Review of *Soul Dust: The Magic of Consciousness*, by Nicholas Humphrey. Princeton, NJ: Princeton University Press 2011. Pp. xii + 243. H/b \$24.95, P/b \$18.95\*

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Phenomenal consciousness seems too magical to be physical. But this may not be a problem for physicalists. In *Soul Dust*, Nicholas Humphrey argues that consciousness is a physical process that has been designed by natural selection specifically to seem magical and nonphysical to those in whom it occurs. Its apparent nonphysicality is a feature, not a bug.

The book, a follow-up to Humphrey's widely praised Seeing Red, consists of a prologue and three main parts. The prologue addresses some methodological issues and embraces a strong form of physicalism on which there is no explanatory gap and philosophical zombies are inconceivable. Part I then summarizes the theory of consciousness Humphrey has proposed in earlier work. Sensations (qualitative states) involve expressive responses to stimuli (the act of 'redding', not the perception of red). In primitive organisms these responses were overt, but later they became internalized, directed at sites on a body map in the sensory cortex. Humphrey calls these internalized responses sentitions (a blend of 'sensation', 'expression', and 'exhibition'), and he holds that sensations occur when sentitions are internally monitored (by mechanisms that also became internalized). Sensations acquired an (apparent) phenomenal quality when re-entrant feedback loops developed between sentitions and afferent sensory signals, creating cycles of neural activity that tend to settle into stable multi-dimensional patterns. When monitored, these patterns of cyclic activity seem to possess otherworldly, phenomenal properties—intrinsic, ineffable, private, and existing in a thick present—creating an internal 'magic show' (p.103).

The second part of the book discusses the function of this magic show. What selective advantage did it confer? This question is puzzling if we think in terms of abilities, since it is hard to see how consciousness could be essential to the performance of a task. Humphrey proposes a different view: that consciousness confers new interests and goals rather than new capacities (p.72). It effects a paradigm shift in one's worldview, transforming one's sense of what life is all about. To illustrate this, Humphrey sketches a *natural history of consciousness* (p.74), quoting liberally from artists, poets, and mystics. He identifies three broad ways in which consciousness transforms a creature's outlook.

First, conscious creatures enjoy being conscious. They revel in experience for its own sake, in 'being present' in the moment (p.80). They develop a 'will to exist'—not just an instinct for self preservation, but a *desire* to exist, which moves them to act in ways they would not otherwise have done (p.86). They also develop the concept of a substantial *core self*—the thing that occupies the thick present of conscious

<sup>\*</sup> This is the author's version of a review published in *The Philosophical Quarterly* (April 2014) 64 (255): 338-340. It may differ in minor ways from the published version.

experience—and, in the case of humans, they form a fear of this self's loss in death. These attitudes lead them to embrace life and cling to it, and they have considerable survival value. Second, conscious beings enjoy being in the world. We project phenomenal properties onto the world, conflating the sensation of red at our retina with the reflection of light from a red surface, as if the surface were part of our retina and itself responding redly (p.116). The psychological effect of this, Humphrey argues, is to make the world seem a place of intrinsic value, delight, and enchantment, which we are inspired to engage with, explore, and discover. A nonconscious creature's world would be disenchanted, and their engagement with it much shallower. Third, *reflective* conscious beings such as ourselves enjoy having conscious selves. One's conscious self seems to have unconditioned free will and to be the source of the phenomenal richness of the external world, and, sensing this, we form a vastly enhanced conception of our individual significance.

Reflective conscious beings also conceive of themselves as psychic unities. With its seemingly substantial existence, the core self provides the psychic bassline that unites the other mental faculties to form an extended personal self, which not only feels, but also thinks, wills, perceives, remembers, and so on. Thus, we come to see ourselves as individual Egos, or *souls*, whose fate and development are of central importance to us.

The final part of the book takes up this theme. We are adapted to the 'soul niche' (p.158)—a conceptual territory where we represent ourselves and others as free-willed spiritual beings with intense inner lives, and where we obsess over the fate of our consciousnesses. This conceptual niche is where we flourish as a species, and we have sculpted it further through culture. The niche is dangerous, however; the more exalted our conception of the self, the more anxious we become about the loss of the self. The prospect of Ego's inevitable extinction can be debilitating, undercutting all reasons for acting. Humphrey argues that the only effective response is to believe that our souls will not die—that they are immaterial, independent, and immortal. Moreover, he goes on, commonsense reflection on consciousness, and on its suspension and revival in sleep and dreaming, provides reasons (or at least excuses) for believing this. Thus, in equipping us for the soul niche, evolution has also fortuitously equipped us with the means to deal with the biggest danger lurking there.

In a short closing chapter, Humphrey speculates briefly about the extent to which human consciousness differs phenomenally from that of nonhuman animals and suggests that any differences are likely to be refinements rather than radical transformations. The text is supplemented with twenty pages of endnotes containing scholarly notes and references.

This is a bold, important, and exciting book. Too often, researchers on consciousness don't see the wood for the trees. Much research has a narrow focus, and evolutionary perspectives are often neglected (indeed, some views of consciousness preclude them). Humphrey offers a welcome corrective, sketching an account of the nature, function, and evolutionary history of consciousness that draws on psychology, neurology, ethology, anthropology, art, literature, and mysticism. And the account is both surprising and enormously persuasive. The book is full of original ideas and

insights, and, as one reads, illuminating implications and applications continually spring to mind. Of course, there are many details over which readers will want to argue, and some aspects of the picture are still sketchy (especially, as Humphrey acknowledges, the neurological details). But the whole thing hangs together in a compelling way, providing an illuminating new route map through the territory and identifying many new areas for future research.

Some will say, of course, that Humphrey does not take consciousness seriously. On his view qualia don't really exist, we just represent them as existing: consciousness is an illusion, a 'fiction of the impossible' (p.204). Humphrey would doubtless reply that properties have to be represented if they are to have any effects on us, and representations will be just as effective whether or not they are veridical. For what it's worth, I am with Humphrey here; indeed, I think such a position is the only coherent one for a physicalist. And certainly it is the more economical one. (Consider, for example, a property of sensations that Humphrey often discusses: that of seeming to exist in thick time, where each sensation lives on briefly in its own timestream. Does taking this seriously really mean positing multiple real timestreams, rather than simply representations of them?)

Besides, the heart of the book is Humphrey's natural history of consciousness, which is largely independent of his theory of consciousness itself (though it has implications for the type of theory that is acceptable). This is pioneering and important stuff. If the book has one big message it is that consciousness is not an epiphenomenon or a spandrel, but a specialized adaptation that has transformed the lives of the creatures who possess it. The evidence is staring us in the face—evidence from animals, who revel in sensation, from poets and artists, who express the richness and wonder of experience, and from mystics, who celebrate the sublimity and power of the soul. It may not be incoherent to regard this evidence as compatible with epiphenomenalism, but it is, as Humphrey puts it, *daft* (p.13). After reading *Soul Dust* it is hard to deny that Humphrey takes consciousness seriously; indeed it is arguable that he is one of the few who really does. The book is a pleasure to read; Humphrey writes with clarity, elegance, and enthusiasm.

I urge you to read this book. It may change your mind about consciousness; it has changed mine.