

sense, yet most people would use it metaphorically). Or: “The theory of Levelt is more a mythological redescription of the observed phenomena than an explanation of them” (I secretly agree, although Levelt’s model is still fashionable). Encoding, directing, mapping imaging, matching by cells are not faring any better than the much reviled “engrams” of classical neurology. The authors point out the historical evolution of mechanistic models of levers and cogwheels in the brain to logogens and response buffers of the computer lingo. To paraphrase Henry Head the great British aphasiologist and debunker of the “diagram makers”, the stage of explanation changes, but the gap between what is going on in the brain and what is happening when humans see or speak remains.

Functional activation paradigms are able to show what areas of the brain are involved in certain activity that can be highly specified according to a theoretical framework. The authors review some of these studies in detail, as they are the bulk of current cognitive neuroscience in humans. However the interpretations of these studies are less than straightforward and the book points out some of the fallacies. Emotions and their study and the amygdala receive prominent treatment, after all this is the area the authors work in, but Damasio’s ideas (a reformulation of Jamesian psychology) is open to several objections: “There are extensive conceptual confusions involved in his somatic marker hypothesis”; “Bodily reactions are not ersatz guides to what to do and do not inform us of good and evil” etc. etc.

Chapter 7 is the philosophical conclusion, defending against the counterattacks on their attempts to demolish what they define as the “mereological fallacy”. By this they mean the fallacy that function can be attributed to a part of a functional entity such as perceiving, thinking or feeling can be attributed to the brain as a part of the human being instead of the human being or the animal as a whole. Their argument is illustrated by the nonsensical science fiction of a brain kept alive outside of the body (we have all seen the movie), which they convincingly argue could not work. Yet the thought lingers: if only the movie could be made better... Well, whether the brain thinks or the man with the brain may seem a bit of hair splitting akin to other philosophical exercises to some. Everyone, even the authors, agree you need a brain to think, just like you need the engine to fly an airplane. On the other hand only airplanes fly, engines do not... (not quite the same, but a reasonable analogy).

The book is of interest to philosophers and neuroscientists and the general, albeit highly educated reader, who is interested in neuroscience and particularly in the philosophy of interpretation of empirical findings. I don’t think too many lay people or even neurological clinicians will have the time or interest to digest all the content and I don’t think it will replace larger reference texts that cover the field. The book is not easy reading, in fact it is hard work, rewarding though with facts as well as food for thought. It is a severe, sometimes convincing critique of the terminology used to explain the relationship of psychological phenomena to brain activity in mechanistic, engineering or computer terms. The authors’ objections to jargon terminology and fancy conceptualization is far reaching and often polemical, but mostly valid. It leaves a void however, like the words of Wittgenstein: “whereof one can not speak, thereof one must be silent”.

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CATASTROPHIC INJURIES IN SPORT AND RECREATION: CAUSES AND PREVENTION. A CANADIAN STUDY. FIRST EDITION. 2008. Edited by Charles H. Tator. Published by University of Toronto Press. 761 pages. Price C\$165 approx.

Dr. Tator and his research group have painstakingly collected and analyzed catastrophic injuries due to sports and recreation from the period of time 1986-1995 within Ontario. They performed this study whose results compose this book by completing four 12 month prospective surveys driven by a research team. Not only do they present their results as an overview, but they also analyze injuries within individual sports. A great deal of thought in this subject is evident, particularly when one reads the chapters examining less popular sports. All of this effort makes this work unique amongst books examining trauma, and even more unique amongst Sports Neurology volumes.

After an overview of the study parameters is presented in Chapter 1, Chapter 2 describes the results of the Ontario Study in great detail, right down to possible preventability of injuries. In some cases, the degree of detail is superfluous, such as the geographical location of some sports-related injuries (Chapter 4), but in most cases, the attention to detail is appropriate and educational. Details permit us to learn that canoeing injuries leading to fatality are much more common than would be anticipated, accounting for >4% of all sports-related fatalities.

After these overviews are provided, remaining chapters are divided into water sports, motor sports, winter sports, bicycling, air sports, field sports, racquet sports, equestrian sports, floor sports, playgrounds, missile sports, and summer sports. Overall, there is very little exclusion within Dr. Tator’s work. Bowling, dancing, and cricket are a few examples of common activities not assessed. However, other activities such as paintball, ball hockey, and parachuting, frequently neglected in other works, are assessed here. Sports gaining popularity over recent years, such as mixed martial arts, are not included but information regarding their prevalence of injuries is sparse at this time and their performance is not yet permitted in Ontario.

The chapters themselves are thick in detail, and are not intended to be read leisurely. Instead, the format and layout of this book lends itself to use as a tremendous reference. In addition to Dr. Tator and group’s own data, references to important literature is provided within each chapter. This is an important reference tool for all sports medicine specialists, and Neurologists, Neurosurgeons, and Physiatrists with an active interest in traumatic injuries related to sports and recreation. I commend Dr. Tator on this tremendous composition and recommend this as an important reference book for those close to the field.

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