

EVERYDAY MIND AND LOVE 2018

Session 9 July 26

Mind and love are phenomena that we experience every day so we can study them from the **outside** as observers and also from the **inside** as users, living our own lives. They arise, firstly, from our life-gift of being autonomous – that is, individuals in our own right – which can feel like a blessing sometimes and can also feel like a curse if you are lonely and full of self-doubt. Either way, our saving grace is that we do not experience mind or love on our own. There can be no autonomy without connectedness – that’s a biological fact. Mind and love are the natural products of our interactions with the world, especially our interaction with other people – we don’t just exist, we co-exist.

Because of this we are constantly available to help one another. We all need help because we are needy. I know I am needy and at times in my life (mostly long ago) I even despaired that I could be helped. Being needy is not the same as being sick, although sometimes being sick enables you to get the specific help you need. I’ve always pointed out that this Course is not offered as a therapy and I am not a therapist. Over the years there have been a few people attending the Course who have been or are therapists. But what struck me in thinking about the time we spend together is that whenever we talk with someone else about mind and love there is a healing process happening. Love is the universal healing force – I think most people would agree with that, but perhaps we underestimate it as an everyday opportunity.

Today I want to touch on a few other things about our **brain** that sustain this wonderful ability we all have – to be loved and to love one another. It’s a natural gift. To me it also seems natural that we want to learn more about how it works and what it means.

Co-regulation through the Autonomic Nervous System

At the end of last Term I was emphasising the need we all have for **co-regulation**, which is mainly achieved through our Autonomic Nervous System within which our **vagus** nerve is a major player. Another very new book following up this theme is by Deb Dana (who seems to work closely with Stephen Porges) called *The Polyvagal Theory in Therapy - Engaging the Rhythm of Regulation*. This is the simplest description of the Polyvagal System I have ever read. It’s designed for therapists, with many rather fancy work sheets to fill in, but I don’t think you have to do all of those to enjoy the benefits that come from ‘**befriending your nervous system**’ as she puts it. I like the phrase ‘rhythm of regulation’ especially as it applies to physiological co-regulation – as if we are singing and dancing together.

The first step is to be able to recognise what autonomic state you are in. She portrays it as a ladder. The top rungs are labelled **Ventral vagal, Safe and Social**. For the middle her words are **Sympathetic, Mobilised and Fight-or-Flight**. The bottom rungs she calls **Dorsal vagal, Immobilised, Collapsed**. The idea is to map where you are on this ladder at different times and take note of how you move up or down by noticing your feelings. At the lower end you feel trapped and defeated, as if you are not worthy or motivated enough to want to do things. That’s the primitive shut-down mechanism of the dorsal vagus. In the middle you are much energised, but anxious, pressed for time, under stress or in conflict and wanting to get away

from it all. The ventral vagus calms the heart and promotes feelings of satisfaction and wellbeing.

The next stage is to detect what she calls Triggers and Glimmers. **Triggers** are the things that move you downwards on this ladder and **Glimmers** are the things that help you to move upwards to a more comfortable state. You get to know your personal sensitivities and your ventral vagal strengths by being curious about them so you can feel these changes happening and recognise how they are associated with other things that are happening in your life. Then, finally, she outlines a whole lot of **Resources** that will affect your autonomic state such as **reciprocity**, movement, breath, sound, touch, music, dance, play and every kind of connectedness.

I've said a lot this year about the Autonomic Nervous System as the main subconscious part of our mind that works through our heart, our breathing, our digestion, our movement, and our face (mouth, eyes and ears) to enable co-regulation, but of course our **brain** is also heavily involved in this. The subconscious mind is our emotions and I've mentioned some parts of the brain that are the main generators of our primary emotions and also how we learn all sorts of secondary emotional habits from our social interaction. Some of these are painful and some are pleasant.

The **primary** emotions are all welcome and needed, but the **learned** emotions, which include anxiety, resentment, and the manifestations of pride and shame, can often lead us astray. Because they have been learned, they can also be re-learned. Another way of looking at our individual health and our psychological needs is to think of **emotional maturity**. As we go through life we encounter some rough passages, some instability, and as we get older we may be able to gain greater stability and peace of mind. Surveys have shown that older people are generally in a more serene state of mind than people at any other stage of life, but that generalisation doesn't insulate any of us from having our own bad times as well.

The Social Brain

There's a cultural belief that our brain and mind declines with age, but in many ways this is not true. A good book about this subject is called *Timeless - Nature's Formula for Health and Longevity* by Lou Cozolino who is one of the pioneers in the field of social neuroscience. It's actually an update of an earlier book he wrote around the time that I was bringing to this Course his classic text *The Neuroscience of Human Relationships*. I use his quote: '**your brain is a social organ**' often to reinforce the idea that your brain and mine did not develop on its own and it does not operate on its own. The new book is an easy read compared to some others on this subject and is a 2018 publication. It includes useful information about how the brain changes as we grow older and what might be involved in attaining **wisdom**, which he likens to emotional maturity.

We were each born with our own brain, but it became a social brain right from the start. Human babies are the most underdeveloped of all creatures at birth – only the minimum of brain connections are in place so new networks have to be formed, which happens because of loving interactions with the parent. New synapses are being formed at a great rate for the first few years of life. After about three years of age this slows down somewhat although network patterns are still being formed and re-formed all the time during the years we call childhood so the mind has greater flexibility than at any other stage of life. After puberty there is a very

important period of consolidation and hardening of network patterns with some pruning of what is not being used and strengthening of the most used patterns. We feel like we are completely grown up at 18 or 21, but as far as the brain is concerned, achieving any degree of emotional stability will take much longer, well into the twenties at least. Brain size increases until we are about 30, the proportion of white matter to grey matter continues to increase after that, and electrical activity (which is only one measure of course) increases until at least 60 years of age.

There is a gradual decline in brain activity from mid-life onwards, but it is not uniform across different parts of the brain. These changes produce slower, more inclusive and more thoughtful, kinds of mental processing. This shows up as a less automatic short-term memory, but it also results in increased knowledge and a broader problem-solving ability, depending on what kind of activities you are engaged in. The brain networks become distinctly slower because they are more widespread and utilise more of the brain. This the biggest difference between young people and older people in cognitive testing, most of which, like our society, is biased towards rapid or automatic responses.

It is significant that the parts of the brain most involved in social engagement do not show much deterioration at all as we age. **Emotional maturity** does not include any lessening of social engagement – in fact that part of our brain is being given priority, relative to other abilities. One reason for this is that the right hemisphere of our brain becomes more involved.

Women's brains generally have a larger corpus callosum connecting the two sides of the brain, which probably makes it easier to bring right-brain activities to the fore. They also have stronger social engagement circuitry that is slower to invoke fight-or-flight responses – women are less easily trained to be soldiers, for example. They have more extensive networks for languaging that are more flexible and diverse and, of course, women do use language more than men. These are generalisations that shouldn't be counted on by any individual, but they show the importance of the female brain for our social stability.

Men's brains are powerful too! Men have achieved enormous feats of creativity, strength and leadership in our society by combining the linear, directed reasoning that comes principally from the left hemisphere with an awareness of the larger context of our lives that comes from the right hemisphere. But it is equally true that many men have neglected this ability to use both sides of the brain that occurs more naturally for women and so the conversations that create our society have become dreadfully skewed towards individual power, personal greed and an irresponsible disregard for our natural heritage of mind and love.

Cozolino has many other things to say about the emotional maturity that he calls **wisdom** for both men and women including the great value of grandparenting. He emphasises the value of storytelling, which we will explore later in the Course. He doesn't say enough, in my opinion, about the importance of music and the arts in teaching us to use both sides of our brain. His general theme is that the mental speed that is important to younger people who are establishing themselves in the world gradually gives way to a slower, more considered, reflection of the broader context in which we live. This has always been thought of as the 'wisdom of elders.' Unfortunately, it is often ignored in our present culture.

This brings us to look more closely at the way the two sides of our brain work together and what can go wrong if they don't.

The Two Sides of our Brain

The Master and his Emissary -The Divided Brain and the Making of the Western World by Iain McGilchrist has become a much-quoted book nowadays because there has been a big change in the general understanding of why we have two distinct hemispheres in our brain – two brains, in effect. Each brain structure is duplicated but they operate differently on the right from the left. It's not simply a matter of language being produced on the left and pictures on the right – everything the brain ends up doing involves both sides – but the way it's done is different because the two sides are wired up quite differently.

This is an important issue for the everyday use of our mind because we are choosing where to put our **Attention** all the time. This becomes a track along which our mind will run until we decide to attend to something else or attend differently. By that I mean there are two fundamentally different ways in which we can choose to attend. Sometimes we need to hone in on the individual details with a very narrow focus and sometimes we need to stand back to take in the context for a broader view.

Neural networks on the right side of the brain are denser and more interconnected and have more white matter than the left which makes them more efficient. The **emotions of social engagement** are generated primarily in the right hemisphere and the polyvagal business I've been talking about is strongly lateralised to the right. If we're cultivating that ventral vagal state of mind and practising care and love the emphasis is on **connectedness** rather than **control**. We can appreciate the context in which we are living and are more open to new things that come along so we are more likely to learn. At the same time there will be less certainty and more mystery in the all-important meaning that we make.

The left hemisphere has a more linear circuitry and specialises in the logical computation of things that we already know. It creates a meaning based on what is definite and certain which is easier to put into the language that creates our thoughts. The **stream of our thoughts** is usually uppermost in our minds – we follow it all day long – and this is necessary and useful, up to a point, but it can also be a trap. The great strength of attending in a loving way is being open and unconditional, whereas the logic of language has a stricter, semantic kind of meaning that is compelling because we feel that it **adds up**. The trouble is, when we spend long periods thinking too narrowly, we end up coming to conclusions that seem to add up but are actually quite wrong. We tell lots of lies to ourselves, all based around the fundamental lie that we are not loved.

The left brain generates the part of our mind that is good at using what we already know for practical purposes so it needs that sense of certainty to operate. That works for some things, but it does not provide the **true sense of meaning** that our mind requires to obtain satisfaction and wellbeing. In reality, there can never be certainty, because there is a vast unknown and what is correct in one situation may not be so in another time and place. The extraordinary subtlety in every nuance of meaning and the ever-changing feeling of knowing as new insights occur to us requires a different brain mechanism, which the right hemisphere is providing for us, if we choose to utilise it.

The biology of this is seen in all mammals and is easiest to see in birds because their right eye is controlled entirely by their left hemisphere and their left eye by the right side of their brain. Towards the end of my research career I was attached to a University group at

Armidale where this laterality was being studied. One thing they found was that chickens use their right eye (left brain) to peck at and pick up seeds and their left eye (right brain) to keep a general lookout for what is happening around them, which includes their social behaviour and awareness of predators. This applies to many other birds also; in fact some species have beaks curved slightly to the right for a better view from the right eye (or left brain).

Another critical biological fact is that the corpus callosum – the nerve trunk that connects the two sides – is not just designed to allow a flow between the two, its main function is to inhibit or check what is happening on the other side. In other words the two sides are designed to counterbalance one another. Sometimes there is more activity on the left, sometimes more on the right, so the way our mind works depends on how well these two are balancing one another and **working together**. The way we choose to pay attention is the main determinant of this.

Social engagement needs a right brain way of paying attention. The ability to read facial expressions and non-verbal cues comes predominantly from the right hemisphere. The left brain is not involved when you focus your attention on another person's eyes, but it is if you are focussing on their lips to hear the language better (as I find myself doing at times, being partly deaf). The left side processes **explicit** meaning whereas the right side gives us access to the **implicit** meaning that is so important in social engagement. The meaning of music, for example, lies not in the specifics of the individual notes, but in the whole experience of the spaces between the notes and their changing flow.

McGilchrist's main point is that our society has gradually become **left-shifted** in the way our minds are using our brains and that this is making a lot of people unhappy and even threatens our future survival. Another short e-book he wrote is called *The Divided Brain and the Search for Meaning - Why are we so Unhappy?* The problem our mind has when unbalanced towards the left is that it takes simple logic too seriously, thinking narrowly about what it already believes to be correct and forgetting about bigger issues to do with human values and relationships.

The left brain creates a world in which the left brain flourishes. This is pleasant and reassuring – self-reinforcing. But it inevitably loses touch with reality. It makes up a story that seems logical enough – a simplified abstraction – which may then **seem to be our reality**. Its blind spot is that it is self-satisfied by its own internal consistency so we are lost in a hall of mirrors where the exit is hard to find. There is no sense of the unknown and no humility in such a mind-set. We need our right brain to open our minds to different ways of seeing and remind us that it all comes back in the end to how well human beings can connect and work together.

This is where **the arts** are so important to us, both in early education to develop our ability to utilise our right hemisphere, and throughout our lives to remind us to keep doing this. Much of McGilchrist's book is about the history of the arts in Western society, which I hope to be able come back to later in the Course. Our culture is built around the things we choose to devote our attention to, so if the priority is mechanistic causes and effects we end up with a very simplistic way of working together and, ultimately, we see crises of meaning in people's lives.

An example of this is the bureaucracy we have created where recorded details and very arbitrary rules are taken more seriously than commonsense interaction. This can restrict the flexibility of our normal everyday mind to such an extent that stupid decisions are made. This was starkly demonstrated in experiments by Marcel Kinsbourne at Oxford using a syllogism (an exercise in deduction) to test a person's thinking when either the left side or the right side of the brain had been temporarily inactivated by an electric current. The syllogism, which is clearly flawed, was as follows: *All monkeys climb trees/ The porcupine is a monkey/ Therefore porcupines climb trees.* Amazingly people whose right brain was suppressed mostly agreed with this because the left brain just followed the logic without noticing that porcupines don't actually climb trees. Those with access to their right brain dismissed the deduction as untrue. The left hemisphere on its own can make serious mistakes.

McGilchrist's most recent book is another very short paperback (published this week I believe) called *Ways of Attending - How Our Divided Brain Constructs the World*. The review says that 'how you attend to something – or don't attend to it – matters a very great deal.' The left hemisphere is good at **utilising** the world whereas the right is better at **understanding** it. Our present culture is teaching us not to see some things that we really need to be able to see. Whether we are absent or present, detached or engaged, alienated or empathic, broad or narrow, sustained or piecemeal, the way we pay attention has the power to alter whatever it meets – it never leaves its object unchanged.

Michael Gazzaniga from California is the world's most respected authority on the two sides of the brain. Five years ago he was not very complimentary about McGilchrist's ideas, but more recently he has been languaging his thoughts in a way that is much more consistent. He now says that the left brain is designed for **reducing uncertainty** whereas the right is for **resolving inconsistency**. The left continually forms testable hypotheses regarding cause and effect without regard for context. The right cannot do this, but it can evaluate the significance of this reasoning taking into account previously learned knowledge and the context.

The way we use our mind

So, in a practical sense, **what can I do to ensure that I'm using both sides of my brain?** One tip comes from the two habits that I said right back at the beginning were tempting, but not profitable, uses of our mind. Firstly, because our mind is for being and belonging, we don't need to make quite as many **judgments** as we do about other people and what they think and do. We need to make a few, but if we find ourselves continually arguing the point in our mind about everything somebody says or does, we are sure to be neglecting the right side of our brain. There is always a larger context within which everything is happening and it can be more helpful to listen to someone without judging because this is an offer of love and that may help them more in the long run.

Secondly, it is fruitless to try to **control** other people and manipulate our circumstances as much as we do. As I said, we overdo this function of our mind, which is a left-shifted way of being. It is a very natural inclination of our mind because we crave certainty and want to know what is going to happen and we want the best for other people, but it is never going to extend as far as we would like because there are so few things that we can actually control. Practising love in our relationships with others, with ourselves, and with the unknown is not a cop-out – it maximises our usefulness and our influence. Without that we actually miss a lot of the beauty and harmony and forget to join in the singing and dancing.

Finally, to put this into perspective, it is not simply an exercise in how to use your brain. The **brain is only one part of the mind** and it has become common to over-emphasise its role as if it is where the cause of all our problems and our illnesses will be found. The last new book I want to mention today is one that brings me much pleasure because it treats the mind as a biological whole. It's called *The Biological Mind – How Brain, Body and Environment Collaborate to Make us Who We Are*, written by Alan Jasanoff. The book has a bit of a technology twist to it that I didn't particularly like, but for the most part it's the kind of perspective that I think is very helpful. It's essentially an argument against what he calls the **Cerebral Mystique** whereby attention has been focussed purely on the brain without regard for the larger system of which it is a part. He is pointing out that a more biologically realistic view would benefit both psychology and medicine in several important ways.

In psychology at present we **overestimate the role of individuals and underestimate the role of contexts**. Whatever my mind does is actually a result of all my interactions rather than a single command centre in my head. In medicine he says 'a grave consequence of the cerebral mystique is to perpetuate the stigma of psychiatric disease.' Emotional health issues are so often attributed to what he calls '**broken brains**' that **treatment systems** and **cultural attitudes** are severely distorted away from a more holistic understanding of how our minds work as we live together in this world.

Books like this are going to be important, I think, lest we get too far away from the basic idea that our minds are primarily instruments of love. We need one another and, to end where I began, we bring healing to ourselves and one another as we practice love.