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## The 'Design Features' of Language

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# The 'Design Features' of Language

Questions about the nature of language have preoccupied linguists for a long time. Answers have varied, and often reflect the biases and blind spots of various schools of Linguistics. Nevertheless, there is a degree of consensus. One particularly influential set of answers was provided by the linguist Charles Hockett, who refers to the things all languages have in common as the 'design features of language'. His work has been used as a basis for discussion of this topic in many later works (e.g. Yule, 2006; Widdowson, 1996; Aitchison, 1998). In the next few pages, we shall work through a selection of some of the main 'design features', with brief definitions.

## 'Design Feature' 1: Spontaneous use

People do not need to be made to use language. Quite the opposite! It is sometimes hard to stop them doing so. Think how much time teachers and parents spend trying to get children to stop talking, and how the children wish the adults would 'stop going on so much'! And think of how noisy gatherings of adults usually are!

There are two aspects to spontaneity:

- 1 **Spontaneous acquisition:** Children do not need to be encouraged or coerced to acquire the language or languages around them.
- 2 **Spontaneous use:** Everyone – children and adults alike – uses language spontaneously, whether or not there is a practical need to do so.

## 'Design Feature' 2: Turn taking

Informal conversation is normally characterised by alternation between one speaker and another. In some other **genres** of language use one person engages in an uninterrupted monologue. Lectures and speeches are obvious examples. However, these monologues tend to be accompanied by elaborate social conventions, and to have clearly marked beginnings and endings, reinforcing the notion that frequent turn taking is the more 'normal' case.

Writing in particular allows extended single-turn use of language. Nevertheless, even monologic writing is structured by the imagined presence and demands of the listener. (In this part, though I am doing all the 'talking', I am trying to involve you as much as I can with questions and exhortations!)

Some have argued that turn taking is the first language skill evident in babies, on to which other skills are built (Locke, 1993, pp. 49–55). 'Conversations' are frequent between mothers and babies well before they have begun to use any words. Here, for example, the mother treats her baby's noises as though they are 'turns' in a conversation.

*Mother:* Whatcha gonna tell me?

*Baby:* (gurgling noise)

*Mother:* Come on Whatcha gonna tell me?

*Baby:* (Two gurgling noises. Squeak. Blows air through lips)

*Mother:* That's a nice story. What else are you gonna tell me? Come on.

*Baby:* (Gurgling and dribbling noise)

*Mother:* Let's hear some more.

(From the BBC radio programme *Baby Talk*)

### ‘Design Feature’ 3: Redundancy

This term refers to the fact that languages are not the most economical possible communication systems. At every level, languages use more time and space than is necessary to encode information. They could easily be cut down in size. Take for example ‘I am’. The rules of English (unlike some ‘pro-drop’ languages) will not allow us to drop the pronoun. Someone called Sally cannot say ‘\**am Sally*’<sup>1</sup> as she might in Italian (‘*Sono Sally*’). Nor can she drop the verb as in some other languages. She cannot say ‘\**I Sally*’ as she might in Russian (‘*Ya Sally*’) or in Arabic (‘*Ana Sally*’). Yet ‘I’ and ‘am’ duplicate the same information. Either one would do. This rule of English, in other words, demands a ‘redundant’ word. This example is from English, but there is nothing peculiarly English about this phenomenon. There is redundancy in all languages. Italian, Russian and Arabic may be more efficient when it comes to saying ‘I am’, but have plenty of redundancies elsewhere. Some linguists have claimed that up to 10% of any language system is redundant.

These examples concern efficiency in expressing information. There is also however a social aspect of redundancy. ‘*Open the door*’ is a good deal shorter and more efficient than ‘*Would you be kind enough to open the door for me please*’. Clearly there are other forces at work in language use other than mere efficiency.

### ‘Design Feature’ 4: Displacement

Languages enable us to talk with quite extraordinary precision about things which are not here or now. For example:

I will meet you at 9.30 a.m. on the 5th April 2015 outside the café in the north-west corner of the square at the bottom of the road leading down from the Alhambra Palace in Granada in Andalusia in Spain.

This utterance could enable two people to meet at exactly this place and time – even without mobile phones! There are a number of grammatical devices in language systems (which you will be studying in Part 2) to make this precision possible. This sentence, for example, uses embedded prepositional phrases, i.e. it puts one inside another: (*at 9.30 a.m. (on the 5th April 2015)*).

### ‘Design Feature’ 5: Dual structure

Language creates meaning through the combination of discrete units. These units, however, exist on two quite different levels. On the first level the units are a closed and small set called **phonemes**. Each phoneme is meaningless in itself, though there are cases where a word (‘I’ or ‘a’ for example) consists of a single phoneme. In English there are about forty. The actual sound which is identified as a particular phoneme will vary considerably. For example, the English phoneme /r/ is pronounced in a variety of ways, depending on region and dialect, or even, by speakers who cannot make any of these sounds, as the sound associated with the letter W. But from the linguistic point of view none of these variations alters its phonemic identity. All that matters is that it be recognised as a token of the phoneme /r/. On the second level, phonemes combine to form words, and words combine to form larger grammatical units. The word ‘rat’, for example, is a succession of three phonemes /r/ /æ/ /t/. This sign can in turn combine with others to

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<sup>1</sup> By convention in linguistics, an asterisk in front of a sentence indicates that it is incorrect.

form sequences with meanings of their own. This combinatory power enables languages to create a virtually infinite set of meaningful words and word combinations.

### **‘Design Feature’ 6: Discreteness**

Language uses discrete signs. They are *either* one thing *or* another. A sound is perceived as one **phoneme** or another; there are no intermediate cases. (Though one could create a continuum of sounds between, say, /b/ and /p/, a speaker of a language with this distinction would perceive a sound along that continuum as one or the other.) Words, composed of phonemes, inherit this absolute quality of their components: a word is either ‘bat’ or ‘pat’ or another word, but there are no intermediate cases.

Many acts of non-verbal communication, on the other hand, are graded. Like the dogs’ barking you considered in Activity 4, they are a case of more or less, not either/or. If, for example, I smile at you while speaking, squeeze your hand, or laugh, I may increase or decrease the breadth of my smile, the strength of my squeeze, or the loudness of my laugh, thus signifying more or less of whatever it is I mean by these actions.

### **‘Design Feature’ 7: Semanticity**

The units created on the second level – whether they are words or combinations of words – have semanticity. That is to say, they mean things. They refer to something other than themselves: entities, ideas, states of affairs, feelings and so on. ‘Rat’ means a particular kind of rodent, and can be used to refer to one when it appears, or to talk about one which is not there.

### **‘Design Feature’ 8: Arbitrariness**

The relationship between these meaningful units and their meanings, however, is arbitrary. The meanings exist by convention rather than for any logical or motivated reason. The word ‘rat’ means a particular type of rodent not because there is a connection between this sound sequence and the animal, but only because speakers of English know that it does, and know that other speakers of English know that it does. Only for these reasons, can we use the word successfully! (In this respect words are like bank notes.)

There are a limited set of words which seem to break this principle, the so-called **onomatopoeic** words, whose sounds seem to mimic their meaning: ‘whisper’, ‘tick’, ‘miaow’, ‘cuckoo’. However, many words which seem onomatopoeic to speakers of one language do not seem so to speakers of another, even when those languages belong to the same family (e.g. Russian ‘ga’ and English ‘honk’ for the noise of a goose). On the other hand, there are sometimes striking similarities between distant languages (the Japanese for ‘miaow’ is ‘nyao’).

### **‘Design Feature’ 9: Structure dependence**

Phonemes combine to form words, and words combine to form larger units with meanings greater than, and independent of, the words which compose them. Perception of these composite meanings in these longer strings depends upon perception of underlying structures. For example:

(The President) (is eating) (a hamburger).

has the same structure – Subject Verb Object – as the much longer

(The persistent Great White Shark which has followed our raft for ten days and nights) (is grabbing) (one of the goats which was tethered too close to the edge).

## ‘Design Feature’ 10: Prevarication

Language is used to convey information about states of affairs and states of mind. Yet, as we all know, these are not necessarily true. Language can just as easily be used to withhold information, or to give false information – to prevaricate – and deception is as universal as language itself. Some theorists have gone so far as to suggest that this capacity for deception is at the heart of the development of language both for the species and for individuals. Roger Brown (1973), a leading researcher in child language, pointed out that children are frequently told off for telling untruths but rarely corrected for their grammar. Nevertheless, they all grow up to speak grammatically and tell lies. Robin Dunbar (1996) has suggested that the origins of language may be less to do with its capacity to convey information, and more with its ability to form competing social networks, in which trust and deception are key factors.

## ‘Design Feature’ 11: Reflexivity

Language is used to talk about the world and our states of mind. It can also be used to talk about itself, that is, reflexively. This use of language is also referred to as **metalinguage**, and it takes many forms:

- comment on a particular language item, e.g. a discussion of word meaning;
- comment on a particular use of language, e.g. saying that Henry James used very complex sentences, or this politician talks in clichés;
- comment on a particular language, e.g. Finnish has fourteen cases, ‘chaise’ is the French for ‘chair’;
- comment on language itself, i.e. linguistics! (In this module, you are engaging in reflexivity – using language to talk about language!)

## ‘Design Feature’ 12: Productivity

Language is productive in two senses. First of all there are mathematical properties which allow it, as the nineteenth century linguist Wilhelm von Humboldt put it, ‘to make infinite use of finite means’ (Chomsky, 1996, p. 8). Dual structure, structure dependence, and grammatical operations such as **recursion** and **coordination** (which you will encounter again in Part 2) mean that the set of possible sentences in a language is infinite. It is always possible to insert or add on another bit. Things are said which have never been said before.

This first kind of productivity, however, does not create new units or break rules for their combination. Another kind of productivity in language, however, is the capacity to create new items and new ways of combining them, to be, in other words, creative (Carter, 2004). People often depart from the rules creatively – to be poetic or humorous, or to assert identity. As so often this is most easily seen at the lexical level in the coinage of new words. Lewis Carroll’s famous poem ‘Jabberwocky’, for example, used the invented words ‘chortle’ and ‘galumph’, which have now entered the language. Advertisements are full of such playfulness. An advert for the motoring organisation the R.A.C., for example, uses its name as a verb: ‘*We’ll R.A.C. to it*’.

## An Aside on Writing

Writing is clearly not a universal feature of human language, and for this reason is not among the ‘design features’ above. Speech precedes writing in the histories of both individuals and societies, not all societies or individuals use it, and for these reasons some schools of linguistics have treated writing as a secondary system and not as their main concern. This belief in ‘primacy of

speech' is echoed in the way we refer to language learning and competence. We say we are learning *to speak Italian* not *to write Italian*. We refer to someone as *a Japanese speaker* rather than *a Japanese writer*. Yet in the age of computer-mediated communication perhaps this distinction is becoming blurred.

## Different perspectives on language

The design features listed above seem to divide into different kinds. Some (such as dual structure and structure dependence) seem to be technical, even mathematical, features of language systems. Others (such as turn-taking and prevarication) seem to be social, concerned with what we use language for. In either case we might come up with an evolutionary biological explanation of why language has developed such features.

Yet any one can be viewed from each of these perspectives: structurally, socially, biologically. Take redundancy for example. It can be treated as a structural aspect of grammars (e.g. pronouns are obligatory with English verb phrases except in the imperative). It is also a social strategy: we indicate respect, politeness, importance, affection and many other things by using more words than are strictly necessary. From an evolutionary perspective, we can surmise that it is useful to an organism which might miss parts of messages, due to imperfect hearing, or the demands of communicating over background noise.

So apparent differences between features of language may be a question of how we look at them, rather than what they are. Schools of linguistics have tended to give disproportionate emphasis to one perspective. This has led to some divisions, with scholars of one persuasion ignoring those of another, so that it can seem at times as though different schools have quite different objects of enquiry. It can also lead to some very bitter disputes.

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