

Chapter 7 How We Use Language

What fun we can have with words - and yet what serious import we have attached to our use of language in this course. The emphasis that Maturana puts on the way in which our selves and our worlds are brought forth in our language is echoed by Wittgenstein who wrote: “The limits of my language are the limits of my mind. All I know is what I have words for. If we spoke a different language, we would perceive a somewhat different world.” Even in the 19th century Max Müller had been saying: “let anyone try the experiment and he will see that we can as little think without words as we can breathe without lungs.”

There is a sense in which no one doubts the existence of a real objective world, but the minute we start talking about this world – even thinking of talking about this world – it becomes an interpreted world, or a constructed world, a world that exists in our language. The German philosopher Martin Heidegger put it more poetically: ‘language is the house of being.’ The language we use tells us the kind of world we can expect to find. What counts as a fact is determined by our language, not by the world.

The importance of language to the operation of our human mind is so obvious it almost goes without saying – or does it? Riddles can be enjoyable or annoying depending on your attitude to them, but we can learn something about the autopoietical nature of our mind by considering how we use language, as I said at the end of the last Chapter, to express the meaning that we form and to form the meaning that we express. The words of *The Second Order Song* (at the end of Chapter 5) describe the way we use words to create a stable reality - inventing objects and ideas, but not always realising that we invented them! We use words to talk about identifiable things that seem to exist in their own right, but the things of which we speak were brought forth in the first place and identified in our minds by the use of the word.

The preeminent example of this is found in the writing of the New Testament in the Christian Bible. The Gospel according to John begins with the words: “In the beginning was the word and the word was with God and the word was God.” The story of Genesis, the creation of the world, is told as if these things came to be when God said the word. The first thing he said was: ‘let there be light’ and there was – and so on – let there be water - and beasts of the earth – and man in his own likeness. The Bible was written by people, of course, about what they believe happened, but it is a perfect example of the way we use words to make things firstly come into existence and then necessarily assume great importance in the scope of our minds.

It is the most obvious that is often the hardest to see; recalling part of the Wittgenstein quote I used earlier: “The aspects of things that are most important for us are hidden because of their simplicity and familiarity.” What we are doing when we use words is so close at hand it is largely hidden from our conscious minds. We are not the only species of living things that makes noises to communicate, but we are able to say about ourselves that we are so immersed in our use of language that we do not notice how it works.

Living with self-reference

The way in which language is self-referring provides an instructive parallel for the self-referring nature of our autopoietical being. This is where the science of circularity from

which the idea of autopoiesis comes can help to reveal aspects of our mind that have not received much attention previously. As we said before with regard to the observer, you can either ignore circularity, pretending it doesn't exist, or own it and accept it as part of the explanation. The latter approach opens doors to practical explanations of the things we do with our marvelous human mind.

A paradox is an apparently true statement that seems to lead to a contradiction. It is one of those mysteriously important ideas that the human mind has delighted in developing, not to drive ourselves mad as some would say, but to increase the breadth of our knowing. The statement: 'this statement is false' is an example of a self-referential paradox. Another example is to say: 'disobey this command' or to write on one side of a piece of paper: 'the sentence on the other side of this piece of paper is true' and on the other side write 'the sentence on the other side of this piece of paper is false.' This is known as the 'liar paradox' because, a long time ago, Epimenides, from the island of Crete, apparently said: "all Cretans are liars."

You might think that science always follows simple logic, but in fact paradox occupies an important place in the explanations used in all branches of science, most obviously in physics. It will have become an important part of the explanations used in this book by the time we reach the end. The deeper we go into explaining aspects of our lives the more likely it is that we will find apparent opposites that also seem to be the same. Why this should be so is part of the mysterious nature of our mind.

Variations on this theme have provided more of the literary fun that we enjoy. One of my favourites is: "Due to circumstances beyond my control, I am master of my fate and captain of my soul." Oscar Wilde said: "The only way to get rid of temptation is to yield to it" and "one should not carry moderation to extremes." The Queen in Lewis Carroll's *Alice in Wonderland* recommended that Alice get more practice at believing impossible things. When she admonished Alice to think carefully before speaking, Alice indignantly replied: "How can I know what I think till I see what I say?" We often hear it said that change is the only constant or that constant change is here to stay.

Self-reference has an important role to play in our lives, however, because when it becomes recursive, it produces stability and cohesion; it works to hold the story of our world together in a meaningful way. There is a mathematical formalism for this kind of stability. The term eigenvalue stands roughly for 'proper value' or the characteristic value peculiar to a situation that is undergoing change through some kind of self-referring process. Our use of language exhibits what is known as eigenbehaviour thus providing the stability we need to make sense of our world and our existence in it.

You can demonstrate eigenbehaviour for yourself by doing the following experiment. Take an urn containing one white and one black ball. Draw one ball from the urn at random and, whatever its colour, replace it and add another ball of the same colour to the urn. You will observe that the percentage of, say, black balls in the urn will reach a particular value and stay there. After an initial period of fluctuation, the ratio will settle to a stable value; another time you do it, it will arrive at a different stable value. That is an example of stability being achieved by self-referring behaviour. As we apply words to our experience in a reasonably repeatable manner and they begin to take on a life of their own we obtain a mental stability that could not be achieved in a system that was not self-referring.

The internal consistency associated with self-referral is illustrated by self-referential sentences such as: ‘this sentence contains exactly threee eror.’ Here is a little problem for you to solve as you experiment today:

Complete the following sentence so it is an accurate statement, writing out the number in full (e.g. thirteen): This sentence has _____ letters. There are two correct answers and one of them is thirty three.

How does this help us? These may seem like rather silly or trivial games to play, but unless we appreciate the self-referring nature of our language-based mental existence, we end up taking our own explanations as if they were some sort of gospel truth that has been given to us and this limits our ability to connect productively, particularly with new aspects of the world around us. Accepting and living with self-reference invites us to become more aware of just how important our use of language is in the operation of our mind as we constantly strive to make our own meaning. It also enables us to see how we might take more responsibility for what we are doing as we use language together.

Dividing up our world

Human language is obviously very different from the utterances of our pre-human ancestors so it is of considerable interest to know how our language evolved into its present form. We will delve more deeply into this in a later Chapter. Broadly speaking there are two main schools of thought about it. One is that language developed along compositional lines in which individual sounds and words and eventually grammatical structures with meaning attached to them gradually became more complex. The Chomsky school, for example, focuses on the component parts of language and the symbols themselves primarily as the mechanism for transmitting meaning rather than forming it. The other approach is that the holistic nature of human interactions between individuals who were generating their own meaning internally led to an increasingly sophisticated ‘dance’ in which the language used both constructs and reflects what is happening. In this scenario the role of body language and prosody, which is the raising and lowering of tone that is closely related to singing, is given more emphasis and the association between emotions and language becomes more obvious.

In either case the first effect that a word has when we use it today is to make a distinction – between it and something else. When I say top of the whiteboard you know it is not the bottom of the whiteboard. Each word we use creates something else from which it is being distinguished. In this sense language is our epistemological knife. It divides up our world into chunks for the purpose of knowing about them. The way in which words create a meaning that also contains its opposite is illustrated in two of my poems that are attached at the end of this Chapter.

There is a limit to how many separate chunks we can handle so, at some point, we need to start grouping many of them together into categories where one word covers a whole lot of things that have some common characteristics, but are not all exactly the same. This is a crucial aspect of the way we construct our own individual world. These categories, or ways of dividing up our world, are not universally ordained by some outside authority, even though we do learn some standard ways of classification during our education. Nor can we say they derive from the inherent structure of language itself, unless you adhere very strictly to the compositional theory of language development. They arise from the

organising idea that each of us imposes on the world in our proactive process of perception. In other words, they are part of our individual generation of meaning, within our own story, by which we attempt to organise our world in the most appropriate way.

The significance of this is that no two people divide up the world in exactly the same way. It is a major blind spot that we generally do not take this into account as we strive to share our meaning with that of another person. You will recall from Chapter 4 the biological fact that meaning cannot be directly transferred from one person to another, which is probably the biggest obstacle we face in interpersonal communication. When we are attempting to understand in what domain another person's explanation would be valid (see Chapter 5) we need to take into account the way in which their world is divided up – what distinctions they are making. Many of the common misunderstandings between people stem from this problem and awareness of it can be a very helpful aid to communication.

Another experiment you might like to try with a partner is to sit and watch him or her sort a very diverse collection of small objects (buttons, screws, matches, balls, seeds, straws, stones, wool, marbles, cards, *etc.*) into a fairly small number of categories that you specify for them (perhaps 2, 3 or 4). As your partner is sorting you try to guess, without prompting, what criteria he or she has in mind to distinguish the different categories. After the job is done, you check whether you were correct or not. If the two of you have a strong cultural similarity and similar experience you have a good chance of guessing correctly, but if not it is much more difficult.

George Lakoff, a wonderful writer about language, pointed out that the concepts or meaning that are associated with a particular word embody the preconceptions about the world that the culture already has in place and this is a self-reinforcing phenomenon. In other words: “the language embodies that particular culture's framework of reality” as Mary Clarke put it. The culture comes before the categories and creates them in its language. It is not surprising then that cultural differences account for so many of our communication problems. We will not solve these problems until we acknowledge the fact that people from different cultures have different ways of dividing up the world in their mind.

Different ways of thinking about the world

Australian Aboriginal languages provide interesting examples of how a different language comes from and results in a different way of thinking about the world. Michael Christie, a linguist working in Yolgnu communities of Northeast Arnhemland wrote eloquently about this. The names of things in their language are impossible for us to classify because they have several different names for the same thing depending on a person's relationship with that thing at the time. Groupings that we call tribes or clans, implying clear boundaries between people, mean virtually nothing to them. Their nearest word would be ‘mala,’ commonly translated in Aboriginal English as ‘mob,’ which means a freely reconstituting entity that changes with the context. Even people's names, now imposed on them by the bureaucracy, seem problematic to us because each person has several different names, again according to context. This naming is not in the least haphazard as each name describes that person's exact place in the extensive web of connectedness and his or her relationship with whatever is happening at the time.

Christie described how he struggled to arrange the relatively small number of Yolgnu nouns into any sort of hierarchical classification that would be meaningful to us. He assumed that the distinction between ‘plant’ and ‘animal’ was a natural biological distinction that would be clear to human beings everywhere, but found there was no Yolgnu word for either plant or animal and, in fact, very few words that divide up the world in this sort of segmentary way. They did have words for various kinds of food provided by the plant and animal species. We know the species by name, but might not know which is fit to eat. Their language reflected a more practical day-to-day reality, described by story and song in a more metaphorical way. Rather than having an inherent structure to it, their knowing flowed from the ancestor’s experience of it, carefully passed on to preserve functionality rather than form and relationships rather than bits and pieces. It is not easy for us to come to grips with such different ways of thinking about the world unless we try to understand this manifestation of our mind that is our use of language.

In his book, *The Aboriginal Gift*, Eugene Stockton gave some compelling examples of the different view of the world that Australian Aboriginal people have compared to Europeans, the reasons for this and the consequences. The language that flowed from industrialisation and modernity was based on the use of machines, the capability for long term storage of food and the use of money for a form of trading based on ownership and accumulation of goods. Aboriginal people had no words or concepts for any of these experiences and have been criticised for being slow to understand how the world works in the European sense. Even though the human mind is reshaped as the language changes, this occurs at a very basic biological level and takes a long time. From a biological perspective the modern world view is far from ideal anyway.

The Semitic languages are also quite different from English in the way they make distinctions and denote relationships. In Ancient Hebrew and Arabic the meaning of a word is not only dependent on context, but it develops further meaning each time it is used in a slightly different way, *i.e.* its meaning changes gradually according to what it is associated with to emphasise the relational nature of the language. Those languages are essentially based on verbs rather than nouns. All the words have a root consisting of three consonants, which is generally a verb in its root form, and letters are added at either end to produce more words for different parts of speech. The physicist, David Bohm, of whom I will say more later, drew attention to this when writing a critique of the English language in his book *Wholeness and the Implicate Order*. He referred to the limitations of the subject-object language structure and the advantages of a language built on verbs that could capture the doing aspect of our lives more aptly.

The self-referential nature of language is one of the reasons we underestimate its effect on our thinking, our knowing and therefore our entire lives. Being so deeply immersed in it, we do not notice that we create the differences and the similarities that exist in our world and then use those differences and similarities as if they were not made by us. Referring again to *The Second Order Song* that we sang last time, objects, events and issues appear in the world as we name them and, strange as it may seem, the issues go away as we stop talking about them. Many writers have alluded to the unsuspecting trap into which we fall so often when we mistake the content of our thought for the structure of the world. Alan Watts said: “We suffer from the delusion that the entire universe is held in order by the categories of human thought, fearing that if we do not hold to them with the utmost tenacity, everything will vanish into chaos.”

Just as our knowing arises in language our everyday actions are shaped by our language. The inexorable connection between knowing and doing is one of the fundamentals of Maturana's biology of cognition. What we do will be what we know to do, which comes from the story that our mind is holding together for each one of us. Therefore the way we think and what we get around to doing each day and even the positions we place ourselves in with regard to our society, family and work stem from the structural characteristics of our particular use of language. Because we put it all together into our story and preserve its coherence at all costs we can live reasonably contentedly with this situation hardly realising what effect this power of the mind is having on our lives.

The flow of languaging

Thought and language may be like snapshots of our experience, moments frozen in time, but we also have a strong sense that nothing we are recording is standing still. The operation of our mind flows inexorably, which makes it difficult to explain our use of language in an entirely satisfactory way. As mentioned above it is hard to capture the sense of movement that thought and language convey even as they fix the objects and events at each passing moment.

Maturana introduced the term, **languaging**, which he described in terms of second-order cybernetics as "the coordination of coordinations of behaviour." We do not need language to coordinate our behaviours in a first-order sense, but when we want to consider the overview of what we have coordinated, we speak about it with words. Languaging is not a recognised word in English, but then it is not an entirely surprising invention. I understand that in Maturana's native language, Spanish, this neologism has a more dramatic effect because of the different way verbs are used in that language. It is an important term for our purposes because it conveys some sense of the flow and it puts the use of language into its proper context as part of a complex of interpersonal coordinations.

In speaking about our everyday experience of language I am not just referring to the words we use because, of course, there is a very large part of the connecting language between us that is not spoken; it is often called body language and consists of our gestures, facial expressions, posture and other sounds we may make. One example I heard was of three mothers meeting up for their regular coffee morning. As the first one sat down she gave a little moan, the second woman sat down heavily and sighed, and the third one, as she sat down, said: 'I thought we weren't going to talk about the children this morning.' You don't have to say much to trigger lots of meaning in some situations. When I use the word, languaging, I am including all the things that go around it and with it in our connecting interactions and also the dynamic aspect of our use of language.

In the next Chapter we will explore the amazing way in which we can put the world we have divided up together again in a far more satisfying way than was the case with Humpty Dumpty in the children's nursery rhyme.

Two poems

Every End is a New Beginning

Every end is a new beginning
Every failure is something learned
Every loss gives a chance at winning
Unrequited means truly yearned

Every tumble leads to rising
Every hurt has need to heal
Every grief yields sympathising
Every pain shows that you feel

Difficulties are debentures
Problems are a challenge really
Even mishaps are adventures
Setbacks show the path more clearly

Every wrong is a cause worth righting
Each mistake is a chance success
Every miss improves the sighting
And every more is also less

Life and Death

Nothing is the other half of something
Black is just the other half of white
Nowhere is the converse side of somewhere
Dark is just the other half of light

Personal is the flip of universal
Cocky is the other half of coy
Thinking is the reasoned half of feeling
Sorrow the unwelcome half of joy

Going is the other half of staying
Planning's the preceding half of done
Working is the other half of playing
Moping is the nether half of fun

Singleness goes back to back with many
Plenty is reciprocal to none
Particular is like and not like any
Zero is the other half of one

Taking is the other half of giving
Despair is the other half of hope
Dying is the other half of living
Copes well who dares to say I cannot cope

Dependency is just not living freely
Control is the flip side of submitting
Limpid is the other half of steely
Given up is linked to unremitting

Asking is the other half of telling
Saying shares a thought with 'keeping Mum'
Sulking is the other half of yelling
Gone is the antithesis of come

Doing is the other half of being
Spoken co-exists with nothing said
Blindness is the other half of seeing
Living cannot be unlinked from dead

4,044 words