Book Reviews

VARIETIES OF ANOMALOUS EXPERIENCE: EXAMINING THE SCIENTIFIC EVIDENCE (2nd ed.), edited by Etzel Cardeña, Steven Jay Lynn, and Stanley Krippner. Washington, DC: American Psychological Association, 2015. Pp. xi + 452 (hardcover). ISBN: 978-1-4338-1529-4

When the first edition of this book was published in 2000 by such an inherently risk-averse organization as the American Psychological Association, it was generally regarded as an indicator that research into anomalous experiences had matured sufficiently to warrant serious mainstream attention. The appearance of this updated second edition would seem to confirm that impression. It also affords an opportunity to see how things might have advanced in the intervening 14 years. Both editions have the same overarching structure, being divided into two parts: Part 1 is concerned with Conceptual and Methodological Considerations to set the context (and provide the justification) for the reviews of particular phenomena that follow in Part 2, Anomalous Experiences (generally abbreviated to AEs). The particular chapters have been rearranged a little, with a separate introduction chapter now forming the first part of Part 1 and chapters on methodology and the relationship of AEs to pathology being reversed, producing a more coherent exposition. The majority of the book forms Part 2 and is broken into 11 chapters covering a wide range of phenomena. The titles and authors will be familiar to those who have the first edition, though changes include the replacement of an OBE chapter with one on Anomalous Self and Identity Experiences that includes both OBEs and mediumistic experiences. An important change is the addition of a final chapter that offers an integrative survey of the presented material. This is valuable given the wide range of materials and contributors.

The introduction, by editors Etzel Cardeña, Steven Jay Lynn, and Stanley Krippner, contrasts the thrall in which the general public is held when it comes to AEs, as reflected especially in a popular culture imbued with accounts of such experiences, with the almost complete lack of interest among academics. It is clear that this book is intended to be part of the effort to address this odd imbalance. The editors define the term *anomalous* and implicitly defend its adoption here. The label is, of course, contentious, given that its meanings include "deviant," "aberrant," and "freakish," and can imply something that is trivial or marginal. Instead here there is an emphasis on anomalous meaning "irregular" in the sense of being different from common experience, and in the sense of being "inconsistent with prevailing theory or accepted facts" (p. 4) in a manner that is potentially insightful. They court the neutral academic by asserting that psychology is sufficiently established epistemologically to be able to confront such phenomena as a means of testing or extending accepted knowledge rather than hastily brushing such anomalies under the carpet.

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Part 1's emphasis is on establishing the strengths and weaknesses of the methods used to study inner experience, given that "reports of AEs are often accompanied by little or no corroborating physiological data or physical evidence" (p. 11) and there is a clear intention to develop "a sophisticated neurophenomenological account of AEs" (p. 11). I can see how this would be useful in the courtship of the psychological academic mainstream, though it does pander somewhat to the fad for treating neuroscientific accounts as more fundamental than, say, social psychological or transpersonal ones, which seems epistemologically dubious.

A reassuringly modest section in the introduction on Why AEs Matter sets the agenda for the book in emphasizing that, while relatively uncommon or infrequent, AEs form part of the rich tapestry of healthy human experience such that greater knowledge of them can only enhance our understanding of the human condition, helping people recognize the potential positive impacts of such experiences and ameliorating potential negative impacts (for example by misclassifying them as pathological). The notion that such experiences may truly challenge our understanding of the nature of reality and the capacities of humans to interact with that reality is included here, but it is clear that the book does not depend on this more challenging aspect.

In chapter 2 Etzel Cardeña and Ronald Pekala persuasively argue that the shift away from introspective methods had more to do with socio-political forces than with problems inherent to the method itself. That is not to say that introspection is unproblematic; rather, issues around forgetting, confabulation, drifting of attention, failures of reality monitoring, ineffability of experiences, social desirability and censorship, are considered along with interventions that may lessen their effects. However, they do claim that people are much better at describing the contents of their experience than identifying the causes of those experiences, and in any case many of the criticisms of observations of internal events could apply equally to observations of external events (p. 24). Of course, introspection may be the only means we have of accessing certain phenomena (behavioral or physiological analogues can be useful but also require multiple layers of interpretation that are fraught with difficulty).

Chapter 3, by John G. Kerns, Nicole Karcher, Chitra Raghavan, and Howard Berenbaum, focuses on psychopathology, which they define in terms of underlying dysfunctional psychological processes that cause subjective distress and functional impairment, such as the inability to work or maintain personal relationships. They also introduce the term *peculiarity*, understood as "the extent to which the experience deviates from the ordinary or common" (p 60). This sounds awfully similar to the working definition of "anomalous", and while the authors argue that peculiar is a broader term than anomalous — akin to the relationship between, say, extraversion and partying, the former being a latent variable that can be expressed in a variety of ways — the case is made very briefly and is not persuasive. It would have been useful to give more detail of expressions of peculiarity that would not qualify as anomalous. Peculiar events are distinguished from the simply rare or unusual in that the former's "genesis or nature is difficult to explain" (p. 60), but this also raises problems since for many lay persons there are readily available explanations for their experiences in terms of ESP, survival of bodily death, etc.

They go on to explore the ways in which AEs might be associated with pathology but with the caveat that "on the whole, there is scant support for the hypothesis that various AEs are associated with psychopathology" (pp. 62-3). The chapter usefully reminds us of how cultural expectations determine

what experiences will be regarded as deviant and can affect the degree to which they will be seen as distressing. Indeed, the reactions of others to accounts of AEs can significantly add to the difficulty that the experient has in coming to terms with the experience (Roxburgh & Roe, 2014). The other determining factor is volition, with experiences that occur unbidden and whose progression seems to be outside the experient's control being characteristic of pathology proneness. It is noted that some correlates of certain pathologies, such as openness to experience, absorption, and dissociation, are also associated with AEs, but there is a danger here of the logical fallacy of affirming the consequent (e.g., if this person's experience is a product of pathology they will show elevated levels of absorption; this person shows elevated levels of absorption; therefore, this person's experience is a product of pathology). The lie to this is easily demonstrated; people with paranoid delusions may report that government agencies are watching them and recording their movements, but this doesn't mean that all people who believe this are paranoid — I was a postgraduate at Edinburgh during the Gulf War when an Iraqi friend of mine confided that he was a person of interest to the UK's military intelligence security service and his movements were restricted, which didn't strike me as paranoid at all.

For Part 2, the editors helpfully requested that contributors structure their coverage of specialist topics so as to include an evaluation of empirical work, to note implications for clinicians who might encounter persons reporting such experiences, and relevant neuro-scientific work that might speak to mechanisms or substrates. This gives the volume a real sense of cohesion that is difficult to achieve across such a disparate range of contributors and topics. The topics covered have been selected on the basis that there is a substantial body of research, the experiences are generally considered (by the experient) to be of more than transient curiosity, and they are not considered primarily as a product of dysfunction.

First up is synesthesia, which Lawrence E. Marks defines as "the anomalous arousal of sensations or perceptions in a secondary sense modality, in addition to sensations or perceptions in the primary sense modality normally associated with the stimulus" (p. 80), such as visual sensations that are characteristically associated with the presentation of particular sounds or words (though later the definition is expanded to include conceptual and affective dimensions). In a familiar tale, Marks describes how skeptics have been unwilling to take subjective accounts of synesthesia at face value, though promisingly that is changing with the identification of distinctive patterns of brain activity that are associated with self-reports. Work to identify a common structure or process has produced interesting findings that suggest high levels of heterogeneity, which Marks evocatively describes as a "teeming multiplicity" (p. 97).

In a chapter on hallucinations, Richard P. Bentall describes a shift in clinical research away from categorical diagnoses such as schizophrenia toward a dimensional approach that locates severe mental illness as an extreme point along a continuum that includes normal functioning. This has focused attention on specific psychological phenomena such as hallucinations as objects of study in themselves, with surprising results. For example, while about 0.5% of the population might at some point meet the diagnostic criteria for schizophrenia, the prevalence of hallucinations is estimated to be in the range of 10-15%, suggesting that hallucinations are not *ipso facto* indicative of mental disorder. This otherwise excellent overview that focuses mainly on auditory hallucinations does not mention mediumistic experiences, which have been subject to a great deal of psychiatric study recently (Beischel & Zingrone, 2015) and show similar patterns in terms of how the experient can become distressed initially by the

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voices they hear but can learn to accommodate them. It is clear that an explanation in terms of source monitoring seems most promising.

Stephen LaBerge next gives a review of lucid dreaming, the awareness during dreaming that we are actually dreaming, combining the psychological qualities of waking life (ability to reason and remember aspects of waking life) with those of dream life (creating a vivid and realistic immersive world). LaBerge rightly states that "lucid dreaming is accepted today as a normal, if rare, phenomenon of REM sleep" (p 151), so that it is not clear how the experience qualifies as anomalous in the sense adopted by the book editors. Etzel Cardeña and Carlos Alvarado's chapter on anomalous self and identity experiences replaces a chapter in the previous edition that focused only on out-of-body experiences. The new chapter includes OBEs as part of a potpourri that covers a broad collection of experiences in which one's sense of self differs from the usual experience of being encapsulated in a physical body of fixed extension. I found this rather unsatisfactory, as the phenomenologies are so different that any attempt to emphasize points of similarity seems to be at the expense of neglecting the more substantial ways in which the experiences differ. In particular, research on mediumship, including neuroscientific studies, seems sufficiently well developed (Bastos et al., 2015) to warrant a chapter of its own.

Stuart Appelle, Steven J. Lynn, Leonard Newman, and Anne Malaktaris review research on alien abduction experiences (AAEs), with an emphasis on paralysis and OBE elements. Despite such AAEs having quite gruesome features, experients report that if they had a choice they would still have preferred to have the AAE, which Appelle et al. interpret as "many abductees came to reinterpret these details in a way that made them feel that their lives had more meaning and purpose and that they were part of something larger than themselves" (p. 217). They conclude that "many, if not most, AAEs are associated with sleep paralysis, cultural scripts, and the possible shaping influences of suggestive procedures and hypnotizability" (p. 233).

Caroline Watt and Ian Tierney next discuss psi related experiences (PREs) and organize their chapter around three theories proposed to account for them, "First, the experient may misattribute a normal experience to a paranormal cause. Second, a *small but arguably sound body of knowledge* implies that some of these experiences reflect the operation of actual psi processes. Third, research has established that a significant proportion of distressed experients require clinical support and guidance, either because they have turned away from treatment for a diagnosed condition in favor of a parapsychological interpretation of their experiences" (p. 242, emphasis added). This is a surprising emphasis on pathology given the general orientation of the book, which demonstrates that few AEs are persuasively associated with mental health issues. There also seems to be an odd implication that relatively little published research supports the psi process theory compared with the other explanations — my subjective impression is that the parapsychology database is at least two orders of magnitude larger than that for either of the other specialist topics.

The misattribution theory relies particularly on the claim that those who report PREs also tend to see connections between disparate things — a phenomenon known clinically as apophenia — so that their psi attributions reflect an overreaction to chance coincidences. But apophenia is rather an odd dimensional variable, and doesn't necessarily dichotomize into correct judgments that no meaningful

connection exists versus false positive responses to randomness. For example, Watt and Tierney refer to a study by Gianotti et al. (2001) in which those reporting PREs were more likely than a comparison group to report meaningful connections between unrelated words, but some of the word pairs presumed by the authors to be unrelated seem to me to have plausible connections (e.g., for shelf/marriage, in the UK an unmarried person can be described colloquially as "on the shelf," for horn/air many sports fans will be familiar with air horns) so that it is far from clear that identifying links represents an aberration. Indeed, Luke (2012) has speculated that some people may be oblivious to actual connections or patterns and overattribute to coincidence, which he terms randomania. This deserves serious consideration.

The psi theory is covered much more briefly (2 pages in comparison to over 4 for misattribution) and focuses on problems of repeatability and methodological issues, so that much space is devoted to controversies that seem likely to apply equally to the other theories, at the expense of coverage of actual findings. Ironically, lack of informed and balanced information about the ontology and consequences of PREs seems to be the primary factor in their being interpreted as distressing.

Stanley Krippner and Jeanne Achterberg present a number of documented cases of anomalous healing, noting that the people to whom they occur may typically see nothing puzzling or anomalous in their recovery. Observed effects are linked to variables associated with placebo effects, which seems a sensible mechanism to focus on if only to determine the limits of explanations in terms of it. Parapsychological models are also considered, though I expected this treatment to draw more heavily on DMILS work than it does.

Antonia Mills and Jim Tucker review evidence concerning past life experiences (PLEs). Conventional explanations are considered, including that past lives are inaccurate confabulations created via suggestion, and that they may be the products of cryptomnesia, consisting of perhaps detailed information that the claimant has been exposed to (for example in a historical novel) but has completely forgotten having been exposed to it. These explanations have always struck me as mutually contradictory in supposing either that memories are encoded in detail and are potentially retrievable intact or are impoverished in ways that rely on active reconstruction when recalled. Explaining cases in terms of one or other of these models depending on the circumstances rather seems like eating one's cake and having it. Some impressive cases are presented, though care needs to be taken to avoid double accounting, whereby features that are used to identify a potential previous life also form part of the test of goodness of fit: if we use information from the claimant that mentions he was a baker from Barnsley named Ben and among the very many deceased persons we search through we find one who has these attributes, then we clearly cannot after the fact claim these as remarkable correspondences between the past life memories and the deceased person's circumstances.

In the next chapter Bruce Greyson gives a summary of the typical elements reported in a near-death experience (NDE) and presents the attempts to organize these meaningfully, but has to conclude that "none of them have been tested to date in terms of their clinical usefulness or validity in predicting aftereffects" (p. 337). Undoubtedly these aftereffects can be profound given the tendency for NDErs to interpret their experience literally. He notes that NDEs have some similarities to several psychopathological conditions, drawing attention to links with dissociation, absorption, and fantasy proneness.

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Psychoneurological explanations are plausible, but artificially induced NDE features often share only a superficial similarity with reported NDEs, and veridical features such as accurate nonlocal perceptions are very difficult to account for.

David Wulff completes the collection of AEs with a chapter on mystical experiences (MEs), tracing the historical roots of the term and culminating in a description of an ME as one that "diverges in fundamental ways from ordinary conscious awareness and leaves the strong impression of having encountered a reality radically different from the sensory-based world of everyday experience" (p. 370). Surveys indicate that MEs are surprisingly common, though this likely includes a high number of false positives. The tendency to have an ME is predicted by the same constellation of variables mentioned in other chapters, though set and setting also have an important role.

The final chapter, written by the editors, delivers the take-home message that the AEs surveyed in this volume are not, in and of themselves, indicators of pathology. They refer to Moreira-Almeida and Cardeña's (2011) criteria for distinguishing the nonpathological from the pathological, including the absence of psychological suffering, absence or comorbidities, and compatibility with their spiritual tradition, but recognize the clear need to help those who find AEs discomfiting or distressing. Importantly they offer a testable model that identifies factors that contribute to the tendency to have a negative experience. At the same time they are unsurprised by the failure of research on AEs to find consistent relationships with individual differences variables, given that the measures and research designs lack the subtlety to capture the complexities of the interrelations.

In summary, *Varieties of Anomalous Experience* offers a comprehensive and scholarly treatment by internationally renowned experts of a wide range of potentially related experiences. As a plea for mainstream psychology and neuroscience to accommodate AEs, this updated and authoritative book is about the strongest case that could be made.

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