

**HADRIAN'S STYLUS**

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Preamble: Explanatory structure and the mind-body problem

Let us start off with two claims: a) despite the indubitable dependence of the mind on the brain, attempts to account for higher consciousness in physical terms seem to be locked within a hall of mirrors; b) even if this state of affairs is indeed illusory, the fact that the illusion holds indicates that its cause cannot go away. Some philosophers have found good reason to disagree with these claims. Nevertheless, this is not the place to unpack their conceptual content, nor to explain how they fit together, and for the sake of what follows I ask you to take them as given. They can be reformulated in this way: the minute one starts enquiring in scientific terms into the nature of emotional awareness, the sense of self through time, abstract thought - attributes of a distinctly human, as presumably opposed to animal, consciousness - one gets stuck in the rut of a frustrating explanatory structure which keeps the explanandum at bay. Questions begin about what exactly are 'qualia' (the what-is-it-likeness of, say, feeling pain, or being hopeful, or beholding the face of a loved one); about the nature of the relation that firing neurons may bear to abstract thought and memory; about how the putative neurological correlates of the viewer's response to a beautiful painting, piece of music or poem can account at all for aesthetic experience. The effort to think about the nature of consciousness as anything but the dynamic, perpetually elusive, intrinsically subjective phenomenon that it is, creates a closed circle which disappears as soon as one puts down the tools of logic and looks away from the rational structures produced by the very mind that fails to catch its own reflection.

This sort of idea continues to be hotly debated within the modern philosophy of mind, although it is also an ancient, enduring assumption (the 'rational soul' was never supposed to be the object of empirical analysis). It can still breed disquiet in some, excitement in others, or, as it may be, straightforward boredom. But the phenomenal difficulty of representing to ourselves the relation that the material brain must bear to



the sense of having a mind, of being conscious, is far from trivial. None the more trivial is the question of whether this difficulty is built into the framework of our naturalistic explanations by necessity, or is only a contingent, psychological outcome of the history of scientific explanation. Consciousness is an elusive subject-matter, and might remain attractive for that reason; but questions around it have an import because they point to an ethical concern with the power and the limitations of today's proliferating scientific enquiries into the nature of human nature. Specific mental functions can surely be analysed in great detail, down to the cellular and molecular levels; brain imaging techniques enable the empirical testing of possible correlations between neurological and mental events as well as the identification of functional structures; genetics help trace cerebral development and its lineage in non-human animals. But such neuroscientific studies of discrete functions yield only discrete knowledge. They do not require an overall theory of consciousness in order to make sense. They might point to one, but it is not their job to tell us how disparate mental functions fit together to create the experience of human subjectivity, from its grandeur to its miseries. Cognitive scientists, for their part, do recognize the human mind's essentially 'metarepresentational' nature, but assume that, rather than ask how exactly, the functions they identify are implemented in the physical brain. In all these cases, an explanatory gap remains. The irreducible human subject of fictional tales and humanist study stays out of the scientific picture; and there is no clear reason to believe that science would be better off if that weren't the case.

Given this, and given the two claims we began with, it is my contention that interesting answers to the epistemological questions raised by the neurological and cognitive sciences may surface if one takes a close look at past accounts of mind, cognition and emotion - that is, at old mirrors, unearthed by the practice of history, whether they are still reflective, or partially dulled, or darkened and cracked. This is what I endeavoured to do in my doctoral thesis, and it is what I aim to do in the book I'm beginning to write here. While the beauty of philosophical, conceptual thinking is entrancing, the historical myopia that often accompanies it can result in much tail-biting. It occurred to me some years ago that the history of psychology and epistemology might usefully be fed back into current debates about the status of scientific theories of the human mind. Only for a couple of decades now have



scientific accounts been informing philosophical speculations about issues like the self, consciousness, volition, perception, emotion, and so on. Yet, as I recounted in the thesis, the seventeenth-century separation of the life sciences (which used to be called natural philosophy) from epistemology (which, more or less until Locke, belonged to the realm of psychology) was a historical, contingent event, and perhaps not, at least not straightforwardly a necessary one.

Indeed, the difficulty remains today of integrating scientific explanation with open-ended philosophical quandaries. (The 'application' of the cognitive sciences to the response to works of art partakes of a similar dichotomy - hence the 'art and cognition' connection.) There exist many efforts to do just that; but theories of consciousness flourish, without, on the whole, convincing fully. Think of the problem as an empirical fact rather than as a philosophical puzzle: if one has ever engaged in psychotherapy, or meditation, or any form of disciplined introspection, one is bound to be struck by the fundamentally mysterious nature of the 'self' that can at once, or successively, tell the story, live the lie, recreate the truth - yet remain recognizable to itself as a single identity through time. Symptoms of various cases of brain damage can pose to researchers and witnesses the problem of reconsidering the nature of what seem integral features of this self, such as its temporal continuity, its spatial awareness, its body-image and so on. But most of us have the potential to build our private mind-body problem, to wonder what it is about the brain that creates such a problematic entity as the human, self-conscious mind. Our ordinary experience of ourselves as an agent capable at once of contemplation, accounting and confusion, at once of thought and of the fumbles around thought's lapses, takes place within a blind spot.

Despite, or perhaps because of this blind spot, there is a clear tendency, which I suggest might be a universal feature of human psychology, to represent to ourselves the existence of this unifying, one might say proprioceptive faculty as a central, conceptually fixed core. Rather than dismiss this tendency as a chimera, a mere trick we play on ourselves, it might be worth analysing it. Depending on the scheme and the historical period, the core we imagine might be a homunculus in the brain, a ghost in the machine, a transcendental self, an ego. It is this impulse to represent a fixed self



within the mortal body brought into life through means beyond its willed control that, in certain cultural contexts, might give rise to the thought that there is an immortal soul, or, failing that, a 'mind-body problem', a 'problem of consciousness', a mysterious essence - which turns out, like the Cheshire cat, only to appear when one wonders about its nature and location, then to disintegrate into a mocking smile and disappear into thin air once the problem ceases to be posed. But it is perhaps this impulse - this feature of our psychology - that in part constitutes consciousness. Arguably, it is what produces positive, scientific theories about body, mind and nature, including humoral theories - instances and enactments of the metarepresentational mind. It is what is producing this very paper. It is in fact possible that all of us here, engaged as we are with the knitting of cultural memory, are practicing what memory itself actually is: not the storage place we so easily imagine it to be but the dynamic process at the heart of consciousness, the constant re-creation of our perceptions and explanations in the light of what we seize within the fleeting present.

It is tempting to think instead of memory as static and of explanations as fixed, hovering over the objects they explain. But it is erroneous and illusory, just as it is misleading to use an explanatory account in order to fulfil our anxious, persistent need for teleology, for believing that the putative mechanisms by which, say, we are able to write poems is the fixed, stable reason for which we write poems. This need might also explain the attraction such practices as astrology continue to exert widely, even on a population exposed to sophisticated scientific knowledge. Without some sort of philosophical training or innate, vocational scepticism, it is easy indeed to fall for the simplest explanatory structure - for the static solution - and to confuse it with the thing that it (only ever partially) describes. Similarly, the very use of reason and explanation can turn most of us into unsuspecting Cartesians, surreptitiously leading us to experience our thinking selves as disembodied intentional minds, rather than as physical, embodied creatures. Accounts of the conditions under which we are such intentional minds can themselves end up confining the mind within its own creations. In this way, there persists, very well camouflaged, an anti-naturalist dualism within our thought habits, which may to some extent explain why otherwise insightful evolutionary clues about our behaviour are often liable to be transformed by the



teleological imagination into the complete, just-so stories then found on newspaper science pages, either lauding or denouncing their own, reductively deterministic versions of evolutionary psychology and the like.

This is the more febrile agenda behind my continued focus on the explanatory gap between scientific accounts and the phenomena accounted for. What informs this enquiry is not in the least a relativist stance with regard to the value and truth-value of science, but quite the opposite, a wariness with regard to the human mind's handling of scientific data - or, for that matter, of any data necessarily construed as positive, of any coherent answer to an open question. Such a wariness is the starting-point for epistemological puzzlement. Although I resort to the philosophy of mind and to cognitive psychology to unravel this puzzlement, what I offer is a historical account of the psychology of the scientist. I argued in my thesis that an equivalent of the explanatory gap was at the heart of the complex way in which the mind-body relation was conceived after Descartes, and I then proceeded to reconstruct the relevant debates of the late seventeenth-century in the discreet but diffuse light of that concept. I use a similar methodology for this new project about humours, animal spirits and their cognates, with an eye to telling a story hopefully free of anachronism but able to help us understand how deeply our theories of mind and nature stand within a historical continuum. Concepts of humours, animal spirits and the like survived major shifts in the history of science and remained present, in one guise or another, well into the post-Cartesian age. It is my starting hypothesis that the long-lived theories which make use of these concepts are instances of our need to localize our functions, pinpoint where the ghost within might dwell, name it and master it - that they are an outcome of cognitive processes which might be universal. The book will attempt to chart the structure of these theories and ask what they might imply about our minds.

There follows the first chapter of a first part, written, as will be the rest of the book, in as non-academic a style as I could muster - and without footnotes. It analyses the reliance of the Galenic understanding of emotions, and of their relation to reason, on humoral physiology. The issue of how to account for emotions, for our awareness of them and for our capacity to act upon them is central to the programme delineated above and indeed central to any understanding of the nature of consciousness.