



## Book Review

*Synaptic Self. How our brains become who we are.* By Joseph LeDoux  
Viking Press, 2002.

Reviewed by Yvonne Melia

LeDoux begins *Synaptic Self* by attempting to define the concept of self, culminating in his own interpretation of the self as 'the totality of what an organism is physically, biologically, psychologically, socially, and culturally' (p. 31). The author therefore establishes an ambitious undertaking in attempting to translate this 'self' into synaptic terms.

However, unsurprisingly, but nonetheless disappointingly, the book for me, fails to achieve this goal. The author devotes too much time to providing an introduction to neurophysiology, and compartmentalising the self, at the expense of any real effort to provide an integrated synaptic explanation of self. For instance, chapters are given over to what is known about the involvement of synaptic activity in components of self such as working memory, motivation, mental illness, and emotion (primarily fear). The final chapter is where the author makes the primary attempt to integrate these components and here, LeDoux sets out his understanding of the assembly and maintenance of the self in terms of 7 principles. The failure for me is that these principles are little consolidated by reference to the higher order components of self (e.g. motivation, emotion) that, for most, underpin the richness of self and which the book

gives so much attention to.

Strangely also, the final chapter, in brief, makes a distinction between a self that is integrated, as represented by the assimilation of thoughts, motivation and emotion, with a disintegration of these components, resulting in mental illness. Although the book doesn't give much time to this topic (and can't really be criticised therefore on this point alone), it seems that whilst there may be little challenge to the position that mental illness is representative of a compromised balance between this mental trilogy, and that this mental trilogy may be considered a key feature of self, the converse position seems more controversial and simplistic, that is, to suggest that as mental illness represents an imbalance in the mental trilogy, and as the mental trilogy represents a key feature of self, that mental illness occupies much of what we know to be the self, for those affected.

Having said this, the author can be credited for his explanation of difficult principles in neurophysiology in easy to understand, popular language and the book is structured soundly, progressing from defining the self, to outlining key principles in neurophysiology, to reviewing the status of research in neuroscience relating to components of self (e.g. motivation). The book

is less useful for those with a reasonable grounding in neuroscience, for whom much of the content will not be novel.

In conclusion, despite the huge advances that have been made in neuroscience, it is perhaps a lot to expect, for now, that by the end of the book, we will have obtained an ex-

planation of the self, as conceived by the author at the offset, in synaptic terms.

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