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The Spiritual Anatomy of Emotion. Michael A. Jawer and Marc S. Micozzi. Rochester, Vermont: Park Street Press, 2009, 558 pages, \$24.95 paperback.

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Michael A. Jawer and Marc S. Micozzi present a broad analysis of emotions and feelings as they connect to both the brain and body in *The Spiritual Anatomy of Emotion*. As an additional feature, the authors attempt to relate emotions to what they call the sixth sense — the spiritual. This book is a comprehensive collection of opinions, anecdotes, and scientific studies; the authors weave these into the supporting structure of their theory. The book is a comfortable, easy read; it is well-organized and referenced from beginning to end. It is appropriate for both professionals and academics in the fields of neuroscience and cognitive science, yet at the same time does not exclude a much larger audience — the educated public.

Because parapsychology plays such a large aspect in *The Spiritual Anatomy of Emotion*, classically trained readers may be uncomfortable with the book. The authors make a solid argument that there may be nothing paranormal about the anomalous experiences that parapsychology encompasses simply because these experiences are so widespread. Most will agree that new theories in science are occasionally generated by anomalous experiences. Therefore, it will help if readers come to this treatise with an open mind (if one did not have an open mind before reading the book, she will undoubtedly have a more open mind afterwards).

Surprisingly, the preface includes some political opinions concerning “our Western follies” in the Middle East. The reasons for these insertions are unclear except perhaps this may have been the authors’ best opportunity to express these opinions. Jawer and Micozzi proceed to enter into a discussion of consciousness — what it is and what it is *not*. Consciousness is not, according to Jawer and Micozzi, a product of (or a feature exclusive to) the brain. According to them, the important feature of consciousness to be studied is sentience (awareness), and only with a better understanding of sentience can humans lead more fulfilling lives. It is here, in the early part of the book, that one realizes the authors are not only interested in sharing their views on the psychophysiology of emotion but are also providing recommendations as to how the readers should perceive their lives. That approach by the authors is one aspect that sets their thesis apart from conventional scientific inquiries.

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The introduction gives the reader a reasonable (although arguable) approach to analyzing what is meant by feelings. "To be conscious requires that you notice, first and foremost, what you're feeling." The authors want the readers to be aware of their feelings — particularly their anomalous feelings or experiences. Jawer and Micozzi are largely interested in the anomalous experiences which are the basic components of parapsychology, and claim that these experiences are the "product of body-based feeling and a mental perception combined" — not just the mind or brain.

The authors elaborate upon their interpretation of emotion. Through a series of anecdotes, they attempt to describe emotion, how is it different from feelings, and why it exists. They begin with Guy Murchie's explanation of spiritual sense (defined in part by the capacity to sacrifice, and "unity with the cosmos"). While the authors do not endorse all the components of that classification, they do provide their own definition and classification — i.e., that feeling is a subset of the sensory perception where a sense of time and aesthetic sense are included with the usual five senses — an arguable but reasonable approach. However, it is unclear why spirit is not specifically on their list (as it is in Murchie's), because the statement on the front of their book, "How feelings link the brain, the body, and the sixth sense," implies spirit to be the sixth sense. Many readers may be uncomfortable straying so far from a scientific analysis of emotion. Fortunately, the authors continue to carefully define emotion and provide a list of examples that most cognitive scientists could agree with. How emotions impact and are utilized by the individual is elaborated upon quite nicely. But Jawer and Micozzi depart from the more conventional view of neurologists and psychologists by questioning whether emotion, in general, emanates from the brain or the nervous system. This attempt to downplay the role of the brain would be less controversial if more concrete proof was provided in the form of academic citations.

Jawer and Micozzi provide a basic understanding of the nervous system and correctly point out that since ancient times the physical aspects of our body have been subject to extreme scrutiny — while aspects of the mind have largely been limited to speculation. The authors rightly note that in recent years there has been an explosion of findings regarding the physical aspects of the human mind and brain. With that they then give a very detailed description of the functions of the neocortex, amygdala, insula, and prefrontal lobe and, at this point in the book, provide a firm scientific foundation for neurophysiology. After providing several examples of emotion, notably crying and laughing, they introduce a thought provoking expression: "*sentio, ego sum*; I feel, therefore, I am." It epitomizes their point of view regarding the importance of feeling and emotions as being equal to if not above and beyond that of cognition. Their argument is allowable although more hard evidence would be desirable. Jawer and Micozzi provide a review of components of physiological development including sensations, the immune system, and the body's ability to cope with stress and how conditions such as chronic fatigue and fearful personality may arise. As an aside, they comment on the cerebral electrical activity noted in developing teens and speculate that this may have some connection with the poltergeist phenomenon.

Chapter 5 provides an interesting discourse of the relation of electricity and energy to human psychology and physiology. Energy and electricity are important topics for the authors because they provide the link to the anomalous. To their credit, Jawer and Micozzi begin by providing non-controversial examples. The discussion leads to what they term the "dissociation phenomenon," and many examples of the link between energy and electricity in psychology and physiology are given, including type C personality, phantom pain, and post-traumatic stress disorder. Descriptions of these conditions are clear and informative. While it is reasonable to classify these condi-

tions as forms of dissociation, it is difficult to understand their immediate connection to electricity or energy. It is not clear to the reader how electricity or energy directly cause or are emanated from the dissociation process. For example, the authors refer to amputees who have phantom pain. They state that "a huge vortex of bodymind energy (is) marshaled but never released" and therefore felt as phantom pain. Such a hypothesis is permissible but demands experimental verification. At the very least the reader should be forewarned that they are getting into speculative theory. One can easily question the assertion that "where the energetic process of our bodymind are concerned scientists and lay healers are not that far apart." It is unclear why lay healers are even part of the discussion.

The authors emphasize the energy/electricity issue through examples that involve the atmosphere (although the authors acknowledge that the term "atmosphere" is meant largely in the lexiconal and more spiritual sense). Examples are given regarding how some humans apparently have a keen perception of atmospheric phenomena, e.g., the aurora borealis (northern lights). The pineal gland, apparently, is sensitive to magnetic fields (which happen to occur in the atmosphere) causing altered melatonin output. And there is a possibility that some people who, without the aid of any electronic equipment, perceive cell phone transmissions, as the authors suggest. However, those claims await further verification. Jawer and Micozzi strengthen their connection argument by citing studies of conventional and scientifically verified phenomena of improved wound healing and bone growth following electrical stimulation. But then they return once more to the poltergeist experience and claim that it must involve energy and electricity since objects in that phenomenon have been reported to fly about. Following up on the reference provided, the basis for their argument rests on a paper of W.G. Roll. In that article a phenomenon (psi waves and psi fields) outside the realm of physics is suggested as a reason for the poltergeist. However, no significant support for "psi," upon which part of that paranormal theory is based, is found. Had Jawer and Micozzi confined themselves to those electromagnetic sensitivities of the human body that are not completely contradicted by neuroscience and physics, their argument would be much more plausible. Alternatively, they should state to the reader in no uncertain terms that this aspect of their argument is theoretical, speculative, and unproven.

Jawer and Micozzi discuss anomalous experiences associated with crises, including poltergeists and apparitions. They suggest that people with unusual sensitivities are more likely to claim apparitions. The authors give examples of increased sensitivity, including unusual ones such as Kreskin's talents. The examples are all described clearly and in an interesting fashion. Moreover, a survey is provided of people's sensitivities to highlight the extent and magnitude of the phenomena. Independent of a possible relation to anomalous phenomena, the results of their survey and its comparison to other studies are a worthwhile source of information. It may well be that a hypersensitive person is more likely to claim to have experienced an apparition than a less sensitive person. However, little attempt is made by the authors to provide a full array of scientific explanations for the presence of apparitions.

Chapter 10 returns to issues of emotion and emotion's impact on the immune system. Giving examples such as the effect of emotion on cancer survival, Jawer and Micozzi are on strong ground. Having control over components of one's autonomic system, e.g., the galvanic skin response, is well documented. Therefore, the argument that the less conscious control we have of our mental being, the more physical disturbances we are likely to have (e.g., migraines, chronic fatigue) is a reasonable conclusion. Here rests one of the greatest strengths of the book. After that, however, the arguments

begin to stretch. For the authors, this type of "psychosomatic plasticity" is the "gateway into anomalous." One example that is questionable is the anecdote of a woman with a dissociated identity disorder who had been abused by her father. Whenever that abused personality emerged burn marks allegedly would appear on the woman's arms. When she flashed out of that personality the burn marks allegedly would go away. In checking the reference (Schultz, 1998, p. 101) to their anecdote I find that it simply quotes a nurse's observation.

Another questionable example is a reference (Schulz, 1998, p. 102) in which a woman (when hypnotized) was allegedly able to raise blisters on the back of her hand — always in the same place where blisters had formed years earlier following a hot grease burn. However, following up on the reference (Johnson and Barber, 1976) to that reference, while the woman did exhibit localized inflammation or erythema (not an unreasonable response by the autonomic nervous system) she did not raise a blister. An actual blister involves a mechanical separation of skin layers and something not expected to be under the control of an individual through the autonomic nervous system. According to the original source (Johnson and Barber, 1976), "although no blisters were evident as a result of this procedure [hypnosis] two of the [40] subjects exhibited skin changes [local inflammation]."

Clearly, if one is going to make a leap between scientific information and the anomalous, one has to be as accurate as possible. A further example of questionable arguments, which highlights the need for proper documentation, comes when the authors hint at the possibility that memory may exist in the extremities. They give the example of a woman with multiple personalities who, following amputation of an infected lower extremity, was cured of her personality disorder. In following up the reference (Schulz, 1998, p. 91) it turns out to be simple hearsay with not so much as a case report in the medical literature. There is no way to corroborate the claim. Furthermore, the emotional impact of an amputation could easily affect someone's personality one way or another without implying that memory was located in the amputated limb. Finally, the chapter moves on to issues such as reincarnation, a topic all of its own that brings with it a whole new set of controversies. The authors have shifted from difficult terrain to that which is truly unnavigable.

Later in the book Jawer and Micozzi discuss time and the self. Here they provide a series of scientific findings that give the reader fundamentals of time perception (subjective time). They even discuss the philosophy of time, beginning with the Greeks. This is all put together in a very readable, clear, and concise form. From there readers are given a brief synopsis of time from the viewpoint of Freud and his disciples. Time is the subject of discussion for the authors because some anomalous experiences "surpass, override and temporarily replace . . . the common experience of time and space." In a sense they are correct in that some parapsychological and anomalous experiences do defy the time-containing laws of modern physics. The authors acknowledge Libet's work regarding the moment consciousness occurs, and Gazzaniga's studies of the duality of consciousness which split brain studies have demonstrated. However, the authors feel that the findings of these studies do not go far enough to describe the "self," a description of humans that must, in the authors' opinion, include the body. Their desire to include the body as part of our consciousness is persistent. However, the readers will find themselves groping for experimental evidence which shows that consciousness actually depends, in part, on the body outside the brain and nervous system. For example, should readers expect an amputee to have an altered consciousness — one that is less rich and complex than that of a non-amputee? This would perhaps be one of the "best tests" of that component of their theory. It is a prediction that is

falsifiable. As it turns out, many components of the authors' theory are falsifiable, which is a good thing. Falsifiability is, as any scientist knows, a key ingredient for a theory's success. The readers just need as many of those tests as possible from the authors.

Jawer and Micozzi examine the evidence that emotions *per se* can influence external events. Here, the authors are to be complimented for making an objective evaluation of a study of random event generation as they point out the weaknesses of that study (Blasand, 2000). They examine whether or not feelings can be conveyed telepathically and perceived precognitively. In the case of a telepathy study they make a critical evaluation of one important experiment, pointing out that there was probable bias. When discussing anomalous experiences in animals, however, the authors return to a series of anecdotes and the reader is once again left yearning for concrete experimental evidence to substantiate the claims. When discussing out-of-body experience (OBE), the authors have little choice but to rely largely on anecdotes. To their credit, however, they provide an important example of how OBEs may be explained without resorting to spiritual phenomena. Evidently, a neurosurgeon elicited an OBE-type phenomenon when he inadvertently stimulated the angular gyrus, thus suggesting that the phenomenon is generated by the human brain and not some external spirit.

More spiritual items are addressed in Chapter 13. Jawer and Micozzi politely scold neuroscience because it focuses on the mind with little credit given to the body; neuroscience gives even less credit to the soul. Yet, the authors do not assert that there definitely is a soul since they state: "If we have a soul . . . it would connect us with all of nature." In the absence of experimentation to provide justification for such comments, the reader is likely to be skeptical. However, the authors' opinion that a spiritual force exists is something the reader will probably be willing to be open-minded about.

In summary, Jawer and Micozzi present a new way of looking at feelings and emotions, how they impact us and how we deal with them to lead healthier and fuller lives. *The Spiritual Anatomy of Emotion* makes a bold attempt to make sense of anomalous experiences, and for that the authors deserve credit. Whether it is necessary to challenge the dominant role of the brain, however, is debatable. Giving the reader a thorough review of experiments from neuroscience and cognitive psychology is helpful for the legitimacy of the authors' arguments. Dealing with controversial phenomena from parapsychology is certainly instructive, too. However, it is not certain if the readers who were previously skeptical of some of these phenomena will be any less skeptical after reading the anecdotes and following the arguments. Despite that, readers certainly get a greater appreciation for the need to learn more about these anomalous experiences. In the meantime, it is clear that emotion is something which demands more attention. As for the spiritual, most of us will probably agree that it is possible to be respectful of it without insisting there is a direct and/or immediate connection to scientific studies.

References

- Blasand, R. (2000). The ordering of random events by emotional expression. *Journal of Scientific Exploration*, 14, 195-216.
- Johnson, R., and Barber, T. (1976). Hypnotic suggestion for blister formation: Subjective and physiological effects. *American Journal of Clinical Hypnosis*, 18, 172-181.
- Schulz, M. (1998). *Awakening intuition*. New York: Three Rivers Press.