

Book Reviews

Sergio Della Sala (ed.)

Tall Tales about the Mind and Brain: Separating Fact from Fiction

Oxford University Press, 2007, 509 pp.

ISBN 978-0198568766 (cloth), 978-0198568773 (paper)

Reviewed by Susan Blackmore

‘The IKEA catalogue is more practical, colourful and easier to read’ claims the editor — and of course he’s right. But, although only in black and white, this book is a lot of fun and hugely informative. If you’ve ever been accosted at a party with a demand to ‘Explain why I only use 10% of my brain’ or ‘Tell me how your reductionist science can explain telepathy’; if you are oppressed by emails from people who have solved the mystery of consciousness or know why the full moon causes madness; if you are dubbed a ‘closed-minded scientist who won’t even look at the evidence for NDEs, OBEs, clairvoyance, spirit communication, dowsing ...’ (and I’m familiar with them all) then you need this book.

A readable introduction explores the inconsistency of dualists, who use drugs to alter their state of mind while declaring that the mind is a spiritual entity, and the blind spots of great scientists such as Linus Pauling, who went to his grave believing that massive doses of vitamin C could alleviate cancer. The personal growth industry makes a fortune out of untested methods when the only known reliable routes to success are skills training, hard work and practice; subliminal tapes are widely sold when the sleeping brain cannot absorb their advice. And if you ever wondered where that 10% myth came from, I had always thought that it began in the 1950s with EEG machines that could not detect activity deep inside the brain, but apparently it started with William James who said he doubted that many people used more than 10% of their *potential*. (Although that, of course, could be a tall tale too).

The rest of the book consists of nearly thirty chapters by many well known authors, covering such topics as paranormal belief; myths about learning, memory and intelligence; language and communication; or strange brain states and experiences. Some of the 'tall tales' are quirky or relatively harmless such as the Mozart effect (Yes, listening to Mozart may have a small effect on one spatial-temporal task but no, it won't turn your child into a genius) or the widespread belief that the full moon causes accidents or madness (No it doesn't, and lots of studies have failed to find an effect, but people go on believing just the same). Others concern such big political controversies as race and IQ (Yes, IQ is highly heritable but group differences could still be cultural) and the 'gay gene' (there's no such thing, nor can you reliably predict sexual orientation from measuring relative finger lengths, but sexual orientation probably does have a heritable component).

Some of the 'myths' didn't seem to me to be myths at all. One example is the 'legend of the magical number seven'. This began with Miller's famous 1956 paper showing that, by and large, people have a digit span of seven. That is, given unrelated items such as digits of a phone number or meaningless syllables, seven is about the average recalled. I learned about this as a psychology student in the early 1970s and always assumed it was true. So I turned to this chapter with special excitement. Has this simple, foundational fact of cognitive psychology been overthrown while I wasn't looking? Well it turns out that it hasn't. Like many other over-simplifications, it has been worked on, challenged, added to, and adapted. The truth about short term memory capacity is far more complex than Miller could have guessed — but that's just science, and the basic finding remains. To be fair the authors explain all this but they still conclude that Miller's discovery is not a general rule and is therefore a legend. But if this is a legend then so is nearly everything we know in every branch of science.

For readers of *JCS*, few of the topics directly concern consciousness, but several are at least obliquely relevant. There are many myths surrounding Freud's theory of the meaning of dreams. Then there are exaggerated claims that the blind can not only have powerful imagery (which is true) but better visual imagery than the sighted (which is not). The psychology of magic involves misdirection and manipulation, with clever magicians twisting their observer's suspicions, exploiting ambiguity and change blindness, inducing false expectations and tampering with spectators' memory of what they have just seen.

Stage magic is at least honest in its deception but other ways of playing with memory or inducing false memories are not, as is explored in a study of memory myths. Nor is the whole left-brain/

right-brain myth harmless, according to an amusingly illustrated account of a whole variety of left/right myths. The trouble happens when such ideas escape from scientific scrutiny and make big money for false prophets and charlatans.

The ideo-motor effect is another gift to the unscrupulous. For example chiropractors use gadgets that detect small movements of the fingers, and quacks use pendulums to diagnose disease when the movements observed are caused entirely by the person using the apparatus. It is sad to reflect that Michael Faraday exposed the basic principle involved in his classic studies of table turning in the 1850s, yet these myths are alive and well, and the fraudsters are still getting rich.

Rather different are the myths that turn out to be real phenomena wrongly described. Out-of-body experiences were once described as the spirit or astral body leaving its physical home, but now we know they occur with disruptions of body image processing in the right temporo-parietal junction; where once inducing them meant years of meditation, weird multisensory training techniques or powerful drugs, now they can be induced by direct brain stimulation. Sleep paralysis has even more myths associated with it, from the Kanashibari of Japan to the Kokma of the West Indies and the original incubus and succubus. To my mind this is the most satisfying form of myth busting; when science can show why peoples all over the world have invented similar stories, not because they are fanciful or mad, but because they have been struggling to explain genuinely strange experiences.

Tall Tales is long and rich in detail, and would have benefited greatly from abstracts or chapter summaries. Their absence reduces its usefulness as a resource for research — but it still provides terrific ammunition against those troublesome party poopers.

Philip Clayton and Paul Davies (ed.)

The Re-Emergence of Emergence: The Emergentist Hypothesis from Science to Religion

Oxford: Oxford University Press, 2006, xiv + 330 pp.

ISBN 978-0199287147 (cloth)

Reviewed by Valerie Gray Hardcastle

About every ten years, it seems to me, emergence as a serious philosophical topic rears its head and demands to be re-examined. What I have noticed over the past several cycles of this phenomenon is that nothing really new ever seems to come out of the re-examination. In fact, if pressed, I would say that we have regressed in our understanding

of emergence, since it appears that one must re-describe emergence's conceptual history in ever briefer terms with each succeeding cycle. I think we have now reached about the barest bones possible before having to start completely over, forgetting our past and beginning anew with the idea.

By and large this opinion summarizes my opinion of the book under review. Most (though not all) contributions demonstrate only a nascent understanding of the conceptual complexities of emergentism. Perhaps the authors should be forgiven, since many of them are not philosophers and have not been raised in the tradition. At the same time, for philosophers who know much about emergentism, this book will appear old hat and fairly superficial.

There are three glaring exceptions to this claim of superficiality, and those are the articles by Terrance Deacon (on whom more later), Jaegwon Kim, and Michael Silberstein. If you want to pick three chapters from the book, I would recommend these. Each presents a radically different take on emergentism, what it is, whether it exists, and what it might mean if it does exist. While I do not find anything new in what they say, they nevertheless present easy-to-follow yet still thorough introductions to their ideas and their approaches. In fact, reading Kim and Silberstein back-to-back presents a wonderful intellectual experience, since they have diametrically opposed views on just about everything but each is very persuasive in his arguments and examples. Kim holds an extremely reductionistic view of the structure of the universe; his denial of truly emergent phenomena falls directly out of that view. Silberstein is just as strongly anti-reductionist — and emergentism naturally emerges from his perspective. I conclude that how one approaches emergentism, a purely metaphysical concept, comes down largely to ideological choice about how one conceives of explanation and other epistemological entities, but I leave it to the reader to draw his or her own conclusion on the issue.

Aside from Philip Clayton's introductory and concluding chapters on the topics covered by others, the remainder of the book focuses on how emergentism might function in a variety of scientific and religious disciplines. Of these sections, I find the one on physics the strongest, the one on biology the most disappointing, and the one on religion the weakest. (Kim's and Silberstein's chapters fall in a section putatively on consciousness, though really the section is much broader than that.)

In the physics section, Eric Joos has a wonderful piece entitled, 'The Emergence of Classicality from Quantum Mechanics'. Though it really does not concern the traditional historical emergentist debate in

any normal sense, it does an excellent job of summarizing the state-of-the-art regarding how quantum mechanics might ‘emerge’ in our so-called classical world of mid-sized objects. This is not an article for the faint of heart, but should prove highly rewarding for anyone willing to work on it.

The other two chapters in the physics section, Paul Davies on the physics of downward causation and George Ellis on emergent reality, both attempt to classify types of emergentism — a common theme throughout this book — but nothing terribly new comes out of their discussions. Better, perhaps, if both had worked through specific examples in their respective areas of expertise, instead of trying to look at the big emergentist picture and its fit with physics in general; more thorough and better treatments of this topic have been given by others.

Terrence Deacon’s chapter appears in the section on biology. In it, Deacon summarizes views he has expressed elsewhere. Among contemporary theorists, his views on emergentism are probably the most detailed and innovative. He has a tendency to use flowery language when he discusses the highest levels of emergent phenomena — he uses the word ‘memory’ very broadly, for example — which could lead readers to believe that certain levels of intentionality are required for complex life when this is not the case. But, this tiny criticism aside, even though it gives us nothing new, the chapter is well done and provides a very good introduction to his views.

Barbara Smuts does what I had hoped the physicists would have done — provide a putative example of emergence from her area of expertise. In this particular case, she examines the extremely different social behaviours of chimpanzees and bonobos. These two apes are almost identical genetically and physically, yet they have very different ways of organizing themselves in groups and then maintaining their social hierarchies. Their case is particularly interesting since they are humanity’s closest relations and may have much to teach us about our own social lives. Smuts does an admirable job in explaining what biologists think are the relevant factors in accounting for the differences. Her attempts at connecting this example to on-going discussions in philosophy over emergentism are less successful, but she at least provides data for the philosophical-minded to chew over on their own.

Lynn Rothchild’s chapter on emergence in biology and Nancey Murphy’s on emergence and mental causation resemble those in the section on physics — yet another global discussion of the categories of emergent phenomena with very little analysis of details. Both rely

heavily on ideas presented elsewhere in the book or by other authors. In a book in which so many of the chapters are simply summaries of categorizations, I do not believe either contribution adds much to our understanding of emergence in science.

David Chalmers's piece on strong and weak emergentism rounds out the section on consciousness. Again, there's nothing new in it; he merely summarizes views that he has presented elsewhere. I find this disappointing, particularly since the 'lines of support' he musters for the claim that consciousness is emergent have been dissected and criticized for decades now and their problems are well-known. It would be nice to see a new tack for the old arguments, or at least some recognition of the claim that personal intuitions may not be the best way to adjudicate metaphysical claims.

The final section on religion once again gives us various taxonomies of emergentism and how they may or may not map onto approaches to religion and understanding God. Once again, these taxonomies borrow heavily from elsewhere and so cover no new ground. I have no expertise in religion so I cannot comment on that scholarship, but as a naturalistic philosopher on the outside looking in, I was disappointed that neither of the contributing authors seemed to spend much time actually advocating any particular position with respect to appreciating religion or God.

In the final chapter, Philip Clayton attempts to merge the many summaries given by others into one view of what emergentism is. Though I know it is not fair to critique a book on the grounds that it was not about what you thought it should have been about, I cannot help but wish that the authors had been given a version of Clayton's summary before they started writing, so they would have had less need to each re-invent their own wheel.

Still, as an introduction to contemporary thoughts on emergence in the sciences, this book as a whole does a fair job of capturing the issues and in a couple of cases, gives philosophers new examples in science to use as test cases for their analyses. The book is uniformly well-written; each individual chapter is well-organized and easy to follow. Philosophers who have followed the emergentist discussions in the past are likely to be disappointed by its lack of acuity but, for those new to emergence as a concept, this book is a good one to get you oriented to the issues.

Martin Jay

Songs of Experience: Modern American and European Variations on a Universal Theme

Berkeley, CA: University of California Press, 2005, 431 pp.

ISBN 0-520-24823-6 (pbk)

Reviewed by Gregory Nixon

‘Experience is the best teacher’ goes the cliché without ever making clear just what is meant by that slippery first term. ‘Experience is never remembered unaltered’ goes another. Is experience something to be undergone, like a journey, or is it perhaps the relational immediacy between organism and environment? What do we reference when we use the term experience?

Martin Jay, renowned intellectual historian from UC Berkeley, here examines these questions in a grand survey of the term’s use throughout the intellectual history of what was once called *Western Civilization*. Beginning with the ancient Greeks (of course), he reviews the surprising number of variations employed and assumed by philosophers, theologians, critical theorists, and right up to the poststructuralists. Jay knows his territory and reading this survey of it — for anyone with any sort of background in the history of philosophy — is often as pleasant as hearing a familiar symphony well-played in a unique way.

It seems ‘experience’ has meant many things to different authors over the years. The current English term derives from a Latin source meaning *to try* or *to test*, thus revealing its relationship with ‘experiment’. But there have been many other implied meanings from the distant past, some of which have been entirely forgotten. More recently, the meaning (or meaninglessness) of the term seems to have been a major point of contention amongst the American pragmatists, the post-Marxist critical theorists, and the French post-structuralists. Nowhere, however, does he deal directly with the relationship between *experience* and *consciousness* (aka *conscious experience*), a much-disputed area, and this I consider to be the major failing of the book.

To frame his study, Jay early on explores the two German words with slightly different meanings that are both translated into English by the word ‘experience’. *Erlebnis* contains within it the root for ‘life’ (*Leben*) and, according to Jay, ‘is often taken to imply a primitive unity prior to any differentiation or objectification. ... Although *Leben* connotes the entirety of a life, *Erlebnis* generally connotes a more immediate, pre-reflective, and personal variant of experience...’ (p. 11). This implies a meaning for experience that does not necessarily accord with our assumed meaning for *conscious* (from the Latin,

conscius, knowing together, also the root of *conscience*) in that *Erlebnis* is 'immediate, pre-reflective, and personal...'. Defining consciousness (or *conscious experience*) is the cause of much bickering, but David Cohen (1998), in his attempt to speak for mainstream psychology, suggests that 'it can be described as the state of mind that allows us to "know" our own mind, to entertain thoughts about thoughts, to monitor our selves and our environments, and to use this information to make plans and formulate hopes and fears' (p. 67). In this case it can be seen that *Erlebnis* as *experience simpliciter* is not the same as conscious experience. Like the unconscious of psychoanalysis, it may be thought of as non-conscious experience.

Erfahrung, the other German term we translate as experience, is on the other hand more associated with differentiating sense impressions or making cognitive judgments about them. 'But,' says Jay, 'it also came to mean a more temporally elongated notion of experience based on a learning process, an integration of discrete moments of experience into a narrative whole or an adventure'. Its roots are found in the German word for journey (*Fahrt*) that may connote a journey into the unknown (*Fahrt ins blaue*), like the journey through life: 'As such, it activates a link between memory and experience, which subtends the belief that cumulative experience can produce a kind of wisdom that comes only at the end of the day' (p. 11). *Erfahrung* seems to be more in accord with our common understanding of experience, as 'the best teacher' or as the remembered present, which equates roughly with the consensus understanding of *conscious experience* (or consciousness, if you will).

Jay, as I say, does not deal directly with question of how *experience* and *conscious experience* may be related, if at all. Most often he seems to assume an equation of meaning, which is very strange in a book that has declared its intention to explore all meanings of the term *experience*. Some of the authors he reviews, however, do seem to have explored direct experience as the precursor and foundation of subjective consciousness. Jay refers to the 'paradoxical notion' (p. 129) of *experience without a subject* (or, sometimes, from another angle, *post-epistemological experience*) and notes the idea has been posited approvingly by no less than Schopenhauer, Heidegger, Benjamin, Adorno, Bataille, Foucault, Barthes, possibly Oakeshott, Dewey and the trickster of text, Derrida. Experience without a subject of that experience cannot easily be subsumed under the label of *consciousness*. It may be more along the lines of the non-subjective relational interaction between organism and environment. Finally, some of the post-structuralist or deconstructive authors cited, like Lacan, insist

that experience as such cannot be posited as a meaningful term at all. As Lacan's translator, Alan Sheridan (1977), put it: 'What is prior to the assumption of the symbolic, the real in its "raw" state (in the case of the subject, for instance, the organism and its biological needs), may only be supposed, it is an algebraic x ' (pp. ix-x). This seems to imply that we cannot be conscious of non-conscious experience.

A further quibble: Every researcher has the right to pick which authors to include or omit in his survey, but it seems most strange to ignore the contributions of eminent philosophers in this area like Cassirer, Bergson, and Ricoeur. Surely any historical study of experience must be considered incomplete if it does not include Whitehead.

Finally, the reading was an enjoyable journey of experience (*Erfahrung*) on its own. But this reader felt that Jay's failure to explore how direct experience (*Erlebnis*) relates to conscious experience destroyed much of its consequence.

References

- Cohen, David (1998), *The Secret Language of Mind: A Visual Enquiry into the Mysteries of Consciousness* (London: Duncan-Baird).
 Sheridan, Alan (1977), Translator's note. In *J. Lacan, Écrits* (New York: Norton).

Edward F. Kelly, Emily Williams Kelly, Adam Crabtree, Alan Gauld, Michael Grosso and Bruce Greyson

Irreducible Mind: Toward a Psychology for the 21st Century

Lanham, MD: Rowman & Littlefield, 2007, 800 pp.

ISBN 978-0-7425-4792-6 (hbk)

Reviewed by Paul Marshall

The mind-body problem runs through philosophy like a geological fault, a zone of stress where psyche and soma converge, seemingly in touch yet vexingly at odds. The science of psychology, upstart child of philosophy, inherited the faultline and its frictions, the troublesome splits and standoffs between subjective experience and objective measurement, phenomenological description and neurophysiological explanation. *Irreducible Mind* sets out to expose and surmount this fractured state of affairs, aspiring towards an integrated, metaphysically informed 'Psychology for the 21st Century'. For inspiration, it looks back to a moment of creative exploration at the end of the nineteenth century, when imaginative yet empirically minded investigators such as William James and F.W.H. Myers looked at the extraordinary to understand the ordinary. For these thinkers, the study of exceptional phenomena opened up extensive but normally hidden

realms of consciousness and hinted at the possibility of a non-reductive science of the mind in which the brain, far from creating consciousness, merely channels and modifies it.

True to the neglected tradition that it at once seeks to uncover, update and take in new directions, *Irreducible Mind* aims to show that reductionistic presuppositions embedded in mainstream psychology, neuroscience and philosophy are undermined by a gamut of exceptional phenomena from minor psychosomatic oddities to full-blown mystical experiences, with much in between. According to Edward Kelly (Introduction and Chapter One), these phenomena provide a set of empirically grounded challenges that add to the problems already faced by cognitive neuroscience, difficulties that Kelly highlights in an overview of twentieth-century developments from behaviourism, identity theory and functionalism to computational theory of mind, artificial intelligence, connectionism, dynamic systems theory and Searle's biological naturalism. By challenging reductionistic approaches, exceptional phenomena also undermine depictions of the human being as a complex machine, determined by biology and evolution, limited to sensory forms of contact with the world, and possessed of a self that is little more than a whirl of neural events and information processing.

Far-reaching in its revolutionary ambitions, *Irreducible Mind* is a monumental work, a coordinated series of articles based on symposia held over several years at the Esalen Institute's Center for Theory and Research. The page count of 800, although considerable in itself, does not properly convey the scale of the book, which is densely packed with summaries and critiques of an impressive body of psychological research, served by a reference section of 100 pages. But the book is monumental in another sense: it celebrates the achievements of Frederic Myers, whose epic *Human Personality and Its Survival of Bodily Death* (1903) had itself surveyed a spectrum of non-ordinary phenomena in order to challenge neuroscientific reductionism (an ebook version of *Human Personality* is included on CD-ROM). Emily Williams Kelly (Chapter Two) gives a nuanced account of Myers in his late nineteenth-century context, exploring tensions and unresolved difficulties in the psychology of the period, and bringing out Myers's motivations, empiricism, guiding principles and theory of human personality.

The following six chapters wrestle with the subversive data that a mature psychology will have to address. Emily Williams Kelly kicks off with a book-length chapter on 'psychophysiological influences' that raise questions about the nature of mind-body interactions. These

influences include faith healing, placebos, false pregnancy, stigmata, hypnosis, the effects of meditation, distant mental influence on living systems (DMILS), and birthmarks and birth defects ostensibly associated with reincarnation. Alan Gauld looks at memory, specifically the difficulties associated with the idea of 'memory traces' and the role that memory would play in post-mortem continuation of identity. Adam Crabtree tackles automatism and secondary centres of consciousness, a hot topic for Myers and his contemporaries, and one that has received more recent attention too. Near-death experiences and related phenomena occupy the efforts of Emily Williams Kelly, Bruce Greyson and Edward Kelly in a chapter that gives special emphasis to a thesis that underlies the book as a whole: it can be a serious mistake to explain individual types of phenomena in isolation from cognate types. For example, near-death experiences have often been explained as by-products of the dying brain, yet they share characteristics with experiences that can occur when there is no physiological or psychological trauma at all, such as out-of-body and mystical experiences. Edward Kelly and Michael Grosso contribute the final two chapters of the empirical section, one on genius and creativity, and the other on mystical experience, which contains some pointed observations on current neurobiological approaches to mysticism. There is no single chapter devoted exclusively to the classic psi phenomena of parapsychology, although an annotated bibliography on psychical research offers a valuable entry into the field.

Only a very resistant observer will remain unpersuaded that a proportion, at least, of all this carefully evaluated data presents a significant challenge to conventional views. However, *Irreducible Mind* is not simply out to upset the apple cart: its objective is ultimately constructive, to show that a way forward may lie in the 'transmission' or 'filter' models of brain action sketched by Myers, James, Bergson and others. Here the brain and nervous system work as a filter, selecting and organizing contents from extensive subliminal domains for inclusion in the reduced field of everyday awareness. Contents are ordinarily selected for their immediate utilitarian or survival value, but if the filter operation should be disrupted, previously hidden contents can emerge. For over a century, this model has provided an alternative to neurophysiological reductionism, reappearing now and again – primarily but not exclusively — in the speculations of theorists who took an interest in paranormal and mystical phenomena. The challenge, however, is to turn a promising but undeveloped model, couched largely in metaphor, into a well-elaborated theory that gives detailed attention to the neuropsychological workings of the filter and its

underpinnings in mind–body metaphysics. This will be no easy task, but Edward Kelly’s concluding chapter makes a few cautious suggestions.

Irreducible Mind takes the reader through a maze of unusual, sometimes barely credible phenomena, but it is always a reliable, level-headed guide, critical and scholarly in its approach to the contestable data, and incisive in its observations on the current state of cognitive neuroscience. It is a heavyweight intellectual contribution that will be indispensable to those interested in late nineteenth-century reactions to scientific naturalism, to investigators of anomalous experiences, and to students of consciousness studies on the lookout for stimulating data and ideas. Above all, it draws much-needed attention to a model of brain action that has been ignored for too long but which may yet have a future.

BOOKS RECEIVED

Mention here neither implies nor precludes subsequent review

- Arvidson, P. Sven, *The Sphere of Attention: Context and Margin* (Springer 2006)
 Block, Ned, *Consciousness, Function and Representation: Collected Papers, vol. 1* (MIT 2007)
 Budnik, Paul, *What Is and What Will Be (Illustrated): Integrating Spirituality and Science* (Mountain Math Software 2006)
 Craver, Carl, *Explaining the Brain* (OUP 2007)
 Grace, Daphne, *Relocating Consciousness: Diasporic Writers and the Dynamics of Literary Experience* (Rodopi 2007)
 Gynn, Graham and Wright, Tony, *Left in the Dark: The Biological Origins of the Fall from Grace* (Self-published 2007)
 Heller-Roazen, Daniel, *The Inner Touch: Archaeology of a Sensation* (MIT 2007)
 Hutto, Daniel D., *Narrative and Understanding Persons* (CUP 2007)
 Jamieson, Graham A., *Hypnosis and Conscious States: The Cognitive Neuroscience Perspective* (OUP 2007)
 Johnson, Mark, *The Meaning of the Body: Aesthetics of Human Understanding* (Chicago UP 2007)
 Kuijsten, Marcel (ed.), *Reflections on the Dawn of Consciousness: Julian Jayne’s Bicausal Mind Theory Revisited* (Julian Jayne’s Society 2007)
 Lachman, Gary, *Rudolph Steiner: An Introduction to his Life and Works* (Floris 2007)
 Levy, Neil, *Neuroethics: Challenges for the 21st Century* (CUP 2007)
 Linden, David J., *The Accidental Mind: How Brain Evolution has Given Us Love, Memory, Dreams and God* (Harvard UP 2007)
 Maasen, Sabine and Sutter, Barbara (ed.), *On Willing Selves: Neoliberal Politics vis-à-vis the Neuroscientific Challenge* (Palgrave Macmillan 2007)
 Walsh, Roger, *The World of Shamanism: New Views of an Ancient Tradition* (Llewellyn 2007)