

PART 1

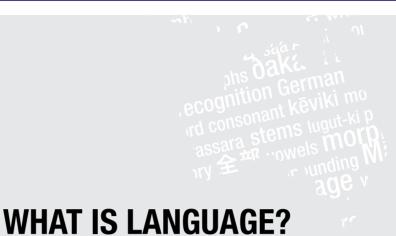
# 'USING LANGUAGE TO EXPOSE LANGUAGE': SETTING THE SCENE







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Language is a labyrinth of paths. You approach from one side and know your way about; you approach the same place from another side and no longer know your way about.

Ludwig Wittgenstein, 1953, Philosophical Investigations (trans.)

### 1.0 INTRODUCTION

Are you a lover of language? Do you revel in solving crosswords? Are you picky about punctuation? Does the history of a word resonate for you? Do you roll sounds around in your mouth like mints? Are you the Scrabble champion of your social network? Do you pun your friends and colleagues under the table? If these descriptions fit you in any way, then you are probably going to find this book revelatory and inspiring because in these pages we map out the means for you to dive even deeper into the experience of being a language user and the tools to explore language in ever finer detail.

And if you're not obsessively enamoured with language (and one of the authors isn't, going by the list of likes and aptitudes listed above), but you are interested in how it works and how it can work for you, then this book is for you too, since it gives you a platform from which you can view language in all its variety, providing a series of avenues for exploring its inner workings.

Language is a very significant part of what makes us human and, more particularly, it is what allows us to communicate as social beings with others. Language makes our social world go around and, for this reason, it is worth knowing a few things about how it works. But there are also some really practical advantages to knowing about language, and we outline some of these in Chapter 2.

In this chapter we are mainly concerned with sorting out what language is. In order to map out this space, we will ask the following questions:

- How do we 'do' language?
- What makes human language distinct from forms of animal communication?
- What are the special features of language?
- Where did language come from?
- How is it best to view language?
- What can we know about language?
- Where do we start?

The following sections provide you with foundational concepts that will appear again in later chapters as we delve more deeply into the nature and substance of language.



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# The origin of language

What a good thing Adam had. When he said a good thing he knew nobody had said it before.

Mark Twain, 1935, Notebooks

There is no direct physical evidence for the origin of language in humans and it is not clear how this ability developed. The capacity to speak involved the development of a series of interconnected physical, psychological and social skills and predispositions. Effective communication requires that we are able to exercise fine motor control over our vocal tract, for example, but this skill is shared with a great many mammal species. Other aspects of the task of communicating through language, including our ability to anticipate what other people are thinking, are clearly more specialised. Research on the origin of language is now a field shared by specialists with a focus on prehistoric human development and working in a range of disciplines, including anthropology, archaeology, genetics and psychology.

In this book we have decided to particularly focus on a small but diverse set of languages as a way of showing language diversity but keeping it manageable at the same time. Along with English, which we generally use to introduce new concepts, our case-study languages are Auslan, German, Gurindji, Japanese, Mali, Māori, Russian and Turung. You can learn more about each of these languages, including the sources of our data, in the online materials for this book.

#### 1.1 HOCKETT'S DESIGN FEATURES OF LANGUAGE

One must let people talk, since fish can't.

Polish proverb

What makes human language special? In the 1960s, the American linguist Charles Hockett developed a list of features that he considered were useful in drawing out the differences between human and animal communication. Many of these are shared with other animals, particularly primates. It is the use of all these features together that makes human language unique. The following list contains a selection of these 'design features' (as Hockett described them), with some comments about their relation to animal communication

**Duality of patterning** refers to the fact that language is organised at the level of forms and the level of meanings. Thus, the sounds of English that can be written as <s>, <t> and <a> are forms that can be combined into meaningful sequences, such as as, at, sat, tat and tats (the act of making tatting, a type of lace); in Middle English there was also the word tas, which meant 'to accept something into one's mind', now commonly conveyed by the expression 'to take something in'. Adding the sound <k> additionally gives us ask, cat, cats, tack, tacked, tacks, sack, sacked, sacks, task, tasked and tasks. Not bad for just four sounds! (Note that the past tense ending is spelt -ed but pronounced in these words simply as t.) You can read more about the way sounds are distinguished and combined in different languages in Chapters 7 and 8.

In Hockett's terms, productivity is the ability to formulate new expressions and utterances based on the words and sentence patterns available in language. In linguistics, productivity also applies to the ability of speakers to form new words in their languages. Since possibilities for the recombination of elements are so rich, the scope for producing new meanings is potentially infinite. In comparison, animal systems of



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communication are comprised of small sets of calls or sequences of calls with fixed meanings. We explore the creation of words in Chapters 4 and 5 and the rules for creating sentences in Chapter 9.

# Even dancing honey bees can't invent new words

The structural and creative aspects of human language are what really set it apart from the communication systems of other animals. As just described, in human language elements can be combined and recombined in a systematic way to create new forms. It's a very economical aspect of language – discrete units of sound (themselves not meaningful) combine to form meaningful signs (parts of words or complete words), and these then combine and permute to form even larger structures (sentences). The 'moo' of a cow or the 'chutter' of a vervet monkey doesn't show this duality of levels – these signals can't be broken down in this way.

So human languages have a hierarchical structure and, most importantly, are open systems. These discrete parts can be combined and recombined to produce an infinite number of different messages. And while some creatures (such as monkeys) have impressive repertoires, they don't seem able to come up with anything new. Their systems are fixed, not open-ended in the way human language is. Even beespeak, it turns out, can't create a word for 'up'!

We humans can talk about literally anything we like, when we want to and where we want to: 'Hold the newsreader's nose squarely, waiter, or friendly milk will countermand my trousers.' As Stephen Fry once pointed out, we can be pretty sure that nobody has ever produced this utterance in the history of human communication. Humans can even talk about things that don't exist – the man in the moon or the tooth fairy.

**Displacement** is the ability to talk about things that are not actually present. People spend a lot of their time talking about things displaced in time, in the past or the future, as well as things displaced physically, because they are elsewhere, do not exist though they are wished for, or because they no longer exist. Insects that work in colonies, particularly bees and ants of specific types, have been shown to be able to communicate about displaced objects that do exist. Bees can convey information about the location of food (and so show some displacement), but they can't report on that terrific pollen patch they visited last week, or swap stories about great food sources they have known.

**Reflexiveness** makes reference to the fact that people can use language to talk about language – not only do they know their language, they can reflect on it. This whole book is a big exercise in linguistic reflexivity, and an important set of tools being presented here is the **metalanguage** we use (that is, a set of concepts and labels for talking about language). It is not apparent that any other communication systems involve the ability to refer to themselves or that any other animals indulge in self-reflection relating to how and why they communicate the way they do.

**Traditional transmission** refers to the fact that children learn language as part of their socialisation into their families and communities. While there is a good deal of debate about the extent to which the ability to acquire and use language is genetically encoded (and this is something we address in Chapter 17), the actual transmission of language among humans is a cultural rather than genetic phenomenon. The communication systems of animals in contrast are generally instinctive, there from birth and associated with clear genetic predispositions. Even among animals that show evidence of learning to communicate, there is much less reliance on learning from others than among humans. Long-standing research on songbirds, for example,



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indicates that not only are songs learned along family lines, but in some species song development is responsive to subsequent exposure to different songs. However, birds brought up in isolation will instinctively sing songs (even though they might be a bit odd). This is not the case if a child is brought up in isolation from adults – as we will see when we explore the process of language acquisition.

# Can animals lie?

Another of Hockett's design features of language was **prevarication**, or the ability to lie. There are plenty of examples of animals acting deceptively for the purposes of protecting themselves or their offspring, or to obtain food. One way of differentiating this behaviour from true lying is to assert that lying requires a theory of mind. In relation to lying, theory of mind involves an understanding on the part of the liar that the target of the lie has a mind that can be influenced to come into a state of knowing something that is false. Then, when the liar acts deceptively they are doing so with the intention of creating a false belief in the target of their deception.

Based on your experience with pets you know, do you consider that they could lie? How could you establish their intentions and their beliefs about the state of your mind? To what extent do you think the ability to lie is dependent on language?

We explore the shared assumptions associated with language in interaction in Chapter 14 and return to theory of mind in Chapter 16.

## 1.2 SIGNS

But if we had to name anything which is the life of the sign, we should have to say that it was its use.

Ludwig Wittgenstein, 1965 [1933-34], The Blue Book, in The Blue and Brown Books

The duality of patterning described above refers to the relationship between a particular sequence of forms and a specific meaning. This combination of a distinctive set of forms and a specific meaning is called a **sign**. The study of signs is known as *semiotics*, a wide field that is concerned with all kinds of ways that meaning is expressed and attributed, ranging across the domains of body language, art, music, literature, and so on.

The meanings attributed to signs vary according to the culture and context in which they are found. Signs exist when a particular form carries a conventional meaning. These meanings are recognised by others and interpreted in broadly consistent ways. Signs vary in the strength of their relationship to the meaning they represent. In discussing signs, it is useful to distinguish between the **signifier**, the form being used as the sign, and the **signified**, the meaning being represented. This distinction was formulated by Saussure in a series of lectures that were first published in 1916.

For example, in the real world, there might be a plant of the type represented by the image in Figure 1.1.



Figure 1.1 Stylised image of a tree



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The meaning TREE associated with this image is signified by a range of words (sets of forms that function as signifiers) in different languages: *Baum* in German, *amēnggi* in Mali, *rakau* in Māori or *derevo* in Russian.

**Iconic signs** involve a direct representation or imitation of the meaning of the sign. This does not mean that the signifier is necessarily an exact representation, but that some key characteristic(s) of the signified are present in the sign. Our picture of a tree is iconic by stylistically representing the main parts of a tree for the viewer. Road signs depicting various animals that may run onto the road in different places (kangaroos, deer, moose and so forth) are iconic of the creatures they depict. Iconicity in language includes ideophones (words such as *kira kira* 'glitter', *garagara* 'rattle' and *buku buku* 'bubble' in Japanese), onomatopoeia (roosters say *cock a doodle doo* in English, *kokekokkō* in Japanese and *kukariku* in Russian) and vowel lengthening to emphasise length in storytelling (for example, *It went for a looooong time*). Many animal postures and gestures also resemble what they are referring to; for instance, when baboons open their mouths, this threat is clearly iconic – the pose looks a lot like biting.

**Indexical signs** have a direct physical or causal connection to their meaning that can be inferred by the observer. Thus, smoke is indexical of fire: smoke is a signifier and fire is the thing that it signifies. A great deal of modern machinery makes use of indexical signs, beeping and flashing to tell the user something. In English, words such as *here* and *now* are indexical of the present time and place. Accents are also indexical, giving information about where someone is from. A lot of animal communication is made up of indexical signs; for example, in beespeak the length of the waggle dance correlates with the distance of the nectar.

**Symbolic signs** are signs in which there is no resemblance between the signifier and the signified. The relation between the signifier and the signified is based solely on convention. The relationship of a yellow background on the animal signs mentioned above and the meaning 'watch out, one of these creatures might wander onto the road in front of your car', is a case in point. The fact that in other places animals are placed on white triangular signs with red borders to communicate the same meaning indicates the degree of *conventionalisation* involved; in other words, people have agreed that this particular sign conveys this meaning. Human communication is highly symbolic; there is no natural and no necessary connection between words like *book* and their meaning. It's simply that we are all agreed on calling it 'a book' (unless you are Humpty Dumpty – he undermined the very foundation of human language by insisting that words could mean whatever he wished them to mean!)

In linguistics we are concerned specifically with linguistic signs, the form–meaning relationships found in language. The following sections describe some core characteristics of linguistic signs.

## 1.3 ARBITRARINESS OF SIGNS

According to Saussure, linguistic signs are arbitrary. In other words, they are examples of symbolic signs with only conventional relationships between the signifier and the signified. No doubt following Saussure, Hockett made arbitrariness one of his design features (though it is not unique to human communication). Arbitrariness in language relates to the fact that the same meaning can be expressed in an unlimited way across languages. For example, even onomatopoeic sounds vary across languages – sneezing in Russian is written *apchkhi!* instead of *achoo!* This variation is even clearer in non-iconic words. For example, there is nothing apparently iconic or indexical about the relationship between the sounds in the word *dog* and the meaning it carries. This seems particularly clear when we consider the forms and precise meanings of words for *dog* in a wider range of languages (Table 1.1).

Saussure's point was that there is nothing special about dogs constraining the forms being used. We are forced to conclude then that all of them refer to *canis familiaris* (sometimes among other creatures) by virtue of convention.



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**Table 1.1** Forms and meanings referring to the concept of *dog* in a selection of languages

Language	Form	Meaning
English	dog	scientific name: <i>canis familiaris</i> (a secondary meaning is to identify male animals of several species including dogs, in contrast to the word <i>bitch</i> for female counterparts in the relevant species)
Māori	kurī	'dog, quadruped animal (e.g. a deer or kangaroo)'
Gurindji	warlaku	ʻdog'
Japanese	inu	ʻdog'
German	hund	ʻdog'
Mali (Baining)	vaimga	'dog, especially male dog; cf. vaimgi 'female dog'
Russian	pës sobaka	'male dog' 'dog (in general); sometimes female dog'

And this is the same for Auslan signs. Even though many of them are iconic, the link between the signs and their meanings is based on customary usage.

## **Auslan**

Within Auslan, there are three different signs for *dog*. One imitates a dog begging; another, restricted to New South Wales and Queensland, involves patting the thigh as if beckoning a dog; and the third sign appears to imitate the movement of a dog. See the resources listed in the online materials for details.

These Auslan signs for dog suggest actions that are connected with dogs in some way and are therefore not arbitrary in the same way as the spoken words. They are conventionalised in the same way as words in spoken language but they are also iconic. Some signs of Auslan are arbitrary, but iconicity is a common feature of signed languages generally. For example, the words for cat in Auslan and NS (Nihon Shuwa, Japanese Sign Language) both represent something iconic about cats. As shown in Figure 1.2, the Auslan sign refers to the way people stroke cats while the NS sign portrays a cat washing itself.

Even though we have highlighted arbitrariness as a significant factor in spoken language, there is also a good deal of evidence of iconicity in the way spoken linguistic signs are organised. This is a theme that will recur throughout this book. For example, the English words bash, mash, stash, crash, dash, lash, hash, rash, brash, clash, trash, plash, splash and flash all involve forceful, mostly destructive contact and its results. There is a relation between form and meaning here, and so these forms are not simply arbitrary. Word families of these types are always recruiting new forms as they grow. Because of words such as grimy, grotty, grit, grubby, greasy and even gross, English speakers have made a connection between 'gr' and muckiness, and they have changed gunge to grunge so that it appears more like the other grotty 'gr' words. Individual sounds aren't supposed to have meanings but clearly that's not what speakers think. There is a lot more iconicity in our languages than is often recognised!





Figure 1.2 The signs for cat in Auslan and Nihon Shuwa (Nihon)

#### 1.4 LANGUAGE MODALITIES

Since words are only names for things, it would be more convenient for all men to carry about with them such things as were necessary to express the particular business they are to discourse on.

Jonathan Swift, 1726, Gulliver's Travels, Part III ('A Voyage to Laputa')

So far we have looked at words, which are linguistic signs, mainly in terms of the way they sound. Spoken language is used by the majority of people and is represented in writing and other types of codes. Spoken language makes use of the auditory-vocal channels of communication. In other words, speakers make use of the vocal tract to produce speech noises that are heard by the people they are talking to. However, as we have just seen, human communication doesn't have to involve vocal signals. Sound just happens to enter into the organisation of human language but it is not essential. Profoundly deaf people cannot hear – the auditory channel is not available to them. Instead, the Deaf can use **sign languages**, based on the visual-gestural channels of communication. In these systems, signers communicate by making signs using body parts, including the fingers, hands, arms and face, and these are seen (or felt in the case of Deafblind users) and understood by the people they are signing with. We make use of Auslan as one of our languages of interest throughout this book, and you can find a fuller account of the language in the online materials.

For many years there was debate about whether sign languages were full languages equivalent to spoken languages in terms of the types of characteristics listed by Hockett and discussed above. There is no longer any doubt about the fact that sign languages are 'proper' languages. Moving on from this debate allows researchers to take a really good look at sign languages on their own terms. Furthermore, research into sign languages is revealing as it allows us to explore human language in a different modality, providing alternative perspectives on a range of issues. For example, the idea of arbitrariness in language seems to be somewhat in conflict with the greater degree of iconicity in sign languages. The important point about signs (whether spoken or gestural) is not so much whether or not they are iconic but the fact that they are all conventionalised. This observation also supports our earlier account of sets



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of words (such as -ash and gr-) that are based on sound similarities. These sorts of word families are iconic, but they also invoke a conventionalised (and hence an 'agreed-upon') association between sound and meaning. In short, language works because we are all agreed on what signs mean (whether they are iconic or arbitrary) – and this is the characteristic shared by all linguistic signs of either modality.

It is important to clarify that sign languages are different communication strategies from the gestures people use as they speak. **Co-speech gestures** are spontaneous, non-conventionalised supports to communication rather than complete language systems in themselves. Similarly, acting out a story by miming is completely different from telling a story using sign language. Miming and gesture can be very helpful when there is no common language, but these activities fall far short of constituting a sign language in terms of the criteria we have outlined here.

Writing is a way of representing an originally spoken language in a visual mode. It would have started life as a simple memory jog for speakers (inventories, records, and so on). These days, we are so immersed in writing that it is hard to imagine a time when the written language was nothing more than an optional extra. However, we have to consider writing as being secondary to speech, as well as to sign language, for reasons including the following:

- Writing systems were invented after humankind began using speech.
- Spoken language is found in all human communities; writing is not.
- Children learn to speak before they learn to write.
- Spoken language is more frequently used than written language, even in literate communities.
- Spoken language is more expressive than written language.

There are a number of different ways you can write the words of a language:

- 1. Logographic systems have symbols for each word: for example, the 'characters' of languages, such as Chinese and the Japanese *kanji*. English has many examples of logographs: 3 is a logograph for 'three' and \$ is a logograph for 'dollar'.
- 2. Syllabaries, such as Cherokee and Japanese (specifically, the *kana*), have symbols for each syllable. So syllabic systems tell us how to pronounce the words, but logographic systems don't (an example in English might be something like *bar-b-q*).
- 3. Alphabetic systems have symbols that represent the separate sounds that make up a syllable; the earliest known system approximating an alphabet was North Semitic (developed around 1700 BC in Palestine and Syria).

In Chapters 7 and 8 we return to the topic of how sounds are represented in writing. Here we are concerned more with the ways in which writing differs from speech as a means of communication. There have been many attempts at identifying key differences between speech and writing as they are typically used. Table 1.2 shows a few widely noted differences.

The discussion in Chapters 13 and 14 about different ways of studying texts and conversations draws out some of these differences further. An interesting current area of study relating to this general topic is the use of language on the internet. Facebook chat is an obvious example of a hybrid form of communication; language is communicated in written forms, but the interactional patterns involved have many features in common with face-to-face conversations. Texting on mobile phones and the use of emoticons and emojis in particular (see Figure 1.3) also reflect developments that blur the traditional distinctions between speech and writing.



Figure 1.3 Pack of emoticons