

## CONFERENCE REPORT

## Global brain and hemispheric separation: the work of Iain McGilchrist

Grethe Hooper Hansen\*

Educational Consultant, Bath, UK

Dr Iain McGilchrist, psychiatrist, former professor of poetry at Oxford and now famous for his definitive study of the left and right hemispheres of the brain, *The Master and His Emissary* (2009), was the guest speaker at the end of the annual Glastonbury Conference, 25–26 July 2015. It seemed such an unlikely place to find him that I pondered on his motivation. McGilchrist's book had shown that our culture is set for self-annihilation through ever-increasing left-hemispheric dominance, evident in such things as our obsession with technology and increasingly Kafkaesque organizational life. But Glastonbury (in Somerset, UK) is a world apart, a place in which it could be guaranteed that every member of the audience would have had at least one if not a great many experiences of what Stan Grof called 'spiritual emergency'. Was he about to reveal, I wondered, a possibility in that direction of exit from the apparent cul-de-sac of left-hemispheric dominance? I booked my ticket and counted the days with growing excitement.

There he was in the audience right from the beginning. He sat through the opening revelations of political skulduggery, flashbacks to 9/11 and 7/7 and the ever-increasing financial iniquities. He was there for the review of historical moments of planetary conjunction that were, or were not, seized in the days when monarchs such as Elizabeth I followed to the letter the advice of astrologers such as John Dee. He was visible during the final talk, which gave an anticipatory picture of how things might be if we should succeed in restoring the priority of the brain's right hemisphere.

For those who have not read McGilchrist's book, he revealed that nature's intention in holding two opposite forms of perception side by side is to offer us the means to keep watch globally on the world-as-a-whole and its moment-by-moment changes while, at the same time, pursuing our particular course of action. For example, a bird watches attentively for predators with one side of the brain while simultaneously pecking seed from a flower with the other; the former is a much more complex operation. In the human brain, new information enters through the right hemisphere, to be globally processed; our first encounter is with things in their wholeness. The message is then passed to the left to be serially processed, one thing at a time, bringing the possibility of recognition and analysis. Finally, information returns to the global context of the right for further consideration and integration of meaning. This ingenious design of weighted oscillation between right and left enables us to achieve both maximum flexibility and complexity of thought. A major function of the corpus callosum, which joins the hemispheres, is to inhibit communication between them so that each can get on with its own thing.

<sup>\*</sup>Email: ghooperhansen@talktalk.net

Each hemisphere offers a different form of concentration – the left narrow, tense and purposeful, the right open, relaxed and therefore, as in aikido, able to be acutely attentive to movement, change and subtle, shifting implications. The left 'closes' on an idea, immobilizing something previously fleeting or ambiguous so that it can concretize, define and interpret in the light of what it already knows and take action.

McGilchrist showed that centuries of rationalism have compromised this delicate balance. Western culture has so over-emphasized and prolonged the left-hemispheric analytical process, diminishing the role of the right hemisphere, that it can no longer produce the solutions needed to solve the very complex problems we are confronting today. His book's title refers to a Sufi story in which the master, representing the right hemisphere, is usurped by his own emissary, an embodiment of the left brain, who is unable to experience, recognize or deal with complexity, and therefore believes his more limited understanding to be superior.

The house was packed for this conference; followers had come from far and wide. McGilchrist began with an expression of awe and gratitude for the wonder of life, the beauty of our world and the mystery of all that is not as it seems. But he went on to describe the dysfunction of today: an obsessively hard-working but counterproductive society in which the same disasters constantly recur because we fail to learn from them. We wage war in the hope of achieving peace, uphold a 'business ethic' that drains all initiative from practitioners and over-protects our children to the point where they are no longer safe in the real world. Flagging up the pronouncements of neuroscience as 'a lot of nonsense', he explained that this compulsive social dysfunction is due to the abnegation of overall control by the right hemisphere. When the temporal parietal lobe in the right hemisphere is constantly suppressed, we make wrong decisions because the left has no access to the 'whole picture' and simply goes on re-describing the same phenomenon, at ever lower levels, that it has already set in place. We have come to rely on rationality, logic, certainty and control at the expense of the more complex qualities of intuition, empathy, curiosity and emotionality.

McGilchrist's book explains that the inbuilt limitations of the left hemisphere, which enables pin-point concentration, speech and language, allow it to lose awareness of its dependence on the right. It feels secure with Cartesian logic, which supports the sorting, organizing, defining and structuring that stabilize and harness knowledge and understanding. But this brings the Cartesian sense of being *right*, which over-values cognition and dismisses ambiguity. Feeling becomes shallow, happiness hedonistic, relationships superficial; in this dystopian world, nature is feared, intuition distrusted and love suspected. The rationalist culture throws up bureaucrats as leaders rather than people-of-action, who depend on the whole-picture awareness that they refer to as 'gut feeling'. What the suppressed right hemisphere would have insisted upon is that everything be examined by introspection, which engages the natural human faculty to learn from experience.

McGilchrist's ambition, originally, was to study philosophy and theology, but since this was not possible at Oxford, he was persuaded to read English. On graduation, he won a fellowship at All Souls, Oxford: funding without task. He took the opportunity to pursue his frustration with academe and wrote his first book *Against Criticism* (McGilchrist, 1982), which revealed to me why Honours English had been such a wasteland! Because poetry is embodied, implicit and unique, if you try to explain it, its power is lost. Explanation draws on the left hemisphere, which subverts

meaning by taking us back to the explicit: for example, if we attempt to explain a joke, it is no longer funny.

Wanting to study something 'concrete', he chose medicine, neurosurgery and neuropsychology. This led to his meeting with surgeon John Cutting, who had written about the strange disorders resulting from right-hemispheric stroke, such as the inability to understand implicit meaning. He realized then that the right hemisphere is vital to metaphor, narrative, body language, voice tone, facial recognition and all the subtle aspects of meaning in everyday conversation because it is more in touch with the body, and can also deal with the unique.

McGilchrist went on to Johns Hopkins University in Baltimore which offered the opportunity to work with neuroimaging. This enabled him to observe the different action in the brain that occurs during free-floating attention as opposed to a specific memory or desire. He realized that the left hemisphere *abstracts* the qualities of live beings in order to know them, making maps and categorizing (and creating closed systems such as mathematics and physics). This may bring order to the disordered but, in the process, renders it lifeless.

It was after reading Louis Sass's book *Madness and Modernism* (Sass, 1992) that he became aware of the similarities between modernism and schizophrenia – which is rather like 'having things wrong with one's right hemisphere'. An example might be that complex conclusions are arrived at that other people find patently absurd. Our culture is becoming increasingly similar to the schizophrenic brain, which reveals a lack of symmetry. Readers familiar with *The Master and His Emissary* may remember that McGilchrist's analysis of Cartesian thinking actually threw up the possibility that Descartes was schizophrenic.

Nature makes a dichotomy of the hemispheres, as in the yin yang symbol: together, they make up a unity – which reveals that the Chinese, thousands of years ago, understood the mind-body interface! One purpose of the corpus callosum is to keep the hemispheres separate and stop them trespassing on each other's territory. But it also keeps them together. It can be seen today as progressively growing smaller, moving us towards total disconnection – as in the brains of birds and fish. The most asymmetric part of the brain is the right frontal cortex, which enables us to socialize, empathize, co-operate, enjoy irony, humour and the implicit. It also has a special kind of vigilance (different from the left hemisphere in that it is free from judgement) that *adapts* to what it is focused upon: lunch, danger, and so on. As it does so, it applies different kinds of attention in different circumstances, which results in different realities. Thus, attention changes the world: depending on what you find as a result of the quality of attention you pay, changes your attention in the future.

McGilchrist explained the need for hemispheric difference. When a bird pecks at seed, this requires sharply focused attention and judgement (left hemisphere). But at the same time, the bird must watch for predators: broad attention devoid of judgement, sustained over time (right hemisphere). Attention is an aspect of consciousness fundamental to our being, directed from us to it. McGilchrist showed a picture of a mountain behind his house, which could be seen in different ways: as a landmark, as the home of the gods (a belief of the Picts), a good place to mine basalt or by today's scientists, as 99.7% nothing. Attention is primary; it changes the world. If you see a person as a mechanism (left hemisphere), you get back what you expect, whereas if you can hold them in the right, 'Love is a pure attention to the existence of the other'.

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At this point, he offered a chart, showing the ways in which we both interpret and create the world by our perception of it (see Figure 1). Because we have become locked in a left-hemispheric-dominated vicious cycle, we have succeeded in substantially changing the world in tangible ways over the last few decades.

To sum up hemispheric difference, McGilchrist explained that the left hemisphere controls the right hand, pinning things down and using them for better manipulation of the world, whereas the right hemisphere tries to see as big a picture as possible and understand the meaning of words so as to form a plan of action.

The right hemisphere is designed to take in the first, preconceptual grasp of an object, which involves the full periphery of vision, the whole. Normally, when we enter a room, the right hemisphere pays global attention, which allows interesting

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Left hemisphere	Right hemisphere
Controls grouping for better manipulation of	Wants to see as much as possible, put it at
the world	the top and make sense of it
Exploitation of the meaning of the world	Understanding of the meaning of the world
Wants certainty: we survive by making	Tactical grasp of the meaning of experience;
decisions based on certainty	ambiguity
Narrows down to certainty	Opens to possibility
Supported by narrow focus; requires fixity	Global attention first (e.g. entering a room)
Tendency to see the non-animate	Thereafter, flow
Coding largely left hemispheric: explicit and	Implicit, embedded, embodied
decontextualized	Context radically alters nature of object
Extrinsic motivation	Intrinsic motivation: inspiration, aspiration and joy conveyed by arts, music and play in a supportive ambience
Categorizes by presence of a certain feature	Categorizes by 'family resemblance',
	e.g. pigeons can detect paintings by different
	artists, Pisarro as opposed to Braque
Superordinate capacities	Finer subordinate categories, e.g. the work
	of Gerald Manley Hopkins

Figure 1. The brain's hemispherical specialization (after McGilchrist).

Abstraction	Concrete images
	Image and emotion lead to higher cognition
Semantics and more subtle syntax	Intonation, pitch, prosody,
Semantics and more subtle syntax	e.g. musical aspect of mother–baby talk
	Ability to see another's point of view;
	narrative; appreciation of beauty
Senses presence after thought begins	Senses presence before thoughts begin
and symbolic representation first,	
e.g. smiley faces	
Mistaking the map for the territory	The territory is the map
Inveterate optimist	Pessimistic because realistic
Exalted view of self	Rather sad view of self
Delusional	Realistic
Detusional	Realistic

Figure 1. Continued

things to leap out. It gives itself up to possibility and savours ambiguity: 'everything flows'. By contrast, the left wants certainty, survival and a quick decision. It sees the part, not the whole, detests ambiguity and misses all the finer shades of meaning that the right needs to consider before taking action. The left wants everything explicit and decontextualized; the right savours the implicit and embedded. Schizophrenia or damage to the right hemisphere means a pathological narrowing of attention; things become particulate, separate and fixed. But for survival, all structures need both.

When we look at a puzzle, the eye constantly changes the context, which radically alters what we see. Looking at sex or religion through the left hemisphere offers a completely different experience (ripe for exploitation) from savouring with the right. All art is contextualized, music most of all. From distinct and separate notes, it creates an experience that can change the way we see the world.

Both hemispheres need to categorize, but the left categorizes by the presence of characteristics (e.g. chairs have legs) whereas the right groups things together. The left looks at superordinate characteristics such as big or small, whereas the right looks at the subordinate such as different breeds of dog. The right is where uniqueness

lies; McGilchrist's example was the poetry of Gerald Manley Hopkins, who celebrates the uniqueness of all things in nature: 'Glory be to God for dappled things'. The right prefers the concrete and the left, abstraction. In language, the left favours semantics and the right, prosody. McGilchrist noted the right-hemispheric musicality of interchange between mother and baby. The right is also responsible for narrative, for the understanding of others' points of view, for aesthetic appreciation and all things that 'presence' to us, as opposed to the manic symbolic representations popular today such as smiley face stickers given to children as evidence of teacher approval. The left has the power of explicit, calculated precision but misses what many feel is essential to life. Huge new ideas and innovations, such as Kekule's dream of the snake eating its own tail that introduced the concept of the benzene ring, have a vibrant chaos about them. It could be said that while the right hemisphere is the terrain, the left is the territory or map.

The left has an exalted view of self and is an inveterate optimist, unable to appreciate the gravity of a situation (think of our government forming an alliance with a nation known for its abuse of human freedom), whereas the right knows truth, and therefore often takes a distressed and worried view. This indicates two entirely self-coherent worlds: in the right, we participate, merging, changing and recombining to create new conditions. We recognize that everything has different and contradictory aspects, and every attempt to reflect on the meaning of life must include that awareness. But in the left, things are isolated, clear, knowable and separate from each other, and all is open to exploitation. The left has no doubts about itself.

McGilchrist spoke briefly about the implications of this understanding for world history, considered at length in his book. Today's world appears to be schizophrenic. While *The Master and His Emissary* revealed, in the Western world, three huge upwellings of everything that is vital to a culture, making great strides in art, sciences, law and organization, each was followed by decline and reversion to the 'left'. When the right fails, the left goes off into what he called 'lala land': great civilizations such as that of ancient Greece rose from right-hemispheric dominance, flourished and blossomed to their full height, and then began to decline as they became more and more left dominant.

The second half of his book looks at the increasingly psychotic world of today. I remembered a talk at the same conference in Glastonbury two years earlier by the head of the British Astrological Association, who predicted computers at every level of education in schools, children communicating by computerized telephones, no longer able to relate to each other emotionally face to face. The audience was shocked and highly sceptical, but now that situation has become the norm in schools, accepted and approved by most teachers.

Returning to the consequences of hemispheric damage, Dr McGilchrist described the hallucination and delusion into which the psychotic patient retreats after right-hemispheric damage, although unaware that there is a problem: if the arm can no longer be moved, he denies it! One patient who insisted that all was well neglected to shave or clothe the left side of his body. This is the subject of McGilchrist's new book, still in the writing, *When the Porcupine is a Monkey*. By contrast, after left-hemispheric damage, although there is some loss of faculty, the sense of self remains intact. This reveals two self-coherent worlds: in the right hemispheric, we are always moving, changing and recombining, recognizing that there must be contradictory qualities, neither good nor bad. But in the left hemispheric, everything is clear and beyond

doubt, either/or. Inconsistency is bad and wrong; 'shoulds' and 'musts' are part of the language. While the right hemisphere savours depth and the whole picture, seeks the connections between things and postpones judgement so that exciting things can happen, the small, closed world of the left has, in our day, been made more meaningful than the wonders that wait within.

The right-hemispheric world was given priority by all ancient wisdom traditions such as the Kaballah, which presents a picture of creation that begins with withdrawal, allowing God to create a space. Next, a spark of fire falls into that space; information is sent to the left hemisphere. Finally, there is repair, when the whole picture is restored to a place in which all things can express their true nature. The right-hemispheric approach is implicit in Michelangelo's famous painting on the ceiling of the Sistine Chapel in the Vatican. God is shown to be touching the left hand of Adam, making the right hemisphere the first to be sparked into life. Compare this with today's concept of education, where the left hemisphere is given priority: cognitive work is imposed at age four or even earlier, whereas in the not-so-distant past, the freedom of the child to play was protected until seven, letting the brain take its own developmental course.

McGilchrist explained that all this is the consequence of industrialization. The embodied world has given way to a hall of mirrors reflected back to us on our screens. Sex has become a lifestyle choice, the arts commercialized and disembodied, religion has lost its mystery, wonder and awe, people have become passive and narcissistic. McGilchrist compared Classical art, once the royal route to engage with the complex, with the over-conceptual work of Hieronymus Bosch, painter of delusion, bizarre perspectives and instead of flow, an infinite series of pieces. Strangely, in his paintings, all on the left (controlled by the right hemisphere) tends to be clear, but all on the right (controlled by the left hemisphere) is chaotic and distorted.

The left-hemispheric world has lost the broad picture and with it the concepts of skill and judgement. Knowledge is replaced by information, abstraction by reification, common sense by bureaucracy. Everything is either/or, no longer unique. Because reasonableness has given way to rationality, there is no 'common sense'. Other signs of decline into left-hemispheric dominance are loss of social cohesion, depersonalization, paranoia, lack of trust, need for total control, anger, aggression and discord – but at the same time, dangerously unwarranted optimism.

Autism, seen from the hemispheric perspective, is an abnormal lateralization of the brain that has incapacitated parts of the right hemisphere, a deficit that can unleash a variety of other things. Gross delusions, such as anorexia nervosa (hatred of the body image, which is in the right hemisphere), are often associated with an injury to that hemisphere, which also affects the emotional aspect. As we move further into the left, abnormalities increase: McGilchrist discovered from teachers in Toronto that 30% of their classes cannot sustain attention, and children now have to be taught how to read the human face!

His conference talk finished, as the book finished, on a note of doom and gloom: there is no justifiable hope of redressing the balance of this compromised world. Time had been left for questions but my waving arm was missed, so I pursued Dr McGilchrist in his journey to the celebration dinner. I asked him if he had observed the changes taking place 'below the radar' of the left brain, especially in America, which is always ahead. He smiled and attempted to listen politely as we threaded through the traffic; he's used to nutters, I thought to myself! An example from medicine is that

privatization, which because it supports any form of treatment that the patient elects, has paved the way for an entirely new understanding of disease and its relation to consciousness, which is instrumental in both cause and healing. Heartmath is the most astonishing example, now leading the field in consciousness techniques.

Other consciousness networks have been created by individuals such as Gregg Braden (Global Consciousness Project), Stephen Dinan (Shift Network) and Marianne Williamson (meditation on the Course in Miracles). Hundreds of thousands now carry the hand-held em-wave to regulate their heart rhythm, determined by emotion. Vibrational technology for personal transformation first began with Robert Munroe's Hemisync to adjust brain rhythms, which was the inspiration for the Biocybernaut Institute in the Rocky Mountains where people could regulate dysfunctional brain patterns in response to the screen. This led on to programs on personal computers, pioneered by Bill Harris with Holosync, now used by thousands to lay the base for calibrated spiritual experience and profound states of meditation. At this point, we parted company as the dinner venue came into view.

Since the Glastonbury conference, that shift has become ever more apparent. We have opened our hearts to immigrants and a new political dimension of higher ethical standards and emotional values has emerged, embodied by a political leader who refuses to vilify opponents, honours difference and has hit a chord of compassion in Britain's House of Lords. Biologist and writer Elisabet Sahtouris, now in her 80s, told the wonderful story of how the earth was first inhabited by bacteria, who waged perpetual war against their own species until one day they woke up to the idea of co-operation, at which point more advanced and complex natural forms were able to arise and thrive.

## Notes on contributor



Grethe Hooper Hansen left school teaching in search of more effective methods in EFL (English as a Foreign Language) and chose Suggestopedia, the creation of medical doctor Georgi Lozanov. After working in Italy and bringing Dr Lozanov to Florence, she became head of SEAL (the Society for Effective Affective Learning), an international organization founded to explore Lozanov's work, which is becoming comprehensible only now, as the Western world wakes up to the limitations of scientific materialism.

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