

Guest editorial: Science and Psychotherapy

Seán Manning

Five years ago I found myself, more by chance than design, at a conference in London called “The First Neuro-psychoanalytic Congress.” I was going to a conference in Halifax, Nova Scotia, and my good friend and colleague, Geraldine Lakeland, who was going to the same conference, found that this event in London fitted perfectly with the schedule. So we went. The name alone is remarkable - it really seemed as if, for the first time in over a hundred years, neurologists and psychoanalysts were having a constructive dialogue. This is of course too extreme a description, but it was certainly a significant event. Chaired by Oliver Sacks, it featured a series of stars on both sides, including Antonio Damasio, whose books (1999; 2003) I immediately began devouring. An analyst gave a presentation, a neurologist replied and there was a discussion. Then it was the other way round - first a neurologist, then an analyst, and another discussion, for three days. I was enthralled, and began a serious round of reading about the brain in relation to psychotherapy.

When I was a child, I remember old people saying the world was going very fast. I thought they just couldn't keep up. Well they were right - it is going fast. In 1985 Daniel Stern's watershed publication, *The Interpersonal World of the Infant*, summarised a body of work that would change the way we saw human development. Previous “ages-and-stages” models needed drastic revision. The Mahler, Pine and Bergman (1975) model of infant development, beloved by therapists and theorists and barely ten years old, was seriously undermined. Infantile autism and the undifferentiated stage both had to go, as the evidence suggested that infants were never normally either undifferentiated or autistic. Bowlby's attachment theory, on the other hand, was vindicated. It appears that we come into this world hard-wired for relationship, and in peremptory fashion we seek it from the first wakeful moment. We act as though we are somebody, and we are aware of the other long before there is anything like a conscious awareness.

In 1999, Daniel Siegel and Allan Schore were both able to publish books setting out in detail what happens in the brain as a consequence of early relationships, and the following year, only fifteen years after Stern's book, we were in London looking at fMRI¹ pictures of what happened in the brain under various

¹ Functional Magnetic Resonance Imaging

conditions. By 2002 Louis Cozolino (2002; 2004) had written *The Neuroscience of Psychotherapy*, telling us in some detail how the brain responds to both trauma and psychotherapy.

This year I have heard Tom Lewis (Lewis, Amini et al., 2000) and Richie Poulton at the NZAP conference in Queenstown, and both Cozolino and Siegel at a seminar in Melbourne. These people - perhaps it is important that they are all men - have in common an interest in what happens in the bodies and brains of people who suffer from psychological distress. They are psychologists, psychotherapists, neurologists, psychiatrists, and they are mostly agreeing with each other, and are mostly confirming the validity of psychotherapy as we know it, with its emphasis on relationship and transference as a therapeutic intervention.

During the twentieth century, my impression is that psychotherapy existed largely on faith. The analytical methods and their successors, the humanistic approaches, the body-focussed methods and the various approaches to the "self", all managed to survive without a lot of evidence for their efficacy. Lots of theory, lots of art perhaps, but little science. Bowlby and Mary Ainsworth changed that to some degree, but on closer examination, experiments replicating the "strange situation" showed attachment patterns in children to be much less stable than was thought (Fonagy 2001) (though adult patterns are actually quite reliable). Truax and others (1967) found evidence for Carl Rogers' general counselling approach in that clinicians with the basic qualities of empathy, positive regard and genuineness tend to get better results, and that was about it. Not much to go on, considering how much psychotherapy was and is practised. In 1966 Paul Halmos published *The Faith of the Counsellors*, arguing that counsellors believed in the power of love. Consumer research consistently showed the relative popularity of counsellors and psychotherapists, albeit with the humanistic disciplines like gestalt and transactional analysis coming out ahead of the analytical methods, especially when compared to medicine. Also I remember a disturbing study or two that showed the less training a therapist had, the better the therapy.

Now the validity of our approach, if not our methods, is being supported by evidence, not from interview or opinion, but from the microscope and the scanner.

We probably need to let go of some things. The unconscious is certainly there, and dreams are indeed a royal road to it, but it is not what we thought it was. The mechanism of implicit memory, the knowledge store for all our automatic behaviour - everything from attachment patterns to occupational preferences to riding a bicycle - takes the place of the unconscious. We can observe it in

ourselves. From an examination of our families and early lives we can understand how it came to be, but we cannot recall learning it. The self, on the other hand, survives very well. If implicit memory is the unconscious aspect, especially in relation to attachment (which also survives), then the episodic variety of explicit, or declarative memory describes the narrative, or script, or schema that defines our repetitive dysfunction and is a reasonable basis for the fragmented self. Its coherent, derivative, autobiographical, declarative memory defines our functional self and our autonomy.

The models for these mechanisms are still relatively crude. As Damasio writes, “There is a functional level of explanation missing between the testosterone molecule and the adolescent behaviour” (2003: 120). We know that certain things happen in the brain and we know what the feeling and the behaviour are like, but we are not so sure how one becomes the other. Feelings turn out, as William James suspected, to be a “perception of the body changed by emotion” (Cited in Damasio, 2003: 112). The areas of the brain that hold information about the state of the body, especially on the right side, provide information to other areas about how the body reacts to the environment (the outer environment, for instance a real time relationship, or the inner, as the memory of a relationship) which somehow becomes a subjectively felt experience, but there are still big gaps in our understanding of the process. The nature and mechanism of consciousness is particularly tricky, and has been the focus of several neurological models (Damasio, 1999; Edelman and Tononi, 2000).

Still, it really seems we are on the verge of the ultimate inner journey - mapping the human brain, and understanding how our subjectivity derives from it. This convergence of theory and evidence from a number of disciplines is generally supportive of what we do, and this poses a new problem. Having survived for a hundred years on theory developed from introspection, clinical experience and intuition with little that could really be called scientific enquiry, psychotherapy has developed an heroically embattled psyche, struggling for credibility against attacks from scientific medicine and behaviourism. The positive qualities of this one-down position include a consistent self-examination, but that is balanced by a tendency to continue to do the same things over and over (though we do not have that quality on our own!) without the need to measure very much. There is pride in martyrdom. We reach out to people, and are secretly smug about earning less than doctors.

When we designed our conference in Queenstown, several threads came together: love, as an underlying agenda for our work and our lives; science, as a number of us had been reading Thomas Lewis and then the adventurous Sandra Turner

captured him as a principal speaker; and their relationship to psychotherapy. One aim (perhaps this is personal, but I recall it as an agenda of the organisers as a group) was to challenge ourselves by confronting science with the love of the psychotherapists. Can the loving approach survive such a meeting? This unfamiliar validation lends more credibility than we are used to. Credibility is maintained by consistently challenging what we do, and a preparedness to modify it in the light of the outcome. Perhaps the self becomes a narrative fiction, more or less coherent; the therapeutic encounter becomes a face-to-face business, a two-person psychology; the twenty-first century therapist is visible; the unconscious determined by repression morphs into the mechanism of implicit learning. Now we can scan our literature in the light of a scientific examination. Freud's dream is come true, though not exactly as he foresaw.

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