

Mark Solm's Remarks Sigourney Award – January 2012

I am very pleased to be honoured with this important prize, not least for the reason that I look upon it as acknowledgement of the value of neuropsychanalysis, which is quite a radical departure that has not been universally welcomed.

When I first began working in the 1980s (as a trainee neuropsychologist) with neurological and neurosurgical patients, it was almost impossible not to be fascinated (and moved) by the strange and profound psychological abnormalities they were struggling with. This is not surprising; the brain is after all the organ of the mind. What was surprising, however, was how little interest my neuroscientific colleagues showed in the emotional and motivational aspects of these disorders. They seemed interested only in the cognitive aspects, in the disorders of memory, language, problem-solving and the like that these patients displayed. It was as if they saw the brains as an information-processing device – as a computer. They did not seem interested in the brain as the source of our sentient humanity. For me this was always what was special about the brain: it had the almost miraculous capacity not only to solve problems like a computer but also to reflect on its own state of being, to feel feelings, to have desires, to fall in love . . . in a word, to be a person.

For me, therefore, what was interesting about my neurological patients was not only their cognitive disorders but the effects of brain lesions on their conception of themselves, their self-esteem, their world-view, their sense of reality, their relationships, their dreams.

I wanted to spend as much time with them as possible, in a naturalistic environment, so that I could observe them and get to know them *as people*. I therefore made a request, which my colleagues at the time saw as an act of professional suicide; I asked to spend as much of my clinical time as possible in our department of Neurosurgery's brain and spine rehabilitation unit. Nobody wanted to work there; it was considered a dumping ground and the dead-end of a scientific career. But what it allowed me to do was to work with the same patients over weeks and months, rather than the usual days or even just hours in an acute care ward or outpatient department, which is the usual stomping ground of neuropsychologists. It also gave me the opportunity to see how the patients behaved with each other, how they related to the staff with whom they were living, and how they related to their families and loved ones during visiting times, and how these relationships developed over the process of mourning, and through the many other emotional challenges they had to contend with, and it also enabled me to see how they responded to trips home and to their first tentative sojourns into the new, strange and frightening outside world.

Not to diminish the scale of the human tragedy that these patients were grappling with, I have to say that I felt like a kid in a toy shop. What rapidly became apparent was not only that these patients, of course, dealt with their challenges in ways that were quite unlike anything you would normally see, in the healthy population and in psychiatric practice, but also that the aberrations and novelties in their ways of dealing with the world – and with their inner worlds – varied in

systematic relationship with the site of the damage to their brains. That is to say, it rapidly became apparent that damage to different parts of the brain gave rise to alterations in the life of the mind – the whole mind – that were to a large extent regular and predictable. What this meant, as we should have expected, of course, was that not only the brain's cognitive information-processing capacities but all of its mental functions, including the organization of emotion, motivation and personality, are represented in the brain in a systematic and lawful fashion. I now became fascinated with the possibility of being able to map some of these lawful relationships, by studying the structure of the personality changes occurring in these patients, and piecing together the organization of normal functions from the differential psychical aberrations that were produced by damage to the different parts of the brain. In order to do this, I needed an appropriate method of investigation and an appropriate conceptual language, which I could use as a starting point for my investigations.

This was my point of entry into psychoanalysis. For all its faults, no other discipline has devoted as much serious effort on the business of developing a systematic method for observing and investigating the inner life of the mind, and a language for describing it.

Armed only with the paperback Penguin edition of Freud's works, therefore, and with group in this very city, confirming and extending the initial observations that my wife and I first reported in our 2001 book *Clinical Studies in Neuropsychanalysis*.

As I have already said, alongside this clinico-anatomical research into the personality changes that occur with focal brain lesions, which I have always seen as the bedrock of neuropsychanalysis, I also conducted clinico-anatomical research into the brain mechanisms of dreaming. I chose the function of dreaming for obvious reasons: because dream theory played such a fundamental part in the development of psychoanalytic theory as a whole, I reasoned that if we can understand how the brain generates dreams we can neurologically localize all the major building blocks of our model of the mind. I reasoned that this would also serve as a useful check on the reliability and validity of the inferences that I had made from our clinical investigations of the personality changes caused by focal brain lesions.

It was thrilling to learn that it was indeed possible to do this, that is, not only to understand how the brain generates dreams while at the same time confirming the results of our other clinico-anatomical study, but also to realise that the broad brush strokes of our basic psychoanalytic theory was consistent with this new research. That in turn led to important corrections in the prevailing neuroscientific view of dreams, which had the effect also of placing psychoanalytic theory firmly back on the scientific agenda.

It was sad to observe how much more ready my neuroscientific colleagues were to welcome psychoanalytic theories and methods back into the scientific fold, and to revise their thinking accordingly, than my psychoanalytic colleagues were to take on board the mountains of new evidence about how the mind works, emanating almost daily from neuroscientific laboratories around the world.

I hope that the award of this prize to me, as one of the founders of neuropsychanalysis, will go some way towards further correcting that embarrassing state of affairs.

In closing I want to say that by accepting this prize I am aware that I am accepting it on behalf of many others. I have mentioned only two founding studies in neuropsychology. Many people have since built on that work, and in the process they have greatly expanded the horizons of psychoanalysis, not only to encompass other topics but also to obtain other spheres of scientific influence. I particularly want to recognize the voluntary work over the years of the executive committee of the Neuropsychology Association and its various international arms, such as the Neuropsychology Foundation here in New York, and the generous funding these organizations always received from the Astor family (which, incidentally, also emanates originally from this great city).

Above all else the yield of this work has been a significant shift in the field of neuropsychology as a whole, so much so that the very term “cognitive neuroscience” is becoming a misnomer for what we actually do. Some find it necessary nowadays to complement that term with a new term, denoting a sister discipline called “affective neuroscience” to take cognizance of the fact that we no longer treat the brain as if it were a mere computer (or a chemistry set, for that matter). But the reality is that these two aspects of the mind are finally being melded into one, and the “big picture” concerning how the mind *really* works is finally coming into view.

We are living through a golden age in neuroscience, during a period of rapid breakthrough, in which we are finally recognizing and understanding that the brain is first and foremost a subject, not an object; that the most important features of the brain are its unique capacities for sentience, feeling, volition, free will, selfhood and agency. These are properties that the brain shares with no other bodily organ, and indeed with no other object in the known physical universe. Surely therefore, these are the features we should be concentrating on, if we want to understand how this part of nature works. These features have been the traditional subject matter of psychoanalysis for over 100 years now. Psychoanalysis therefore has a great deal to offer neuroscience at this point in history; and that is why I decided 25 years ago to train as a psychoanalyst. I am delighted that such a large number of my psychoanalytic colleagues are now recognizing this historic opportunity for what it is.

This is the moment that Freud was waiting for. As he once wrote, to Albert Einstein, towards the end of his life: “it is not altogether a matter of regret that one has opted for psychology. There is no greater, richer, more mysterious matter, worthy of every effort of the human intellect, than the life of the mind.”