

The Neural Sublime: Cognitive Theories and Romantic Texts. By ALAN RICHARDSON. Baltimore: Johns Hopkins University Press, 2010. Pp. xv, 179. Paper, \$35.

The Neural Sublime frames itself as an attempt to bridge what its author Alan Richardson characterises as the “notorious but increasingly narrow 'gap' between the humanities and the sciences” (p. ix). If only saying so could make it so! Perhaps narrowed in terms of subject, the gap remains a chasm in terms of the rhetoric applied to that subject. Cognitive scientists and cognitive critics oftentimes end up speaking different languages, and therefore talking past each other. Richardson points to a valiant (my term) and “dedicated” (his, p. ix) band of literary matchmakers turning out “books, articles, and academic dissertations” (p. ix) to marry the science of cognition into the study of literature. The sad truth is, though, that most cognitive scientists (with a few notable, and tenured, exceptions) have refused to appear at this wedding, leaving only a bevy of wailing family relations. Can Richardson bring cognitive science to the altar? Even if he can, will the marriage succeed; will literature and cognitive science each respect and honour what the other has to give?

Richardson, as a literary scholar, indicts literary scholars for spurning cognitive science: No wonder cognitive science flees the union that sometime did it seek, he claims, when it isn't valued and respected by the literary family. Cognitive science, though, is far from blameless in this nuptial spat, never having taken time to understand literature's culture and discourse. To the extent that it wants literature to be a part of its life at all, cognitive science seems to want literature as an extension of its own ego rather than as a valued partner. If the wedding is to end well, Richardson observes, cognitive science and literature will have to surpass mere interdiscursive adoption of each other's terms and develop actual interdisciplinarity. Alas, cognitive science seems to this reviewer to have grown even more aloof since the engagement was announced; abstract and synthetic concerns of thought as a process of narrative (and therefore essentially literary) representation give way to avalanches of unthemed scientific data and observation.

In the face of this coldness Richardson defends the honour of literary scholarship, insisting, “I do not regard [neuroscience, cognitive science, and evolutionary biology] as intrinsically superior or more authoritative than the humanities. . .” (p. xi). That he feels this necessary to say, though, tells a great deal about the current state of cognitive literary studies. Many literary scholars – not Richardson – seem still to feel a sort of colonial deference to their perceived cognitive-scientist masters who dwell on the proper side of the Two Cultures divide. Which is the truer discourse, though? Whose terms more genuinely or directly represent the structure of human cognition? Does it make any extra sense to declare that “[the Eltons] tacitly count on Emma's gaze direction detection and shared attention capacities to make sure she shares Harriet's embarrassment and pain” (p. 91)? Richardson uses this substitution of terms only as example; less confident literary scholars might offer it as explanation. Why do so many literary scholars feel that they must appeal to scientific terms for legitimacy? When Richardson feels compelled to remind readers that “literary scholars need not feel intimidated” (p. xiii), what does that self-conscious reminder say about the culturally defined power relationship within this marriage? Richardson's crucial point amounts to the observation that a healthy marriage is an equitable one. Cognitive science, in particular, can steer literature's attention towards “the right questions” (p. x), but literature then can apply its own proper methods – methods that extend or supplant those of cognitive science – to these cognitive hypotheses and propositions.

Having cemented the marriage with this observation that both the literary and scientific spouses have insights to offer each other, Richardson's next stroke is to welcome the couple within the broader neighbourhood of poststructuralist and contextualist theory. This shared community ought perhaps to come as no surprise, as so much of cognitive neuroscience is, at base, about the distance between symbol and referent and the physiological processes that underlie the substitution of the

one for the other. Cognitive science can admit, with poststructuralist criticism, that conceptual (and even perceptual) categories never achieve exact fidelity to the veridical world of iconic stimuli, but literary criticism reciprocally can admit some universal, biologically based structure within these categories, discarding absolutist notions of arbitrariness and cultural relativism. Biology delimits cognitive possibility; culture selects cognitive actuality.

Despite family squabbles, then, cognitive science and literature remain fundamentally drawn to each other. This question of symbolic representation is what both are so much about, and where Richardson, after his preliminaries, takes his book's title and his argument's point of entry. At the junction of mind and brain, the conceptual disruption of a sublime encounter jolts the subject out of a comfortable perspective constructed by reason and language, much as the perceptual disruption of a sensory illusion jolts one out of accustomed perceptual categories, laying these bare as mental constructions rather than iconic realities. Thus the falsification inherent in language (Shelley's "my brain became as sand") stands as an extension of the non-linguistic or pre-linguistic falsification inherent in sensory perception (Wordsworth's "apparell'd in celestial light"), and Richardson's joint appeals to visual illusions and to narrative evocations of the sublime drive home this point.

Part of the joy of a marriage is discovering one's spouse as (s)he grows and changes over a lifetime. Literary scholarship seems, though, to have become stuck on an infatuation with the cognitive science of the twentieth century. Cognitive science in its youth used always to barge in wielding a brash assumption of modularity, the ideology that the human mind could be neatly picked apart into a collection of distinct processors or 'modules.' Within this modularist frame, the ability of one character (or one reader) to represent another's beliefs and desires segregates from other cognitive faculties into a mental module for theory-of-mind. This atavistic view of cognitive science, though, isn't necessarily amenable to twenty-first-century studies of complex, network-level cognitive traits and processes – and it's exactly these complexities on which so much of human social cognitive and narrative representational abilities depend, and which explain the shared structure of social and narrative cognition. The real shame about this aspect of Richardson's argument is that the old-school modularist view isn't at all essential to it, and in fact Richardson's position contra structural absolutes, and his appeal to constrained constructivism in particular, would be strengthened by reference to the current cognitive developmental theory of interactive specialisation. A further irony exists in Richardson's appeal elsewhere to historicism, his view that literary and cultural traditions must be understood in their various historical contexts and evolutions. If only this Romantic pair could learn to appreciate each other as they now are!

It's with his treatment of poetic apostrophe that Richardson crystallises his ideas on literary theory-of-mind, and most vociferously sets himself in opposition to the nihilistic hordes of deconstruction and relativism that ran amok over English departments in the 1980s and 1990s. Cognitive and deconstructionist criticisms, Richardson observes, interpret the essential metaphoricity of discourse with opposite tones: for deconstruction these inherent metaphors are "catastrophic," latent seeds of destruction within any text, whereas for cognitive criticism they are "generative" (p. 59). In a curious way, cognitive criticism seems more comfortable with such unresolved dissonances.

In an apostrophe, Richardson observes, the speaker's awareness of the putative addressee isn't so much suspended as it is augmented by awareness of an audience – usually in a generative, purposeful mode typical of cognitivism rather than a self-abnegating, catastrophic mode typical of deconstruction. Richardson rediscovers cognitive psychologist Yaacov Trope's notion of psychological distance and its relation to level of construal as Richardson observes that apostrophic "addresses to human beings become more noticeable as they become more abstract and as their objects become more removed from the poet or poetic speaker in intimacy, place, and time" (pp. 69-70). In Trope's terms, Richardson is saying that apostrophic address becomes more uncanny and unnatural as it moves to a greater level of construal (abstraction and narrative re-presentation) and a

greater psychological distance (social, spatial or temporal removal) – demanding greater and greater application of theory-of-mind, until the limiting case of extreme abstraction which overpowers a reader's theory-of-mind faculty and realises the deconstructionist catastrophe, rendering the narrative uninterpretable. Here is thus a cognitive scientific basis for Richardson's observation of a continuum of apostrophic complexity – one founded on Trope's notion of a continuum of psychological distance and directly related to cognitive neurophysiology! Ironically, given his interest in literary theory-of-mind, Richardson doesn't explicitly draw this latent connection between his continuum of apostrophe and a like continuum of theory-of-mind complexity. It's a testament to the validity of Richardson's cognitive literary analysis, though, that it independently recapitulates this discovery from cognitive psychology – just as, as Richardson observes – Romantic-era writers and philosophers anticipated cognitive science.

The book seems to close with a whimper, in the form of a couple of less connected chapters forcing Romantic texts into the mould of evolutionary-developmental cognitive science. One of these addresses the biological basis of the incest taboo in its relation to the universally bad and sometimes monstrous outcomes of Romantic incest narratives; the other explores vocal affect as distinct from linguistic content in the siren songs of Romantic poetry that capture male speakers' (and authors') hearts. Perhaps in a culturally inspired zeal to credit feminist readings, Richardson neglects results on cognitive sex differences in language development and empathy – differences which, again, would have deepened his earlier presented observations on theory-of-mind.

In the cognitive literary universals that it observes as in the cognitive scientific developments that it neglects, then, Richardson's text is a product not only of its time but also of the literary scholarly culture in which its author is embedded – and this limitation of Richardson's text itself serves to emphasise his point about the role for cognitive historicism in the interpretation of any text.

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