

Introduction

Some children can't um – can't even um – they can't even talk or anything like that and they can't talk properly. And they get trouble by talking and um – things like that.

Ian, aged 9

Ruth: My mum and dad – dan me. And my brothers.

Adult: Your mum and dad -?

Ruth: My daddy and mum - h - they sidan me.

Adult: They send you?
Ruth: No dand me. Beechin.
Adult: What do they do?

Ruth: Nothing!!

This exchange took place between 10-year-old Ruth and myself. After a precarious start, it appears to have come to a dead-end. But with a bit of encouragement, Ruth starts again, slowly, weighing her words:

Ruth: My mum and daddy, those two – those stand me.

Adult: Understand?

Ruth: Yes!!

Adult: They understand you?

Ruth: Yeah.

We've arrived.

Our struggle over words speaks volumes. Ruth has initiated the conversation. She is quite definite about what she wants to communicate. Behind her eventually clear assertion that her family understand her lies her implicit recognition that other people don't. I prove her point with my persistent failure to understand that key word 'understand'. Ruth is ready to give up. It is just too hard to get her understanding understood.

Damian is 21, and describes himself as 'dysphasic'. He, too, can have difficulty getting his message across. He explains how he deals with this situation:



2 Introduction

Keep going. If it doesn't work, give up. Go on something else. If someone, like if someone talks to me, and I talk back to them but not in a nasty sen just ans — answer their question and they walk off, I just look at them and, ah, hell with you, and walk off.

But what does it leave him feeling? Not anger:

Anger is from the – your mind

he says, pointing to his head,

A urge is from inside you, in your heart (pointing to his heart). You want to hit out.

For Damian, it is a relief to talk 'his own language', which he feels free to do with his 'dysphasic' friends – friends who share his language disability:

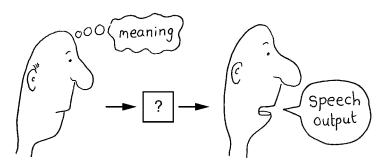
Speaking English, you have to be nice and clear. But if you speak in dysphasic language - it - I ca leave all that out and so you can speak however you want . . . Dysphasics don't bother. Everyone understand.

'Some children', as Ian says, 'get trouble by talking.' They may have difficulty understanding words, or they may understand words in different ways from other children. They may have a hard time producing words, may leave them out, distort them, or use them in different ways from other children. In one way or another, these children will struggle to be understood. What they encounter is not just misunderstanding of their words. It is also misunderstanding of their problem with words. All too often, people hear their halting or unusual speech and jump to the conclusion that they are lazy, or crazy, or stupid.

For most people, everyday talk is easy and effortless. We have little awareness of what makes it happen, so we have little idea what may stop it from happening. The only steps we can register, if we actively seek to, are that we have something to say and that we move the tongue and lips to say it. We have no conscious access to the **output processes** which go on in-between: the **psycholinguistic processes** which take us from meanings in the mind to motor movements in the mouth:

Introduction

3



In general, we experience the connections as instantaneous. We can, by conscious effort, separate out the two ends of output processing – intending a meaning, and making sounds. But however hard we try, we cannot catch ourselves making the question-marked connection between these.

The processes by which we understand other people's utterances are equally closed to consciousness. We can make ourselves aware of hearing sound and obtaining meaning from that sound. But we cannot catch ourselves in the psycholinguistic act of **input processing**: of turning the sound which strikes our ears into meaning.

Since we are normally oblivious to the connections we make between hearing/speaking and meaning, it is easy to mistake problems with one for problems with another. Yet obstacles to speaking or hearing are clearly distinct from obstacles in their connections to meaning. Children who have problems with the auditory or motor ends of language processing may have no problems with language processing itself. They prove the point when they find some means of bypassing the barrier to hearing or speaking and their language processing is freed.

Anthony Robertson, for example, has never been able to produce speech himself, but this has not stopped him producing language. He has no problem creating language in his mind, and with communication aids which provide an alternative outlet for language, he is able to get that language out. In his early childhood, he communicated by using his eyes to point to things in the environment or to a symbol board. Then at 11, he got one of the



4 Introduction

first light pointers to indicate symbols. Now in his twenties, Anthony supplements symbol boards with a sophisticated electronic device named 'Liberator', which turns symbols into speech. In order to communicate with this, Anthony directs his headpointer at symbols, or icons, corresponding to each word he wants to produce. An infra-red sensor picks up the combination of icons he selects, and relays it to the computer. The computer turns it into synthesised speech.

Using this device, Anthony can tell us in detail about his experience of communication. The points he makes, and the language he uses to make his points, speak for themselves: Anthony's speech may be blocked, but his language processing is not.

Consider Anthony's explanation of how he uses 'Liberator':

- A: To make a word, it does take two or three icons. That's how I can say a lot more than 128 words. [There are only 128 squares on the keyboard.]
- SC: How would you produce the word 'language'?
- A: I would use 'vocabulary' because that is programmed.
- SC: And how would you produce the word 'word'?
- A: 'Word' is 'phone-God-noun'.
- SC: Why does 'God' come into it? Just because it's one of the icons?
- A: The rationale is that in the beginning God communicated the word.
- SC: So you had to learn what the icons were for every word.
- A: Yes. Like learning French, I guess.
- SC: It's amazing. Each word involves a couple of moves, yet you hold the whole sentence together.
- A: That comes with practice.
- SC: So you can hold the sentence in mind as you do each word.
- A: Somehow, yes, without thinking hard about it.
- SC: You don't take short cuts and miss out the 'little' words?
- A: Sometimes at the week-ends I do!

What would happen if Anthony did not have communication aids to express the words in his mind?

- SC: Have you come across people who didn't have your experience?
- A: And they are vegetables. Sorry, that is real life if you walk into most institutions.



Introduction

5



Anthony Robertson with Liberator

When a child cannot produce recognisable speech and does not have an alternative means to convey words, other people may wrongly assume that those words are not there. If we think of language as nothing more than speech, we are bound to see an absence of recognisable speech as an absence of language. If we make the further mistake of confusing spoken language with the meaning intentions it expresses, our judgement of a child with impaired speech may be even more devastating: the deficit in speech may be taken to reflect a deficit in thought. Anthony again articulates this experience:

SC: How do you think people saw you when you were a child?

- A: I wasn't thought to be bright till when people sat down and worked with me.
- SC: Was there any period in your life when people didn't find out what was in your head?
- A: Yes, because of the time factor to be able to communicate. Then meant getting my board out.
- SC: From when you were five?



6 Introduction

- A: Six really, because took some time to learn.
- SC: Before you were six, can you remember what it was like?
- A: I ought to I used to think like any four years old person.
- SC: And could you understand everything?
- A: Yes. My understanding is always has been pretty normal.
- SC: Did people realise that?
- A: Dad and mum knew that, and some people at school.
- SC: Although you didn't use speech, when you had thoughts, were they in words in your head?
- A: Yes, and in my dad's voice whenever I think of something. You must understand I didn't get a voice like this [i.e. computer voice] till eighteen.

So, Anthony's apparent silence does not reflect a silence in his head. A disruption in the ability to move the vocal organs for speech is not to be mistaken for a deficit in language or thought. Obviously it is vital to distinguish different stages of language processing and to clarify where disruption occurs.

Deaf children face a different situation. In their case, the impairment will disrupt their processing of language when that language is spoken. However, if the barrier to auditory input is bypassed, the child's capacity for acquiring language may be freed. Lip-reading provides a Deaf person with some limited visual information about speech. Fingerspelling and writing provide a full visual representation of words. But the words they spell out are those of a spoken language which is not directly available. Only Sign language is entirely independent of the auditory channel, being a language which connects meaning directly to visual rather than auditory representations. When Deaf children receive normal input in Sign language, their acquisition of language proceeds along similar lines to hearing children's acquisition of spoken language (Kyle & Woll 1985).

Sarah Connolly communicates something of her experience as a Deaf person who uses different modalities to communicate:

- SC: Are you completely Deaf or do you hear a little?
- S: I am profoundly Deaf 50 per cent hear nothing, 50 per cent can hear. I hear you with hearing aid.



Introduction

Sarah adds the following comments in writing. These are recorded exactly as she wrote them:

When I was born, I hear nothing which I need to learn the language of English, most importation [presumably Sarah means *important*] is English language around me for life. Very difficult to learn the language, I am too young, actually my parents, sister and brother teach me. So I used my eyes to watch the Sign language, lip-reading and writing and when I getting older I learn the more and more English language and Sign language.

We continue in speech, supported by some use of Sign:

- SC: Is it difficult to lip-read?
- S: Sometimes difficult, sometimes easy . . . If I'm very tired, I can't watch lip-read, so I use Sign.
- SC: And when you're at home with your husband?
- S: Sign all the time.
- SC: Why?
- S: Because David use Sign all the time. [Sarah adds in writing] David can do the language because his family are Deaf so they always used Sign language.

Sarah's experience at her work-place provides an example of what happens when a Deaf person enters a hearing environment:

- SC: Your job was what?
- S: Laboratory technician at Wellcome [Sarah fingerspells these words].
- SC: What happened at work?
- S: When I met them first, they don't understand how communicate with me, so I teach them how communicate write out or lip-read. Much improve. One person did want learn Sign language because she like involve Deaf community, I think. I think she want easy communicate with me, and help us understand language.
- SC: When you meet people who don't know you, how do they respond to you?
- S: Two different ways. The first one when people talk to me I say I'm sorry I am Deaf. Another one when I talk, they know I'm Deaf because my voice or speech different. Or I tell them I'm Deaf before we talk.
- SC: Do people ever think you're silly because you talk differently?



8 Introduction

At this point Sarah switches to writing:

Some people think that I am silly when I talked different language because they don't know or understand the language what Deaf people used or Deaf community, some people knows already because they might have Deaf friends or family learning the language.

SC: What do you feel when people think you are silly?

S: I feel not very happy, so I feel people must learn Deaf community or the language what Deaf people using so Deaf people do learning the hearing community or language. So it is fair!

As Sarah says, her speech and voice are different from hearing people's; as the transcription of our dialogue shows, the organisation of her words and sentences also differs from a hearing person's in certain respects. These differences reflect the different routes to English which Sarah has taken in the face of her lack of hearing. They do not reflect differences in her potential for making connections between the meanings and forms of language.

Children who can't hear or can't speak can nevertheless acquire language normally. Conversely, some children can hear and can speak, yet they do not talk like other children. For these children, problems must be arising at some point beyond the processes to which we have conscious access, in those hidden processes which turn heard sound into meaning, or meaning into the motor movements of speech. This book is about these children, and the search for the hidden processes which give rise to their unusual language.

The book

Part I introduces this psycholinguistic enterprise. Its focus is **words**. It unpicks the process of word-learning, developing a theoretical framework and techniques for exploring a child's difficulties with words. With these theoretical and methodological tools in hand, individual children's difficulties with words are followed up. Preliminary observations of their language give rise to a hunch about their difficulties which leads into detailed investigation.

The inquiry then turns to different types of words, in particular,



Introduction

9

those on which sentences depend. Part II looks at children's processing of **verbs** and the **syntactic structures** which they demand. Part III focuses on their processing of **function morphemes**.

Part IV steps back from connections between sound and meaning, and digs deeper into **meaning and function** in language and their relationship to the ways in which human beings process experience.

Throughout the book, individual children are centre stage. The point is, first, to bring their language to life: to show how it is limited, or odd, or baffling, but also expressive, or moving or, paradoxically, articulate. Where is it coming from? Focusing on the individual child, we explore the particular ways in which language processing is limited or blocked, and the particular ways in which the child has negotiated the obstacles. This is illustrated by in-depth case studies in each section of the book.

This book is both introductory and searching. It spells out the thinking behind much of the research into the nature of speech and language impairments in children. At the same time, it serves as a springboard for investigations which delve deep into aspects of language processing in children who are or are not developing normally.

The book is for those who want or need to know more about what is going on in the mind of a child with a language disability. It is also for those who are fascinated by the language of children, normally developing or otherwise. They may be practitioners or students in speech and language therapy, students in linguistics or psychology, parents, or teachers. Researchers in the field may find fresh insights and questions in the extended evidence and discussion of specific aspects of language processing.

In a different sense, the book is for children with language disabilities. It is an invitation to listen to what they tell us and to understand better what lies behind what we hear, bringing us closer to children's individual experience of language. The book does not deal directly with therapy or therapeutic techniques. But its insistence on exploring and understanding the individual child's language is integral to the therapeutic process. The more sense we can make of the child's language processing, the more we



10 Introduction

can respond and initiate in ways which make language more comfortable for the child, and optimise her potential for processing it.

Note: To clarify my use of gender-marked personal pronouns when referring to 'the child': I use feminine and masculine forms in alternate chapters throughout the book.