EVERYDAY MIND AND LOVE 2018

Session 5 April 5

This Course is a **story** that I'm telling and you are updating your own stories as we go along because that's the way our mind works. A great American teacher about the mind, Mary E. Clark, who wrote the classic book *In Search of Human Nature*, said our brain is a 'story-telling organ' – that's what it does. I had the great pleasure of meeting her, quite accidentally, at the Western Sydney University one day. She also wrote a wonderful conservation book called *Ariadne's Thread*. This idea of story is the main thing I wanted to talk about today. Much later in the Course we will return to look at particular stories in more detail including some of the great ones. Today we are exploring the way that stories are part of our **memory** and memory is involved our perception.

About love

In the story of this Course the word, **love**, is never too far from our minds. It's there in the background – or even in the foreground now with the current title – yet it never comes into such clear view that we feel we know exactly what it is. Love is such BIG word – so expansive in its meanings and yet so hackneyed in its usage – that it really is hard to get a simple 'handle' on it. We all know what it is, yet none of us knows quite what it is. I emphasise that feature of it because it implies a recognition of the **unknown**, which is as much a part of our mind as the known, though we don't acknowledge that very often.

Stories always have regard for the unknown and sometimes their whole meaning is shaped around the unknown. In my story love is an **ideal** that can never be realised in its absolute fullness, but it is also built in to our everyday experience in a very fundamental way, so we know about it in a practical sense – we know when it seems to be very apparent in our lives and when it seems to be a bit lacking. Being an ideal I believe it is always available to us, but we don't take full advantage of it. In this Course we look into the reasons for that.

So the starting point that I use is the idea that love is a **biological necessity**. The kind of mind that we humans have today requires love to operate. I have defined our mind in terms of basic biology as the **connectedness that best serves our autonomy**. On this basis we can think of love as the most perfect kind of connectedness – the best possible connection between two people – and this also applies to the other levels of connection that we make with ourselves and with the unknown. This biological principle applies to all living things, but I only use the word **love** in relation to humans.

We humans are special, firstly because of what is called **neoteny**, which means that we stay young for longer than other animals. As adults we still have relatively soft, hairless skin and delicate facial features, are rather defence-less, and we retain the ability to play throughout our lives. As we evolved we became more vulnerable. When we became bipedal – stood on two legs instead of four – we exposed our most sensitive regions to our fellows. As our vulnerability increased we had to learn new forms of intimacy and mutual trust. We banded together in close-knit groups, which is said to explain the rapid expansion of our brains. New physiological systems that I was talking about last time enabled us to forgo natural fear and relax completely in the embrace of another human. As Stephen Porges said, the ability to

express love evolved with our Autonomic Nervous System in particular with the vagus nerve. So evolutionary biology gives us one sense of what love might be.

Another sense of love that is the opening paragraph of my 2017 book is the coming together of a new-born baby and its mother. Aliveness is the most exciting human experience and the kind of connectedness that occurs when the newborn's heartbeat is felt alongside its mother's heartbeat is the strongest sense that I have of what love might be. My mentor in biology, Humberto Maturana, spoke about the maternal-offspring bond as the foundation of the human experience he called love. He said the other kinds of love – as a parent, a family member or a friend – all grew out of this foundation of the connectedness of mother and child.

His scientific definition of love can be summarised as the kind of coupling that is best for the individual wellbeing of each of the parties involved – so that the 'you' that I love can be the legitimate 'you' and I can be the legitimate me, even though we are closely bonded as a couple. Erich Fromm called love 'a union . . . that preserves one's integrity.' I call it an indispensable facilitator for our mind's task of **being** and **belonging** at the same time – satisfying the biological necessities of autonomy and connectedness. Those principles are common to all living things, but such is the subtlety and delicacy of the human social experience that I agree with Maturana that we humans would probably not have survived as a species had we not obtained this ability to love.

My ideas about love help to show that my story is not based entirely on scientific explanations – it includes my belief that the most important things about love are unknown. We know only a little about which neural networks and hormones generate the profound feelings we associate with love or why it is that the more love you give away the more you seem to have? It grows stronger with use. It is love's **subjective** meaning that makes it such a recognisable part of our experience. We know what it feels like, but we don't really know where it comes from. I like to say that **love comes from the unknown**. So as well as science I have certain **beliefs**, as I think we all do. Our belief systems are about our relationship with the unknown. I believe in love.

About the unknown

So what is the unknown – what is involved in not knowing? **Uncertainty** for one thing. Our attitude to the unknown is a major determinant of our quality of life. If we hate it or fear it, we will probably suffer; if we can accept it or even enjoy it, life feels better. But we can't just ignore it and blindly hope for the best without even considering it. We have to engage with it, work with it and respond to it, as some things are being revealed to us while others still remain hidden. I propose that if we try to love the unknown it seems to love us back. This is a characteristic of love. I have chosen to define the word, **soul** – a mysterious word if ever there was one – as **the part of my mind that knows without fail that I am loved**. Other parts of my mind tend to deny that and often work against me through self-criticism and self-doubt.

Not knowing can be helpful – it often helps the situation to say: I don't know. Historically, people used to rely more on an external authority like the church or state, but nowadays we enjoy more personal freedom, which entails more responsibility, which can make life difficult at times. We rely on 'experts' and science to explain everything by proving how things work. We are very good at figuring out mechanisms. The problem is that **knowing how things**

work doesn't tell you what they mean, which is what we need to know most. 'The more able we become to manipulate the world to our advantage, the less we can perceive any meaning in it,' to quote the philosopher Owen Barfield.

Not knowing is not the absence of something – it is what gives **context** and **completeness** to what we think we know. It's like the silence between the notes in music. If it wasn't there the music would mean nothing. In speaking as in playing music, it takes skill to do the pauses well. That's something I've never been very good at and have tried to learn to do better. We live in an increasingly noisy world, which is perhaps a symptom of our collective mind's desperation about the unknown. Appreciating silence helps us to appreciate the unknown. The unknown helps us to make meaning.

About reality

Last time I was emphasising the way that our **meaning** guides our perception process such that we don't need large amounts of information flowing in. I did that to emphasise the fact that perception involves proactive **connection** – it is the connectedness aspect of our mind. Of course, we **do need information**. It's just that we filter and guide it into our mind according to the quality of our connecting. In fact the tiniest bit of information can be absolutely crucial for the meaning that we make. The news that your partner had suddenly died would change every thread of meaning in your mind in an instant. It's not the amount of information that is important – it's the **significance** of it in one's mind. Another important point that follows from this is that small amounts of **false information** can be used to manipulate the meanings made by others whom you wish to control or deceive. So-called 'fake news' is very topical and becoming far more powerful and heinous due to the new forms of connectedness that electronic media have given us.

The reality we create in our stories is not objective – it is both material and spiritual in that it is not about things or made out of matter, it is made out of the **things that matter** – in other words, the **significance** of things. Our subjective experience is **real** (whatever anyone else might think) and our minds constantly adapt to this reality, not to the reality of someone else. As Maturana also said, all that we humans ever explain is our experience and we have only our experience with which to explain it. We speak of things as if they are independent of our experience, but they are not. We are connected to our own reality at all times through the experience of mind as we know it.

About memory

Everything we take to be our present reality is a **construct** of our mind that is based on previous experience and moulded by our imagination. In this way our perception depends on our **memory**. To see or perceive anything we utilise our memory of it. Entirely new things we come across can be put into our memory and may be given a label, but we can't recognise previously-labelled things if we have no memory of them. One of Oliver Sacks' most famous patients even 'mistook his wife for a hat' because he had lost part of his memory, as is described in Sacks' book with that title.

A current researcher in the field of memory, Rodrigo Quian Quiroga, who works at the University of Leicester in England, has an interesting new book called *The Forgetting Machine – Memory, Perception, and the Jennifer Aniston Neuron*. He discusses what is known about the process in our brains whereby images, information and meaning are retained

and become what we call memories. Much of the imaginative flow of our mind is soon lost, or appears to be lost, if it is not incorporated into our story. In fact, forgetting is essential if we are to go on perceiving anything new. Life was hell for '*Funes the Memorious*' because he couldn't forget anything.

There are also examples of people who can remember an amazing amount by using certain techniques of mind. The story goes that Simonides in ancient Greece was hosting a large banquet when he had to leave the table to answer the front door. At that moment the roof of the banquet hall collapsed killing all the diners. He could remember who they all were by visualising where they were sitting at the table. This trick of remembering a long sequence of words or numbers by locating them in a recognisable place in your mind's image is used by memory experts today. Joshua Foer wrote *Moonwalking with Einstein – the Art and Science of Remembering Everything* about his quest to win the U.S. Memory Championship. I've tried this technique myself, though I don't use it regularly. The internet has changed how we remember things because we put more emphasis nowadays on remembering where we could **find** a certain piece of information.

There is a **short-term memory** that we use only to follow the immediate thread of meaning in whatever we are doing. Many brain regions are involved in that, but it is the **hippocampus** that is the most important brain region for the **long-term memories** that contribute most to our imagination and our perception. If you place your finger above your ear and imagine it extending about 50 cm into your head you would be touching the hippocampus, which is the part of the brain that comes closest to being the place where meanings might arise. Damage to the hippocampus in post-traumatic stress, for example, prevents the meaningful perception of the present that depends on our memory. I've already mentioned the 'concept neurons' that Quiroga found in the hippocampus that can recognise Jennifer Aniston (or anyone) both by name and by picture – they respond to the **idea** of that person, not just any particular feature.

About our story

We still don't know how meaning is created, but we do know that maintaining a **thread of meaning** is absolutely essential for our wellbeing. We create and hold onto that thread of meaning in two ways, consciously and subconsciously, the obvious one being in our **story**. Everything that happens affects our emotions and feelings and is also converted into language where the thoughts are arranged as a story. This **narrative** form, whose pattern is beginning, middle and end, is a universal feature of the human mind. It enables us to define who we are in terms of where we came from and where we are going and it enables us to tell others about this and listen to their stories in turn. As we re-create ourselves in each moment our mind is re-creating our story. We draw on our memory each time we do this, but there is a problem with that because our memories are inevitably unreliable.

Just as our mind constructs our reality in each present moment, so we construct what we call our memories **in the present** even though they refer to what happened in the past. We reconstruct the story of our past from a few key elements retained in our brain and using our imagination as it is operating **now**. This means we add in feelings and knowledge from our more recent experience. What we come up with does not necessarily have to **correspond** with past events, as long as it has **coherence** within the larger story of who we are. The result is that our memory is not accurate in many respects. Mind you, our story is not entirely a

work of fiction either; we do remember certain things with extraordinary accuracy, but that is not its main feature.

There are famous experiments in which people wrote down where they were at a certain time (when the space shuttle blew up, for example) and were shown these notes a few years later, only to deny what they had written and insist that it must be wrong. Their story had changed with the passage of time and the point is that our story doesn't have to be true in the detail, it just has to be coherent – that is, to hold together meaningfully at this point in time. We have to retain meaning at the forefront of our mind. An English novelist, Charles Fernyhough, wrote a very readable book called *Pieces of Light – How the Science of Memory Illuminates the Stories we Tell about our Pasts*. He points out that a memoir is a special kind of 'truth.' It contains the best of two worlds – what happened then and where we are now. Your self is a combination of who you were then and who you are now.

Hidden parts of our mind

Our story is not the only vehicle of memory – our subconscious mind is remembering too. I like to use the term **Affect** for this aspect of mind that takes place beneath our conscious awareness, in our emotions. The amygdala is a region of the brain that constantly evaluates our situation, generates emotions such as fear and, in conjunction with the frontal lobes, generates **emotional memories**. These are interacting with our conscious memory all the time so they affect the story we create, usually without us realising it. One example is the psychology of *priming* whereby recently heard or seen words will influence your perception without you knowing it. If you've just seen the word yellow you will recognise the word banana more quickly amongst the names of other fruit. Complete this word, S . . P, while I get you some dinner – or while I go and wash my hands (for a different result)!

Elizabeth Loftus is an influential American psychologist who studied retroactive interference with memory and perception in great detail. Her *Lost in the Mall* studies became rather controversial in the context of an increasing awareness of historical sex abuse by adults because defence lawyers were using it to try to discredit the victim's evidence. She found that she could 'implant' false memories of something that happened in childhood by telling people a story of being lost for hours in a shopping mall as a child. She resigned from the American Psychology Association prior to some complaints being made about her work, but it's fair to say that other researchers found the same thing as she had. This is a vexed subject that will always be difficult because of the nature of our memory process. A related issue is the fact that there are now hundreds of cases where eyewitness testimony (recognition of rapists by their victims, for example) proved to be incorrect after DNA testing was introduced into the legal system, thus casting doubt on the reliability of eyewitness memories.

What I think was a neat little experiment by Elizabeth Loftus looked at people's perceptions of a car accident. She showed a video of two vehicles colliding head-on (you can see it on the internet) and asked the viewers to estimate the speed of the vehicles before they *contacted*, for one group, before they *bumped*, for another group, before they *hit*, for another group, before they *collided*, for another group, and before they *smashed*, for another group. They all saw the same video, but the speed estimates were clearly highest for the *smashed* group and lowest for the *contacted* group. The *smashed* group were also twice as likely to say they saw broken glass at the scene.

The fact that we can manipulate the memory and therefore the perception of other people is, of course, common knowledge to a great many people who practice manipulation as part of their social interaction. The entire advertising industry is based on subliminal factors that influence our perception, generally by tapping into our **story** through our malleable memory. The aspect of our mind that is most sensitive to this is our **feelings** and we will see later how important these are for the **meanings** that we make.

Psychologist, Daniel Kahneman, won the Nobel Prize in Economics in 2002 for his insights that created the field of Behavioural Economics, which is an understanding of why people buy what they buy and consume what they consume. In his best-selling book, *Thinking Fast and Slow*, he points out the difference between our 'experiencing self' and our 'remembering self.' What the remembering self says has happened is consistently different from what the experiencing self was aware of at the time. He explains how we use one part of our mind to make quick, automatic, intuitive judgments and another part to make slow, controlled, effortful decisions. He does not dismiss intuition though, saying that, even though the intuitive one makes mistakes, it is also the source of most things that we get right.

A very good book – not a new one, but well worth reading – about the hidden aspects of our mind is *Strangers to Ourselves – Discovering the Adaptive Unconscious* by Timothy Wilson. He compares the 'constructed self' with the 'adaptive unconscious' in a way that I think is very useful. The subconscious is a pattern-detector rather than a fact-checker, is faster and often automatic, so it is more in the here-and-now that the conscious self will be. The constructed self is slower and more considered but also more flexible and positive, whereas the unconscious is actually quite rigid and more sensitive to the negative. This means that our hidden mind is creating mental patterns without necessarily accommodating all the details, predisposing to a fixed position rather than flexibility and introducing a negative bias. Our conscious mind will counteract this as the two of them combine in producing our experience. We will discuss the implications of this in future sessions.

Adaptive unconscious (AFFECT)	**Constructed self (STORY)**
Pattern-detector	Fact-checker
Faster, more automatic	Slower, more considered
Quite rigid	More flexible
More sensitive to the negative	More sensitive to the positive

More examples of the way our subconscious mind can lead our decision-making can be found in a book by Shankar Vedantam called *The Hidden Brain – How our Unconscious Minds can Elect Presidents, Control Markets, Wage Wars and Save our Lives*. He has a lot to say about unconscious bias. Another interesting book along these lines is by David Eagleman called *Incognito – The Secret Lives of the Brain*. He likens the conscious part of our mind to a stowaway on an ocean liner who claims the credit for having made the voyage with hardly a thought for the massive machinery that actually made it possible.

Finally, another interesting man, Dan Ariely, who suffered unbelievable agony in early life from third degree burns to 70% of his body, went on to wrote a ground-breaking book called *Predictably Irrational – The Hidden Forces that Shape our Decisions*, which includes many other examples. He also wrote *The Upside of Irrationality – The Unexpected Benefits of Defying Logic at Work and at Home*.