carry-over, to nonteaching situations. Time and again, we SLPs bemoan the fact that although Johnny performed correctly during intervention, he could not transfer this performance to the playground, classroom, or home. When language features taught in one setting are not generalized to other content and contexts, the child's goal of communicative competence is not realized. Consideration of generalization shapes many aspects of a functional intervention approach.

Lack of generalization can be a function of several factors, including the material selected for teaching, the learning characteristics of a child, and the design of the teaching. Stimuli present in the clinical setting that directly or indirectly affect learning may not be found in other settings. Some of these stimuli, such as teaching cues, have intended effects, whereas others, such as an SLP's presence, may have quite unintended ones. In addition, clinical cues and consequences used for teaching, such as reinforcement, may be very different from those encountered in everyday situations, thus removing the motivation to use the behavior elsewhere.

For our purposes, let's consider generalization to be the ongoing interactive process of clients and their newly acquired language feature with the communication environment (Figure 1–3). For example, if we are trying to teach a child the new word *doggie*, we

Figure 1–3. Generalization schematic.
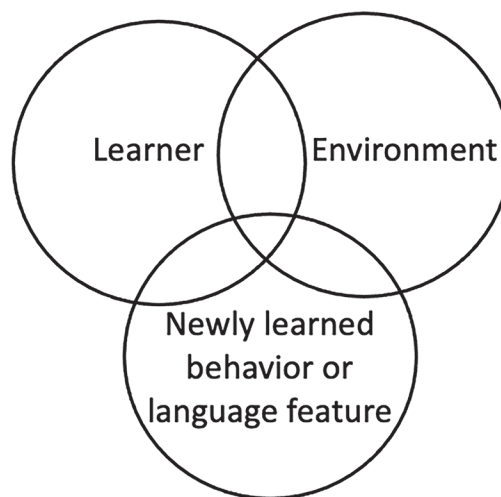
Generalization is the interaction of the individual, the newly learned behavior or language feature, and the environment. All three must be present for generalization to occur.