

# Children's Communication Skills

From birth to five years

Belinda Buckley



# Children's Communication Skills

Speech and language are fundamental to human development. Language is needed for both communication and thought, while education depends on the ability to understand and use language competently. Effective communication underpins social and emotional well-being.

*Children's Communication Skills: From Birth to Five Years* uses a clear format to set out the key stages of communication development in babies and young children. Its aim is to increase awareness in professionals working with children of what constitutes human communication and what communication skills to expect at any given stage. Illustrated throughout with real-life examples, this informative text addresses:

- normal development of verbal and non-verbal communication skills
- the importance of play in developing these skills
- developmental communication problems
- bilingualism, cognition and early literacy development
- working with parents of children with communication difficulties.

Features designed to make the book an easy source of reference include chapter summaries, age-specific skills tables, sections on warning signs that further help may be needed, and a glossary of key terms.

These practical guidelines on what to expect children to achieve and how to help them get there are based on a huge body of research in child language and communication development. *Children's Communication Skills: From Birth to Five Years* will be of great use to a wide range of professionals in training or working in health, education and social care: health visitors; general practitioners; community nurses; educational psychologists; early years educators; and speech and language therapists.

**Belinda Buckley** is a Paediatric Speech and Language Therapist.

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From Birth to Five Years

Belinda Buckley

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For Rowan

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# Preface

## The ‘what’ and ‘how’ of communication

The purpose of this book is to increase awareness in professionals working with babies and young children of what constitutes human communication and what communication skills to expect from birth to 5 years of age. Greater knowledge in these areas should lead to greater confidence among professionals in identifying those children having problems in developing their speech, language and communication. There is much evidence to support early intervention for babies and very young children with communication difficulties. Importantly, professionals need to know that they do not have to wait for a child to start talking before discussing their communication skills development with parents.

Essentially, all children are thought to have an innate predisposition to develop nonverbal and verbal communication skills. It is helpful to consider communication by asking the following two questions: what is it and how is it used? Answers to the first question include smiling, eye contact, gesture and language. Answers to the second question include expressing pleasure, signalling to other speakers that one has finished speaking, drawing another person’s attention to an interesting toy and telling stories. The ‘what’ of communication emerges in all children but it is the socio-cultural and linguistic environment that plays a significant part in determining ‘how’ children use these skills. Cultures differ in this respect. There are differences between cultures regarding what is considered appropriate use of eye gaze between adults and children, regarding how smiling is used and which gestures are deemed appropriate. Within cultures, the context of the interaction determines how communication skills are used, as what is considered appropriate depends on the context. There are rules within cultures that determine what is and is not appropriate in terms of use of communication. Children learn these rules implicitly over the course of their development.

This book describes the ‘what’ of communication skills development in babies and children. Babbling, smiling, pointing, vocalizing, using words one at a time, combining words, understanding situations and understanding words are all communication skills and are universal. The rate of emergence of many of these skills occurs universally among children with normal communication skills development (Bates *et al.* in press). All babies babble around the same time, but the



sounds they produce are influenced by the sounds of the language spoken around them. Smiling emerges universally around the same time in children, but children have to learn the cultural rules for using smiles in interaction with others. There has not been extensive research, however, into rates of emergence of the range of nonverbal and verbal communication skills cross-culturally and cross-linguistically.

This book also describes the ‘how’ of communication skills development, from a largely western, monolingual English-speaking perspective. Of course there are variations between western English-speaking children regarding how they use their communication skills – cultures and societies have never been static, and many western societies are becoming increasingly multicultural and multilingual. There is an intricate relationship between the ‘what’ and the ‘how’ of communication skills that necessitates a cautious approach towards applying information in this book to children for whom it is not culturally appropriate.

## **Analysing communication**

Human communication involves a highly complex interplay of skills (such as language), mental processes (such as thinking about what somebody has said) and physical movements (such as hand gestures and facial expressions). For example, as you read the words on this page you might be aware of sounds in your environment such as cars passing by outside or of somebody sneezing. Although your ears might sense these sounds and transmit them to your brain, you are able to direct your attention to your reading, simultaneously filtering out environmental sounds (for a certain amount of time, anyway). The skills and processes central to reading (which at a minimum are control over one’s focus of attention, and extracting meaning from written words) occur simultaneously.

It is helpful to analyse communication in terms of its component skills, processes and behaviours, in order to understand it better. When considering the development of communication skills in children, it is also helpful to draw links with related areas of development such as play and attention. Development of the various skills involved in communication occurs simultaneously in most children, relevant to their stage of development. For purposes of clarity, different aspects of communication (for example, understanding words, using words, using gestures) are discussed independently in Chapters 1 to 4. The format of these chapters is the same, and reflects the range of skills involved in communication and important related skills. However, every effort has been made to relate the various aspects of communication not only to each other, but also to related areas of development. It is important to keep in mind that the development of communication skills is inextricably linked to other areas of a child’s development. Understanding a child’s communication is one step towards understanding them as a whole child.

## Use of examples

The book contains several examples of communication behaviours and child language. Most of these are from observations of a girl called Rowan during her early years. However, there are also examples from other children, some of whom are Rowan's friends.

## Referring to significant adults

A book about the development of children's communication skills would be impossible to write without mention of the significant adults in children's lives. 'Significant adults' refers to parents and other main caregivers. Many children have more than one significant adult in their lives. The importance and value of each of these adults' contribution to any child's overall development, including that of their communication skills, is not in question. There is no direct or indirect intention in this book to express value for one gender over another, or to suggest that one relationship that a child has with one parent, or main caregiver, is more important, or valuable, than another. For purposes of readability and when discussing specific examples of communication between an adult and a child, the terms, 'mother', 'father', 'parent' and 'caregiver' have variously been used. More reference is made to interaction between mothers (i.e. rather than fathers and other caregivers) and babies in Chapter 1, as this covers the early weeks and months in a baby's life, which is usually spent in close contact with their mother.

## Referring to children

Except in specific examples of communication involving boys, I have used 'she' when referring to children in this book. This is for purposes of clarity and consistency.



### **Tables outlining communication skills usually achieved by children at different ages**

It is intended that these tables are used only by professionals who work with children.

At the end of Chapters 1 to 4 are 'Key skills' tables that outline communication skills usually evident in children of different ages. All babies and children differ in their rates of development, including in their acquisition of communication skills. These tables, which are based on research, can be used as an overall guide of what to expect at different ages. They have not been standardized on any group of children. Speech and language therapists use a range of detailed, standardized tests to investigate children's language when indicated.



## **Tables outlining possible warning signs at different ages**

Once again, these tables are intended for use only by professionals who work with children.

At the end of Chapters 1 to 4 are ‘Warning sign’ tables which contain suggestions of possible signs that a child is developing at a slower rate, for different ages. Sometimes communication skills do not develop as expected in babies and children. Although there are great differences among children regarding rates of development, it is best to address any parental or professional concerns that might arise. Any professional concern about a child’s communication skills development must be discussed with parents before any action is taken. Any parental concern must be listened to and taken seriously. It is advisable to seek assessment of the child’s communication skills by a speech and language therapist in circumstances described in the ‘Possible warning signs’ tables. Additional concerns regarding a child’s development need to be discussed with parents and onward referrals for assessment made as appropriate.

## **Glossary**

The glossary at the back of the book explains terms that may be unfamiliar to readers. Words in the glossary are marked the first time they appear in the book by the use of italics.

**Belinda Buckley**

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# Introduction

## Human communication

- What is meant by the terms *communication*, *language* and *speech*?
- How are communication, language and speech involved in expressing and understanding messages?
- Environmental and internal factors which contribute to the development of communication, language and speech.
- Summary of key points.

## Communication, language and speech

### Communication

#### *What is communication?*

*The Chambers Dictionary* (1998) defines the verb ‘to communicate’ as ‘to succeed in conveying one’s meaning to others.’ Messages people send can be unintentional or *intentional*. For example, very young babies that have not yet learned about the purposes of communication nevertheless succeed in conveying messages to others through their cries and movements. Over the course of their development, children learn that communication is used to achieve different purposes (such as getting a drink, seeking comfort or telling a story). Children learn to become increasingly effective communicators as they succeed in both conveying and interpreting a wider range of messages and develop an understanding of how to respond appropriately. They learn that messages can be conveyed in different ways using different combinations of *nonverbal* and *verbal* means.

If communication is about conveying meaning (or ‘messages’) it necessarily involves:

- somebody who sends a message (for example a speaker, writer or signer)

## 2 Introduction: human communication

- the message (which might be in the form of a wave, a prod, a laugh, a single *word* such as 'Hello' or a complete novel, for example)
- somebody who receives the message (for example by seeing it, hearing it or feeling it).

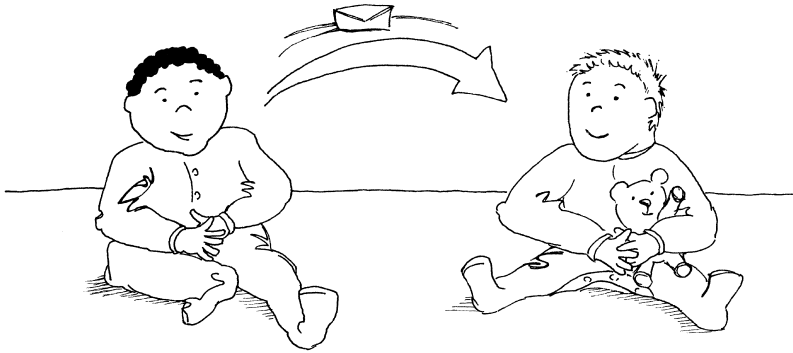


Figure 1.1 The elements of communication: a message is sent by one person, and received by another

### *Why do humans communicate?*

Humans are essentially social animals and communication skills are at the heart of social interaction. Developing communication skills enables children to exert control over their social and emotional worlds and to relate to others. The stages of communication skills development that children progress through provide the basis for successful communication in later life. Communication is fundamental to education and, as they move towards adulthood, people need communication skills in order to participate in all areas of life including work, leisure and relationships.

### *How do humans communicate?*

Humans use both nonverbal and verbal channels to convey their meaning to others. Nonverbal communication includes eye gaze, facial expression, physical proximity, *gestures*, *vocalizations* and *body language*. Verbal communication refers to the use of language, which can be spoken or written. Messages can also be conveyed via other visual means such as symbols, pictures and *signs*. People receive *auditory* messages via their sense of hearing, visual messages via their sense of vision and *tactile* messages via their sense of touch. Most face-to-face interactions between humans involve a combination of nonverbal and verbal messages which might be visual, auditory and tactile. The person receiving the message must be able to integrate all the different incoming sensory information if the full meaning of the message is to be comprehended.

## Language

### What is language?

The definition of language has evolved over the course of the last century from one equating language with *grammar* (rules for combining words), to one that includes the contextual and functional aspects of communication. Mogford and Bishop (1993a) describe language as ‘a system organized in a regular and predictable way such that it is possible to write a set of rules that describes the regularities of the system.’ If the purpose of language is communication, then language is a rule-governed communication system. The system is composed of meaningful elements (sounds, words and signs for example) which can be combined according to rules to express an infinite range of meanings. The elements are arbitrary in that, particularly in spoken language, they bear no direct relationship to the things that they refer to. In this way, language is symbolic. This is one of the reasons why different languages have different words to refer to the same thing, for example ‘hat’ in English and ‘chapeau’ in French are used for the article of clothing worn on the head. *Onomatopoeic* words, such as ‘tick-tock’ for the sound of a ticking clock, exist in languages, however, and are one of the ways that young children break the language code, as they are easier to understand initially (Myers Pease *et al.* 1989). Once a rule-governed communication system is in operation among a group of speakers or signers (depending on whether the language is spoken or signed) then mutually intelligible communication is possible. Kamhi (1989) cites the definition endorsed by the American Speech-Language-Hearing Association (ASHA) in 1983:

Language is a complex and dynamic system of conventional symbols that is used in various modes for thought and communication. Contemporary views of human language hold that: a) language evolves within specific historical, social, and cultural contexts; b) language, as rule-governed behaviour, is described by at least five parameters – phonologic, morphologic, syntactic, semantic, and pragmatic; c) language learning and use are determined by the interaction of biological, cognitive, psycho-social, and environmental factors; and d) effective use of language for communication requires a broad understanding of human interaction including such associated factors as nonverbal cues, motivation, and socio-cultural roles.

(Kamhi 1989: 69–70)

The evolution of language is beyond the scope of this book. An aim of this chapter is to raise the reader’s awareness of the rule-governed and multi-levelled nature of language, and the role that language plays in the multi-layered process of human communication.

Language can be described, then, as being made up of the levels described below. (Grammar, which is to do with the internal structure of words and the structure of sentences, is used by some linguists, such as Mogford and Bishop 1993a, to refer to both *syntax* and morphology.)

#### 4 Introduction: human communication

- Phonology

*Phonology* refers to how the sounds (*consonants* and *vowels*) that exist in a language are used *contrastively* to signal differences in meaning; different languages have different sound systems which are used in language-specific ways. English uses the sounds ‘r’ and ‘l’ contrastively which results in a difference in meaning between the words *rake* and *lake*. There is, however, no distinction between these two sounds in Japanese. This makes it hard for the Japanese learner of English to distinguish between ‘r’ and ‘l’ both perceptually and productively. Phonology also refers to how the sounds of the language may be organized and combined to form words. For example, the sound ‘zh’ as in ‘measure’ cannot occur at the beginning of English words, but can in French, e.g. ‘je’ (I), ‘jour’ (day). In English it is possible to combine the sounds ‘s’ and ‘p’ at the start of words as in ‘spy’, but not ‘k’ and ‘p’ as in ‘kpy’.

- Morphology

*Morphology* refers to the group of words and *inflections* (*bound morphemes*) that exist in a language that subtly modify the meaning of a sentence, and the rules that govern their use. *Morphemes* are the smallest element of meaning in a language. In English there are *free morphemes* that stand alone (for example, ‘cat’) and bound morphemes that include the *plural* ‘s’ as in cats (‘the cats sleep by the fire’ in contrast to ‘the cat sleeps by the fire’), the *past tense* ending ‘ed’ to signal that an event took place in the past (‘my dad cooked dinner’, in contrast to ‘my dad cooks dinner’). What differentiate the sentences in brackets are the grammatical morphemes, while the major elements of meaning are similar in the two pairs of sentences.

- Syntax

Syntax refers to the rules that exist for combining different words into phrases and sentences so that they make sense. In English the sentence ‘Dad cooks in the kitchen’ makes sense but ‘kitchen the Dad in cooks’ does not. These rules specify the relationships between elements such as people, actions, things and their characteristics: ‘who does what to whom?’; ‘whose is it?’; ‘why did she do it?’; ‘how did he do it?’; ‘where is it?’ and so on. In the sentence, ‘Dad cooks in the kitchen’ ‘dad’ is the subject of the verb ‘cooks’ and ‘in the kitchen’ refers to where the action took place, signalled by the position word ‘in’. Different languages have different syntactic rules. Rules governing word order, for example, are far more flexible in Spanish than in English, where the same word order can be used to express both a question and a statement. For example, ‘*està en la cocina*’ could mean ‘he is in the kitchen’, or ‘is he in the kitchen?’ *Intonation* is used to specify the difference in meaning.

- Semantics

Semantics refers to the meaning of words and of word combinations. The meaning of the word ‘house’ refers to its defining characteristics such as appearance and function (made of construction materials such as bricks, stones, wood; may be divided up inside into rooms; has an entrance such as a door;



has walls, floor and roof; may exist on more than one level; used for living in). The meaning of the phrase ‘dad’s house’ depends on the relationship between the component words. Through combining these two words, the house is specified and the summative meaning is thus different from that of the phrase, ‘grandma’s house’.

- **Pragmatics**

Pragmatics refers to how language is used in context to serve a range of purposes. Pragmatics is constrained by sets of rules, like other levels of language. For example, there are rules about how to initiate, regulate and terminate *conversations*. Bates (1976) used the term ‘pragmatics’ to refer to:

- how language and communication are used to communicate a range of meanings (for example requesting, persuading, informing)
- how people adapt to the needs of a listener (a baby as opposed to a bank manager, for example) and
- how people use language and communication to hold conversations.

It would be inappropriate for a teenager to start a conversation with his teacher by using the phrase, ‘Oi, missus . . .’; the teenager’s behaviour would be interpreted as rudeness, in most situations. Individuals can intentionally violate the rules of pragmatics in order to express rudeness or humour, for example; some individuals (including some diagnosed with autistic spectrum disorders) violate these rules without being aware that they do so, however.

Although it is possible to separate out the different levels of language in this way, it should be remembered that these levels do not develop in isolation in normal development but are interdependent. Development of the language, communication and speech systems are dependent on each other and inextricably interwoven into a child’s general development. Children need to learn not only how to use language effectively but also to understand it when used by other people. Knowledge of the rules that exist in speech, language and communication is implicit in children acquiring the language and in mature speakers. Most English-speaking adults without linguistic training know instinctively that the combined words ‘kitchen the dad in cooks’ does not make sense, but would lack the explicit linguistic knowledge to state why this is so.

### *Why does language exist?*

In addition to the communicative purposes of language already touched on, language is used to develop knowledge, for thinking, for reasoning and solving problems and for remembering. Language helps children learn about the world, allowing them to give names to things of interest and relevance and helping them to organize their knowledge of the world. New words represent new concepts learned, thus expanding knowledge about the world. Thus cats, monkeys, hamsters and cows come to be grouped together in the category referred to as ‘animals’ and

buttons, balls, the sun and belly buttons are grouped together in the category of things that are ‘round’. In addition to using language to refer to what exists in the here and now, it can be used to refer to things that are not immediately visible, about the future, the past and imaginary events. As language develops, it is used increasingly as a tool for thought and memory.

## Speech

### What is speech?

Speech involves the use of *speech sounds* to express language. Speech is only one form of expressing language – others are writing and *sign language*. Some people who never develop speech are able to read and write and some learn how to communicate using sign language, or other visual communication systems.

Speech can be considered as the sounds that result from a series of intricate muscular movements made in different parts of the mouth by a group of muscles (Figure I.2). The ‘*articulators*’ are those parts of the mouth and muscles involved in producing speech: lips, tongue, *soft palate* (soft muscular flap at the back of the mouth which is open for breathing and usually closes off the nasal cavity for speech), roof of mouth, *pharynx* (throat) and jaw. In mature speech, the articulators move in automatic and specific ways according to learned patterns of *pronunciations* for words that are stored in the mind (Hewlett 1990, Crary 1993, Stackhouse and Wells 1997). Each word that a mature speaker utters has its own *articulatory pattern*; one aspect of speech development in children is the development of such mental patterns of word pronunciation which is necessary for automatic and error-free speech. Establishment of these patterns is partially informed by the child’s *perception* of words that are spoken by others. This is why children grow up speaking the *accent* used by speakers they interact with when learning to speak. It is necessary, then, to establish reliable auditory perceptual patterns for words in order to achieve accurate pronunciations. Children need to be able to perceive the difference in how pairs of words such as *boy* and *bee*, *boy* and *toy* sound before they can signal the difference in their pronunciation of these words. There is further discussion of the development of speech in the relevant sections of Chapters 1 to 4.

### How is speech produced?

Speech involves extremely fast, coordinated sequences of muscular movements that take place in the *vocal tract* (Borden and Harris 1984). The vocal tract is a name given to the air passages involved in speech production and extends from the *larynx* upwards to include the throat and mouth cavities and the nasal cavity (Figure I.3). A sequence of the basic muscular movements that occur when producing the word ‘boy’ appears below:

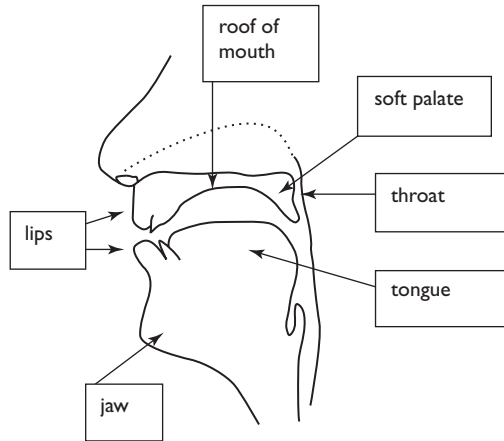


Figure 1.2 The physical structures involved in articulating speech – the articulators

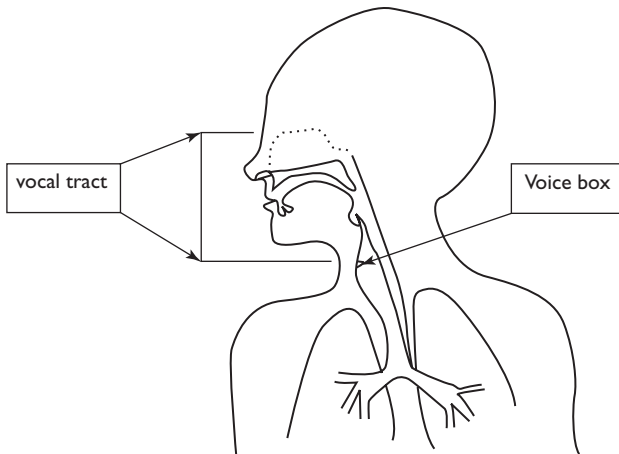


Figure 1.3 The vocal tract (the air passages above the larynx)

- diaphragm and ribcage muscles relax and air is exhaled from the lungs
- lips meet as soft palate closes off the nose from the throat – air builds up inside the mouth
- exhaled air is released from the mouth as the lips part and the *vocal folds* in the *voice box* start vibrating ('b' is uttered)

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- the bottom jaw lowers and the bunched up tongue moves downwards and forwards as the vocal folds continue to vibrate ('oy' is uttered).

Part of the reason why normal speech sounds fluent is because it is produced with precision timing and a high level of coordination between *articulations* of sounds (Borden and Harris 1984). Thus the sounds 'b' + 'oy' (boy) are uttered in smooth, coordinated sequence.

Speech is made on exhaled air from the lungs (it can be made on inspiration, though is not as effective), entailing coordination of respiratory function and speech production. When exhaled air passes through the vibrating vocal folds in the voice box, *voice* is the result. The throat, mouth, nasal cavity and sinuses around the nose act as resonating chambers that give the voice its human and individual quality. However, other muscle movements are necessary to convert the sound of voice into recognizable speech. Recognizable speech is the result of a series of speech sounds (consonants and vowels) being produced in a particular sequence which match the listener's auditory perceptual pattern of the word being uttered. Some speech sounds in English such as 's', 'k', and 'f' are made on exhaled air but without activation of the vocal folds. In order to say the word 'far' in a recognizable way, the speaker has to coordinate activation of the vocal folds at the right time – at the transition between the production of 'f' and that of the vowel sound. The sounds 'z', 'g' and 'v' are made in the same place in the mouth, and in the same way as the previous three sounds mentioned. The difference is that these three are made with vibration of the vocal folds in the voice box (also called 'voicing').

Another way of illustrating the highly intricate, complex and precise nature of muscular movements involved in speech is to consider the sound of an unknown foreign language being spoken (Borden and Harris 1984). The spoken language sounds like long spurts of a complex and constantly changing stream of sound without separations. It is extremely difficult, without knowing a language, to identify the beginnings and ends of words. It might appear that speakers of the foreign language speak much more quickly than speakers of one's own language. These impressions are more precisely descriptions of speech itself. Speakers take their own speech for granted. However, it is the most complicated *motor* task facing young children, involving thirty-six different muscles (Borden and Harris 1984).

Additional information to the meaning that is conveyed on coded speech sounds is carried in the voice itself. Voices tell listeners about the emotional state of the speaker – loud voices signal anger; trembling voices suggest shock, fear or anxiety; flat voices might indicate depression. The way the voice is used in combination with the actual words spoken informs the listener of the type of message conveyed – whether the words 'I'm sorry' signal an apology, a request for repetition or an expression of disdain, for example. This type of information is signalled by changes of loudness, changes of pitch and temporal features such as pauses and rate of speech.