

Beth Lau, ed., *Jane Austen and Sciences of the Mind*. London and New York: Routledge, 2018. Pp. 237. 8 b/w illus. \$149.95. ISBN 9781472488183.

When C. P. Snow delivered his famous lectures on ‘The Two Cultures’ in 1959, lamenting what he saw as an insurmountable cultural divide between the sciences and the humanities, he did not anticipate a volume like this one. Beth Lau’s edited volume of ten essays bravely bridges persistent divisions between the humanities and the sciences by helping to refine the nascent field of cognitive literary studies.

Lau’s volume is focused on key concepts in cognitive theory, cognitive science, literary neuroscience, and neuro-aesthetics. Many of these concepts may be new to readers without training in cognitive science: ‘Theory of Mind’ (the ability to determine one’s own and other people’s thoughts or emotions), embodied cognition (the idea that many aspects of cognition are shaped by the whole body or organism), social minds (shared cognition or responses among certain groups of individuals), and meta-representation (confusion over the source of information that one has collected) are a few of the prominent concepts in the volume. ‘Confirmatory bias’, for example, the tendency to interpret information in a way that confirms a preexisting hypothesis, can be a useful term when referring to many of Austen’s more imaginative heroines, who are overly confident in their ‘Theory of Mind’.

One might ask why Austen is such a popular choice for this emerging area of ‘cognitive literary studies’? Lau, for example, refers early on to the ‘special congruity between Austen’s novels and cognitive science’ (2). Literary scholars in particular may wonder whether the conjunction between Austen and sciences of the mind is as beneficial to literary studies as it may be for the cognitive sciences. Authors in this volume, however, describe mutual benefits with some success and justify the cross-disciplinary connection in at least six different ways, which I sketch below.

Austen helps science: Whether stated explicitly or not, Austen is most often used in this volume as providing case studies to test cognitive theories because of her characteristic psychological astuteness. Alan Richardson makes a very interesting qualification: Austen is useful because scientists tend to assume that all behavior is *adaptive* in evolutionary terms, whereas Austen generally is more interested in the maladaptive—or in the *failures* of communication (70). This lends additional credence to Patrick Colm Hogan’s claim that Austen’s scenarios, despite being fictional, are actually ‘more ecologically valid’ than the highly artificial laboratory experiments common to studies of Theory of Mind (180).

Austen is surprisingly contemporary: There is a common refrain of surprise that Austen is ‘in synch with current neuro-scientific and psychological research’ (2). One example embodied cognition, or the connections between body and mind (26); while describing contemporary studies, Richardson also notes that many of the cognitive models ‘would not have been news to Jane Austen’ (59).

Austen reflects the psychological ideas of her day: Addressing the critique that it is anachronistic to apply 21st-century models to Austen’s works, Lau asserts that the similarity between 18th-century associationist thinking and 21st-century cognitive models shows that the two types of interpretation are not at odds (5). This unusual argument does provoke other questions: it made this reader feel that more cognitive psychologists should perhaps also be reading David Hume, John Locke, and especially Adam Smith’s *Theory of Moral Sentiments*, which is not cited in any of the studies in this volume, even those (such as Natalie M. Phillips et al’s) who take Austen’s intellectual context into account. Other authors such as Wendy S. Jones take a more overtly universalist approach and say that the reason mind-brain sciences can shed light on Austen is because our engrained physiology doesn’t change over time (76).

Austen is a scientist: While no author in this collection directly claims that Austen was a scientist, at least three studies explicitly try to explain Austen’s theories of cognition:

Kate Singer constructs Austen's 'affect theory' (7); Kay Young seeks to understand Austen's notion of 'elasticity of the mind'; Richardson probes Austen's understanding of the interaction of imagination and memory (71), and Jones recreates Austen's ideas about the 'neurobiology of love' (85).

Science helps us understand Austen: All the essays in this volume in one way or another claim that cognitive studies can help literary studies, whether in understanding trends in Austen criticism (William Nelles), the author herself (Lau), the characters' psychologies (Kate Singer), or the role of play in *Mansfield Park* (Bethany Wong). Although Wong does not name it, the use of reader-response theory in her essay is particularly promising in relation to cognitive sciences.

Science helps us understand reading: Some of the studies cast a wider net with many promising ideas for future study. Lau's essay, for example, considers the psychological requirements of fiction more broadly, hypothesizing that in order to enjoy fiction, readers need a competent 'Theory of Mind'. Young speculates on the degree of 'imaginative-cognitive energy' readers spend on various types of text (216).

Reading the volume, I was searching for a unifying methodology for cognitive literary studies. I did not find one, but this may actually both represent the nascent stage of this field of study and also contribute to the utility of the volume. While much of this cross-disciplinary study is (understandably) engaged in taxonomy, it seems that the strongest studies involve some combination of the rigor of the scientific method, nuance of literary analysis, and knowledge of intellectual history. A few authors coming from outside the field of literature occasionally misinterpret (or under-interpret) Austen by misunderstanding levels of irony in her texts. Irony, in addition to her focus on failures of communication seem to be most difficult for the current state of cognitive literary studies to account for. In contrast, quantitative laboratory experiments and newer tools (such as the ones demonstrated in Phillips et al's original experiment) pose exciting new opportunities for understanding the behavioral and psychological aspects of reading. Thanks to this new volume, cognitive literary studies has progressed one step further.

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