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What Is Communication?

I worked with Anne from the time she was twenty-six months old. She had big blue eyes and always fixed them on me when I entered the classroom. On the day that we met, I walked over to her and picked her up. She immediately smiled, so I started to slowly spin her around while in my arms. She laughed and tossed her head back. We played this game for several minutes. The next morning when I entered the room, she ran over to me and held her arms up. I waited to see what would happen next. She used no words or even any sounds. But she continued to lift up her arms and just about walked on my shoes! Finally, her arms and pleading eyes won me over and I picked her up and spun her around. While she had not spoken, I certainly knew what she wanted!

What is the essence of communication? Is speech necessary for people to communicate? Are there ways to communicate without using speech? These are critical questions for anyone who is planning to teach communication. How we answer these questions may have important impacts on the solutions we create and try to implement.

Defining “communication” is no easy task. A Google search for “define communication” results in 37.5 million results! *Merriam-Webster Online Dictionary* (2010) defines “communication” as “a process by which information is exchanged between individuals through a common system of symbols, signs, or behavior.” The American Speech-Language-Hearing Association Committee on Language defines “language” as “a complex and dynamic system of conventional symbols that is used in various modes for thought and communication.” Language can be made up of spoken and written words, as the English language

is, or can consist of gestures (American Sign Language), symbols alone (Braille), or other codes.

If you have read any reports by speech-language pathologists (SLPs), you probably know that two broad types of language skills are needed in order to communicate:

- **expressive communication** (language): using language to convey messages and
- **receptive communication** (language): understanding the messages from others.

This chapter will focus on using of communication skills to convey messages (expressive language), while the next chapter will address understanding the communication of other people (receptive language).

We often hear communication described as an act that conveys an idea or a feeling. In fact, most people assume that people first have ideas and feelings and then express them via their language. Thus, when we listen to someone speaking, we believe we know about his ideas or feelings. However, if we examine this scenario a little further in terms of what we actually can observe (see or hear), it is clear that by listening we only directly observe the words that are spoken. We have no direct connection with the ideas of another person. When you and I speak together, if you don't understand me, you might ask questions or suggest alternatives. I might then revise what I say until you indicate that you understand me. My clarifications might help you better understand what I am saying, but you still will not directly know my ideas.

When the interaction is between you and a child with complex communication needs, you will have even less opportunity to probe deeper into what he is thinking or feeling. By limiting ourselves to reporting only on observable events, we do *not* mean that people do not think, have ideas or feelings. It only means that we can only identify and report on what other people do and say—the rest is speculation and interpretation.

Communicative Behaviors

One of the most effective techniques for teaching communication and other skills to children with autism is a system called **applied behavior analysis**. In the simplest terms, behavior analysis is the study of behavior as it systematically relates to the environment—both events

before the behavior (often referred to as *antecedents*) and events happening after the behavior (referred to as *consequences*). For instance, a gust of wind blows a speck of dirt into your child's eye (the antecedent) and he begins to cry (the behavior). He then asks you for a tissue (the behavior) and you quickly give him one (the consequence).

B.F. Skinner, the psychologist who did much of the pioneering work in the field of ABA, taught that all behavior—from simple actions, to complex language (including the actions of children and adults with disabilities)—can be systematically studied. In 1957, Skinner wrote a book, *Verbal Behavior*, describing how different types of communication are related to environmental factors such as items or events in our surroundings or what other people say to us. While a complete explanation of his theories is beyond the scope of this book, an understanding of some of his theories will be very helpful to our ability to help children who have difficulty communicating and using speech.

What we have found most helpful in using Skinner's analysis is the emphasis on analyzing *observable* behavior and on the unique qualities that differentiate what Skinner refers to as verbal behavior (communicative behavior) from other behaviors. For the purposes of this book, we will define *communication* as ***behavior directed to another person, who in turn provides related direct or social rewards*** (Frost and Bondy, 2002).

Analyzing Communication By Its Antecedents and Consequences

A behavior analyst acts much like an investigative reporter. In grade school, we all learned that a good news report not only told us about *what* happened, but also about how, when, where, and why. In behavior analysis, we are interested in what happened (the behavior), but we also want to understand how, when, and where the behavior occurred, as well as why the behavior took place. In other words, we are interested in what is going on in the environment just prior to and after the behavior

What Behavior Is Communication?

If we are to study the behavior of communication, the first thing we should define is how it is different from other types of behavior. Not all behaviors are communicative, so we must identify what is unique

about behaviors that we do call communicative. For example, a girl walks into her play room, goes to the toy shelf, takes a doll off the top shelf, and begins to play with it. In this case, the child acted on different things in the environment and was reinforced for these actions by playing with the doll. No communication is identified here—the child acted directly on the environment.

It is important to note that if you were watching the girl, you could interpret her actions with the doll to indicate that she wanted the doll. However, our ability to interpret her actions does *not* make her actions communicative. We must separate our interpretation from the true reasons for the child's actions. So, in this case, getting the doll did not involve communication because the girl did not direct her behavior to another person and because the girl gained access to her doll on her own.



What happens if the child walks into the play area and her father is standing between her and the doll? If she pushes him out of the way and gets the doll on her own, we again would say that she did not communicate. Yes, she directed behavior to her father, but she did not do anything that caused him to give her the doll. On the other hand, if she does something to her father that causes him to give her the doll, we would say that she did communicate—both requirements for our definition of communication have been met. One of Skinner's most significant contributions to describing and defining communication (verbal behavior) was that he specified that any mode of behavior can be considered communicative. So this girl could speak to her father, gesture to her father, give a picture to her father, or sign to her father. As long as she does something directly to her father and as long as he then provides access to the doll, we would consider her behavior to be communicative.

The specific behavior the young girl directs to her father is what we would call *language*. Language is a system of symbols used by a

particular community. So if this girl were in France, she would speak French to her father. If she were in the United States, she might sign to him using the symbols of American Sign Language. If she gives him a picture, it would be understood across many different cultures. In reaction to each of these actions, her father would provide the toy along with encouraging words and smiles.

Why Do We Communicate? (The Consequences)

Let's start with how behaviorists look at the fundamental reasons for communicative behavior—that is, why do we communicate? We will keep our analysis straightforward and look at two examples highlighting the basic reasons to communicate.

In our example about the young girl who walked into the play room, she communicated with her father in order to get the doll. Her father listened to her communication and made sure (as fathers do!) that she got what she wanted. Here we can see that one of the reasons this girl communicates is to get other people to provide her with things that she wants (that is, to *request*).

Now, let's consider a different situation. Imagine a twenty-month-old boy who is using some single words. He is sitting in the living room looking out the bay window. Suddenly, he says, "Plane! Plane!" over and over. Why is he saying this? To understand his reason, we must watch what his mother does. It is very unlikely that the boy wants his mother to get the airplane. When we watch, his mother is very likely to say something like, "Yes, it is a plane! I see the plane, too! Look how pretty the plane is!" In this case, the outcome of the child's communication is the social reaction (including mom's words) by his mother. Those of you who have had this type of interaction also recall how persistent the child can be! He may say, "Plane!" over and over until his mother acknowledges his comment. For this young boy, the social outcome for his *comments* is very motivating.

So, we now see two primary reasons to communicate. One reason involves relatively concrete outcomes, such as receiving favorite snacks or toys. The other reason is generally social in nature—the praise or attention that we may receive from commenting about the world around us. (See Chapter 5 for some additional reasons for communication.)

If your child does not have appropriate communication skills, it will be very important to determine which kind of communication you want to teach. Although it may seem equally important to teach

requests and comments, we must remember that comments are usually learned due to their social consequences. For children with autism, social consequences are generally not powerful motivators. Thus, early in our intervention, teaching comments may prove very difficult. On the other hand, if you know what concrete objects and outcomes your child likes, then teaching requesting will have some immediate and powerful effects. We will return to this point when we focus attention on specific communication systems and teaching strategies.

When and Where Do We Communicate? (The Antecedents)

Jo-Anne was referred to me by her family physician. In her clinical notes were indications that Jo-Anne could speak but was “stubborn” or “lazy.” When Jo-Anne and I played, it was clear that she liked to play with a set of little dolls. She reached for the dolls but would not ask for them. If I held onto a doll, she would begin to whine. If I said, “Tell me what you want,” she quickly said, “Doll!” However, when I didn’t speak, she didn’t speak. In my view, she wasn’t stubborn; she simply had not yet learned when to use her words.

To understand when and where we communicate, it is helpful to consider several different situations and see how they influence our views about communication. For example, consider a girl who walks into a room, sees you and a bowl of popcorn, walks over to you, and says, “Popcorn!” We would give this child credit for being spontaneous. She initiated the interaction without any assistance from us.

Now consider a girl who sees the same situation but simply stands in front of the bowl of popcorn. We patiently wait but she does not speak. We then ask, “What do you want?” The girl immediately says, “Popcorn!” In this case, we would say that the girl can speak but she needs a prompt or a cue from someone else.

Finally, consider a girl who sees the same situation and also does not initially speak. When we ask, “What do you want?” the girl says nothing. Then we say, “Popcorn” and the girl immediately says, “Popcorn!” In this case, we would say the child is able to imitate. That is, she may speak, but only if she hears a specific model from someone else.

In each of these situations, the child said the word “popcorn.” So if we asked the simple question, “Does the child speak?” the answer in all three cases would be “Yes!” However, each child actually did some-

thing different, and it would be misleading to say each response was equivalent to the others. Although the “why” for each child is the same (that is, they each wanted popcorn), we must interpret what happened differently because the situations leading up to the girls speaking were different. (See Table 1-1.)

Table 1-1 Types of Communication			
Antecedent (Setting)	Child's statement	Consequence (Outcome)	Type of communication
Child sees mom holding a bowl of popcorn	"I want popcorn "	Mom gives child popcorn	Spontaneous request
Child sees mom holding a bowl of popcorn	"I see popcorn "	Mom says, "Yes, I see the popcorn, too!"	Spontaneous comment
Mom says to child, "What do you want?"	"Popcorn"	Mom gives child popcorn	Responsive request
Mom says to child, "What do you see?"	"Popcorn"	Mom says, "Yes! I see the popcorn, too!"	Responsive comment
Mom says, "Say 'POPCORN'"	"Popcorn"	Mom gives child popcorn	Imitation
Mom says, "Say 'POPCORN'"	"Popcorn"	Mom says, "Good!"	Imitation

At this point, it would be reasonable to think that if a child could say the word “popcorn,” then the child should use it in each of the six scenarios described. Unfortunately, this transfer does not always happen, not only for children with autism (and other communication difficulties) but also for children acquiring speech in a developmentally typical fashion (Skinner, 1957). Some children can imitate but cannot answer simple questions or use their words spontaneously, and other children can imitate and answer simple questions but not initiate.

If we view the types of communication listed in Table 1-1 as six separate actions, even though the form of each is the same, then we can see that we will need at least six separate lessons to assure that a child learns to deal with each situation appropriately. It may seem

reasonable to assume that we must first teach a child to imitate before he can reply and before he can initiate communication, but in the next section, we will see that this may not be a universal assumption.

In terms of understanding *where* we communicate, we already noted that there must be a “listener” (or someone who responds



to whatever mode of communication is used) present for an episode of communication to occur. If an action, speech, or otherwise is as likely to occur when there is an audience as when a child is alone, then it is questionable whether any communication is occurring. If the child who earlier walked to the play room and retrieved a doll (without awareness that anyone

else was in the room) had been muttering “doll,” would that have been a communicative act? We would say “no” because no action was directed to another person.

How Do We Communicate?

Our last investigative reporter question relates to *how* we communicate. The most frequent and socially accepted way to communicate is to use speech. However, when we watch someone speaking, it quickly becomes clear that we all use facial expressions and other types of body language to enhance the effectiveness or clarity of our message. Some people feel tortured when asked to speak without using their hands! We also use various voice qualities to change the way what we are saying is understood. Such changes include our tone of voice or inflection, how loudly or rapidly we speak, or how we modulate our emphasis on certain sounds, as when using sarcasm.

Can we communicate without using speech and its various modifications? As you watch people using their hands while speaking, you can probably recognize many gestures. When those hand gestures

become more formalized, we can see the roots of another communication system, sign language. In the deaf community, there are several formal sign systems, including American Sign Language (ASL) and Signing Exact English (SEE). ASL has its own set of rules for grammar, while SEE follows the rules for spoken English.

As you read this book, we are using another mode of communication, namely, writing. Although it may seem surprising, there are children who have learned to read and write but have never learned to speak. In addition to print, other symbols have been used in communication. Some written languages are picture-related, as in hieroglyphics and Chinese/Japanese, or texture related, as in Braille. Some modern systems involve a mixture of pictures and abstract symbols, as in Blissymbols or Rebus symbols. Other communication systems involve pictures or photographs, as in picture-boards, the Picture Exchange Communication System, or various electronic systems. In other chapters, we will discuss how these symbols are used. The important point here is that many types of symbols have been incorporated into sophisticated communication systems.

In short, just as Skinner specified, there are many modalities of communication used by children and adults (see Chapter 5 for more information on this topic). It is not necessary for a child to use speech in order to communicate effectively with others. On the other hand, there *are* clear benefits if a child can use speech to communicate. These advantages include its portability (I take my voice wherever I go!), the high likelihood that it will be understood, and its ease of use.

For some children with autism, their ability to understand us is far better than their ability to communicate with us. However, for many other children with autism, we will need to pay as close attention to teaching them to understand us as to teaching them to communicate. That is what we describe in the next chapter.

Refining Our Definitions

In summary, in investigating such terms as communication, language, and speech, it is apparent that in order to plan intervention for people with complex communication needs, we must further refine our definitions for optimal outcomes. We want our interventions to teach communication skills that are immediately useful in as many

environments as possible. We do this by teaching what we will refer to as “**functional communication.**” Using the wisdom of Skinner and drawing from our own professional experiences, we define functional communication as ***behavior (defined in form by the community) directed to another person who, in turn, provides related direct or social rewards.***

References & Resources

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