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**FROM OBJECT TO AFFECT IN LITERARY EXPERIENCE,
INTERPRETATION, AND EVALUATION**

by
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Abstract

What happens in our heads when reading, and what is the relation between the reading experience and everyday experience? Philosophers and literary theorists have puzzled over these questions since (at least) Plato's *Phaedrus*, with new answers offered yearly. However, as I argue, we have not been able to know "what happens in our heads" with any assurance until the advent of neuroscience. Only within the past twenty years have we begun observing activity in our brains with any specificity, and only within the past ten years have we begun tracing—from photons to neurons, from reflected light to sensory transduction (Lumpkin & Caterina, 2007)—the interconnectivity between real and fictive properties and between everyday experience and the reading experience.

My thesis harnesses data coming out of the neurosciences and puts them to use for literary theory and criticism, with two principal foci: I seek to clarify the nature of literary "meaning," or how readers translate textual codes into rich cognitive representations; and I offer a neurobiological account of literary "value" and "evaluation," or how we come to think of works as "good" or "bad," and how we may then adjudicate between competing values.

An important neuroscientific programme guiding my research is "grounded cognition." Grounded cognition explains (a) how memory encodes into innate, modality-specific systems in the brain—visual, emotional, auditory—and (b) how acquired memories, from perception, reactivate while reading, generating "situated simulations" of textual contents, or what could be thought of as a type of "simulated" perceptual experience (Addis, 2009; Barsalou, 1999, 2008). Grounded cognition thus offers a uniform account of the relation between innate systems, perceptually acquired memory, and how we simulate and respond to fictional events. Taking cues from grounded cognition, I argue that the reading experience is correlative with perceptual experience, so that how we find meaning in and value perceptual objects and events, in general, explains how we find meaning in and value simulated objects and events in particular literary passages. I have loosely dubbed my approach to literary theory "neurocriticism." The "neuro" prefix signifies my source of empirical data—namely cognitive, social, and affective neuroscience—while "criticism" signifies the consequences of these data when applied to literary analysis. Neuroscience has its limits, to be sure, and neuroscientists often get things wrong; I have therefore also relied heavily on philosophic work to frame neuroscientific findings, and to select between competing neuroscientific explanations.

By offering a neurobiological account of literary meaning and value, and showing how this account militates for and against competing interpretations of Shakespeare's *Coriolanus*, I believe my thesis makes some headway towards achieving a new wave of reader response theories taking their cues from neuroscientific research.

Contents

<i>Abstract</i>	ii
<i>Contents</i>	iii
<i>Acknowledgements</i>	iv
<i>Note on the Text</i>	v
1.0 Preamble	1
2.0 Foundations of Language and Meaning	13
2.1 Language and Meaning	13
2.2 The Problems of Language-Based Semantics	22
2.3 Grounded Cognition as Foundation of Meaning	27
2.4 Potential Problems with Barsalou's Framework	49
3.0 Sense and Sensibilia	57
3.2 Intentionality, Empiricism, and Anti-empiricism	60
3.3 Empiricism and its Discontents	71
3.4 Wollheim on Emotion, Intentionality, Sensation, and Anti-Empirical Epistemology	73
3.5 Neo-Empiricism and Reader-Response Epistemology	79
4.0 Literary Value	89
4.1 Value and Natural Kinds of Emotion	94
4.2 Critical Dimensions: Valuation and Evaluation	123
4.3 Valuing Coriolanus's Psychology of Power	130
4.4 Perspectivism and Divergent Valuations of Martius	160
4.5 Some Conclusions and Possible Objections	169
5.0 Post-amble	176
5.1 Neuro-this-that-and-the-other	180
5.2 Language	181
5.3 Memory	182
5.4 Affect and Emotion	185
5.5 Experimentation	189
<i>Bibliography</i>	191

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Note on the Text

All references to Shakespeare's *Coriolanus* are from the Oxford World's Classics edition (2008). Standard abbreviations have been given to Nietzsche's individual works: *Genealogy of Morals* (GM), *Human, all too Human* (HH), *Thus Spoke Zarathustra* (Z), *Beyond Good and Evil* (BGE), and *Daybreak* (D).

1.0 Preamble

Imagine two students working on Shakespeare's *The Tempest*. The first says, "Obviously Caliban is the antithesis of the 'savage'—he's keenly perceptive and challenges Prospero's entitlement to authority," and the other rejoins, "No, obviously *you've* been caught up in the post-colonial paradigm. Caliban is a brute with the trappings of intelligent speech. Just look at what he *does*." Then if either student convinced the other of his or her point of view, we might say that a paradigm "shifted" for that student—that a new sense of Caliban's properties came into focus and became more "real."¹

With the advent of neuroscience, however—and its disclosure of what takes place in the minds of readers as they form mental impressions—we might not need to invoke "paradigms," "conceptual schemes," "language games," or anything of the sort to explain what happened to the second student. Rather, we might suppose that his or her attention was redirected to underappreciated or overlooked textual prompts, thereby broadening his or her understanding of Caliban. My thesis develops claims similar to the latter suggestion. The first chapter works out a neuroscientifically informed approach to language comprehension; the second formulates a "neurocritical" approach to thinking about how literary properties relate to everyday properties in the world; and from these developments, drawn together in the fourth chapter, I show how we might naturalize the process of literary evaluation, or how readers come to view works as "good" or "bad."

Recounting each chapter's achievements—as if there were a smooth progression from one to the next—belies a process of discovery that I should not wish to overlook, however. Consider a particularly salient example: after surveying the historical reception of Shakespeare's *Coriolanus*, I discovered that many critics not only responded variously to the play's hero, but with the *opposite* set of emotions as my own. This discovery was disorienting at the time. I simply could not fathom how the play's protagonist, Martius, could be viewed *antagonistically*, or how for the same perceived data—"the same Martius"—two distinct response profiles could emerge: one sympathetic, another antipathetic.² "There must be some misunderstanding," I thought. "How else could such a powerful, ingenuous figure—a figure so wronged yet spiritually triumphant—move anyone to *repulsion*?" Admiration and identification seemed the

¹ In such a hypothetical scenario the technical meaning of "paradigm" is less important than taking advantage of its metaphorical utility. No explicit invocation of Thomas Kuhn is intended, though his work ought to be kept in mind.

² David Hume spoke of "The same Homer" in *Of the Standard of Taste* (1965), a locution that Barbara Herrnstein Smith has memorably attacked in her *Contingencies of Value* (1988, pp. 36–39). As noted already, Kuhn explored something similar when he asked whether scientists saw "different things when *looking at* the same sorts of objects," such as oxygen and pendulums (1970, p. 120).

only understandable reactions, just as hysteria or fearful self-control would have seemed the only understandable reactions to encountering a bear in the woods.

Only in the last chapter do I explore Martius' divisiveness, and whether something like a conflict of paradigms was to blame for either "liking" or "disliking" him. However, as it seems to me, now, the entirety of my thesis attempts to frame clashing interpretive values in neurocognitive terms, that is, in terms of how specialized systems in the brain make sense of text, and how readers come to react variously to the same literary episodes. How, I ask, do readers respond to fictional characters like Martius? How do they find them "meaningful" and "valuable"? And from these basic questions others follow: why are readers so often confronted by a set of conflicting yet apparently warranted *reasons* for liking or disliking the same character? Do these reasons spring from perceiving two distinct versions of a character—one bad, another good, depending on readers' relative background knowledge and preferences—or is there always just "one character" readers respond to, though somehow differently? Finally, I ask what it is about fictional characters that make them *valuable*. Is there an axiological element to literary value—something intrinsic to a work's properties that just *is* value-conferring, irrespective of ideological differences—or is value always radically "contingent" and unpredictable, as Barbara Herrnstein Smith has persuasively argued? (1988)

Answering the above questions has been the labor of my thesis, and if such a labor could be described as a voyage, then I've been led down many a garden path and around many a strange loop back into forgotten solutions, before finally arriving at someplace I think worthwhile. So in this introduction I should like to retrace my steps, from start to finish and back again, by recounting key problems that set my agenda, and by giving some indication as to where I arrived and why it was worth arriving there. The function of this preamble, then, is to show how key problems set the course of my thesis, not to overview all the solutions offered. Solving problems is what the body of a thesis ought to do, not the introduction.

So what were the problems, and how did they frame my thesis?

First I wondered what *caused* conflicting emotional reactions to the same text, or what could be called "the problem of divergence." How, for example, could I feel rewarded by Martius while another reader felt punished by him, even though we both—at least apparently—shared similar backgrounds and values? It seemed the problem of divergence had two components: emotions themselves and what caused them. Since I didn't understand the latter, I

began looking at the former.³ With advances in neurobiology, cognitive psychology, and evolutionary psychology, the time seemed right to reexamine what “emotions” were and how they could diverge while reading. I reasoned that if I could explain the nature of emotion, in general, then I could perhaps explain sharply contrasting reactions to the same text, in particular. This approach required determining whether divergences of response were more a byproduct of “innate” properties—our neural hardwiring, predispositions, and personalities—or acquired differences—our unique educational, cultural, and socioeconomic backgrounds. In effect, I was asking whether nature or nurture played the greater hand in shaping behavior and psychology—a question that was hardly new. Yet the means at my disposal for answering the question *were* new: now I had neurobiological data disclosing what took place in the minds of readers as they formed mental impressions. If neuroscience could show that there were “universal” reasons for responding one way or another, at the level of distinct personality types, natural kinds of emotional reactions, and so forth, then “innate” differences were the cause; or if there were no universal reasons, then acquired differences.⁴

Whatever the outcome—whether conflicting responses were more about innate or acquired differences—it was my aim to develop a neuroscientifically informed “reader-response theory,” since reader-response approaches have been generally concerned with conflicting meanings, interpretations, and valuations.⁵ Stanley Fish, Barbara Herrnstein Smith, and other “first-wave” reader-response theorists may have underestimated the role of evolved systems in the brain, systems that made meaning more intersubjective than subjective; but they were on target about the problems with which literary critics ought to concern themselves.⁶ So revamping reader-response theory made more sense than replacing it.

³ In *Coriolanus* there is nearly equal weighting of evidence for siding with Martius or with the people, and so a reader can make a rational case in support of one view over the other by appealing to the text alone; yet as I argue, appealing to the text alone (to conflicting reactions to Martius, how attitudes go one way and then another, etc.) cannot fully explain why we come to value Martius as “good” or “bad,” often in a manner at odds with the textual evidence. This is why I have argued that we ought to mind not only the text—which in the case of *Coriolanus* certainly primes divergence—but also the social psychological dynamic that precedes and infuses the text: and that is our human, all too human nature.

⁴ Lisa Feldman Barrett argues against the universal response thesis and for culturally constructed divergences, while Jaak Panksepp argues for universal patterns of divergence linked to different affective kinds, such as “seeking,” “care,” “fear,” “sadness,” etc. (2006; 2008a). Some readers may be confused by the idea that “universal” systems lead to divergences in response; on the surface there seems to be a logical inconsistency between saying something is “universal” and yet also “divergent.” But it must be understood that “universal” does not mean “exactly the same”—rather, it means sharing innate genetic blueprints, as a species, that can nevertheless produce a vast range of phenotypic (individual or group) differences. There is no inconsistency, then, between saying emotions are both “universal” and yet also responsible for generating divergent responses (environmentally contextualized, subject-dependent emotions).

⁵ Stanley Fish, foremost, concerned himself with the problem of divergence. In his own way he was a kind of neuropsychological pioneer. “Affective stylistics” was far more than a philosophic exercise; it was also an early psychological approach to semantics and criticism. Fish was the first to open literary humanists up to the possibility that readers “did” things to texts, subjectively, as much as texts “did” things to us, objectively (1980).

⁶ “Intersubjective” means a shared understanding across subjects (readers) vis-à-vis some perceptible object or set of properties (e.g., mental imagery), whereas “subjective” implies some understanding that is not shared.

Now since “reader-response” sounded like an emotional rather than a semantic phenomenon (an assumption I later reversed after realizing that all emotions are about “semantic” properties in memory), I surveyed the most prominent neuroscientific theories of emotion, first, then considered work on memory (and how emotion affected memory), second.⁷ In each case I was surprised to find remarkable agreement across theorists on certain key points. From the leading neuroscientists of emotion, such as Antonio Damasio and Joseph LeDoux, Jaak Panksepp and Edmund Rolls, I learned that emotional events were both highly “cognitive,” insofar as they underpinned all areas of thinking and problem solving, and “embodied,” or contingent on encoded sensory experience. I also learned that “cognitive” contents—thoughts, concepts, beliefs, ideas—were intimately bound up with emotional reactions, and that emotional reactions were bound up with cognitive contents. William James once remarked that emotions could “leave a scar on the cerebral tissues,” but it was James McGaugh who in 2004 put this idea to the test and showed that emotional stimuli were recalled more than neutral stimuli; and it was Antoine Bechara and Antonio Damasio in 2003 who showed us that everyday decision-making was radically contingent on emotional feedback from the body.⁸ The implications for reader-response were manifold: whenever we responded emotionally to some perceived event, feedback from the body—autonomic arousal, gut reactions, etc.—seemed to shift attention either *to* additional, salient contents in line with emotional expectations, or *away* from contents that were irrelevant to the emotion state. If a reader felt fear while reading about, say, a bear, then she might become hypervigilant about possible future bear attacks developed within the fictive world, a vigilance that the author would then need to track and feed to avoid habituation; the same reader might in any case recall bear-related stimuli more than non-bear-related stimuli, since bears presumably have properties that we can’t help remembering; and it might even be said that authors who were better able to evoke emotional reactions were more “successful” than authors who could not, and so writing about bears—or some other inducer of strong emotions—was what any “good” author ought to do. Clearly a bit of neuroscience suggested a lot about complex interchanges between types and degrees of emotional arousal, perception, and memory of literary events.

However, it was at this stage in my research that I ran into two problems. First, I had only

⁷ Crucially, when I use the word “semantic” or “semantics” I *do not* imply any relation to language use or language-related meaning. Semantics, on my usage, relates to “semantic memory,” and semantic memory, after Barsalou, does not entail linguistic processing. I shall explore this argument further in Chapter 2.

⁸ See McGaugh (2004) and Bechara and Damasio (2003).

a vague notion of what emotional “embodiment,” “cognition,” and “simulation” could mean for literary critics and evaluation. I could not clearly see how such ideas informed the problem of divergence, or for that matter how critics could use such ideas to adjudicate between competing interpretations. Second, I sensed that there were conceptual gaps in the neuroscientific literature on emotion. Neurophysiological theories of emotion could not yet explain where sociocultural influences fit in, for example, nor how individual differences affected emotion (dispositions, personalities) or how, and to what extent, cognition and emotion affected literary value (the perceived intrinsic value of a work, on the whole, and how individuals came to value literary events and characters, in particular). Neuroscience, it appeared, was showing its limits.

So what were these limits, and how did they lead me into other areas of research?

First, general knowledge about emotional *mechanisms* could not always explain why readers responded with opposing valences to the same literary episode (i.e., feeling, say, generally positive *or* negative about a character). I may know, for example, that “it is in our nature” to respond with fear to fearful stimuli, and that dedicated neurological systems subserve fearful reactions; and from this knowledge I may rightly infer that anyone who directly experienced—or read about—a ferocious bear would express fear of some sort (perhaps even unconsciously).⁹ But for more subtle types of emotional stimuli—the impressions formed when Martius excoriates an armed rebellion set to kill him, for example¹⁰—I simply could not know why my brain and body together produced tension, agreement, awe, and sympathetic disappointment (the sense that the people deserved Martius’s censure) rather than their opposites—calm, disagreement, and antipathy (a sense that the people were being unfairly rebuked). In other words, a strictly neuro-functional explanation of reader-response seemed unable to explain what it was about Martius—and myself in relation to him—that led to one type of response over another.

So the puzzle I ran up against was the apparent perspective-ladenness of reading comprehension. If emotional reception depended on who was doing the perceiving, so that some readers could react to X negatively while others reacted positively, even although both understood X (in generally the same way), then a strictly brain-centered explanation could not

⁹ Unless, of course, the bear were “prefocused” in a playful manner, such as a Seussian version of ursine ferocity (see, for example, <http://confutation.com/sfbm.jpg>) (though even here, perhaps, if “ferocity” is depicted along with humorous elements, then some kind of predictable response *to* ferocity should issue in tandem with humor). Also, the running bear examples may bring to mind the so-called “paradox of fiction”—the question as to whether emotion felt while reading is of the same kind as emotion felt while experiencing everyday events; this question has been taken up at various points throughout my thesis. For an overview, see Hjort and Laver (1997). On the subject of “critical prefocusing,” see Carroll (1998, pp. 261–269).

¹⁰ See *Coriolanus* Act 1, Scene 1, lines 164–220. This scene may also be viewed from the following URL beginning at time index 5:20: <http://youtu.be/RGwenj4QY2c>

provide all the answers. Elements from *outside* our brains, it seemed—such as the *quality* of textual prompts and how *they* shaped our impressions (whether dictions and depictions were “verisimilar,” “balanced,” “unsentimental,” or the opposite) and how *we* related to those qualities—were all equally implicated.¹¹ Neuroscience lent me grounds for saying that general kinds of impressions prompted characteristic responses, i.e., that if Martius were “threatening” or “rewarding” then either fear or attraction, respectively, would seem the likely response (a problem explored in Chapter 4); and the neuroscience of memory consolidation opened up the possibility that a work’s emotional experience could physically instantiate “instrumental values,” or whatever aftereffects a work has on our thinking and behavior. But these findings were not enough to solve interpretive dilemmas. I still didn’t know why literary events could register as *either* threatening or rewarding depending on who did the reading or viewing. To resolve this question I needed another mode of inquiry, one that could piece together all the neuroscientific data into a coherent picture of reader-response—and for me this came from philosophy.

My philosophic influences were much more “analytic” than “continental,” that is, much more oriented to Frege and Russell than Husserl and Heidegger.¹² One exception was made on the continental side, and that was for Friedrich Nietzsche. I saw that his moral philosophy tapped directly into the problem of divergence in *Coriolanus*, where we find not only an apparent clash of “perspectival” values between plebeians and patricians *within* the play, but also a similar clash of values *outside* the play, in the minds of readers and audience members who have found Martius either repellant or attractive. In this way, Nietzsche’s “perspectivism” suggested a possible solution to the “nature versus nurture” question: if an evaluative “framework” or “ethos” could be constructed atop “natural,” preexisting social divisions, then

¹¹ See Frank Sibley’s classic essay on aesthetic concepts such as “balanced” and “unified” (1965). The idea that we need to know what is *in* our brains before we can understand the nature of cognition has been challenged by Alva Noë. Meaning, according to Noë, emerges not from *representations* of previously experienced objects and events, but from what is consciously *present* to us in the world, a type of presence that is always already contextually constructed (2009). For Noë the mind is empty until objects and events show up from without, so that if there were no outer world, there would also be no inner cognition (p. 142). While this is true in many respects, I believe Noë’s theory fails to account for the nature of reading comprehension, or situated simulation, which seems representational and not presentational (unless by “presentational” he means simulated perceptual experience) (Chapter 1). Noë thus seems to over-implicate external inputs in the formation of response and downplays the functional (“nativist”) role of adapted neurological systems.

¹² For a primer on this often dubious yet no less useful distinction between “analytic” and “continental” philosophy, see Humphries (1999). Notable influences on the analytic side were Malcolm Budd, Stephen Davies, John Searle, Richard Wollheim, Robert Solomon, Hilary Putnam, and a host of others whose work touched on problems intersecting with philosophy of art, mind, and emotion.

so too could divergent literary evaluations.¹³ Nietzsche's philosophy of power may thus be seen as a precursor to contemporary neurobiological and anthropological research, both in terms of his "physiology" of moral values and his relation of those values to social dominance hierarchies (see for comparative examples Boehm, 1999; de Waal, 2007). Thus, in the final chapter I have traced relations between three overlapping foci: Nietzsche's proto-evolutionary ontology of intergroup valuation, neuroscientific work on emotional appraisal, and how readers perceive power relations in *Coriolanus*.

Last, I was deeply influenced by philosophic work in the tradition of empiricism. Empiricism has offered a fairly intuitive understanding of epistemology from the first Buddhist scriptures up to Hume, namely, that our understanding of the world derived from experience rather than rational calculation.¹⁴ An empiricist might claim, for example, that seeing the color red inscribed a "sense-datum" (a mental impression) that allowed readers to comprehend what "red" meant (the corollary being that if a reader had never encountered "red," she wouldn't know what it meant). So it was that Hume and W. V. O. Quine, and "neo-empiricists" such as Lawrence Barsalou and Jesse Prinz, shaped my perspective on memory formation and function. If experiential differences led to differences in understanding, then empiricism offered an explanation of *how* meanings diverged (in at least some cases). A reader with little exposure to the idea of "bears," to return to my previous example, might not understand how ferocious they could be, and so a fictional instancing of bears, for this reader, may prompt curiosity rather than fear. And I realized, also, that empiricism might offer a tool for adjudicating between competing literary evaluations. If, for example, a work were deemed "bad" or "good" for reasons standing apart from the experience it offered—perhaps by adopting some kind of Kantian imperative—then such an evaluation might hold less merit compared to another that closely tracked the work's percipient properties.¹⁵ These possibilities have been taken up in Chapters 3 and 4.

Stanley Fish grappled with overlapping problems when he asked whether meaning sprung from what we "do" to texts, subjectively, or whether meanings were somehow presented

¹³ For related contemporary debate in the moral sphere, see Frans de Waal's critique of the "Veneer Theory"—the idea that moral values amount to a thin polished surface on top of (but detached from) amoral, natural foundations—along with various responses in *Primates and Philosophers* (2006).

¹⁴ This is not the place for an overview of conventional oppositions, but for some readers it may seem odd to suppose that knowledge can *either* be learned from experience (empiricism) *or* from rational calculation (rationalism). I am inclined to agree with the oddity, and I doubt that a strict rationalist would deny the empiricist thesis altogether, or that an empiricist would deny the rationalist thesis altogether, but in fact such an opposition has been held for centuries. An example would be Kant's reaction (a version of rationalism) to Locke and Hume's experienced-based epistemology. For contemporary work on this opposition, see Weiskopf (2008).

¹⁵ See R. A. Sharpe's interesting essay on how works can be valued apart from their experience (2000). For an overview of Kant's imperatives, see Blackburn (2008).

through texts, objectively (1970). If the latter were true, then language would confer meaning independently from subjective input (from an individual's particular ideas, mental images, sentiments, preferences, values, etc.). Everyone who read "a bear was near her cabin" would just know what this sentence meant, in roughly the same way across cultures and times. If on the other hand meanings were wholly subjective, then sentence comprehension would depend on translating textual codes into impressions that lacked fidelity across readers (1970, p. 142). Reading "a bear was near her cabin" could on this view elicit humor, mild fear, or a neutral response (depending on who was doing the reading and on what occasion).

After considering the gap between "subjective" and "objective" textual understanding, especially in relation to ongoing debates about the status of texts and their meanings, Fish staked his theoretical claims on the subjectivist position, namely, that an individual's unique point of view was always projected onto texts, so that a work's "meaning" was derived from "interpretive assumptions" that "happen[ed] to be in force" at the time, rather than any "entity which always remain[ed] the same from one moment to the next," as E. D. Hirsch had claimed (1980, p. vii).

A subjectivist theory of reader-response can be persuasive, not least because it offers a cogent solution to the problem of divergence. Differing "interpretive communities" or culturally constructed attitudes led to correspondingly different meanings and values, so that if we shared communities/attitudes, we also shared meanings/values (and vice versa) (p. 15). Thus, our experience of a work, along with whatever values it conferred, was background-relative, or "socially constructed." Only by sharing backgrounds could we then share meanings and values, though perhaps only for short periods, since shifting personal contexts and developments could alter the course of our reading experiences, often in directions at variance with our former selves.

As an example, my reaction to *Martius* has not always been unequivocally positive. There have been times, after I have felt unjustly depreciated or lowered by misfortune, that *Martius* has seemed more peremptory than confidently plain-spoken, more bullying than heroic. At these times it could be said that my feelings for *Martius* were altered by contextual upheavals, so that my response was (at least in part) context- or mood-relative (though not necessarily "subjective") (see Chapter 3). For Smith, however, such experience-induced alterations of feeling were symptomatic of strong subjectivism:

what may be spoken of as the 'properties' of a work—its 'structure,' 'features,'

‘qualities,’ and of course its ‘meanings’—are not fixed, given, or inherent in the work ‘itself’ but are at every point the variable products of particular *subjects’* interactions with it. Thus, it is never ‘the *same* Homer [or Martius that we comprehend while reading].’ (1979, p. 48)

Responding positively or negatively to fictional characters, then, was a function of an individual’s singular upbringing, social/private context, or dispositional proclivities (either that or some historically contextualized interest in a work [p. 53]). There was nothing “intrinsic” to Martius, in any case, that prompted a “liking” or “disliking.” Whatever I felt, at time *a*, was always prone to morph into a contrasting feeling at time *b*, given some intervening life experience (p. 6). If I felt secure and dominant at one point—enjoyed a high standard of living or positive mood—then I was inclined to like Martius; if I felt insecure and submissive at another—after having lost my job or fallen into despair—then I was inclined to dislike him; and there could be no continuity of feeling between. In this way, Smith’s theory shifted the locus of value to extrinsic forces: the problem of divergence was a matter of *acquired* differences (either within particular historical periods or through the vicissitudes of daily life).¹⁶

Generalizing from the observation that values and meanings shifted over time to the conclusion that there was no basis for reader-response *convergence* seemed to me problematic, however. “What happens to one informed reader of a work will happen, within a range of nonessential variation, to another,” admitted Stanley Fish. “It is only when readers become literary critics and the passing of judgment takes precedence over the reading experience, that opinions begin to diverge” (1970, pp. 147–148). In other words, at the level of initial response there could be some degree of semantic convergence, while at the level of interpretation or appraisal there could be none.¹⁷ Whatever could be agreed upon, at first, was “immediately compromised the moment” we said “anything about it” (p. 160), and we couldn’t help saying things. So it followed that semantic agreement could only ever be manufactured by *persuading* others that a particular interpretation was right, rather than *demonstrating* that it was right in relation to a text (p. 365). Through persuasion “interpretive communities” formed—a kind of paradigm for understanding a text. And for Fish these kinds of thought collectives saved his theory from the charge of subjectivism, since meanings “do not proceed from an isolated

¹⁶ I am speaking of Smith’s views here, not my own, so I am not suggesting that there are *no* innate differences, such as personality types, cognitive and emotional mechanisms, etc. Even so, Smith does not get into these possibilities. She acknowledges that “species-wide mechanisms of perception and cognition” factor into aesthetic value, and that these mechanisms count as “innate,” but for Smith “species-wide mechanisms” only affect value “to some extent” (p. 15). Nothing like a “natural kind” of emotional response could be admitted in Smith’s theory of value.

¹⁷ David Bordwell makes a similar distinction between perception, comprehension, and appropriation in “What Snakes, Eagles, and Rhesus Macaques Can Teach Us” (2010).

individual but from a public and conventional point of view” (p. 14). Yet if this logic were strictly adhered to, then interpretive communities amounted to a kind of “memetic” thought transference between minds, rather than between texts and minds. In the place of corroborated theories about a work’s meaning, there were only “disciplinary matrices” (*vide* Kuhn); and in the place of semantically binding “objects” (texts) to latch interpretations onto, there were only semantically free “subjects.”¹⁸ The charge of subjectivism would thus stand.

Such conclusions led me to think that Fish, Smith, and (to a lesser extent) Iser—all “first-wave” reader-response theorists—had made unnecessarily strong claims. The process of understanding and valuing texts seemed forced into an all-or-nothing affair: either meanings and values converged or they didn’t, and if there was any sign that they didn’t, then that sign was taken as proof of anti-convergence, or the “radically contingent” nature of meaning (Smith, 1988, p. 30). Yet as it seemed to me, readers could respond differently to a work while sharing a considerable degree of value and understanding. Two readers could understand a novel about bears, convergently, even if one felt dread and the other joy when reading certain key passages about bears; or two readers could agree about a novel’s merits even if they felt divided by their understanding. Semantic and axiomatic divergence, in other words, did not always rule out reader-response convergence (or the converse).

Arguments in defense of semantic convergence could take many forms, though I was concerned with the most psychologically basic kinds: those rooted in the process of language comprehension itself. For this I found that the neuroscience of memory demonstrated the strongest connection between our initial responses to a work—the varying “experiences” that a work offered—and how we then came to understand those responses, convergently.¹⁹ Research on memory showed me how perceptual events led to conceptual encodings, and how these encodings then became the raw materials with which we constructed “meanings.” From this

¹⁸ The term “disciplinary matrix” was substituted for “paradigm” in the second edition of Kuhn’s major work, *The Structure of Scientific Revolutions*. There is much in common between Fish and Kuhn, though of the two, Fish seems the more radical. Interpretive communities could not amount to *empirical* explanations of a text’s meaning, since semantic common ground could not be obtained *between* interpretive communities. Paradigms on the other hand were at least “corrigible” with respect to one another and the world, so that their sense data overlapped even when scientists disagreed about what they were seeing (1970, p. 175). By contrast, members of Fish’s interpretive communities lacked corrigibility: “Common ground,” argued Fish, “is what emerges when you assume the normative status of your own judgment and fix the label ‘unreasonable’ or ‘inhuman’ or ‘monstrous’ to the judgment of your opponents” (1999, pp. 169–170). In other words, there could be no “real” common ground, since “what we know is not the world but stories about the world” (1980, p. 243; see also his comparison to Wittgenstein’s “language games,” p. 241; Kuhn makes use of Wittgenstein differently, cf. his 1970, pp. 44–45).

¹⁹ See, for example, Barsalou, Simmons, Barbey, and Wilson (2003) and McGaugh (2000). For a very recent overview of this work, see Roozendaal and McGaugh (2011). I cover these works in Chapters 1 and 2.

type of research, I was able to conjecture that something about the initial *character* or *quality* of the reading experience determined, to a marked degree, what we *recalled* and *valued* about a work. That is to say, there was something distinct *about* Martius, Homer, and bears—as perceived in the mind’s eye—that struck a chord with readers able to understand Martius, Homer, and bears (whether readers felt positively about what they had read or not). So *pace* Smith, it seemed that we could speak of Martius’, Homer’s, and bears’ “properties,” and that these properties could be both “intrinsic” to a work and understood similarly across readers.

The function of this preamble has been to overview intellectual puzzles encountered while working out my thesis’ trajectory, and so I have purposefully avoided “spilling the beans” about my thesis’ achievements, or the solutions offered to the puzzles. Nevertheless, I should at least hint at what I believe my thesis has accomplished before moving on to Chapter 2.

First, I have made a strong case for why neuroscience ought to guide our understanding of reader-response theory and criticism. Neuroscientific research on memory, emotion, and perception—more than “cognitive science,” “clinical psychology,” and other disciplines—has been able to disclose what happens in our heads while we read. Without measuring activity in the brain and body, how could we know whether “unconscious emotions” existed, for example? How could we know whether “cognition” and “emotion” functioned interdependently or independently? What proof could we bring to bear on the idea that the brain housed innate, pre-organized systems or infinitely malleable “blank slates”?²⁰ I have argued that neuroscience may offer answers, however provisional, and that the answers offered may have serious ramifications for understanding our and others’ reading experience. Specifically, I have shown how neuroscience fundamentally recasts what we can know about language comprehension and value. On the matter of comprehension, I have argued that neuroscience shows us how the “objects” of literary meaning become “sensible”; and on the matter of value, I have tried to make a case for the relationship between the neuroscience of emotion and our sense of a work’s worth—whether we like, dislike, or feel indifferent about its properties. These two areas—“from objects to affects,” from embodied senses to affectively inscribed values—have become my theses’ focal points.

Second, I have shown (or, rather, re-shown) that traditional metaphysical dilemmas still bear heavily on everyday literary problems (reader-response related problems especially). Do we have “ideas” in Hume’s sense or “concepts” in Kant’s sense? Was there a mind-independent

²⁰ Earlier generations may have found such questions patently absurd (or long since resolved). See, for example, Robert Solomon’s overview of historical philosophic views on emotion (2008).

reality or a mind-dependent reality? Lacan, Bakhtin, Deleuze, Baudrillard, and Derrida offer some answers, but so too do analytic philosophers. Much work has been done in analytic philosophy on emotion and artistic value, in particular, and this work has guided and reshaped my thesis' "neurocritical" outlook. So throughout I have introduced key concepts from leading analytic philosophers—such as Malcolm Budd's work on value and Donald Davidson's views on intersubjectivity. Even more importantly, I have tried to bring the dialogues surrounding these concepts into the sphere of literary humanism, where they have been routinely neglected.

So to recap the main points of this preamble, my initial question about the problem of divergence ballooned into other, more primary questions. I needed to know, first, what took place in the minds of readers as they formed mental impressions, which led me to the neuroscience of language comprehension, analytic philosophic debates about perception and thought-contents, and the philosophy and neuroscience of emotion and value. Neuroscience helped me determine whether texts were understood and valued consistently across readers, and key philosophic terms, concepts, and longstanding puzzles helped me frame the neuroscientific data. Although neuroscience has provided the *ingredients* for resolving some of the problems posed above, it has not provided the *recipes*; for this philosophic inquiry was at every point essential.

2.0 Foundations of Language and Meaning

In this chapter, I introduce a neuroscientific paradigm of language comprehension, of how the brain translates text and spoken language into coherent mental representations. Section 2.1 discusses the context and problems surrounding theories of language as a subject area, including the particular challenges facing literary humanists. Section 2.2 examines the problems of traditional theories of language, with a particular focus on structural linguistics. Although structuralism is no longer a prevailing literary theoretical model, it provides a familiar frame of reference for introducing a neuroscientifically informed alternative, which is the principal goal of this chapter. After discussing the limits of traditional linguistic theories—structuralism especially—I review recent cognitive scientific theories of language comprehension and contrast them with neuroscientific approaches. There is a tendency to confuse “cognitive science” with “neuroscience,” given the similarity of their questions and empirical focus. Neuroscience, however, is a distinct field with its own research technology and methods. So in section 2.2 I shall discuss both the similarities between traditional “cognitive scientific” theories and structuralism, on the one hand, and how neuroscientific approaches resolve standing problems introduced by cognitive science, on the other. This discussion will dovetail into Section 2.3, where I introduce “grounded cognition,” a theory of neurological representation and language comprehension that is foundational to the position I take in my thesis. Grounded cognition, I argue, offers both a solution to the so-called “grounding problem” introduced by cognitive science and elucidates the failures of structural linguistics and early cognitive scientific models of language comprehension. In Section 2.3.2, I introduce key concepts from Lawrence W. Barsalou’s approach to grounded cognition, especially his “perceptual symbol systems.” Barsalou’s approach, I argue—despite its limitations—offers the most robust, neuroscientifically informed framework for explaining language comprehension available today. After discussing potential problems with the perceptual symbol system framework, I analyze a poem from William Carlos Williams’s *Spring and All* from the standpoint of Barsalou’s “language and situated simulation” theory of grounded cognition.

2.1 Language and Meaning

Introducing a neuroscientifically informed paradigm of language comprehension is difficult, given the multifarious nature of the subject matter. Language comprehension comes at the end of a long chain of complex developmental, contextual, and cognitive phenomena, such as how and where we acquire language, the medium of language, be it written or spoken, and

how language interfaces with extra-linguistic systems in the brain, such as emotion and memory.²¹ Numerous aspects of language—prosody, grammar, pragmatics, and so forth—must also be taken into account, for they too influence language comprehension. Clearly, theorizing about the nature of linguistic meaning is one of the more unwieldy areas of scholarship, since there are so many different ways one can approach the subject. The theoretical framework introduced in this chapter—generally referred to as a “grounded cognition” approach to language—does not purport to explain all the aforementioned areas of linguistic inquiry, but it does resolve important, general misconceptions about the influence of language on meaning. Approaching the subject of language comprehension from the vantage of general misconception—of what has been thought true but proven wrong—may simplify the problems at hand, but only temporarily. I will return to the finer points of context, language acquisition, pragmatics, and so forth, throughout my dissertation, although I will not be able to treat any one of these subjects comprehensively.

There is also the greater, perennial challenge of introducing a scientifically based paradigm to the humanities at large. Aristotle, Kant, Saussure, Frege, Wittgenstein, and others offer unique brands of language comprehension, each enjoying broad academic appeal, so there is often little incentive for humanists to look beyond their specialized theories to see what is happening in the neurosciences and elsewhere.²² Traditional humanities approaches to language offer their own insights into the nature of comprehension, to be sure, yet they seem prone to concluding that “meaning” is an ever-open, culturally-relative, irresolvable problem space. Semantic problems can only ever be identified but never settled. Wittgenstein, for example, argued that meaning is so context-laden as to be locked away in hermetically sealed “language games,” a position that suggests we cannot possibly have a “science” of meaning so much as a general psychology of linguistic “use” (1960, pp. 77–81).

²¹ By “extra-linguistic” I mean functionally specialized systems dedicated to various kinds of memory and emotion but *not* language (even though in recent literature perhaps every area in the brain is extra-linguistic, technically, since systems once thought to process language, exclusively, have been shown to serve many other functions: “Broca’s area,” for example—the classic “language center” in the brain—is now thought to function as a general system for “cognitive control” or working memory (Rogalsky & Hickok, 2011)). By “interfaces” I mean physiological interconnectivity, e.g., a neurological projection from one functionally specialized region to another, whether inhibitory or excitatory, and whether uni- or bi-directional. The ideas behind such terms are developed throughout.

²² If publication count is indicative of lasting influence, the numbers are telling. Inputting each of the aforementioned names and “language” as search criteria on *JSTOR* yields 26,105 results, in total, over the past ten years (from 2002–2012). Aristotle garnered 9,958 publications; Kant, 8,286; Wittgenstein, 4,557; Frege, 1,873; and Saussure, 1,431. “Neuroscience” and “language” as joint criteria yield 3,815 results on *JSTOR* over the past ten years, while *Web of Science* yields 13,029 results for “language” with “neurosciences” as the limiting factor.

Wittgenstein's philosophy has been exaggerated by some theorists, most notably Lyotard, and for this his reputation has suffered; yet in many respects Wittgenstein was ahead of his time. He realized, for example, that meaning was contextually bound and so undiscoverable *in* language itself, since language—as an abstracted system of signs—remains aloof from the world of everyday objects and their particular functions or rules (a thesis I shall take up myself in later sections). Whatever may be understood from an utterance, on this view, thrives only insofar as the utterance's objects and customs thrive. Modern readers, for example, may basically comprehend the idiom, "Don't get your tits in a wringer," but they may not *fully* understand what is meant unless they have learned what a "wringer" is and how it was used in pre-modern times (an old washing implement where clothes pass through hand-cranked cylinders). That meanings thrive on the basis of living contextual interactions with objects and events—one of Wittgenstein's key insights—has recently gained prominence under the heading "semantic externalism," or the thesis that environmental objects and norms become inculcated through acquaintance with them, thereafter functioning as an extension of "mind" (Clark & Chalmers, 2010, p. 29; Noë, 2009; Putnam, 1994).

Situating meaning outside language, in our everyday acquaintances with specialized objects and contexts, also imposes semantic limitations. How, Wittgenstein wondered, could we possibly conclude from learning the word "leaf" that *all* leaves in the world share characteristics, when such generality cannot be achieved? "[W]e are inclined to think," he wrote in a critical mode, "that the general idea of a leaf is something like a visual image, but one which only contains what is common to all leaves. . . . This again is connected with the idea that the meaning of a word is an image, or a thing correlated to the word" (p. 18). Wittgenstein rejected this idea. Rather than a mental image reflecting properties in the world, at large, what can be known from a particular context—the usage of a "wringer," the impression of "leaf"—is bound to that context (its history, culture, etc.), and so cannot capture isomorphic *representations* of properties across contexts (across histories and cultures). Saying "a tree is full of leaves" in New Mexico means something different from saying "a tree is full of leaves" in New Zealand, because the meaning of "leaves" and "tree" cannot carry representational universals across geographic contexts. So for Wittgenstein (and more recently Putnam, Noë, and others) meaning cannot ever be so glibly pictorial or universally "given" as to suggest we all share common referential sense: there is no "mental image" capturing the semantic totality or essence of "leaf," since an image or essence of this sort would require that our understanding of objects and events achieves invariance across contexts and times. For Wittgenstein and many of

his followers, linguistic meaning could only ever be contextualized by particulars—by New Mexican or New Zealand leaves, not leaves in general—and so semantic categories (“leaf”) could only allow for “family resemblances” between particular objects, but never essential properties (Simon, 1969).

Later I shall defend the idea of “mental imagery,” “mental representation,” and the idea that contextualized memory picks out properties that approach the status of an “essence” or “natural kind,” though at this stage I can only sympathize with Wittgenstein’s skepticism. The idea that we all possess common knowledge, and that particular experiences capture universal properties, could only have seemed untenable to Wittgenstein at the time. For after all, what *physical* link could he posit between minds and the world when clearly no such link existed, as far he or his contemporaries could see? Physiological—let alone cellular and genetic—connections between percepts and concepts were not yet observed: they required technologically aided, empirical measures of mind-world transactions (neuroimaging, direct neuroelectric recording, neuropeptide tracing, and so forth) not yet invented. Such measures Wittgenstein could not have envisioned.

Now what I should like to suggest is that any attempt to fully understand the nature of language and meaning *prior* to the advent of neuroscience could not help foundering (if, as I believe, we need empirical warrant to make general claims about what happens in the mind while comprehending text—and not just any kind of empirical warrant, such as a questionnaire, but neurobiological warrant achieved using controlled experimental conditions). By saying this I certainly do not mean to suppose that neuroscience offers a grand “theory of everything,” or that before neuroscience came along we were all intellectual barbarians. That would be a mistake. It would be wrong to suggest that neuroscientific paradigms trump all previous theoretical developments, or that all neuroscientific data are equally valid. Many theorists such as Locke, Hume, and Mill developed semantic theories that were largely consistent with contemporary neuroscientific findings (theories I shall return to).²³ Even Wittgenstein’s work—though its gist may not jibe with neuroscience—got quite a bit right. What I should like to suggest, nevertheless, is that neuroscience has uncovered basic facts about language

²³ Raymond Tallis claims that contemporary neuroscientific findings are nothing new, that so-called ‘neuromythology’ goes back to early Greek philosophy, a fact he uses to diminish the hype surrounding neuroscientific findings (2004). In a very different vein, Lawrence Barsalou appeals to the long history of perception-based theories of mind to support his neuroscientific model of language comprehension (cf. the introduction to his seminal paper, *Perceptual Symbol Systems*). I address neuroscience naysayers in the post-amble.

comprehension that cannot help but conflict with most linguistic theories extant today, especially (but not limited to) those predominant in humanities departments.

So what about neuroscience conflicts with erstwhile approaches to language and meaning? Wimsatt and Beardsley's well-known "affective" and "intentional" fallacies may serve as starting points for comparison on the humanities side.

According to the "affective fallacy," there is always a wide "gap between various levels of physiological experience" while reading—how we *feel* about a work—"and the perception of [the work's] value" (1949, p. 44). We may fall into joyful or sorrowful weeping after viewing a play, but our weeping says nothing about the play's worth; only the play's formal properties may indicate its worth, not how we respond to them. The "intentional fallacy" on the other hand holds that any consideration of an author's expressed interpretive intent—external to the work—is problematic, for a work's meaning ought to stand or fall on its own: either the work represents an author's intended meaning or not. Understanding a work cannot therefore hinge on knowledge of its creative origins, "psychological causes," or any kind of speculation about what its author may have meant, since these sources are extrinsic to the work's meaning (1946; 1949, p. 31). If on this view I discovered that one of Shakespeare's sonnets was written for a female lover, not a fair youth, then that discovery would not bear on my understanding of *the sonnet's* meaning.

Although there is truth in Wimsatt and Beardsley's claims—especially the argument that what we feel for a work, alone, cannot index its values, if in the process we forget about the formal properties prompting them (an argument addressed in the next chapter)—neuroscientific findings nevertheless seem at variance with the stronger implications of the affective and intentional fallacies. I shall broadly develop an overview of these findings and then refine them as the chapter progresses.

First, how we feel about a work—what a work does to us (its "results")—is not always arbitrarily related to what the work means and how we value its properties. Neuroscientists have shown that having an emotional response directly augments storage and retrieval of long-term memories, so that responding emotionally to some kind of content entails encoding memories for that content with greater strength (Buchanan, 2007; Greenberg et al., 2005; Talarico, LaBar, & Rubin, 2004). If we then add to this finding the idea that "values" somehow piggyback along with emotions (a deceptively simple idea that I shall develop in Chapter 4), then whatever a poem "feels like" would somehow factor into its "worth" (or at least whatever we could remember about the poem's meaning and worth). Whether this last idea holds true, data from

the neuroscience of memory make at least one point clear: there is no fallacy in relating a work's emotional impact to its properties, and if emotional impact correlates with value, then there is also likely no fallacy in thinking of a work's effects ("results") as impacting its worth; in either case, emotional arousal is shown to directly augment storage and recall of whatever impressions prompted the emotion (McIntyre, McGaugh, & Williams, 2012). Feeling moved by fictional bears or snakes would thus entail forming lasting impressions of bear or snake properties. How we feel, or whatever "results" a work achieves, emotionally, ought to then suggest something about the work's value (Chapter 4).²⁴ If this argument holds true then it would undermine the basic premise of the affective fallacy (that how we feel holds no relation to a work's formal properties and their worth).

Second, in relation to the intentional fallacy—or the idea that an author's intent cannot be related to the work's meaning—there has been some persuasive work, reviewed in an essay by Peter Stearns, positing causal connections between "historical shifts" (such as the Enlightenment) and emotional orientation during those shifts (general patterns of mood or feeling affected by historical conditions) (2008, p. 18). If there is any basis to such claims, then the neuroscience of "autobiographical memory" may have much to say about how an author's everyday experience affects his or her unique sense of the world, and how that sense then ends up in the author's work, formally (Conway, 2001). "Autobiographical events," for example, may embed "within a semantic context that situates them within larger personal and public spheres," so that what an author writes about, in relation to his own work, cannot help accurately reflecting (to some considerable extent) the context in which the author's work was created, and so also elucidate essential elements of the work's meaning (Svoboda et al., 2006, p. 2203).²⁵ Interactions between an author's socio-historical context and his or her disposition, attitudes, and self-reflexive thought—the *ecologies* of authorship—would therefore reflect important clues about a work's meaning.²⁶ If so, then the emotional impact of a poem and its

²⁴ There is a curious passage in the original essay by Wimsatt and Beardsley that suggests this very argument—namely, that emotions themselves somehow become a part of a work's formal properties, or are "presented in their objects" (p. 52). But this seems to collapse artistic value into the work's properties, rather than thinking of a work's values in terms of the relational experiences they offer (a view contrary to that of Malcolm Budd's and others, whose work I review in Chapter 4).

²⁵ Unless the author's report—or the work itself—was insincere, though Malcolm Budd offers some plausible lines against strong concerns over a work's insincerity (1983).

²⁶ There are limits to this approach that I shall discuss later. Michael Taylor, for example—in his overview of historical Shakespearean criticism—warns against an overriding "interest in arriving at Shakespeare's mind via some kind of historicized medical understanding of the *echt* Elizabethan mind" (2001, p. location 2145). Shakespeare, he notes, transcended his period, so understanding his works cannot be limited to understanding Elizabethan cultural standards.

authorial “intent” would seem profoundly significant—albeit recalcitrant—sources of information about a poem’s general meaning and value (a thesis considered further in Chapter 4).

If the above challenges to the affective and intentional fallacies hold any merit, then it should be clear, already, how accepting a neuroscientific paradigm of language can prove challenging for literary humanists. The challenge becomes all the more pointed if specialized *intradepartmental* frameworks have already become standard fare—if, for example, psychoanalysis, structuralism, deconstructionism, formalism, feminism, Marxism, and so forth seem the only viable options for critical analysis, at the expense of excluding extra-departmental discoveries. A feminist critic may explore “gendered” language, “sexual politics,” feminine symbolism, and so forth, or a Marxist critic the impact of class conflict, hegemony, and alienation on a work’s developments; yet as far as either critic is concerned, the only worthwhile influence on the work in question is whatever ideological power struggle surrounded its creation—a struggle between men and women, bourgeoisie and proletariat, a struggle only ever socially but not biologically determined. Yet neither biological nor social determinants alone adequately capture the full range of human experience, and herein lies the limitation of adopting specialized, intradepartmental frameworks at the expense of other theoretical developments, in the sciences and elsewhere.

Despite the heterogeneous makeup of intradepartmentally accepted theoretical traditions, from Marxism to Feminism, an underlying trend over the past century suggests a more homogenous underlining: there has been an unprecedented gravitation toward exclusively “language-based” semantic frameworks, an historical development sometimes termed the “linguistic turn.”²⁸ Michael Holquist captures the zeitgeist of this trend in his 2007 *MLA* presidential address, which I believe is largely representative of contemporary attitudes about language and meaning (2008). His address begins with a distinction between the natural and the unnatural, the “minimal conditions” of “biologic life,” on the one hand—“oxygen to breathe, a rather limited range of temperature to ensure we don’t expire from heat or cold, liquid to ensure we don’t dehydrate”—and the “invented” conditions of being “sapient” and “wise,” on the other (p. 570). The latter conditions, argues Holquist, are manifestations of language. Language is the

Paisley Livingston offers an engaging overview of authorial intentionalism versus anti-intentionalism in his *Art and Intention*, Chapter 6. He offers a cogent middle-ground between the anti-intentionalist view that extra-textual clues about intended meanings are inadmissible, and the intentionalist view that the historical context of an author furnishes strong evidence about how a work ought to be understood and valued (2005).

²⁸ This view is associated with Richard Rorty, Judith Butler, Jacques Derrida, and the later Ludwig Wittgenstein, among others.

humanizing force—“is arguably *the* prerequisite . . . for attaining the status of human being” (p. 570). Becoming human therefore requires “denaturing” the minimal conditions of biologic life through linguistic sensitization; only from this can we achieve “the wisdom and community that are impossible without it” (p. 570).

To substantiate such claims, Holquist appeals to Wilhelm von Humboldt’s philosophy of language, whose foundation rests on the “simultaneity of language and thought” (p. 573). According to Holquist, Humboldt “sought to solve the riddle of the ‘I think’ by transposing the problem into an investigation of the ‘I speak.’ In other words, he put forward language not just as a representation of experience to the mind but also as the activity that first of all enables access of the mind to experience” (p. 574). The assumption in this formulation is that language intercedes between the mind and perceptual experience, serving as a springboard for understanding the world with any nuance; that is to say, before complex meaning is possible one must possess a fully developed mental lexicon that enables certain kinds of experience. This conclusion seems overturned by the fact that primates enjoy rich ecological experiences without any intermediating symbol system, a consideration elaborated below.²⁹ Nevertheless, at this stage we might suppose that Humboldt’s semantic framework illustrates something important about how we ought to interpret our own phenomenological experience. When I read, for example, it seems as if a voice in my head constitutes my thought, so that without that voice—without an internal language—I would lack the capacity to think. Or I might suppose that when I read, speak, or write, that it is language—and nothing else—that allows me to communicate what I think to others. Lev Vygotsky argued precisely this point in *Thought and Language*:

That understanding between minds is impossible without some mediating expression is an axiom for scientific psychology. In the absence of a system of signs, linguistic or other, only the most primitive and limited type of communication is possible. Communication by means of expressive movements, observed mainly among animals, is not so much communication as spread of affect . . . Rational, intentional conveying of experience and thought to others

²⁹ Unless one wishes to argue, as some philosophers do, that primates lack the capacity to think because they lack language. Donald Davidson develops this line in his *Inquiries into Truth and Interpretation* (2001): “The dependence of speaking on thinking is evident,” he writes, “for to speak is to express thoughts” (p. 155). There has been a growing awareness of the untenability of the language = thought thesis, however. If language were prerequisite for thought, then children born with verbal dyspraxia, or the inability to speak, would show minimal semantic comprehension; but this is not the case, since these children show close to population normal IQs for tasks not dependent on language competence (Vargha-Khadem et al., 2005). How one should interpret these data is not altogether clear, yet they seem to provide evidence for the functional dissociation of language and meaning—a distinction discussed below.

requires a mediating system, the prototype of which is human speech. (quoted from Sperber & Wilson, 1995, p. 6)

The apodictic quality of this argument is persuasive. From a strictly observational standpoint, it seems true that we cannot communicate thoughts without speech. Whatever the merits of this view, its underlying assumption is that Language (with a capital ‘L’) is prerequisite to representation, thought, and even—according to Holquist’s rendering of Humboldt—experience itself. The corollary of this assumption is that anything we might call ‘meaningful’ is linguistically derivative. I shall term this approach to language comprehension ‘language-based semantics.’

Competing semantic theories, on the other hand, view language (with a lowercase ‘l’) not as *the* source and structure of meaning but more modestly as one among many vehicles by which the contents of thought communicate (other vehicles include but are not limited to facial expressions, gesticulations, tone of voice, and contextual inference). What the “contents of thought” amount to, I shall argue, can be understood in terms of encoded sensory impressions, or memories acquired through various “sense modalities” or “modal” channels (olfactory, visual, auditory, emotional, etc.). I designate modal approaches to language comprehension ‘neuro-representation-based semantics’ (‘neurosemantics’ for short), of which Barsalou’s “language and situated simulation” (LSS) theory, discussed below, is one example.

At the heart of neurosemantics is the assumption that, although language allows us to communicate thoughts, the nature and function of thoughts themselves (along with concepts, knowledge, etc.) is extra-linguistic and perceptually grounded. The reasons for this will become clear as I stipulate the nature of neurological functioning. For now, it will suffice to say that from a neuroscientific standpoint, comprehending any type of linguistic content is not a byproduct of language, *per se*, but underlying neurological processing distributed across specialized perceptual systems. This assumption is sharply contrasted with the folk phenomenological intuition, mentioned above, that thought and language amount to the same thing (that voices in our heads are identical with thoughts in our heads). However, if the thesis that emotional memory, and not language, accounts for the comparative differences between reader-response valuations—a central position worked out in Chapter 4—then I must first demonstrate how meanings form at the neurological level, and how language then accesses those meanings.

2.2 The Problems of Language-Based Semantics

Theories of Language take many forms—structuralism (Saussure), linguistic constructionism (Sapir-Whorf, Boroditsky)³⁰, propositionalism (Tarski, Frege), some ordinary language philosophy (J. L. Austin, Searle)³¹, and some computational theories of cognition, such as the “language of thought hypothesis,” reviewed in section 2.1.2 (Fodor, Pylyshyn). It is beyond the scope of my dissertation to explore all of these theories in depth, although in Chapter 3 I find it necessary to challenge propositionalist theories of meaning.

Propositionalism—as I see it—closely parallels Language-based semantics and carries faulty assumptions about concepts as they interface with emotions. Since structural linguistics is perhaps the most familiar of the Language theories mentioned, I shall use its assumptions as a platform for introducing, by contrast, an alternative theoretical approach known as “grounded cognition.”

2.2.1 Structuralism

Structural linguistics began with Saussure’s *Course in General Linguistics*, wherein he proposed the theory of the linguistic sign, or the relation between signifier (sound- or word-images), signified (concepts), and referent (aspect of perceived reality). Saussure argued that meaning is a commixture of sound-images and “psychological concepts,” and that this commixture is not individually but socially developed (1998, p. 269).

There is according to Saussure a one-to-one correspondence between word/sound-images and concepts (pp. 275–7; see also Culler, 1990, pp. 98–111). The phonetic sound image “cat,” as distinguished from “hat,” for example, allows us to organize a correspondingly different concept around the phonetic difference. Without phonetic differences, therefore, we would have no organizing principle for differentiating concepts. Saussure explains this mutual dependency of sound images and concepts by using the analogy of “a chemical compound” such as water, whose “combination of hydrogen and oxygen” creates the emergent property of a transparent, life-sustaining liquid. “[T]aken separately,” however, “neither element [hydrogen nor oxygen] has any of the properties of water” (p. 275). The logic of this argument, by extension, is that there is an indissoluble link between word/sound-images and concepts. Only

³⁰ For a critical review of the Sapir-Whorf hypothesis, or the idea that language determines thought rather than interacts with thought (or memory), see Wolff and Holmes (2011) and Ozturk et al. (2013).

³¹ Searle seems to believe that speech acts are necessary to represent objects and events in the world (2008, p. 448), though he also acknowledges that “the way language represents reality is dependent on the more biologically fundamental ways in which the mind represents reality,” even if he also believes that “linguistic representation” is a uniquely human ability (1999, p. 2075).

when jointly combined do they produce the emergent quality of meaning; without pairing word-images with concepts, there can be no basis for conceptual or semantic differences. Meaning under this view is always a byproduct of differentiated sign systems.

A question remains unanswered by this approach, however, and that is how sign systems themselves differentiate. Saussure answers by saying that language “exists only by virtue of a sort of contract signed by the members of the community,” whereby “the individual must always serve an apprenticeship in order to learn the functioning of language” (p. 269). For Saussure, as we have seen, language always carries with it conceptual meanings; so presumably, when individuals first learn the difference between “head” and “foot” from members of their community, they also learn corresponding concepts for each word. So it would seem, then, that signifiers (sound- and word-images) and their concepts become “delimited” by socially inscribed conventions (p. 275). Saussure’s theory of semantics would thus explain how two individuals with different, codified linguistic systems, or distinct enculturations, may fail to understand one another, yet it would not explain how someone could comprehend the gist of *Romeo and Juliet* without knowing English, or how body language and facial expressions, contra Vygotsky, communicate a whole range of intentions and attitudes without needing to share a symbolic language.³²

Much more could be said of Saussure’s semantic theory. There is a rich and varied secondary literature on the subject within the literary humanities, especially in reaction to its scientific pretensions (poststructuralist developments, for example). Nevertheless, even the simplified overview of Saussure’s semantic theory above presents several problems, only two of which fall within the scope of my present analysis. The first is the assumption that something intrinsic to the signifier (in particular) and language (more generally) constitutes meaning as opposed to extra-linguistic, universally shared cognitive representational processes.³³ This I will call the ‘semantic signifier’ assumption (or the role of Language with a capital ‘L’). Two general consequences come from this assumption that I shall repeatedly address: one is confounding language with thought, and the other is supposing that knowledge of the world’s

³² Some may recall Laura Bohannon’s “Shakespeare in the Bush,” which supposedly demonstrates the untranslatability of *Hamlet* into universal themes for cultures with different kinship structures (2006). Though as Monroe Beardsley has pointed out, Bohannon’s example only highlights a need to distinguish artistic *eligibility* (“what is worth taking advantage of, choosing, appropriating” in a work) with *availability*, or the ability of a society to understand a work (1983, p. 268). Despite the nice illustration Bohannon’s experience provides, I believe we should also recall that much of *Hamlet* was in fact understood by the bushmen, such as the need for revenge, betrayal, the nature of madness, etc.

³³ By “universal” I mean qualitatively basic adapted physiologies in the mind-brain such as the visual cortex and its common representational functions, not universally given “innate ideas.” Although there are some interesting parallels between ‘innateness’ and adapted physiologies allowing for qualitatively common perceptual representations, or what Nancy Easterlin calls a “biopistemological” approach to shared meanings (1999).

properties is contingent on shared language, when as I shall argue, we share knowledge apart from the language we use to express what we know.

The second, and for my purposes more important, problem with Saussure's framework stems directly from his ambiguous treatment of psychological "concepts." In passing, Saussure distinguishes between sound-images and concepts (he lists "house" and "white" as examples of the latter), yet no explanation is provided for how concepts function independently from language (p. 275). In the absence of any understanding of psychological processes and their relation to evolutionary history, the default assumption in Saussure's *Cours* is that meaning is dependent on extrinsic, linguistic enculturation, not intrinsic, ecologically situated representations (memories) of the world's properties.³⁴ This presents a problem of 'psychological ambiguity,' or what I have referred to as the problem of 'semantic composition' in the preamble. That is, without any clear elucidation of the specific nature of concepts—how they are acquired, stored, shared, and so forth—there can be no correspondingly specific understanding of language comprehension.

2.2.2 *The Grounding Problem and Language-Based Semantics*

Contemporary debates surrounding the nature of cognition vis-à-vis language are fraught with the problems of 'semantic signification' and 'psychological ambiguity.' After the advent of the computer and the collapse of behaviorism, disciplines such as cognitive science and artificial intelligence were born, and along with them computational theories of mind. Theorists from this generation wondered how the brain, whose material underpinnings were thought analogous to digital computation (something akin to a mental Turing machine), could translate perceptual information into meaningful cognitive content. Steven Harnad called this "the symbol grounding problem" in his 1990 paper of the same name. He characterized the problem thus: "How can the meanings of the meaningless symbol tokens, manipulated solely on the basis of their (arbitrary) shapes, be grounded in anything but other meaningless symbols? The problem is analogous to trying to learn Chinese from a Chinese/Chinese dictionary alone" (1990, p. 335). Harnad's observation closely relates to Saussure's assumed one-to-one

³⁴ By "representation," at its most general level, I mean any kind of modal processing (activation of visual, auditory, emotional, and other sensory systems) of directly perceived and/or stored sensory impressions. This means that modal systems represent both presented stimuli—such as the paper in front of us—and re-present the originally presented stimuli in the form of a mental impression—the concept of the paper in front of us. The former (seeing the paper) counts as a "perceptual representation" and the latter (remembering the paper) counts as a "conceptual representation." Perception should not be confused with representation, of course, but from the standpoint of grounded cognition, what we represent derives from what we have perceived, from the various objects and events presented to us in experience. I shall discuss these ideas in more detail in the following chapter in relation to particular philosophic problems.

correspondence between word-images (‘meaningless symbol tokens’) and concepts (‘meanings’).

If a sound-image contains no intrinsic meaning, requiring instead a coupling with psychological concepts and differences between other signs, then what is it about concepts and a system of differences that imbues language with meaning? Saussure offers no elucidation of the nature of psychological concepts themselves, for he had no means of examining their nature to begin with, so he has left us with the notion of sign-differentiation as the solution to the grounding problem. But rather than speculate about how comparatively flat linguistic forms could transmute into vivid mental images and attitudes, Saussure only introduces another puzzle by binding concepts with signifiers in a one-to-one fashion. Such a binding does not tell us how we understand the sound-image “up” only if we already understand “down,” or how understanding the difference between the words “up” and “down” automatically assumes a corresponding difference between the concepts “up” and “down.” Conjecturing that for every difference in a sound-image there is a difference in concept does not explain how we form concepts without sound-images, such as procedural memories, or remembering what something looks like without being able to articulate its properties. If sign-differentiation—such as knowing the difference between the words “up” and “down”—were the sole cause of different meanings, then all meanings would depend on already knowing something else distinctly different. Yet it seems unlikely that the meaning of “snake” depends on foreknowledge of non-snake-like creatures, or that color perception depends on colorblindness, pain on pleasure, etc. If a child with minimal language development were to wander through the woods alone and discover an ancient artifact, a statue for example, we would not suppose that she needs an adult to carefully articulate the details of her experience before she can understand what she saw, or that her understanding lacked conceptual awareness (that she could not have distinguished an “artifact” from a natural phenomenon). And yet structural linguistics seems systemically incapable of explaining how the child could know what she saw without a fully developed vocabulary. The nature of concept formation, independent of language, apparently does not factor into the structuralist equation.

Contemporary approaches to semantic theory share problems remarkably similar to those introduced by Saussure. The work of Fodor, Pylyshyn, Newell, and Simon, for example, maintains the thesis that cognitive representations are language-like symbols in the brain.³⁵ On

³⁵ This conclusion is apparent in my studies of aforementioned primary sources, although my framing of Fodor and others’ language-based semantics follows closely the criticism of Barsalou.

this view, mental symbols are formally uniform—they behave like an alphabet or 1s and 0s—rather than perceptually differentiated sense impressions (Barsalou, 1999, 2008). Barsalou calls the former ‘amodal symbols,’ because the same set of uniform symbols may combine to represent any type of knowledge, just as 1s and 0s produce a computer’s machine code, which in turn produces distinctly different software packages with different functions (*Photoshop* for manipulating digital images, and *Sound Forge* for audio editing). ‘Modal symbols,’ by contrast, are heterogeneous mental instructions underlying adapted, specialized neurological *modalities*, the sensory channels of vision, olfaction, touch, gustation, and audition, as well as endogenous sensations such as proprioception and emotion—hence the distinction between ‘modal’ and ‘amodal’ in cognitive scientific parlance.

The most well-known exemplar of amodal symbols in the cognitive sciences is the language of thought hypothesis (LOTH) developed by Jerry Fodor in 1987. Under this view, a compartmentalized “module” in the brain selectively processes amodal symbols that combine to form ‘propositional attitudes,’ such as ‘X believes that *p*.’³⁶ Hypothesizing an independent ‘language module’ was an intuitive step, for it seemingly solved the problem of how stored information combines in the form of gestalt concepts, propositions, or the ‘inner dialogue of thought.’ Yet Fodor and others, like Saussure in this respect, assume that language-like symbols themselves constitute knowledge and meaning, a position I view as leading to *reductio ad absurdum* as soon as we ask, “And what are symbols made of?” Unless we make the case that all neurological structures are themselves amodal symbols, or that the emergent property of neural networks is amodal symbolization, taking the bull by the horns and answering “Symbols, all the way down” seems untenable.

On the view developed here, the amodal symbol approach and representative frameworks, such as the LOTH and, more recently, “indexical” or “demonstrative” reference theories (cf. Pylyshyn, 2000), only recapitulate the grounding problem by making it insoluble. This is because amodal approaches (a) presuppose that mental computational codes, ‘amodal symbols,’ count as units of meaning without demonstrating how language-like symbols could in themselves be meaningful (nor is any evidence furnished for the existence of amodal symbols

³⁶ For a more detailed account of this framework, see Fodor and Pylyshyn (1988); for a critical overview of this work, see Barsalou, Santos, and Simmons (2008). Murat Aydede’s *Stanford Encyclopedia* entry on this topic concisely clarifies much of the debate surrounding the LOTH (<http://plato.stanford.edu/entries/language-thought/>). Also, Pinker offers a critique of Fodor’s views in his *Stuff of Thought* (2007, p. 52–107), though Pinker’s critique seems to retain some of the mistakes of amodal symbolism in another form, and that is anti-empiricism (he seems to accept Kant’s *a priorism* and the idea that empiricism falls apart because it can’t differentiate a cow from a giraffe from observation alone, p. 158). I defend against these criticisms in the next chapter.

independent of learning), and (b) amodal approaches fail to account for the profound differences between an evolutionarily ‘pre-programmed’ brain and a *tabula rasa* circuit board.

Parallels between LOTH and Saussure’s theory of semantics should now be apparent: both proffer an innate semantic component in ‘amodal symbols.’ For LOTH, these consist of ‘mentalese,’ or symbolic propositional contents (similar to Saussure’s ‘psychological concepts’), while for Saussure, the amodal symbols consist of sound- and word-images linked with concepts. For this reason, the LOTH, in addition to (a) and (b) above, suffers from the same two problems as structural linguistics—namely, semantic signification and psychological ambiguity. All of these problems, I shall argue, are resolved by the “grounded cognition” approach to meaning.

2.3 Grounded Cognition as Foundation of Meaning

Though still in its developmental stages—with explanatory gaps in some areas, empirical underdetermination in others, and other potential shortcomings—“grounded cognition,” I believe, offers the greatest explanatory power and empirical support of any extant theory of language comprehension today (Barsalou, 2008, 2010). The strength of grounded cognition—what sets it apart from other frameworks—is its reliance on neuroscientific technology to test hypotheses against the functioning of the brain, as opposed to relying solely on argumentation and indirect observational data, such as noting and trying to control for behavioral effects, aphasias, etc. Measuring technology has taken a quantum jump in the past fifty years, in fact, so it is worth listing some of the new methods and machinery deployed by neuroscience to get a sense of the unprecedented kind of research taking place today. No longer do neuroscientists simply infer functional anatomy from observing brain-damaged patients.³⁷ Now there is wide use of high resolution brain imaging technology, such as functional magnetic resonance imaging (fMRI) and positron emission tomography (PET); transcranial magnetic stimulation (TMS), a technique that temporarily disrupts discretely localized neuronal activity, effectively simulating brain lesions, non-invasively; direct cellular recording, either during surgery procedures for epilepsy patients or with non-human subjects, such as rats and chimpanzees; selective ablation of brain regions with injected neurotoxin in nonhuman subjects; injecting radioactive “tracers” into neurons to map fibrous projections to other brain regions; and “genetic knockout” techniques, where mice are genetically engineered in a way that “turns

³⁷ An example, for those unfamiliar with this technique, would be inferring that language processes reside in “Broca’s region” after observing aphasias in stroke patients with damage to Brodmann areas 44 and 45. As it turns out, however, “Broca’s aphasia” was falsely indicative of an underlying linguistic specialization in areas 44 and 45 (Grodzinsky & Santi, 2008).

off” the expression of certain kinds of neurotransmitter, allowing researchers to explore functional anatomy at various levels of cellular organization (at the systems level, transmitter level, etc.). Additionally, vast amounts of animal research—in nonhuman primates and rodents, for example—strongly corroborates findings in humans, a point that becomes increasingly important when considering the philosophic implications of evolutionarily homologous brain structures across species (cf. Section 2.2.2). Neuroscientific *methods* have also advanced, including “double differentiation” of function—i.e., showing that brain region X selectively responds to stimulus *z* but not *y*; classical and operant conditioning; memory recall tasks; motor tasks (response time); virtual environments designed to test environmental memory, etc. Neuroscience employs innumerable ingenious experimental methodologies able to isolate and control variables within neurological chains of cause and effect (between stimuli, neurological response, and behavior); and I believe each method can contribute to our understanding language comprehension.

Barsalou’s grounded cognition framework certainly takes advantage of many of the methods listed, especially work on memory consolidation. More important than understanding the minutiae of scientific methodology, however, is what these methods achieve for literary theory and criticism. So in the following sections I shall argue that grounded cognition, inspired by neuroscientific discoveries, resolves (a) the grounding problem, or how meaningless linguistic symbols link-up with (find their “ground” in) meaningful contents; (b) the semantic signifier problem, or the belief that language itself—as a system of signs and syntactical functions—somehow contributes to meaning (and in some cases the idea that language just *is* what is meaningful, as some theorists maintain—such as supposing a one-to-one relation obtains between a sentence and meaning, without any decoding of a sentence into extra-linguistic semantic contents);³⁸ and (c) the problem of psychological ambiguity or semantic composition that so plagued the work of Saussure, Fodor, and others, or the inability to develop a solid semantic theory without knowing, exactly, what “concepts” were composed of in the mind. I will explore each of these problems in relation to grounded cognition, which will take us a step closer to establishing a foundation for neurocriticism.

³⁸ For an overview of various approaches to reading comprehension, such as “reading by eye” (a direct link between orthography and meaning) versus “reading by ear” (a translation of orthographic elements into phonographic elements), see Chapter 19 of David Crystal’s *How Language Works* (2007). I should note, however, that recent work on the neurological underpinnings of language comprehension challenge the “reading by eye” model (Hickok & Poeppel, 2004), as well as the general thrust of “grounded cognition.” I raise this challenge in the next chapter.

2.3.1 Framing the Grounding Problem with Neuroecology

The key to ‘grounding’ knowledge and meaning is in our genes. We can think of the building blocks of biological organisms—proteins—as the most basic expression of genetic instruction. At this basic level of biologic organization, there is nothing resembling a ‘meaningless symbol token’ because proteins evolved in response to particular ecological conditions that endowed them with a particular function. Proteins are byproducts of converging forces and elements in a particular universe, on a particular planet, within a particular environment, alongside pre-existing adaptations. All such ecological variables and the physical forces acting on them constitute a type of *grounding* for neurological structure and function. That is to say, proteins and polypeptides—combinations of proteins—evolved in response to environmental conditions, and these conditions constitute the “groundwork” of cognition.³⁹ Neurological architectures have literally *conformed* to evolutionary milieus. As far as human cognition is concerned, these architectures roughly coincide with perceptual modalities: vision, olfaction, and touch, for example, may be seen as evolved strategies for negotiating environmental conditions (hence the term “neuroecology”). It would be mistaken, therefore, to say that brain function is governed by amodal, extra-perceptual symbols, when the most elementary building blocks of cognition—proteins—have evolved in response to the perceptual needs of an organism. Amodal symbols cannot spring from inherently modal building-blocks any more than immaterial souls can spring from material bodies.

The very material of thought reflects a unique evolutionary history, an intimate interrelationship between environmental selection pressures and corresponding protein expressions. In a very general yet no less profound way, the most basic unit of ‘meaning’ in humans is a functionally specialized polypeptide. Photoreceptors within the eye, for instance, respond to certain wavelengths of light, skin cells to temperature, tongue ions to sodium, sugar, and so forth—a process known as “sensory transduction” (Burns & Arshavsky, 2005; Lumpkin & Caterina, 2007). When speaking of various neurological sense-modalities, therefore, it may be useful to also think in terms of their corresponding “meaning” modalities—a kind of reciprocal relationship between environmental qualities (such as reflected light), adapted

³⁹ For an overview of neural structure and organization, see Kandel’s *Principles of Neural Science*, especially chapters on sensation and perception. Ecological conditions would include natural and/or sexual selection pressures, random mutation, genetic drift, and so forth. I say that “proteins evolve” in the sense that environmental selection pressures privilege some genetic mutations and chromosomal crossovers over others, such as sickle cell anemia and resistance to malaria, though more basically that types of stimuli (visual, tactile, and other types of sense data) can be perceived because cellular cytology has evolved in relation to these stimuli (Falcioro & Bowler, 2005; Hudspeth, 2000b; Lumpkin & Caterina, 2007). In this way, historical environmental conditions constrain genetic expression and sense perception, together.

functions (such as sight), and meaningful contents (such as an idea about reflected light). This kind of “neuroecological” approach to semantics, sprung from the study of sensory transduction and perception, is what grounded cognition theorists capitalize on, that is, the relationship between “modal systems” in the brain and our ability to understand language.

Of course for some readers the relationship between sensoria and semantics will sound dubious, because anything we might associate with “meaning,” in the usual sense, has apparently little to do with specialized protein complexes in the brain: the meaning of “she was late for class,” for example, seems far removed from the functioning of photoreceptor cells in the retina and neurons in the visual cortex. However, the seeming disconnect between everyday language comprehension and the most basic building blocks of cognition is illusory, since understanding “she,” “late,” and “class” depend on having perceived and then stored information about “she,” “late,” and “class,” and this process can only be facilitated by evolved modal systems.⁴⁰ Thus, even at the smallest scale of molecular organization, “cellular morphology recapitulates adaptive ecologies.”⁴¹ This idea I shall now elaborate upon.

2.3.2 *Solving the Grounding Problem*

Now that I have overviewed the nature of the grounding problem in relation to evolved architecture, let us examine one of the more robust representatives of grounded cognition, Barsalou’s “perceptual symbol systems” theory. Barsalou’s approach to knowledge and language comprehension is founded upon two major principles. First, grounded cognition rejects the amodal symbol hypothesis, the belief that mentally instantiated, language-like symbols form the basis of meaning production (Barsalou, 1999). A central claim of grounded cognition, supported by findings in neurophysics—the study of neuronal structure, organization, and function—is that there is no empirical evidence for the existence of anything like an amodal

⁴⁰ Even congenitally blind individuals build representational maps of their environs with sensory representations, although their spatial mapping apparently relies on recruiting visual areas in the cortex to store tactile inputs, a phenomenon known as “crossmodal plasticity” (Pascual-Leone et al., 2005). Rather than using visual stimuli to map a cup, for example, a blind individual would map the cup’s spatial dimensions with touch. We could imagine a congenitally blind individual mapping and imagining fellow humans in the same fashion, so that when reading a novel in Braille, characters and environments become represented with all sensory channels except vision.

⁴¹ This is a reformulation the famous maxim “ontogeny recapitulates phylogeny,” which may be confusing for those unfamiliar with the idea, so an explanation might be helpful. By saying that cellular morphology recapitulates ecology I mean that the function and cellular organization of receptor neurons, such as those in the ear that allow us to perceive sound waves, are contingent on there being kinds of stimuli in the world that we (humans and other species) needed to perceive at some point along the evolutionary line, that is, on sound waves themselves. This claim should become clearer in the next section.

symbol or token in the brain.⁴² At the neurological level, that is, there is no resemblance between neurons, neurotransmission, and functional architecture, on the one hand, and computer- or natural-language-like symbols and sentences, on the other.

Consider the structure and function of any given neuron, for example, whose cellular “cytology” can be dizzyingly complex: for each neuron there are intracellular genetic instructions coding for types of neurotransmitter, mitochondrial energy production allowing for electric action potentials that then deliver neurotransmitter to other cells, morphological characteristics such as microtubules and dendrites, dependence on surrounding, non-neuronal “glial” cells that provide nutrients and support for neurotransmission and intercellular connections, and concerted interdependencies between systems of neurons subserving different kinds of function (Hudspeth, 2000a, pp. 67–87). A difference in any one of a neuron’s characteristics, moreover, would indicate a corresponding difference in neurological function, at both the cellular and intracellular level. In humans, there are four classes of receptor neurons—electromagnetic, mechanical, thermal, and chemical—each structured according to function (p. 416). Mechanical receptors, for example, feature stretch-sensitive ion channels that send information to the sensory cortex when muscles expand or contract, allowing us to sense the movement of appendages (p. 415). The cytological differences of a single neuron, though complex and variable, are also constrained by their functional organization within distinct *systems* of neurons. Anatomical divisions between sensory and motor cortex, for example, allow vast networks of neurons to maintain internal cohesion through intricately intertwining, functionally specified feedback loops. The functional specificity of any given neural network, therefore, defies any attempt to reduce cognition to hypothetical, functionally *independent* amodal symbols. Although a neuron’s cytological characteristics are statistically representable, one cannot confound mathematical models with biologic systems. These and other considerations have led Barsalou to conclude, flatly, that “little empirical evidence supports the presence of amodal symbols in cognition. Instead, amodal symbols were adopted largely

⁴² One recent attempt has been made to suggest that activity in “convergent zones” is inconsistent with modality-specification at the level of knowledge about the world’s properties (Binder & Desai, 2011). It is argued that activity in convergent zones involves several inputs from modality-specialized regions (for vision, taste, etc.), and so ought to be interpreted as “supramodal” (an abstract, conceptual representation rather than perceptually derived memory). Yet it is clear from Barsalou and other’s work on grounded cognition that represented knowledge is by default “multimodal” rather than compartmentally “modal” (that is, a parallel co-activation of various modality specialized channels of information rather than a serial activation of disconnected sensory modules), so the aim of Binder and Desai’s criticisms seems off the mark. Nevertheless, it is important to recognize that native systems such as convergent zones may be necessary for concept formation.

because they provided elegant and powerful formalisms for representing knowledge” (2008, p. 620).⁴³

So the first major principle of Barsalou’s approach to grounded cognition is that “perceptual symbols”—as opposed to amodal symbols—are not *formally* symbolic, like an alphabet or number. Instead, perceptual symbols are synonymous with organized “records of the neural states that underlie perception” (Barsalou, 1999, p. 582). Perceptual symbols are therefore “symbolic” in the sense that they represent aspects of the world, but they are not symbolic in any literal sense, like photographs or mental images (p. 582). This is because perceptual symbols are themselves composed of non-conscious neural “representations,” or memory impressions, even if, when activated, perceptual symbols can produce a conscious stream of thought or recollection (p. 583). This argument, that “perceptual symbols” *represent* aspects of the world through a process of physically instantiated perceptions, is another basic principle of grounded cognition that I shall need to develop, since its ramifications for comprehending literary works can be extensive (we may think, for example, of the whole debate surrounding “mimesis” and whether literature reflects life events or not). Before turning to what it means to “represent” perceptual events, I should clarify what is meant by “non-conscious.”

The idea that we can comprehend language “non-consciously” can be contentious, since none of us would like to suppose that we comprehend literature as a machine would comprehend a program—that we just passively receive the code of text and it does its work on us. But there is some element of truth to the idea that we comprehend what we read in several non-conscious channels *before* consciously registering what has been written. This idea deserves some attention, here, even though I shall return to it later, because if semantic events require activating non-conscious memories, then these memories can lead to divergent emotional responses (assuming these memories can differ between individuals, which may not always be the case, or only as a matter of degree).

Determining the nature and extent of conscious recollection, at the neuro-mechanistic level, is an ongoing area of research, and there is much debate regarding the interpretation and reliability of results (Hannula, Simons, & Cohen, 2005).⁴⁴ Many studies, however, convincingly demonstrate that non-conscious exposure to words evokes electrophysiological activity

⁴³ Along similar lines, indirect behavioral support for amodal symbols has been rejected by more substantiated behavioral research (cf. Barsalou, Santos, Ava, Simmons, 2008; Kosslyn, 2005; and Barsalou, 1999).

⁴⁴ Even more recent work has been carried out and debated on this subject. See for strong support of non-conscious emotions (Tamietto & de Gelder, 2010). For challenges to this support, see Pessoa and Adolphs (2010).

comparable to that of consciously exposed words, suggesting that the brain tries to decipher what words mean long before we become aware of the outcome (see Kiefer, 2002 for his research and references). Supporting evidence for this claim comes from electroencephalography (EEG) studies revealing that word comprehension corresponds with an average of around 400 milliseconds after stimulus onset, and that unconscious exposure to words produces a similar perceptual action pattern (Kiefer, 2002; Marinkovic et al., 2003). In routine EEG studies, detection of spreading neurological activation—from visual to temporal to prefrontal cortices—occurs 400 ms prior to reporting that a word has been presented, demonstrating widespread neurological activity in areas of the brain known *not* to process language (areas double-differentiated for modal processing with homologues in non-human primates). Moreover, similar neurological activity occurs even when a patient presumes to have not seen any stimulus at all. Patients exposed to a word preceded and followed rapidly by a “masking” stimulus, for example—such as “XZI,” “DOG,” “7X3”—are effectively blocked from conscious awareness of word exposure. These patients subjectively report that they have not been exposed to meaningful stimuli, yet when asked to pick from a list of possible related words, such as “KENNEL” or “FLOWER,” they demonstrate greater than average selectivity for semantically related words (“KENNEL,” “BONE,” etc.). This is called a “priming effect.” What priming studies reveal is that the same 400 ms activation signature is detected in non-conscious exposure to words as in conscious exposure, and that areas associated with multimodal memory retrieval are activated in both instances, suggesting that our own sense of awareness, at any given point, is predicated on a chain of non-conscious processing events, sometimes going as far back as 10 seconds (Soon et al., 2008). So it would seem that any form of reading comprehension involves activating non-conscious memories prior to conscious comprehension.

Another way to clarify this outcome is to consider the nature of “procedural memory.” When we first begin learning a new behavioral skill, such as riding a bike, we may be highly conscious of the task at hand; yet once the new skill is mastered, whatever conscious experience was associated with the task “falls away,” “leaving unconscious mechanisms largely in control” (Barsalou, 1999, p. 583). Now it may be the case that much of our sense of the world resembles procedural memory. We grow familiar with the objects and events of everyday experience, after encoding them into long-term memory, and thereafter we may no longer feel as consciously aware of those objects and events. When we read we may likewise lose touch with the underlying neurological activity involved in registering each word and sentence, just as we no

longer pay attention to everything we are doing when riding a bike, driving a car, or even walking, even if we bring vivid awareness to bear on moment-by-moment sensations involved in each activity. Or as Ronald de Sousa memorably puts it,

what we interpret as the present is really the future: subjective experience misconstrues what is actually an anticipation and reads it as present consciousness. The awareness of a stimulus is attributed to the present, but it actually targets the future and is referred back. Conscious time is out of step with real time. (2009, p. 104)

When we read, then, our conscious sense of what is happening actually tracks what our brains have already deciphered for us, non-consciously: “unconscious neural representations—not conscious mental images—constitute the core content” of concepts (Barsalou, 1999, p. 583). Although it is intuitive to think of concepts as fully conscious when introspecting, communicating, or reading, what we perceive as inward “mental images,” a “voice in our head,” or our sense of understanding others speak, are actually only conscious glimmers of otherwise vastly distributed networks of unconsciously activated neural networks. Conscious understanding is our future sense of past non-conscious computations.

We do not need neuroscientific data to demonstrate a difference between conscious and non-conscious experience, of course. Introspection can suffice. Before asking you to “imagine a satyr,” for example, all the associated multimodal representations for this mythical creature—its human torso, goat legs, curly hair, horns, wry smile, cross-modal associations with erotic desire, etc.—remained dormant in long-term memory, awaiting re-activation, and after I listed some possible associations for a satyr, you may not have recalled all the various bits of memory you have already associated with its basic “image.” Conceptualizing semantic contents thus draws on non-consciously stored memory for the content’s properties.

Whatever we may think about the debates surrounding conscious versus non-conscious semantic processing, the fact remains that word comprehension necessitates modality-specific activation (that comprehending “RED” requires perceptually stored information corresponding with the frequency of light bearing the name) (Kutas & Federmeier, 2000; Martin, 2007; Simmons et al., 2007).⁴⁵ Indeed it would seem that all theories of language comprehension need to know what the “stuff” of meaning is, and grounded cognition claims that the stuff of meaning

⁴⁵ I should note that a precursor to these findings was developed by Eleanor Rosch in the 1970s, where she showed that cultures without terms for color categories could nevertheless categorize colors and forms given their prototypical properties (1973).

is encoded memory from perceptual experience. This idea can be clarified by considering more closely the process of forming new perceptual representations. When first acquiring information from the world,

modality-specific systems of neurons in sensory-motor regions of the brain capture information about perceived events in the environment and in the body. At this level of perceptual analysis, the information represented is relatively qualitative and functional (e.g., the presence or absence of edges, vertices, colors, spatial relations, movements, pain, heat). The neuroscience literature on sensory-motor systems is replete with accounts of this neural architecture (e.g., Bear et al. 1996; Gazzaniga et al. 1998; Zeki 1993). There is little doubt that the brain uses active configurations of neurons to represent the properties of perceived entities and events. (1999, p. 582)

So it would seem that whenever we experience some event, such as drinking coffee, we encode stimuli from that event according to *its* various perceptual properties: hand and arm configurations, such as clasping the mug and moving it to the mouth, are stored in areas dedicated to appendages and motion detection (middle temporal gyrus and premotor cortex); bitterness and acidity in gustatory areas (insula/operculum); the dark, cream-tinted color of the liquid in temporal areas (ventral occipitotemporal cortex), and so forth (Barsalou et al., 2008; Martin, 2007; Simmons et al., 2007). A “coffee drinking” perception thus forms what seems to us a “coffee drinking” conception. Our “knowledge” about the world, therefore, is distributed across modality-specific systems in the brain.

More importantly for literary theoretical purposes, when reading about an event—such as Proust’s Marcel dipping a madeleine into a cup of tea—our brains construct the event by accessing memories stored within our own modality-specific neurological architectures. Crucially, mentally imagining literary events *depends* upon accessing stored information in each of the various modalities evoked by the passage, modalities whose functioning is *neuroecologically* determined (Addis et al., 2007). In other words, language is only comprehensible when words trigger associated extra-linguistic representations of sensory experience. This conclusion may be helped along by considering how the word “elephant” cannot possibly signify all the sensory stimuli associated with the animal—its color, size, characteristic movements and sounds, body parts, even its imagined skin texture must all store within corresponding sense modalities, and it should be self-evident that none of the

impressions stored within these modalities (“grey,” “massive,” “ambling,” “trumpet call”) can be found in the word “elephant” itself. The nature of memory representation, therefore—to reiterate a central theme of grounded cognition—is not in itself language-like but perception-like.

Not everything about neurosemantics is self-evident, however. As I will explore in more detail in the next section (2.3.3), unexpected conclusions follow from the simple principle of modality specificity. The existence of an abstract concept like “tautology,” for example (in the rhetorical sense of the word), may challenge “grounded cognitive” explanations of knowledge formation. What specialized sensory modality—what perceivable object—corresponds with the “repetition of a statement as its own reason”? One is tempted to fall back on Language-based semantics for an explanation, yet as I hope to make clear in the next section, even seemingly abstract concepts such as “tautology” necessitate perceptual grounding. One must, for instance, see or imagine an instance of “tautology” before comprehending what the word means. Recognizing the tautological oddity of “As he walked down the stairs he descended,” for example, requires understanding what the sentence means, first; and what it means is contingent on translating the sentence into a number of perceptual and introspective representations, such as imagining a man walking down stairs, the action of descending, what stairs look like and how one walks down them, and so forth. Then to intuit that there is something “odd” with the sentence—that it basically says the same thing twice—we must understand that “descend” can be just another way of saying “walking down.”⁴⁶ Abstraction is one of many challenges for proponents of grounded cognition, especially when faced with obscure cultural customs that apparently lack grounding in everyday, observable experience (“transubstantiation,” “witchcraft,” etc.). It is likely the case, nevertheless, that no abstraction can be understood without some grounding in perceptual primitives (an idea I shall consider again).

For now, however, we can at least say that most knowledge appears *grounded*—that what we know, and how we come to know what is meant by language, depends on encoded perceptual experience, and that perceptual experience itself has neuroecological roots. Neurological systems evolved vis-à-vis environmental conditions over time. During early stages of biological evolution, sense modalities differentiated at the cellular level in response to distinct environmental properties, such as different types of light-waves, sound waves,

⁴⁶ For an overview of a similar argument, see Prinz (2004). Also, for a naturalized study of mathematical knowledge, see Kitcher (1985).

pressures, temperatures, and so forth. Moving forward in evolutionary time hundreds of millions of years, the same neuro-ecological principle applies: humans evolved the capacity to discern rewarding and punishing information from facial features and prosodic sounds, fine-grained distinctions between potentially harmful or rewarding foods, and the ability to detect varying levels and types of fitness in potential mates. All of these things together constitute an evolutionary *grounding* for knowledge and concepts. The solution to the grounding problem, therefore, is the natural link between neurological perception, representation, and the environment.

2.3.3 *Challenging the Semantic Signifier: Situated Simulation as Basis of Reading Comprehension*

As mentioned, there is the further problem of “psychological ambiguity” stemming from limited access to what is taking place in our brains when processing language. The subjective experience of language is distinctly different from the largely non-conscious neurological processes preceding language comprehension, as studies above indicate, and this difference has led some theorists to confound meaning and thought in general with the phenomenological features of language in particular. Paul J. M. Jorion, a former student of Claude Lévi-Strauss, provides an illustrative example. Challenging Barsalou’s thesis that concept formation is predicated on extra-linguistic perceptual representations, Jorion believes that visual perception “accedes to consciousness” from language, that perceptual “awareness is triggered by a sentence of inner speech” (from commentary in Barsalou, 1999, p. 622). Jorion provides a few anecdotal examples of the speech → consciousness → concept hypothesis. The most memorable of these takes place while out on a hike. Before entering the trail, Jorion is handed a pamphlet warning him about pumas and what to do in the event of an encounter. Jorion sets out,

. . . wondering how likely it is that I will be faced with the animal. Soon enough my attention drifts away, I’m day-dreaming while I walk, more or less absorbed in the “inner monologue” of the stream of consciousness. At some point I hear “within my head”—as part of inner speech: “I’m seeing one . . . I’m seeing one.” This makes me focus on the scene. Indeed (the “indeed” with its element of pause is essential in the process), I suddenly realize that about fifty yards away from me on the trail, there’s a puma, heading away from me into the brush. (p. 622)

“I must have seen the animal *unconsciously*,” observes Jorion, “which I then only properly see at the conscious level once the percept has been translated into words within inner speech” (p. 622). He goes on to conclude, in a vein similar to Holquist’s *MLA* presidential address, that “what makes us human beings” is that “we don’t *perceive* hunger, we *hear* instead the inner voice saying ‘I kind of feel hungry.’ With us, the Word is indeed truly at the beginning. Although our perception is just like that of any other superior mammal: we, the speaking mammal, are faced with the concept before the percept” (emphasis added, p. 623).

Even without taking into account the neuroscientific evidence above, however, it would seem Jorion’s interpretation of his experience can be counterexemplified. We become aware of our need to eat not from any inner dialogue signaling hunger but from extra-linguistic sensations: a proprioceptive signal from the viscera and mouth (a grumbling, clenching stomach, acute salivation), and perhaps a raw “feel” of hunger or a sense of lethargy. And of course nutritional science might tell us that biofeedback mechanisms signaling “hunger” always issue from unconscious autonomic functions, first, such as excess stomach acid and a drop in blood sugar levels, before we even sense that we are hungry. Thus, a more plausible explanation than the one Jorion provides is that we *perceive* discomforting somatic signals that rivet our attention to the need for food, which then prompts linguistic associations *about* what we perceive.⁴⁸

An even more straightforward counterexample—one that leaves little time for linguistic intervention—would be turning on a stereo with an unexpectedly high volume. In such cases, language does not mediate perceptual access to the stereo’s noise and how we ought to respond. We just feel alarmed and promptly turn down the stereo. Again, feeling alarmed in such a way—like feeling hunger, sleepiness, and many other affects—is contingent on the activation of multiple, non-conscious neurological systems prior to awareness: a cochlea transducing high-frequency sound waves into signals that the amygdala “interprets” as frightening, for example (LeDoux, 1996; E. A. Phelps, 2006). Language therefore is not a necessary precondition of conscious perceptual representation, nor (apparently) is consciousness.

Counterexemplifying Jorion’s thesis serves a more general purpose, and that is recognizing that, however strange it might be to accept, comprehending text is in many ways like reacting to blaring radios and hunger pangs. This is because reading comprehension, from a

⁴⁸ One theory proposed by Damasio and others is that a multimodal “convergence zone” in the mid-insula “re-represents” interoceptive feedback, which then makes us “aware” of what we feel (A. D. Craig, 2009).

neuroscientific standpoint, is a process of translating linguistic codes into endogenously generated perceptual representations (Barsalou et al., 2008; Hickok & Poeppel, 2004; Kutas & Federmeier, 2000). Barsalou calls this capacity to access extra-linguistic knowledge when reading or introspecting “situated simulation” (2003). The idea that we “simulate” fictional characters and environments by drawing on “perceptual representations”—memory engrams encoded from experience—is one of the most important concepts I shall introduce in my thesis. The implications of situated simulation for reader-response theory are numerous: it brings much needed clarity to the nature of semantics during reading comprehension and is one of the main ideas that will help resolve the grounding problem (how meaningless symbols hook onto meaningful thought-contents), the problem of psychological ambiguity or semantic composition (the nature of thought-contents), and the semantic signifier problem (the idea that language can be inherently meaningful). When considering the situated simulation hypothesis, however, one caveat must be kept in mind: grounded cognition does not imply, as I explain in some detail in succeeding chapters, that “culture,” “language,” and “historical context” play no formative role in neurobiologically instantiated meaning; on the contrary, enculturation profoundly structures both our knowledge and attitudes about the world, although always in ways consistent with grounded cognition. If I were living in sixteenth-century England, for example, I would not find it unusual if there were a “bear-garden” in my neighborhood providing “bear-baiting” as a form of recreational entertainment. My knowledge, attitudes, and specialized vocabulary for bear-baiting would be culturally inscribed and sanctioned. Nevertheless, comprehending what “bear-baiting” means, where it is performed, and all its “uses” as a game with its own language and rules, presupposes a vast array of acquired knowledge about the world at a particular time, and this knowledge is dependent upon specialized adaptive physiologies such as the brain’s visual, emotional, and tactile systems. So even something as culturally foreign as “bear-baiting” (to most readers, at least) still needs to be *understood*, and how we understand this game—in sixteenth-century England and now—is with multimodal representational systems in the brain.

Caveat aside, how does knowledge acquisition work from a grounded cognition standpoint, and how does it solve the problems identified above?

“Rather than representing knowledge as holistic images (as a camera does),” writes Barsalou, “humans use a powerful attentional system to focus on components of multimodal experience and form concepts that represent knowledge about them. As people focus attention on objects, properties, settings, actions, events, mental states, affect, relations, etc., concepts develop over time to represent the corresponding categories of exemplars experienced” (2003,

p. 2). When focusing our attention on cats, for instance, we encode multimodal perceptual representations corresponding with cat stimuli—how they look, move, feel, sound. These representations, taken collectively, form what Barsalou calls a “frame” for all cat-related stimuli (1999, p. 589). Within the CAT frame, we can endogenously simulate a number of different “concepts,” such as imagining a pied Sphynx (multicolored, hairless cat). We can further “situate” the simulation of a pied Sphynx with other frames, or contexts, e.g., the Sphynx can run under an awning to avoid rain. Running, rain, and awnings are themselves simulations built from perceptual representations, whose properties may be further situated within other contexts (mountain rain, beach rain, etc.). Barsalou calls both the frame and its intra-categorical simulations a “simulator,” a term that more accurately captures the dynamic nature of thought-contents than “concept” or “idea” (p. 590). Continuing with the above example, a number of different simulators—CATS, MOVEMENT, COVER, AVOIDANCE, WEATHER—each with respective simulations—*pied, Sphynx, running, under, rain*—process in parallel to produce what appears to us, subjectively, as a coherent concept. Unlike conventional semantic models, however, the simulating process is principally extra-linguistic, for each of the above simulations are intrinsically organized long-term memories of perceptual stimuli (encoded knowledge about cats, movements, covers, etc.). Thus, if you did not *know* what a Sphynx looked like, you could try to simulate the CAT frame without HAIR. To be sure, from such an attempt you may not fully grasp what a Sphynx looks like (a subject I shall return to), and so you may need to consult supplementary stimuli, such as a photograph, to fill in the missing perceptual representational links necessary to simulate a Sphynx. But you would still be able to imagine what a hairless cat might look like, without having seen one, if you have sufficient knowledge of cats and hairless animals. (All of these factors, as we shall see, play important roles in how we comprehend literary characters and environments, and whether *your* sense of fictional properties can be distinct from—or shared with—my sense of the same properties.)

So it would now seem that we can substitute “simulators” for “concepts,” since what we call a concept amounts to a coherent series of associated modal memories. From this point forward, whenever I use the term “concept” I shall mean to imply “simulator” (a multimodal memory category comprised of underlying representational properties encoded from experience). Whenever we become acquainted with unique-seeming linguistic “concepts,” on this view—such as Nietzsche’s “Machtgefühl” (the “feeling of power”)—we must possess the necessary simulators (“feeling,” “power”) needed to comprehend what the concept means. This

does not efface the importance of language; on the contrary, using linguistic terms to designate complex phenomena is one of the most powerful features of language, one that explains why, without language, our problem solving ability would be deeply diminished. But the power of language does not change the fact that for every linguistic term, however abstract, we still need sufficient encoded knowledge to understand what the term means. Barsalou assumes that “linguistic forms and situated simulations interact continuously in varying mixtures to produce conceptual processing,” a view that attests to the tightly knit interrelation between linguistic symbols and simulation while reading, an interrelation that ought not to be underestimated (p. 2). Yet Barsalou also repeatedly stresses that there is no evidence supporting the argument that linguistic symbols, in themselves, convey meanings, and that is the crucial point.

As noted, in the research of Barsalou, Martin, and many others, the common finding is that neurological representations instantiate within modality-specific systems—visual, auditory, and so forth—to the extent that these systems underpin concept formation. Now I believe we have enough information to resolve the grounding problem rather easily: meaningless symbols (such as “R”) can be strung together to form orthographic and phonemic patterns that we then use to designate meaningful concepts (RAT). However, what is more difficult to accept, theoretically, is that accessing modality-specific neuro-representations is not only prerequisite to concept formation, but also prerequisite to language comprehension in general. Even when we rapidly read a passage of text in a way that seems to require very little internal dialogue—the most limited sense of a “voice in our heads” sounding out words—we still rely on translating orthographic codes into the messages of situated simulation. So there cannot be any one-to-one relation between a word and meaning, a direct, translation-free line between how we say things and our understanding of what the things mean. Even a simple swearword—“shit!”—conveys a situated, multimodal dimension of sense alongside its unimodal alarm, a sense of someone reacting to something that has happened; this sense may be fleeting and largely non-conscious, but without it, all swearwords would mean the same thing. So for any exposure to a word there is also a process of *translating* the word into its multimodal representation (a criterion even more obvious for reading). This conclusion—or what could be called the “translational” criterion of language comprehension—is borne out in the work of Damasio, Barsalou, Hickok and Poeppel, and many others.

In Damasio, we see a long history of research demonstrating characteristic deficits in language comprehension corresponding with damage to modality specific systems, along with corroborating functional magnetic resonance imaging (fMRI) research (A. R. Damasio &

Tranel, 1993; H. Damasio, Tranel, Grabowski, Adolphs, & Damasio, 2004). A stroke patient with damage to a particular area in the cortex, for example, can suffer a predictable loss of perceptual representational ability, such as damage to the anterior temporal and mesial occipital cortices resulting in corresponding loss of memory for faces and animals, respectively (H. Damasio et al., 2004, p. 215).

In Hickok and Poeppel's review of language–concept interfacing, evidence from aphasic patients, electrical stimulation, and imaging studies led them to posit the existence of “a cortical network which performs a mapping between [. . .] acoustic–phonetic representations on the one hand, and conceptual–semantic representations on the other” (Hickok & Poeppel, 2004, p. 81). This network, they find, roughly corresponds to “left posterior extra-Sylvian regions” within the “temporal–parietal–occipital junction” (p. 82). As stilted as such neuroanatomical jargon may sound, what is significant about Hickok and Poeppel's finding is the fact that without a neurological system capable of mapping language signals onto conceptual representations, language would be meaningless. Conceptual representation forms the bedrock of epistemology, not language, and so access to stored knowledge within modality-specific systems is *necessary* to comprehend all forms of symbolic language.

In Barsalou's comparative study of humans and macaque monkeys, we find further evidence that verbal communication is dependent on conceptual representation. He found that, in macaques, hearing “coos” and “screams” from other monkeys activated numerous systems dissociated from areas dedicated to processing verbalization, e.g., systems dedicated to processing visual properties of other monkeys, facial expressions, and emotions (2005b). In other words, these systems all process the “meaning” of a coo or scream together in concert, yet each system—emotional, visual, and facial—is functionally differentiated from areas selectively activated by the vocalizations of other monkeys. What is striking about this particular study is that the areas involved in processing the possible “meanings” of a coo or scream in monkeys are homologous with those in human brains. Barsalou suggests that these findings demonstrate

. . . that macaques' knowledge of coo and scream situations is distributed across modality specific systems. As these situations are experienced, the neural systems that process their components become active. The auditory system processes the call, the visual system processes the faces and bodies of conspecifics, along with their expressions and actions, and the affective system

processes emotional responses. [. . .] This same basic architecture for representing knowledge is present in humans. (p. 309)

Thus, even in lieu of symbolic language, modality-specific systems are sufficient for representing complex social and environmental stimuli. I am unfamiliar with any stronger evidentiary basis for demonstrating the intrinsic *extra-linguistic* nature of conceptual representation. Nonhuman primates, as I see it, clearly demonstrate complex propositional attitude-like mappings of their social milieu. Indeed, it would seem grossly anthropocentric to suggest that primates (or for that matter dolphins, elephants, and even octopi) have no concepts because they lack language.⁵⁰

Considered collectively, the above findings strongly suggest that even the smallest unit of linguistic meaning, a morpheme like “re-,” would be incomprehensible without more basic perceptual representational simulations, such as our capacity to imagine—or simulate with perceptual representational memory—“something happening again,” or “going back to a former position.” Understanding “re-” cannot be a purely “metaphorical” feat, either, in the sense of Lakoff and Johnson’s more language-oriented “conceptual metaphors”; rather, according to grounded cognition, the brain is innately capable of “cross-domain conceptual mapping” without any *sui generis* linguistic “metaphor” function allowing us to layer perceptual representations. A “metaphor,” from a neurocognitive standpoint, may be more readily understood as a basic byproduct of simulator comparisons, or as supplementing known perceptual representations for the unknown, less vivid, or (in the case of euphemisms and dysphemisms) the blatantly obvious.

Consider the following example of how language comprehension depends upon extra-linguistic perceptual representations. When Ajax calls Thersites a “cobloaf” in *Troilus and Cressida*, the simulated context of the scene makes it clear that a “cobloaf” is some species of expletive. The full meaning of the word, however, would be lost without our *learning* that a cobloaf is a “crusty uneven loaf with many knobs and a round top,” and we would be unable to *infer*, by metaphorical extension, that Ajax means to call Thersites “a rough, loutish, misshapen fellow” without first encoding sufficient information about what a cobloaf means (Muir, 1984,

⁵⁰ Recent work on octopi intelligence has shown that they may evince a kind of “consciousness,” given their ability to store complex information about their environments and apparent tool-use (Mather, 2008). Octopi may thus be living examples of “brains in vats.” Exciting work on the metacognitive abilities of birds and monkeys has also been carried out (Emery & Clayton, 2004), even though metacognition has long been assumed to depend on language ability. For an excellent overview of this kind of research, with theoretical framing paralleling much of what I develop in this chapter and some of the next, see Hurford (2007).

p. 86).⁵¹ Yet we may still wonder what the nature of learning and inferring amount to in this example. From a structuralist standpoint, “We don’t perceive things and then translate them into signs. We see signs. As we grow up, we learn language—both words and the concepts that go with them, both signifiers and signifieds. These signs have meaning only within a larger language system” (Cowles, p. 88). That is, we learn the meaning of “cobloaf” by looking at other signs—“crusty uneven loaf with many knobs and a round top”—and these signs carry with them concepts somehow disjointed from perceptual representations. This seems intuitive, because we do not actually need to *see* a cobloaf itself to become acquainted with its meaning, just as we don’t need to see an actual “wringer” to understand what one is by a description of its use. From the standpoint of grounded cognition, however, meaning in general—and linguistic meaning in particular—is predicated on stored perceptual representations, memory impressions of perceived things in the world. And these representations are “grounded” in the functional specialization of neural systems, allowing for cross-cultural continuity of meaning independent of language. Thus, our *knowledge* of what “cobloaf” means, though conveyed by language, is not in itself constructed from or anchored by amodal symbols, or anything resembling word- or sound-images. For if this were true, then translating one language into another, *mutatis mutandis*, would be impossible. Rather, the meaning of “cobloaf” depends upon situated simulations of previously acquired perceptual representations (about bread, knobiness, etc.). From the standpoint of grounded cognition, therefore, situated simulation, and not acquired linguistic forms or grammars, makes meaning and metaphor possible.

Now that I have tersely overviewed a grounded cognition approach to language comprehension, I should like to stress the antithesis between this framework and traditional semantics. A neuroscientific understanding of mind denies the possibility that knowledge, concepts, and metaphors are byproducts of language acquisition, and that meaning is parasitic on signification, as defined by Saussure and others. The belief that “knowledge is verbally organized and access to it is verbally mediated,” and that the “reality that any individual inhabits is a vast inverted pyramid of discourse poised on a tiny apex of experience,” is at odds with the fact that the human brain is intrinsically multimodal and its contents experience-based (Raymond Tallis, 1995). Stored perceptual representations are the building blocks of concepts,

⁵¹ The OED seems not to support Muir’s note in the Oxford edition of Shakespeare, for it only refers to a “cob” as a type of small loaf, or perhaps a lump taken from a loaf, but not a lumpy loaf.

not “discourses” or “narratives.”⁵³ We do not need to use language or internal dialogues to formulate a coherent story about our life’s experiences, or to organize our recollections into sequences with a beginning, middle, and end; rather, we only need to *have had* experiences whose sense-impressions we can then draw upon and recount; our brains connect the dots between impressions for us—either that or we try to interrelate our impressions, convincingly, for the sake of telling a story or trying to determine what happened and in what order. Perhaps a “narrative” is more or less what we tell ourselves about what we have already envisioned in the mind’s eye, extra-linguistically, or what we have already conceptually organized in memory.

Whatever we may think about the status of “discourses” or “narratives,” the basic units of meaning—morphemes, words, and sentences—cannot be understood without first accessing their corresponding modality-specified memories, and without situating these memories in relevant contexts. We may suppose that some linguistic effort—a string of declarative sentences, perhaps—has gone into producing coherent starts, middles, and ends, but the reality is that whatever an author achieves, narrative-wise, is only ever a verbal codification of non-verbal, representational episodes. Language is capable of extending knowledge and beliefs beyond immediately perceptible or verifiable references, opening the door to questions regarding truth-validity, social control, “fantasy vs. reality,” etc., but these are problems that can be addressed apart from the matter of language comprehension.⁵⁴

2.3.4 Overview and Potential Problems

Barsalou’s framework, though sound in most respects, is far from all-encompassing and presents several problems that need addressing. Before getting into these problems, it will be

⁵³ Some may prefer the term “narrative” to “simulation,” but this seems to me *only* a matter of taste. There is little justification in using “narrative” to talk about “temporally, causally interconnected representations of series of events” when “simulation” does this just as well without any confusion about *what* is happening in our heads as we comprehend text: we translate textual codes into “perceptual representations,” not narratives, and the degree to which these representations have temporal/causal relations is contingent on the degree to which the author has successfully represented his or her memories and imaginings with causal/temporal relations. “Situated simulation” is far less ambiguous than “narrative” and stakes its ontological commitments firmly in the ground from the start: it’s the stuff of modal memory, the stuff that actually activates in our brains when we read and make “sense” of text, whether the text is a sonnet or a novel. “Narrative” on the other hand leaves itself ontologically open: it could be the stuff of Language, “discourse,” stories that we just tell ourselves without any relation to the world, etc. Even so, using “narrative” as a simplified placeholder for “situated simulation” can be useful and stylistically less cumbersome. For an interesting overview of narrative and related puzzles, see Currie (2007).

⁵⁴ If the stock and trade of literary criticism is aesthetic judgment and evaluation, then the hard questions surrounding truth-validity are unavoidable. For a good overview of the problem of truth-validity as it relates to formal symbols (including language), see Christopher Norris, *Truth Matters*. Also see Philip Kitcher, *The Nature of Mathematical Knowledge*. Kitcher provides a cogent account of mathematical abstraction within the context of “ecological realism,” an approach similar to neuroecology. For traditional debates surrounding truth-value, see Sir Karl Popper, *The Logic of Scientific Discovery*, and Thomas Kuhn’s *The Structure of Scientific Revolutions*.

helpful to enumerate the basic arguments developed thus far and briefly discuss their ramifications:

- (1) The human brain is composed of evolved modality-specific neurological systems—visual, olfactory, auditory, tactile, emotional, etc.
- (2) When perceiving or interacting with any given object, passively or actively, consciously or non-consciously, multiple modality-specific systems activate simultaneously. These systems allow us to perceive an object within its given context, as well as encode an object's properties along with its contextual associations.
- (3) Memory is a function of storing and retrieving sensory information—"perceptual representations"—within respective modality-specific domains. The storage of sensory information is not static but dynamic; it includes multimodal properties and contextual memory. This is why "simulation" and "simulator" are often better designators for representational memory, because these terms connote the active, cross-modal, constituent nature of memory formation.
- (4) Modality-specific domains underpinning perceptual representations function independently from linguistic systems, although both interact significantly when reading or communicating.
- (5) With the exception of emotional prosody, language is a content-neutral system of codes used to trigger activation of content-rich perceptual representations, e.g., each word in the sentence "the raspy voice grated on my nerves" corresponds with comparatively content-rich perceptual representations, where "raspy" represents a characteristic pattern of sound waves emitted from the vocal folds, "grated" a type of friction-intensive rubbing figuratively associated with a displeasurable sensation, and so forth. We do not consciously access these meanings when parsing out a sentence, but before we can understand any sentence using the words "raspy," "grated," etc., we need to have already encoded sufficient perceptual representations to understand what each word means.
- (6) Language comprehension occurs when content-neutral linguistic codes—phonetic, iconographic—are translated into content-rich perceptual representations. Reading comprehension is thus correlative with perceptual experience. This might be thought of as the "translational" criterion of language comprehension.

In addition to 1–6 above, Barsalou proposes several organizing principles. A “concept,” according to Barsalou, loosely denotes an indefinite number of modality-specific memories organized around a certain type of stimuli, such as a cat or car. Modality-specific memories (visual, haptic, etc.) are self-organizing, because perceptual information is stored according to specialized neurological architectures inherently adapted to process their corresponding stimuli, following the principle of neuroecology. For this reason, argues Barsalou, concept formation is by default a process of *categorization*. Perceptions of movement, for example, are encoded within areas of the brain specialized to process movement, such as the parietal lobe. Therefore, when we mentally simulate a particular type of MOVEMENT, the simulation is pre-categorized by its perceptual modality. And so we do not need language or narratives to categorize or structure remembrances; we only need introspection, which is a first-order sublexical process that we then recruit in the service of language production.

Barsalou also introduces a second-order organizational principle for concepts. Anything we consciously or unconsciously associate with a concept over time falls into what he calls its “frame.” All of the different particular features of a house (doors, furniture), for example, are chunked under the frame HOUSE.

For literary critics, perhaps the most useful terminology introduced by Barsalou is his notion of “situated simulation.” All of the different modality-specific memories dedicated to a particular frame are features we can “simulate,” mentally, as if they were independent features. We can also “situate” different simulations within a number of different contexts, which are themselves simulators of a different variety.⁵⁵ We can imagine, for example, a cat with an armadillo’s protective armor, a bird with antlers, and then we can situate these simulations within a swamp, at the bottom of the ocean, etc.

Situated simulation has profound implications for literary theory and criticism. First, if language comprehension occurs at the level of extra-linguistic modality-specific systems, then the object of literary analysis cannot focus solely on the surface level of text or narrative and assume either’s linguistic codes translate one-to-one into concepts or organized events, or that there is anything intrinsically meaningful in a word or sentence. Rather, all language comprehension necessitates the activation of non-linguistic perceptual representations, stored in remote memory; given this need to link up meaningful contents with text or utterances, the onset of our awareness that we have comprehended an utterance or sentence always lags behind

⁵⁵ This seems to be a byproduct of how attentional systems are capable of focusing on apparently independent features, even when they are intrinsic to a particular organism or physical system, such as the diaphanous quality of smoke, or the tale of a cat (Martin, 2007).

visual or auditory perception of linguistic codes by about 400 milliseconds (as discussed in section 2.3.2). Between stimulus onset (seeing text) and the 400 ms mark, the brain is subconsciously translating textual signals into meaningful representations. Grounded cognition therefore shifts the object of critical analysis to reader-response simulations *prompted* by text, ending the formalist divide between supposedly standalone written language and its psychological inducements.

Second, rather than suppose reader-response—or locating the value and meaning of works in their results or effects, rather than the work’s formal properties—leads invariably to subjectivism, or a loss of a work’s semantic identity, as Stanley Fish, William Wimsatt, and others have maintained, grounded cognition actually stabilizes meaning by shifting the action of language comprehension to modality-specific processes that are in themselves semantically stable across readers. What we call “abstraction” and “generalization” with regard to understanding properties in the world may be parsimoniously explained—as I shall explore further in the next chapter—in terms of how encoded sense impressions capture connections between impressions, not only the qualities of the impression itself, as perceived.⁵⁶ Evolutionary epistemology—the storage of knowledge within biologically shared architectures in the brain—is more reliable than language-based semantics, because perceptual representations are not relative to content-neutral (amodal) symbols but to the nature of forming sense-impressions, more generally. (I say “more reliable” because neurological representations introduce epistemological problems as well, such as trying to determine to what extent my simulation matches yours; these problems are addressed in Chapter 3 and elsewhere.)

William Wimsatt notoriously stated that “The report of some readers that a poem or story induces in them vivid images, intense feelings, or heightened consciousness, is neither anything which can be refuted nor anything which it is possible for the objective critic to take

⁵⁶ Grounded cognition explains not only how we acquire knowledge but also, at the same time, how we share knowledge about cause-and-effect relations *between* objects and events, *a posteriori*. To borrow an example from Hume, when we observe a billiard ball “moving in a straight line toward another” we can “conceive that a hundred different events might as well follow,” that both balls may “remain at absolute rest,” the “first ball return in a straight line or leap off the second,” and so forth (1955, p. 44). However, we only *know* that one outcome is more probable than the rest—that the first ball will strike the second and the second propel forward—because we have already encoded sufficient memories from experience to know what happens when one dense object strikes another (and this encoding process depends, I should add, on native learning systems facilitating memory associations between temporally associated events—a basic insight of Hebb that has been refined over the years). Observing an anomalous outcome, such as the balls remaining at absolute rest after striking, would trigger a learned sense that something was not “right” about what we perceived (an effect that may explain our reaction to “unrealistic” plots). See Barsalou’s (inchoate yet plausible) theory of “property simulators” for an account of abstraction (2005a); his idea of “situated conceptualization” appears to achieve the same result more straightforwardly (2009).

into account. The purely affective report is either too physiological or it is too vague” (1958, p. 32). Neuroscience and grounded cognition in particular militate strongly against this claim, for now we can affirm that texts *do* recruit modality-specific systems responsible for producing mental imagery and intense feelings. The research of Stephen Kosslyn and others, for example, demonstrate that modality-specific systems underpin what we consciously experience as “mental imagery,” even if these systems generally process outside of conscious awareness, as Barsalou maintains (Kosslyn, 2005, p. 335). We also know that the very nature of encoding memory requires fidelity of the engram across subjects for object and event properties; without such fidelity (whose divergences I shall explore in the following chapters), we could not share a basic background sense of our environment and our relation to it (Barsalou, 2009; Martin, 2007). And as I argue in Chapter 4, we can also affirm that texts *do* evoke intense feelings with evaluative dimensions, and that certain types of literary content can reliably translate into emotionally salient situated simulations, even accounting for variations of understanding between readers. Thus, distinguishing between language and situated simulation allows us to escape the “hermeneutic circle”—the supposedly never-ending process of relating textual particulars to meaningful wholes—because at the level of situated simulation, all meaning is holistically rendered. (Even rendering a single word, like “tomato,” requires access to a multimodal, holistic impression—a textured, three-dimensional, colored, embodied representation.) As individual readers, we may not have conscious access to our own situated simulations, at every point along the way, but we can extrapolate from neuroscientific research to understand our literary experience, even the experience of other readers (Chapters 3 and 4).

2.4 Potential Problems with Barsalou’s Framework

Despite the cogency and general soundness of Barsalou’s theory of language comprehension, his framework presents potential problems. One is the possibility of confusing certain linguistic connotations with underlying neurological functions. Although Barsalou stresses the fact that what he calls “perceptual symbols” are organized neurological representations, and that language systems are dissociable from memory systems, he nevertheless seems to trade on the ordinary meanings of “symbol” by ascribing iconographic and language-like qualities to his “perceptual symbols.” As an example, consider the following description of perceptual symbol formation:

Once a perceptual state arises, a subset of it is extracted via selective attention and stored permanently in long-term memory. On later retrievals, this perceptual memory can function symbolically, standing for referents in the world, and

entering into symbol manipulation. As collections of perceptual symbols develop, they constitute the representations that underlie cognition. (1999, pp. 577–578)

However, the idea of multimodal representations “entering into symbol manipulation” after storage seems inconsistent with the distributed, as opposed to modular, nature of memory consolidation. Access to any particular thought, idea, concept, etc., involves distributed networks of stored information within specialized areas of the brain: tomatoes not only have characteristic textures and proprioceptive weights, but also smells and flavors. Thus, treating all of the constituent memories of a particular perceptual representation—a cat’s tail, color, meow, and movement—as a single collective “symbol”—CAT—risks hypostatizing explanatory constructs, “frames” or “symbols,” with their underlying neurophysiological compositions, “multimodal memories.” Following this line of reasoning, one could further argue that the idea of “a perceptual symbol system” commits a category mistake, where particular, distributed memories underpinning any given concept are confused with general subjective introspections. Mental representations may seem as if they were coherent modal symbols—i.e., thinking of a TEACUP seems to correspond with an organized representation of a teacup—yet it does not follow that the underlying neurological organization of everything associated with a teacup operates as a unified symbol.

I believe the possibility of Barsalou’s “symbol system” hypothesis committing a category mistake—or confusing its abstract constructs with neurological functions—does not present a serious challenge to his overall theory, however. There are two primary reasons for this. First, recall that all memories self-organize according to modality-specificity, e.g., visual memories underlying the concept of a BOLT are stored in the visual cortex, while the sound and action of a bolt falling onto sheet metal are stored in areas dedicated to movement and audition, respectively (Barsalou, 2008, p. 627). Now, it would be a category mistake to argue that a perceptual symbol must embody within itself all its possible simulations and situations, but Barsalou makes no such claim. Rather, he argues that

Whenever selective attention focuses consistently on some component (or components) of experience, knowledge of a category develops (cf. Schyns, Goldstone, & Thibaut, 1998). Each time a component is attended to, the information extracted becomes integrated with past information about the same component in memory. When attention focuses on a blue patch of colour, for

example, the information extracted is stored with previous memories of blue, thereby producing categorical knowledge for this component. Over time, myriad components accumulate memories in a similar manner, including objects, events, locations, times, introspective states, relations, roles, properties, and so forth. (2003, p. 514)

Thus, modality-specific memory formation over time *is* category formation. In the terms of situated simulation, “an *entire simulator*—not a specific perceptual representation—comes to stand for a category,” so that a simulator can then capture “a wide variety of knowledge about the category, making it general, not specific” (1999, p. 642). In this case, using general hypothetical terms such as “simulator,” “frame,” or “perceptual symbol” does not commit a category mistake because the underlying neurological systems themselves evince systems-level organization. Barsalou’s seemingly abstract terminology, though potentially misleading, is only an attempt to describe the concerted processing of numerous neurological systems during concept formation and retrieval.

Another concern is the metaphoric implication of “simulation.” In the work of Keith Oatley, for example, “simulation” is often used as a computer metaphor: “A play or novel runs on the minds of the audience or reader as a computer simulation runs on a computer” (1999, p. 105; 2011, p. 17). If this metaphor were to suggest anything concrete, as most metaphors do, then it could be taken to suggest that amodal scripts run on minds like programming languages run on computers, or that language comprehension is somehow “computer-script-like” in function. Extending the simulation metaphor in this way would be inconsistent with Barsalou’s use of the term, however. For Barsalou, simulation is an empiricist term: it means reactivating or “recapitulating” modal memories encoded from experience, memories housed in areas of the brain dedicated to modal kinds of perception (sight, sound, touch, vision, taste) (Addis, Pan, Vu, Laiser, & Schacter, 2009). Oatley’s use of simulation does something similar, insofar as he links simulation to *mimesis*, or world reflection; and in his later work, the *mimetic* sense of simulation is strengthened by references to research on “mirror neuron” function (2011, p. 20). Drawing on mirror neuron research, Oatley sees how “an action in the imagination when we hear or read about it” activates “brain systems responsible for initiating that action” (p. 20), a claim consistent with Barsalou’s theory that imagining an object or event re-activates the same underlying modal systems used to actually perceive, interact with, and encode memories from the same kinds of objects or events, in the world. According to this theory, imagining Juliet speaking from a balcony is correlative with actually perceiving an event of the same sort, so that

visual, kinetic, emotive, and whatever other systems we may use to perceive and interact with a young woman on a balcony reactivate, in concert, to simulate a world-correlative imaginary scene. It is unclear how much of Oatley's version of simulation entails a naturalized epistemology in the same fashion as Barsalou's theory. For Oatley, simulation is a computational, *mimetic*, and neurocognitive metaphor all at once, rather than a technical term synonymous with multimodal representation. Barsalou's work implies *mimesis* and neural computation, insofar as authorial texts simulate (or conceptually "represent" in Barsalou's technical sense) encoded sense-impressions drawn from life. Yet his version "representation" and "simulation" always link directly to memory formation and recall, more generally, so that having a thought, reverie, dream, or idea of any sort—even imagining something never before experienced, directly—entails the use of relevant memories drawn from experience (not image-like duplications of experienced events, but reactivated impressions encoded from experience). For Barsalou, then, "simulation" implies two things at once: that reading about "Juliet on the balcony" activates (1) the same neurological systems used to perceive real-life equivalents (visual systems for what a young woman look like, auditory systems for how she sounds, emotional systems for how she feels, etc.), even if we have not actually perceived them directly, and (2) that reading about Juliet *reactivates* our own memory impressions of young women, balconies, and relevant emotional memories stored from experience. Even *viewing* a performance of Juliet speaking on the balcony, rather than just reading about it, would still involve decoding what she *says* into multimodal representations woven from the fabric of our own memories (both those that are extratextual and remote—knowing what a "rose" is and how it smells—and those that are intratextual and proximal—what a "Montague" is in relation to a "Capulet"). This is why when we take (1) and (2) together—both the activation and reactivation of modal memories—Barsalou's use of simulation is an empiricist rather than a computational (or strictly *mimetic* term). There is therefore no danger of extending the metaphoric implications of simulation into the territory of running computer programs or re-presenting experiences isomorphically (as picture-like mental images rather than cognitively recombined sense impressions, or "compound ideas").

I should like to mention one last potential problem with Barsalou's framework, but only as a means of transitioning into subsequent chapters—namely, the neglected importance of endogenously generated feelings and social attitudes. There is sparse mention of emotion in

Barsalou’s primary research.⁵⁷ He suggests only in passing, for example, that emotion plays an important role for attention and introspection. He also fails to address whether emotion could modulate attention by selectively attuning to emotionally salient stimuli, or whether such selective attention could distort a perceptual representation. Indeed, thinking of the brain as a “perceptual symbol system” seems to imply that concept formation is a purely cognitive affair, for it is unclear how emotions could come to “symbolize” perceptual stimuli.

As it seems to me, however, Barsalou’s failure to incorporate emotion into his “language in situated simulation” theory of language comprehension is more incidental than intentional, a natural byproduct of focusing on perceptual representation. Barsalou readily concedes that emotional and perceptual systems interface in ways he has yet to account for in his framework (p. 655). Thankfully, there is a growing body of literature in the neurosciences covering the subject of emotion in relation to memory formation, and incorporating these literatures into grounded cognition is the subject of Chapter 4.

Before concluding this chapter I will demonstrate the process by which we translate text into simulated sensibilia. Consider William Carlos Williams’s “The Red Wheelbarrow”:

so much depends
upon

a red wheel
barrow

glazed with rain
water

beside the white
chickens.

When we read this poem, what happens? I will spare the reader a full analysis and concentrate on the opening two stanzas.

First, as many have noted, our attention is forced into a certain pace by compositional choices—line spacing, enjambment, etc. These choices perhaps add to the solemnity of the poem, independent of whatever its contents could “mean,” though there is nothing inherently special about forcing a reader to read at a certain pace. Controlling pace is just something any

⁵⁷ Since writing this paragraph, Barsalou, in collaboration with Lisa Feldman Barrett and others, has ventured into questions about emotion more directly, though the direction he has taken seems more on the social constructivist end of the spectrum than is necessary (perhaps owing to Barrett’s influence) (c.f. for example Wilson-Mendenhall et al., 2011). I shall address some of these more recent developments in later chapters.

poet discovers through trial and error, through the brute force of craft: if you want readers to read more slowly, then you need to mete out words more slowly. There is also a certain culturally prescribed pacing that we bring to “poetry,” as a genre, a pacing not found in prose. Most readers will have come into contact with “poetry culture” in one form or another: we learn that we don’t need to stop at the end of the first line, but should go on through and read the second at a normal pace: “so much depends . . . upon” rather than “so much depends upon.” We learn, also, that only a slight pause is needed after the first two lines, so that the poem is read not as four separate units, or “stanzas,” but as a kind of continuous whole with minor pauses. Williams’s poem may seem more “deep” if we read each stanza and then paused for dramatic effect, but “poetry culture” doesn’t offer particular prescriptions for how poems ought to be read to maximize their impact; “poetry culture” only sets up general expectations that poets then tinker with, and knowing about these expectations (or not) factors into reader-response criticism (and appreciation). I will return to the idea of “poetry culture” in Chapter 4, where I discuss how Williams’s poem might be understood in terms of its formal and valuative properties. For now I wish to consider only how readers simulate his poem’s contents, more generally, as an example of “how language works” from the standpoint of grounded cognition.

Starting with the first two lines—“so much depends / upon”—there seem to be two main simulators, one for magnitude (“so much”) and another for affective reliance (“depends upon”). Both simulators run seamlessly into one another, since “so much depends upon” is a common phrase. Even if we were not familiar with the phrase, however, we could still figure out what each term means in relation to the other, and so simulate all that is written, continuously, as if we were handed a single unit of meaning rather than disconnected morphemes. This is because we take in simulated sense in much the same way as we do perceived sense, and that is confluent: when turning our heads slowly to the side, we do not perceive all that comes before us with each adjustment of our eyes relative to our head, percept by percept, saccade by saccade; we just perceive everything as if it issued from a continuous perceptual stream.⁵⁸ For the same reason, we do not read word by word, as if each word were unrelated to the next: we take in what is read and simulate each bit of content as if they were given in a continuous stream

⁵⁸ “As if” is a key locution here. It would be more correct to say that our brains make us think that we perceive everything continuously. What we actually perceive, non-consciously, and how this seems to us, consciously, can differ. According to Ronald Rensink, for example, a sustained attentional feedback loop is needed to represent “objects” rather than ephemerally perceived “proto-objects”: we may think that we see a coffee-mug before us, but as soon as we “release attention” to this object and focus on something else, “the feedback loop is broken” and the “field then loses its coherence, with the object representation [coffee-mug] dissolving back into its constituent set of volatile proto-objects” (2002, p. 263).

of sensation. There is a 400 ms lag from reading to our ability to detect comprehension, so by the time our awareness catches up to what our brains have deciphered, it will seem as if we have read words sequentially, one-by-one, even though our brains may already *know* what the lines mean more holistically than sounding out each word would suggest. The reason for this apparent “pre-knowing” is that we comprehend what is read faster than we can keep track of our own comprehension. Sometimes, of course, we have to wait for comprehension to catch up to what we have read (when contents are difficult or unusual, for example, or when speaking in an undeveloped second-language). But in this case, “so much depends / upon” is rapidly deciphered; we know that a large magnitude is affectively reliant on something, though know not what (yet).

Enter the next two lines: “a red wheel / barrow.” Now we know that what so much depends upon, an object we simulate as if it were a coherent holistic unit, even though several specialized modal systems work concertedly to produce the effect: the left fusiform gyrus extracts and stores perceptual representations for colors (RED), the medial fusiform gyrus for tools (BARROW), and perhaps also a sense of motion for tool use in the lateral temporal cortex (if along with a barrow we simulate its procedural use).⁵⁹

Knowing which systems are active in the production of a mental image is less important than knowing that our ability to simulate this object, a red barrow—as with any object—is contingent on our having encoded memories for “red” and “barrows.” But understanding the object in question is also contingent on native systems able to comprehend colors and objects more generally: we need evolved neural architectures able to represent objects and properties before we can represent them, and these architectures help us decipher what we read if there are conceptual gaps in our understanding. So if you have never seen or heard of a “barrow” (and I have encountered some readers who have not understood what the word “barrow” meant in Williams’s poem, and so needed an explanation), then there will be a vague sense of a red thing, mound, or standalone wheel, perhaps (but this vague sense of *something* is better than nothing, and it is what neural architectures help us grasp even if we lack knowledge for barrows). Learning what a barrow is can be achieved with a dictionary or Google search, of course, and so access to the stimuli needed to comprehend what a “wheel barrow” is can be readily obtained. But knowing what the object is *used* for—gardening, for example—may not be understood for some readers, and so the overall “meaning” of the poem may differ on the basis of varying

⁵⁹ For an article on color representation, see Simmons et al. (2007). And for an article on object representation, see Martin (2007).

perceptual representations encoded for each of its objects (Chapters 2, 3, and 4 consider this problem from different angles).

Variations in “use” for kinds of objects led Wittgenstein to make a case for “language games,” but if we were to ask one-hundred English speaking students what Williams’s poem meant, evidence from studies on language comprehension would suggest that there ought to be considerable conceptual overlap, if not for the overall meaning of the poem, then for its *objects*, for its simulated imagery (Chapter 3). But is such object-level overlap in understanding enough to justify the idea that we all share “meaning” for Williams’s poem, in any broader sense? Is it really true that we all “perceive” roughly the same things when reading but then “appropriate” what we have understood differently?⁶⁰ By addressing these questions in the next chapter I hope to pave the way to understanding literary valuation and critical reception in Chapter 4, so that we can finally ask the hard question so many critics seem to take for granted, and that is whether any poetry, and Williams’ poem in particular, offers a shared sense of “meaning” in the broader sense—that is, whether the contents and form of a poem, play, or novel can offer “intrinsically” rewarding experience, or if the rewards a work offers are byproducts of “culture” (poetry culture, novel culture, and so forth). The answer may be more complicated than we might think, even for an apparently “simple” poem about a barrow and chickens.

⁶⁰ This is what David Bordwell argues in his essay on perception-comprehension-appropriation (2010).

3.0 Sense and Sensibilia

3.1 Overview

Philosophers have long dealt with precursors to grounded cognition, as noted at the outset of Barsalou's major work on the subject: Aristotle and Epicurus focused on mental representations; Locke, Berkeley, and Hume on empirical ideas; Kant, Reid, Russell, and Price on mental imagery (1999, p. 578). For each of these theorists, knowledge forms (in part or in whole) from perceptual exchanges with the world; this thesis was "widely accepted for two millennia" until "behaviorists and ordinary language philosophers successfully banished mental states from consideration in much of the scientific community, arguing that they were unscientific and led to confused views of human nature" (p. 578).

This chapter looks again at the philosophic status of "mental" and "feeling" states, especially as seen through "empiricist" and "anti-empiricist" lenses.⁶¹ Whenever we *feel* anxious, bored, or excited by a text, reader-response theorists need to know whether these feelings necessarily relate to what we read, whether they track "mental images" not necessarily related to textual prompts, or some other possibility. It is presumed that reading evokes feelings; otherwise we would not "enjoy" literature; but knowing precisely *how* and to what extent feelings factor into the reading experience needs clarification.

Most contemporary philosophic debates about the status of "feeling" and "emotion" revolve around the problem of "intentionality," or how objects and events enter into relationships with emotional responses.⁶² If I spill coffee on my keyboard and feel angry, then I may wonder whether "spilling coffee" or "frustration with myself for having spilled coffee" count as the "intentional object" of my anger (or perhaps both); in either case, though, my emotion is *about* something, an object of some sort ("spilling coffee" or "frustration with myself"). Intentional relations apply more complexly while reading, of course. If a fictional character spills coffee on his keyboard and I empathize with his plight, then I may still wonder whether I have responded to a mental image of the character's spilling coffee, and how *he* felt in that image, or if I am responding to *my own* sense of how it feels to spill coffee (or perhaps both). Whatever the case may be—even granting some false dilemma embedded in my examples—what makes an emotion or feeling "intentional" is its relationship with some object

⁶¹ Empiricism holds that thought-contents derive from perceptual experience (*a posteriori* knowledge, beliefs, ideas), while anti-empiricism holds that some thought-contents, usually the most important kinds, do not derive from experience, or require some type of rational agency to draw associations between percepts (such as *a priori* synthetic judgments), or in some cases pre-existing knowledge or "innate ideas."

⁶² See Charland (1997) for an overview of these problems.

or event (the “intentional object”). Intentionality, therefore, has nothing to do with the vernacular sense of “intending” to do such-and-such, as found in sentences like, “I intended to eat lunch earlier but forgot.” Intentionality, instead, only ever means, in philosophic parlance, that mental contents have “object-directness,” that mental contents are *about* perceived or otherwise “represented” objects and events. Intentionality thus signifies what is often referred to as the “aboutness” of cognitive contents, even if some philosophers disagree about what the “contents” of thought consist of (“mental images,” “propositional contents,” etc.) and where they come from (memory traces, linguistic enculturations, *habitus*, etc.).

Different philosophers have different takes on what “intentionality” means, of course, so there may be slight variations on the theme of what counts as the “intentional object.” To start, though, I shall briefly state what Franz Brentano meant by the term, since his approach more closely aligns with grounded cognition; then I shall contrast Brentano’s version of intentionality with other philosophic uses of the term that I find problematic.

Brentano, an empiricist philosopher, (re)introduced “intentionality” into philosophic parlance in 1874, taking his cue from the medieval scholastic term *intentio*, meaning “ideas or representations of things formed by the mind” (Honderich, 2005, p. 438).⁶³ That we “represent” objects in the world, mentally, is central to many interpretations of intentionality, though today the term, in its most basic usage, stresses the intrinsic relationship between cognition—thoughts, concepts, knowledge—and sensed or perceived objects and events *in* the world.⁶⁴ What has become known as “Brentano’s thesis” extends the idea of aboutness so that intentionality becomes *the* “mark of the mental,” more broadly. In other words, according to Brentano’s thesis, *all* our ideas, thoughts, concepts, and emotions are *about* sensed, sensible, or imaginable stimuli in or from the world.⁶⁵ To use an unfashionable yet no less apt term, Brentano’s thesis

⁶³ Brentano never himself used the term “intentionality” but only “intentional inexistence” and “intentional relations,” but the concept “intentionality” is rightly attributed to him (Moran, 1996, p. 5).

⁶⁴ “In the world” includes, for Russell and others, properties in our bodies that also, counterintuitively, count as object in the world—i.e., when our brains form proprioceptions about what is happening in our stomachs, the proprioception is about an object in the world that is also in our bodies (1957). This line, as I shall discuss later, can run into trouble when we recognize that our own feeling states count as intentional objects that may or may not relate to objects in the world. Also, I put “represent” in quotes in this sentence since some philosophers, as mentioned in a footnote in the preamble, reject the idea that we “represent” anything *in* the brain (Noë, 2009). I shall try not to get mired in these debates here, or the contentions between semantic “externalists” and “internalists.” For an introduction to related debates, see Laurence Bonjour’s overview of internalism/externalism (2002) and Craig DeLancey’s *Passionate Engines* (2002).

⁶⁵ Some philosophers have taken Brentano’s thesis as a dualistic doctrine (Daniel Dennett & Haugeland). This interpretation is inconsistent with Brentano’s original formulation, however (Moran, 1996, pp. 16–17).

claims that mental contents are only ever *about* “sensibilia,” or all that can in theory be sensed or perceived (B. Russell, 1957, pp. 140–174).⁶⁶

Now in relation to these ideas, the central position advanced in this chapter is this: grounded cognition is essentially a modern, coherent theory of intentionality whose basic premises suggest an updated, more nuanced version of Brentano’s thesis—namely, that cognition is intrinsically *about* perceived or sensed objects and events (consciously or unconsciously) encoded into multimodal memory, including “composite” objects and events acquired from simulation alone (e.g., centaurs, vampires, and zombies, and gods). This version of Brentano’s thesis—or what I shall call “neuro-intentionalism”—has a distinctly different flavor from other versions whose claims I shall canvas and critique (especially versions of intentionality that reject the idea that mental states are modal memories, or “anti-empiricist” theories of intentionality).

Adopting a neuro-intentionalist stance is different from other versions of intentionalism in two main respects that I shall consider throughout: the first is that it may offer a solution to the problem of “mental composition” discussed in the preamble, or trying to sort out what the “stuff” in our heads is, where it comes from, and how it factors into reading comprehension; and the second is understanding how the mental stuff “in” our heads (even if the stuff comes from things in the world) affects our bodies while reading, or how what we understand from the text makes us feel. If how we *feel* about a work suggests something about how we *value* the work’s properties (as I shall propose in Chapter 4), then understanding the relation between reader-response feelings and simulated contents is crucial.

However, as we shall see, some philosophers have questioned whether “emotional sensations” track objects and events in the world, as encoded in the mind, or even whether “sensations” suggest anything at all about underlying mental states, even emotions (Wollheim, 1999). Again, such challenges become even more difficult when we consider sensations felt while reading. Do bodily sensations track *simulated* objects and events, and if so how closely? Some may argue that bodily feedback does not bear any strong *causal* relation with simulated properties. E.g., if while reading *Pride and Prejudice* I felt a distinct repugnancy while Mr. Collins boasted of his connections with society, or if *Gulliver’s Travels* brought me to the verge of laughter while reading about self-important scholars living on a floating island, then in each

⁶⁶ J. L. Austin, an ordinary language philosopher, contributed to making the terms “sensibilia” and “sense-data” unfashionable in his published critique of Ayer and Price, from which I have borrowed the title of this chapter (1962). As I shall stipulate, I mean to use “sensibilia” and “sense-data” not in the phenomenalist sense, which Austin saw as problematic, but in the “indirect realist” sense. For an overview of phenomenalist versus realist approaches to sense-data and sensibilia, see deVries, Triplett, and Sellars (2000, pp. 2–7).

case my *feelings* would amount to, well, just that—*my* feelings. They would be “subjective,” autonomic responses bearing no *necessary* relation to textual prompts. I shall argue, contrary to this view, that *feeling* emotional sensations is not an exceptional case distinct from other kinds of cognitive representation, where what we “know” seems bound up with what we read. I shall argue that feelings do in fact track simulated properties, and that how we feel can be integral to having an emotion while reading. In this way, reassessing the nature of emotional sensations strategically links to a broader reassessment of reader-response emotions, and especially to the problem of divergence outlined in the preamble.

3.2 Intentionality, Empiricism, and Anti-empiricism

Most literary scholars, judging from the paucity of coverage in anthologized volumes on literary theory and criticism, pay little mind to the technical, philosophic dimensions of “intentionality” (again, a term roughly denoting a relation between “cognitive contents”—such as having ideas about or fearing bears—and objects and events in the world or body—the properties of actual bears). One can form intentional representations of non-actual objects, such as unicorns, but what makes such representations *intentional*, in any case—following Brentano’s thesis at least—is that they relate to real objects and events in the world as we understand them, such as knowing about horns and horses (a thesis I shall develop further).

So again, in its most straightforward sense, we say that mental contents are “intentional,” or possess intentionality, if they are *about* objects or events in the world (or are at least about extractable properties of objects and events, such as textures, forms, etc.). The most straightforward meaning of “intentionality” thus holds that reading about bears, vampires, or whatever, invokes intentional contents that actually *relate*, directly or indirectly, to percipient properties in the world, namely, to bears, humans, fangs, blood, etc.; this relation secures a sense of realism about whatever we read, even if the simulated objects in question have no realistic existence. Intentionality is thus a kind of object-directed cognition about things that we sense to be more or less possible, even if they are as yet impossible (as in a sci-fi novel). I shall return to this straightforward sense of intentionality, given its extreme importance for reader-response theory, but first it would be useful to consider alternative approaches to the term and the problems they introduce.

Today, most debate on the nature of intentionality seems restricted to philosophy proper, though some contemporary literary theorists incorporate the term into their interpretive frameworks. An example would be E. D. Hirsch’s much discussed essay “Objective

Interpretation,” where intentionality is defined, *qua* Husserl, as the “relation between an act of awareness and its object,” and so for Hirsch, intentionality is “roughly equivalent to ‘awareness’” itself (1960, p. 467). When applied to reading literature, Hirsch maintains that “verbal meaning” entails consciously perceiving “a special kind of intentional object” whose conceptual content is “unchanging” and “supra-personal” (p. 467). If I understand this view correctly, then it would seem that whatever is simulated in the mind’s eye is both conscious and refers to some verbal object with a fixed meaning, so that your simulation of “bears” is the same as mine, since “bears” are “supra-personal” verbal objects that we all understand. It is unclear whether Hirsch intends to think of verbal objects as amodal (non-experience-based), yet he does explicitly contrast “verbal meaning” and (experience-based) “private associations” (p. 470).

Charles Altieri also puts “intentionality” to use. His *Particulars of Rapture* criticizes “cognitivist” approaches to intentionality for “reducing” emotions to objective, “adjectival” descriptions of beliefs; doing so, Altieri warns, strips emotions of their more nuanced, subjective, “adverbial” features (2003, p. 10). On this view feeling “angry” is not always a unitary expression, since we can feel a type of anger admitting “a dose of irony mixed with the enjoyment of our own rectitude and the capacity to dwell in admittedly fictive modes of revenge” (2003, p. 24). I gather from the context of Altieri’s arguments that he is worried about the ramifications of a strictly held “Brentano’s thesis” for emotions; if such a thesis were true, he seems to think, then all emotions must be yoked to intentionally related objects of some descriptive kind, objects that cannot be comprehended with any “adverbial,” subjective variation (e.g., if “bears” must be understood, *qua* the actual objects in the world, then thinking of bears “adverbially,” with a range of senses irreducible to bear-properties in the world, would be impermissible or descriptively aberrant).

And most recently, Ruth Leys has argued that some theories of emotion—such as those developed by Paul Ekman and Silvan Tomkins—no longer concern themselves with “intentional” contents, with the object-directedness of emotions and their dependence on “desires and beliefs about the world” (2010, p. 68). The “anti-intentionalism” found in Ekman/Tomkins, she argues, is a mistake, for it ignores what is unique about each individual’s emotional aboutness, namely, *their* sense of the world. On this view, our sense of what is emotional is individualized—it is distinct with respect to the objects of our particular contexts and backgrounds, and so what *you* find emotional may not share properties with what *I* find emotional.

Hirsch, Altieri, and Leys, though their views differ widely in some respects, seem concerned with the overriding importance of human *consciousness* in the making of emotion and meaning. For Hirsch, consciousness is endemic to “objective” meaning. For Altieri and Leys, consciousness is the source of rich human agency, subjectivity, and contextualized sensibilities. Hirsch wishes to limit interpretive plurality, while Altieri and Leys wish to multiply pluralistic possibilities. For Leys especially the intentional context of an emotion—e.g., feeling not only “fear” for some object but a peculiar, personal fear *of* horses (to use her example)—*determines* the nature of an emotion more than any underlying neurological system, and in fact overrides those systems (p. 83). For Leys, then, intentionality upholds a “social constructivist” account of emotions—a pluralizing approach—whereas other theorists, such as Hirsch, have used intentionality to achieve the opposite result—a type of universalizing approach.

Some theorists avoid these two extremes and successfully bridge personal experience with universal native systems. Martha Nussbaum is one such theorist, whose work has influenced my understanding of intentionality and emotion (2004). For Nussbaum, an intentional object is not just a thing passively perceived or simulated; rather, intentional objects often involve intimate relations with subjects (individuals), even if the objects in question also have intersubjective properties (publically accessible and understood qualities and forms). Emotions, especially, are not just “*about* their objects merely in the sense of being pointed at them and let go, the way an arrow is let go against its target. Their aboutness is more internal and embodies a way of seeing,” a way of “looking at it, so to speak, through one’s own window” (original emphasis, p. 188). For Nussbaum, then, emotions apparently involve a perspectival dimension of *value* (p. 189), a possibility considered in Chapter 4. If so, then we may value objects differently, depending on our unique background relations to them (to use Nussbaum’s example, I can only fear the death of my mother because she is *my* mother; others cannot feel this way because they lack my background relation to my mother). That we may adopt unique, perhaps even divergent values for the same object does not mean that emotions lack universality, however. This is because emotions “are elements of our common animality with considerable adaptive significance: so their biological basis is likely to be common to all” (2001, p. 141).

Like Nussbaum, I should like to steer a middle path, one that accommodates pluralistic “aboutness” and universal elements of perception and emotion. If grounded cognition is correct,

I shall argue, then experientially acquired intentional contents instantiate within evolved architectures in the brain, architectures that allow us to perceive and emote to learned contents in similar ways, across subjects and cultures. How “similar” is a subject of debate, as we shall see, yet the gist of the position I shall develop is that “native” architectures in the brain constrain how anyone perceives, encodes, and responds to “natural kinds” of intentional properties. As an example, one reader may have actually encoded memories for “bears” by perceiving them in the wild, while another may have only ever read about bears, without ever seeing them. Both readers thus ought to have different senses of what bears are like. Even so, I should like to suggest that in this example both readers may understand and respond to bears with shared kinds of sensibilia. This argument shall require “proof” that emotional reactions—and the representational properties they predicate upon—share “natural kinds” of property across subjects, even if many emotional reactions may be uniquely contextualized or culturally inflected (LeDoux, 2012; Panksepp, 2005). What “natural kinds” of property amount to, both for emotions and simulations, will be addressed below, along with surrounding debates.

Now that I have staked out my general motive, vis-à-vis intentionality, some caveats ought to be mentioned before moving on. By saying that emotions must share properties across subjects, I am not disavowing differences between human, primate, and rodent cognition, as some philosophers would suggest, nor am I arguing that enculturation only moderately impacts emotional expression. Most research on emotion notes significant differences between species, even when emotional structures are homologous, as they are between rats and humans; and an empiricist understanding of mental contents is especially sensitive to the unique role culture plays in our understanding of intentional objects. So my argument is not adjudicating between empiricist and nativist positions; rather, it attempts to encompass and explain both strong nativist and empiricist accounts without denying either position’s unique contributions. The argument runs like this: whatever distinguishes human “consciousness” from other species’ sense of awareness, though undoubtedly significant, cannot constitute in itself a new biologic *kind* of intentionality, one that is purely governed by human-specific cultural contexts.⁶⁷ On this argument unique social contexts and learned behavior—however influential they may be—cannot altogether uproot or replace our biological inheritance, one that extends to other mammalian species such as rats and non-human primates. The more biologically comprehensive

⁶⁷ This position, developed by Lisa Feldman Barrett, rejects the nativist position that there are innate, pre-organized structures in the brain that allow for certain basic kinds of emotional expression (fear, joy, etc.), and opts instead for the idea that all emotions are socially constructed (2006). A more modest approach to the effects of culture on emotion may be found in Jesse Prinz’s *Emotional Construction of Morals*, though at times his arguments go too far in downplaying the role of native systems (2007).

view of intentionality, then, acknowledges that (a) the evolved function of memory is to accurately reflect perceived properties, even if memory often fails to achieve this function; so by the sheer fact that we share perceptual architectures, we also share encoded properties from the world; and (b) that humans are capable of extending the range of possible intentional relations through complex conceptual combinations of encoded properties (e.g., imagining that a bear could be humorous, that a horse could have a horn, etc.). On this view, what is “unconscious” and common to human nature—the functioning of pre-organized emotional systems, for example—affects intentionality as much as what is “conscious” and uncommon—such as experientially acquired (“learned” in the most basic sense) differences between individuals and groups, cultural customs and habit formations.

If (a) and (b) are correct, then the evolutionary grounding of intentional contents challenges Hirsch’s, Altieri’s, and Leys’ implicit assumption that intentionality is qualitatively unique to *human* consciousness and the complex contexts *humans* inhabit. I shall call this alternative approach offered by (a) and (b) “neuro-intentionalism,” since it differs from other views of intentionality in its acceptance of culturally inflected knowledge, on the one hand, and shared properties of reader-response comprehension, on the other (both in terms of common knowledge about the world and shared “native” systems).

Caveats aside, I shall begin developing neuro-intentionalism with a restatement of grounded cognition’s most fundamental principle, namely, that there is a profound difference between characterizing and expressing beliefs, desires, and narratives *with* language, on the one hand, and the modal contents underpinning beliefs, desires, and narratives, on the other. If the brain is a composite of modality-specific systems—for sight, sound, touch, etc.—and if these systems must be recruited in the service of executive functioning, then intentionality needs to accommodate the instantiation of *modal* neuro-representations (of perceived objects and events in the world that have been encoded into remote memory). If for example I have encoded sense data for “bears” and simulate a “bear” while reading, then my simulation secures intentional status insofar as it “re-presents” object properties in the world; this time, however, the object in the “world” is reproduced in my head—it is about a simulated sense of a bear. The difference between actually perceived and simulated intentional objects introduces additional complexities that I shall need to address (such as knowing how to reconcile *your* distinct simulated contents with *mine*, or knowing to what extent they can be different, and for what reasons); yet, as I shall

show, the complexities of neuro-intentionalism can be seen as offering greater critical flexibility, not additional problems.

What matters more are the overall gains made by neuro-intentionalism. By now it should be obvious, for example, that neuro-intentionalism solves the “composition problem” discussed in the preamble: that when we perceive, read, and remember anything from a work of art, the stuff in our heads is memory *of* perceived properties. What I shall try to show next, however, is that solving the composition problem is less important than knowing what the stuff in our heads—“memories of perceived properties”—achieves for reader-response epistemology. My general position will consider the merit of two claims: (one) that neuro-intentionalism sets limits on knowledge (so that whatever we can *possibly* know derives from experienced properties in the world) and (two) that neuro-intentionalism grounds individual and collective knowledge in contextualized sensibilia (so that whatever we *do* know—our understanding of each other and the world—has been encoded from perceived properties *in* the world as we know it). The first claim suggests that all simulated contents—characters, zombies, androids, etc.—have been constructed from previously encoded memories for objects and events in the world; while the second claim suggests that both convergent and divergent comprehension is governed by what each of us knows of the world from *our* experiential backdrops, along with whatever attitudes and preferences we may hold about kinds and types of properties.

“Intentional objects” from a neuro-intentionalist standpoint are thus modal memories with an inborn aboutness, since all remote memory is acquired from percipient properties in the world (not only properties from “private” worlds but from “public” worlds with shared sensibilia).⁶⁸ Hirsch, Herman, and others, by contrast, view “intentional objects” not as psychophysical properties (modal memories) but transcendent, *conceptual* objects conveyed by language, a view that stresses the importance of “supra-personal” (or non-psychological) Fregean meanings and senses behind verbal utterances.⁶⁹ This view, sometimes broadly characterized as “propositionalism,” represents an *anti-empiricist* theory of intentionality, for it opposes the view that the contents of cognition—thought, belief, imagination, and the like—derive from or are composed of experiential data, or transduced stimuli from the world. Propositionalism maintains that intentional objects share, as Wollheim puts it, “a common

⁶⁸ In the next chapter I shall explore how “subjective” and “objective” reader-response properties may be delineated.

⁶⁹ Frege rigidly distinguished between objective senses (*Sinne*) and subjective ideas (*Vorstellungen*), situating the former within the realm of propositional logic and the latter in the realm of subjective experience (1977, p. 160). From the standpoint of grounded cognition, however, *Sinne* fundamentally overlaps *Vorstellungen*. Many analytic philosophers, following Frege, feared that if the contents of thought were derived from sense impressions then logic would become “psychologized” and its claims to objectivity diminished (Glock, 2008, p. 125; Kenny, 1995, p. 5).

sentential content” as opposed to some other kind of content (like modal memory, simulators, etc.) (1999, p. 20). Grounded cognition, as we know, runs contrariwise to this trend, or to any theory that lends a semantic or meta-organizing role to Language. But what this means for reader-response epistemology needs further explanation.

The better approach to intentionality, elaborated in the next section, requires abandoning the idea that “propositional” contents or language-based “narratives” account for the intentional relations of cognition and saying, more precisely, that modal memories map extensional objects, whether the latter are exogenously perceived or endogenously represented. Again, this means that intentional objects are physically bound to the properties of sense perception, both as seen and simulated. Propositions and narratives, by contrast, only ever *communicate* representational contents deciphered and decoded from language. We draw on modal memories to make assertions, tell stories, and comprehend literature, not the other way around: assertions, stories, and literary works cannot make sense of themselves. This is the basic thrust of “neuro-intentionalism” whose (more important) consequences I shall briefly elaborate before venturing into anti-empiricist positions, and why they put reader-response theory on the wrong track.

First it may be helpful to see how neuro-intentionalism is “empiricist” from the standpoint of reader-response reception. Consider once more intentionality’s most basic meaning: *object-directed cognition*. A direct example of this kind of cognition would be fearing a snake, where fear (the cognitive- or thought-content) is *directed towards* a snake. In this direct example what secures an “intentional relationship” is that there is a cognitive state (fear) that is directed towards an object (a snake). Now consider an indirect example: when we *read* about a dangerous situation featuring a snake, what we fear is not an actual snake, but a representation of a snake. Now some—such as H. H. Price—have said that when we perceive objects, directly, we still need to “represent” what we have perceived (insofar as perceived stimuli need to be “transduced” by the eyes, brain, and body before we can register whether the object before us is a snake rather than a twig). To keep things simple, however, we might say that when we see a snake, directly, then its stimuli are “presented,” while reading about a snake involves “re-presenting” knowledge of snakes acquired from first-hand *presentations*. Setting aside such technicalities, for now, what is important to recognize is that for both types of intentional relation—direct and indirect—there is an *object* provoking a response (one that is directly perceived and another indirectly simulated). This relationship between perceived and simulated objects is important. For one, the *perceptual* origins of memory shown in the direct example—

our having actually seen, heard, and felt a snake—factors profoundly into *our* meanings and imaginings of objects and events while reading. Each of us has likely encoded memories for the “simulator” SNAKE within varying contexts (“gardener snake,” “diamond back,” “garden,” “southern New Mexico,” etc.), and so there is clearly a process of “psychologization” that takes place for our understanding of the world, as Frege feared.⁷⁰ And so it is sometimes argued that if you have a different background relation to objects and events than me, then your representations—in *your* mind’s eye—will differ from mine (resulting in a kind of “constructive empiricism”). This possibility opens the door to unexpected, experientially inflected differences of understanding (not necessarily “subjective” differences, as we shall see in the next chapter, but differences that make understanding between individuals “perspectivally” variant). Yet it is also this (supposedly) troubled relationship between a subject’s background knowledge of—and preferences for—objects and events that has led some philosophers to counter the empiricist program altogether (Frege reacted against Mill, Austin against Price, etc.). The worry of these philosophers is that *your* sense of “red wheelbarrows,” “snakes,” and whatever else, cannot be the same as *my* sense, so that what you see in a work is not at all what I see; and if this lack of fidelity between percepts and objects is the result of an empiricist approach to thought-contents, then the only solution (according to many twentieth century philosophers) is to secure stronger relations through non-empiricist epistemologies (hence the “linguistic turn” and other movements).

When it comes to *fictional* representations, moreover, the presumed breakdown of mind–world mirroring becomes all the more pointed. Fictional objects, some argue, are fundamentally unlike real objects: the one is “mental” and introspective while the other is “material” and extrospective. I can check the stove to see whether I left it on, because the stove is an extended object *outside* the mind, but I cannot check a fictional character in the same way. I cannot determine, for instance, whether Mr. Wickham in *Pride and Prejudice* was truly a scoundrel or only systematically misrepresented by his peers. One could argue persuasively that Mr. Darcy, motivated by sexual rivalry, feigned or exaggerated impartiality in his missive about Mr. Wickham’s ignoble character, leaving Elizabeth (and the reader by proxy) with a biased impression, one that we cannot confirm or deny. As far as such an argument goes, it would seem that we have no means of corroborating “the facts” about Mr. Wickham’s character, since he resides in a fictional world without any mind-independent realities that we can measure or test—we only know of Mr. Wickham’s character through second-hand reports, not direct

⁷⁰ See Frege’s famous discussion of different conceptions of “Bucephalus,” for example (1948, p. 212).

observation. The only true “facts” in *Pride and Prejudice* are ink patterns on paper (or the grooves of braille, the sounds of an audiotape version of the novel, etc.); but if we can reliably point to concepts from these facts, then there may be something “fact-like” about inferring directly from textual prompts to kinds of content: we could say, for example, that it is basically “fact-like” that Darcy lived at Pemberley rather than Longbourn, because there is no textual ambiguity about where Darcy lived (the ink or braille or whatever other kinds of pattern just cannot be rearranged to make another type of pattern).

However interesting such puzzles may be, I am not concerned with them, directly—at least not yet—because grounded cognition provides a sufficiently strong framework for reliably linking ink, braille, or other word patterns with simulated kinds of property, as argued consistently up to this point. Instead, I raise the issue of “possible fictional worlds” for the sake of getting at a broader issue with deeper consequences, and that is determining the *epistemological* status of fictional versus real contents. I should like to know (so I can face, in good conscience, the worries Frege and others have raised about “psychologized” contents) whether (a) there is a major difference between simulated and real properties, so that what we read and comprehend is not at all like what we perceive and recognize in the world, or (b) that there is enough similarity between “simulated” and everyday “perceptual” properties to say that what obtains for the latter obtains for the former, *mutatis mutandis*. The outcome of this problem will have significant consequences for what can be claimed, later, about interpretive warrant and literary value (Chapters 4 and 5).

Grounded cognition, I shall argue, needs to solve not only the “problem of composition”—what’s in our heads—but also the “problem of semantic divergence,” or whether what’s in our heads is epistemically corrigible (whether our mental contents share kinds of property in the same way that our perceptual fields, when looking at publicly accessible objects, share properties). Understanding semantic divergences requires knowing whether (a) or (b) is true. If (a), then the conditions allowing us to “see much the same things” when gazing out at the world will not obtain for *simulating* objects in fictional worlds. If (b), then our simulated sense will at least be as stable as everyday sense (accounting for all the fuzziness of memory and other problems).

Indeed, semantic divergences can be much more recalcitrant than some theories would have us believe, such as David Bordwell’s “perception-comprehension-appropriation” model of semantics (2010). On this model, we all perceive things in much the same way, so that when

two different individuals, with different backgrounds and preferences, view a Jackie Chan film, they will share a common “perceptual” understanding; writ large, this model suggests that perceptual understanding converges across individuals and groups (p. 278). Divergence, on the other hand, takes place mainly when we “interpret” perceptual contents differently, though only after these contents have been “perceived” in much the same way (first we perceive: “all TV viewers watching the horrendous crash of the airliners into the World Trade Center saw and heard the event in the same way”; and then we interpret or “appropriate” what we have perceived: “Having seen the Trade Towers assault, viewers interpreted its significance in different ways—as an act of war, as a response to globalization, and/or as a counterthrust to U.S. imperial ambitions” [p. 272–3]).

From the standpoint of grounded cognition, however, Bordwell’s model does not get things altogether right, since we do not literally “see the same things” when simulating fictional objects and events, as we perhaps do when seeing fictional objects on a movie or TV screen; rather, we draw on our own background knowledge and preferences to “see” what objects and events mean, fictionally. This need not imply, as I have already stressed, that how we simulate fictional worlds must be radically different between readers (a point that I shall further develop below); but what it does mean is that reading comprehension, unlike watching a film, can be much more complicated (a complication that extends to filmic dialogues as well, as Bordwell notes, whenever narrated contents need to be simulated before they can be understood [p. 276]). The crucial difference between Bordwell’s theory and grounded cognition is that response divergence can happen for multiple reasons apart from how we “appropriate” and “understand” a work’s contents, after perceiving them, since (as I shall explain further in Chapter 4) two readers can simulate and respond to a work quite differently during the earliest stages of perception *and* after they have reflected upon what they have perceived and then understood. Divergence can thus happen from the “bottom-up” *and/or* the “top-down,” from involuntary *and/or* acquired differences in memory, whereas Bordwell believes that semantic divergence does not really happen that much at the level of perception, and only “varies in degree” at the level of comprehension (p. 276). From the grounded cognition standpoint, however, it is much more difficult to dissociate perceptual events from comprehension events, since what we simulate is perception-like, and so what we understand is often (a) contingent on the nature of simulated perceptions that, as Bordwell says, “aren’t simply given,” and (b) how much these perceptions align with our understanding of the text (p. 271).

To see how complicated things can get, we might consider that a Burmese Buddhist has come to think of all cows as sacred, not just through cultural ascription but from having been raised in unique environmental contexts, where cows lounge about the streets and pull carts in religious parades. This means that a Burmese Buddhist has encoded stimuli about cows quite distinctly from, say, a career butcher, who has routinely slaughtered and processed cows for a living. Both the butcher and Buddhist will certainly share encoded properties for cows, since all cows possess characteristics that both the butcher and Buddhist will have committed to memory (four legs, moist nose, mooing, etc.); yet the butcher and Buddhist will also have encoded *additional* data about cows that the other does not possess, at least not in terms of either's routine sense of what "cows" mean (e.g., most butchers will not think of cows as sacred or integral to religious beliefs, and most Burmese Buddhists will not have any procedural memory for "processing" cattle for the market). Thus, different background exposures to commonly perceived objects embody additional properties for those objects, and additional properties modulate simulation. On this view, a butcher and Buddhist (at least like the ones in my example) may not share the same "perceptions" while simulating cows, *pace* Bordwell, because what they understand requires a simulated experience that recruits different senses of the same object (which isn't as much a problem for film or everyday perception). Thus, the butcher and Buddhist's simulated sense (which is at the bottom-up perception stage, in Bordwell's terminology) converges only insofar as both share embodied properties, and diverges only insofar both have different encoded data and values factoring into their simulations.

Frege worried that empiricists made understanding the world's objects like Buddhists and butchers seeing cows. Yet an empiricist need not suppose that different backgrounds and norms override common responses to kinds of stimuli, nor must empiricists suppose that distinctly different backgrounds deny epistemic corrigibility between them. Both a Burmese Buddhist and butcher will run from a charging bull, because both share underlying neurobiological systems alerting them to threatening kinds of stimuli (a view Leys rejects). Likewise, if *fictional* characters were running from a charging bull, then a Buddhist and butcher would simulate *this* episode in much the same way and feel much the same kind of response (though perhaps not for other events featuring non-threatening bulls). This argument suggests that textual codes can set up the right sequence of simulated events to avoid divergent responses; ambiguities can be avoided with cautious developments; yet at the same time, given the nature of simulation—where each of us recruits our own memories to understand textual

codes—we cannot help diverging in our understanding at various points while reading the same text. Neuro-intentionalism thus offers a cogent explanation of both convergent and divergent responses, without presuming that either one or the other must predominate (since readers may comprehend many things within a text similarly, even if their understanding diverges at various points from a representational norm—a point that shall be elaborated in the next chapter).

To end this section let me briefly take stock of the arguments developed so far. First, the “stuff of thought” is actually the “thought of stuff” from the world: what is in our heads is a mental menagerie of encoded object- and event-properties, or sensibilia encoded into perceptual representations; we encounter the “stuff of thought” from early development onwards—a developmental process that is taken for granted, and imbues us with both sense and sensibility. The world thus inscribes itself within us, and we use language to reflect what has been inscribed, yet the brain is not a passive receptacle (a photographic memory bank or wax tablet). Rather, there is a physiological relation between perception and conception, a relation that has developed over evolutionary time, not historical time, and so has endowed us with a collection of specialized systems *allowing* us to perceive and conceive properties in predictable ways. Neuro-intentionalism describes this relationship between ideas and encoded properties in the world.

3.3 Empiricism and its Discontents

Some philosophers have argued that we can *value* a work apart from the experience it offers, which would seem to implicate some type of anti-empiricist stance on interpretation (see for example Sharpe, 2000). But to what extent could it be true to say that we can value or understand works apart from our experience of them? From an empiricist standpoint, such a thesis would seem impossible, since all we can understand about anything is contingent on encoded impressions from the world. In this section I shall explore the various ways in which philosophers have tried to take a stand against an empiricist reader-response epistemology.

One of the most familiar anti-empiricist positions comes from an interpretation of Descartes, and as we shall see, it shares some surprising affinities with language-based semantics. The interpretation runs like this: there are Cartesian “intellective ideas” that function independently from “the operations of the body’s sensory apparatus” (Deigh, 2004, p. 12). This special class of ideas function “apart from the sensory images and internal feelings they” may produce (p. 12).⁷¹ What distinguishes intellective ideas from those “common to both humans

⁷¹ Deigh is “interpreting” Descartes, as noted. Vendler points out that Descartes himself equivocates on the function of sensation in thought and imagination (1972, pp. 149–152).

and beasts” is their *linguistic* nature (p. 14), a nature that is “radically unlike” the kinds of ideas found in other animals, allowing humans to communicate the kinds of thoughts that only “words and sentences” can express (p. 12). Intellective ideas—like mentalese—are thus *amodal* and so intrinsically extra-sensory; they provide us with knowledge about the world disconnected from perceptually encoded sense impressions. Only humans possess this special class of amodal intellective ideas, Deigh believes, and so “cognitivist theories of emotions” must “abandon giving a uniform account of the thoughts in virtue of which emotions are intentional states,” since for humans emotional intentionality can take two—not one—form: intentional contents can be either empirical or extra-empirical, purely instinctual (as found in other animals) or predicated on language-like thoughts (which only humans possess) (p. 14).

We thus arrive at a curious entanglement between anti-empiricism and emotional intentionality. For Deigh, humans may possess a unique kind of “intentional state” that involves propositional thought about some object; it is this kind of thought that gives “meaning to the feelings, behavior, and bodily conditions” of an emotion (p. 25). What follows is that we can only distinguish between different kinds of emotions, in humans, by identifying their underlying amodal (propositional) contents, not their “neurophysiological” characteristics or mental imagery. Cartesian “intellective ideas” therefore solve the mystery of “[w]hat we now call concepts and the propositions they help to constitute” (p. 14). Deigh’s position thus seems representative of twentieth century ordinary language philosophers’ reaction to “psychologizing” mental contents, as noted by Barsalou at the start of this chapter.

Deigh’s views have some serious drawbacks, however. First, and most obviously, Deigh commits the mistake of language-based semantics, where thoughts, concepts, and beliefs become confounded with the *prima facie* qualities of language. To be sure, Deigh cautions against “making the possession of linguistic capacities a condition of being liable to emotions,” but he does so only to acknowledge that humans have non-linguistic “primitive emotions” as well as advanced language-based emotions (p. 11). For Deigh, the mark of the mental (for humans) is the *intrinsically* linguistic nature of thought-contents, which constitute systems of belief exclusive from multimodal memory (from neuro-intentional properties). The nature of human concepts, on Deigh’s account, is therefore much the same as Hirsch’s and other anti-empiricists.

Now it would seem the common thread for such thinkers is that “concepts” (as opposed to mental images) are amodal, supra-personal, and *nominally* “objective” rather than modal,

personal, and *empirically* “subjective.”⁷² This view, though similar to language-based semantics, has other nuanced entailments that I should like to explore (as a way to solidify neuro-intentionalism). Specifically, I should like to address the belief that some kinds of emotion depend on linguistic concepts, not mental imagery. As an example of these kinds of emotions, Deigh has us consider why it is that teenage girls can scream and cry when witnessing a famous rock-band (p. 22). Crying and screaming is usually associated with a “basic” emotion, such as grief, the kind of emotion that is instinctive and stimulus driven. Yet as we know, there is no primitive stimulus guiding what the girls see and respond to; some other kind of intentional object must therefore be causing the girls’ reaction, a kind that is extra-sensory (nothing about a rock-band’s properties, as perceived, ought to prompt crying and screaming). Deigh’s theory puts forward a solution: what the girls respond to is not what they see but an “intellective idea” about the rock-band’s significance, an idea built upon the kind of thoughts that only “words and sentences can express” (p.12; p. 22). Barsalou has made a strong case that there is no empirical support for special thoughts of this sort, but that there is empirical support for encoded perceptual representations from the data of sense. So it must be the case, if grounded cognition is correct, that Deigh’s counterexample and proposed solution cannot be correct: neuro-intentional relations drive the crying and weeping of the fans, not intellective ideas. Perhaps the band exemplifies a kind of “language” that the teens read off into their own simulated sense that puts them into a swoon, just as we can read a manner of dress as signifying a lifestyle or social status, but whatever this language may be (a language of visual patterns), it still requires *translation* into a previously developed multimodal understanding of what the band’s behavior means.⁷³ Whatever the case may be, more needs to be said to address the concerns of anti-empiricists.

3.4 Wollheim on Emotion, Intentionality, Sensation, and Anti-Empirical Epistemology

Another anti-empiricist position, similar in many respects to Deigh’s yet more strongly positioned to challenge grounded cognition, is found in Richard Wollheim’s *On the Emotions* (1999). Wollheim is better known as a philosopher of art than of emotion, and as far as the former is concerned, he has been and will remain tremendously influential. His philosophy of

⁷² For a succinct overview of a nominalist approach to establishing objectivity, see Haack (2000, pp. 239–242).

⁷³ This idea of “seeing-in” *x* (the band’s behavior) a sense of *y* (that the band is “so amazing” and “hot”) is explored in Wollheim’s *Art and its Objects* (1980, pp. 205–226), along quasi-subjectivist lines. I have argued elsewhere that Barsalou’s “situated conceptualization” model explains this type of “seeing-in” along empiricist lines while retaining an intersubjective status (2009). A more straightforward explanation, such as screaming-induced emotional overload and emotional contagion, may serve the purpose just as well (personal communication, B. Boyd, October 28, 2012).

emotion, on the other hand, has garnered unusually mixed reviews.⁷⁴ This is unfortunate, because his views on emotion are no less significant than his philosophy of artistic representation, and in fact the one complements the other, as I shall try to show. Despite whatever problems critics find in Wollheim's theory of emotion, and sometimes because of them, I believe we can gain from scrutinizing the standpoint from which his theory was developed.

There are two aspects within Wollheim's theory of emotion that are particularly well suited for exploring neuro-intentionalism by contrast: first, his rejection of language-based semantics; and second, his two-pronged argument that *emotion* is intentional and amodal while *emotional sensation* is quasi-intentional and modal. The first aspect of Wollheim's theory that deserves looking at vis-à-vis "neurocriticism" is his rejection of language-based semantics. His rejection of Language with a capital 'L' is important insofar as it shows how intentional contents (senses, thoughts, beliefs) can be viewed as amodal yet neither fundamentally linguistic nor propositional.

Against the grain of Frege and other twentieth century language philosophers, Wollheim wished to "psychologize" mental contents, a move that required disavowing language-based theories of meaning and representation. Yet mental contents in Wollheim's philosophy still warrant the term "amodal," I believe (not in the accustomed sense of linguistic symbols or "mentalese" independent of perceptual representations, but in the sense of mental contents being "psychological" without any relation to experientially derived knowledge).

That Wollheim thinks of mental phenomena as non-linguistic and non-propositional "thought," yet maintains an amodal theory of intentional contents, makes his theory unique if also puzzling. For we may well ask: what *is* intentional content if not modal memory? Can we really speak of conceptual representations, for example, *without* thinking of them as modally instantiated? It seems a peculiar feature of anti-empiricism that in order to make a case for its primacy, one must reason about, exemplify, and recollect objects and events that seem bound up with everyday *experience*, and yet at the same time assume that such recollected objects and events derive not from experiencing them but from some other mysterious faculty outside time

⁷⁴ "Reading these lectures," writes Jesse Prinz in one such review, "one gets the impression that Wollheim is actually doing Martian conceptual analysis. He is making a priori pronouncements, but his concepts are strangely alien" (2002). Peter Goldie thinks very highly of Wollheim's theory, especially the distinction between feelings and emotions, which I canvass below (2006).

and space.⁷⁵ As we shall see, Wollheim offers an ingenious solution to this problem by introducing the distinction between mental states and mental dispositions, and linking non-empirical content to the latter but not the former.

The second aspect of Wollheim's philosophy of emotion that I should like to examine is his treatment of *emotion* as intentional/objective and *emotional sensation* as quasi-intentional/subjective. Consider an example: on a particularly chilly day we decide to wear a scarf before setting out. What we principally desire, on such days, is the sensation of warmth the scarf offers, not the scarf itself, despite whatever fashionable properties it may have. Now we may wonder: is the scarf an emotional object, or just an object that offers a sensation? Is warmth something inherent in the scarf, or do we only associate warmth with the scarf? Is the scarf objective but the feeling of warmth subjective? Reader-response theory needs to sort these questions out, or the status of *sensations* and their relation to *emotions*, on the one hand, and the intentionality of emotion and sensations on the other (i.e., whether the intentional object that we desire is the "scarf" or its "warmth"; if the latter, then endogenous states can count as intentional objects as much as exogenous objects). We need to sort these questions out because when we read, much of what we call "meaning" and "value" seem bound up not only with our sense of understanding the contents of literature, but with our physiological *response* to what we understand. If appreciating literature is somehow analogous to wearing a scarf, then what we appreciate is not "literature" in itself but the sensations literature offers. We may seek out a novel, for instance, in a vague search for comfort, a desire to "get lost" in a fantasy world with familiar characters, regardless of their actions and events, or we may seek out certain types of intentional content (romance) for the sensations they generate (or for their lack in our lives), and not for the works themselves. But such possibilities would seem to reintroduce the "affective fallacy" in another, more plausible guise, one that I shall explore in Chapter 4 when discussing how we come to value works of art. In any case, determining how literature is *not* like a scarf—or whether in some ways it is—will be one of the aims of this section.

Let us begin with an overview of Wollheim's terminology, his "map of the mind" plotting "in a very general way the whereabouts of the emotions" (1999, p. 8). Wollheim first distinguishes between Mental States and Mental Dispositions (I capitalize these terms to note their technical distinctiveness).

⁷⁵ Perhaps this situation necessitates what some philosophers call "nomological danglers" or *a priori* intuitions ("opaque isolated logical facts"), though I would not hazard a guess. See note 13 from Lynch and Glasgow (2003, pp. 218–219).

First, Mental States according to Wollheim are “subjective” states. They include perceptions, sensations, thoughts, and so forth. Subjective states are *irreducible*. “We cannot, like copyists in front of a painting, ‘square up’ our mental states, and then record them, square by square,” argues Wollheim, for if we could, subjective states would no longer be subjective—they would be objectifiable events, reducible to physical characteristics with universal properties (at least in principle) (p. 7). Subjective Mental States are also *transient*. Many (if not most) of our thoughts, feelings, and so forth, only last a short while, and so never translate into lasting impressions, let alone publicly accessible “objective” contents. Any mental event at any moment, accordingly, is subjective insofar as it is irreducible and transient. For instance, while sipping a cappuccino, I cannot freeze time and break down all the constituent neurochemical transactions between the cappuccino, my taste buds, and my brain’s representation of sipping a cappuccino—so this event according to Wollheim is physically irreducible and transient, and so “what it is like to taste” a cappuccino is wholly subjective (at least in this example). We may remember tasting a cappuccino after its occasioning, if it was the first time that we ever tried one, for example; yet we will not remember that *particular* event long after—we will not remember *that* cappuccino on *that* day, at *that* table, place, time, and so forth. These perceptions, and whatever thoughts accompanied them, will be lost in time forever; and so they count as subjectively transient.

Wollheim next distinguishes Mental States from Mental Dispositions. Mental States are objectively irreducible, transient events, as we have seen. These features render Mental States subjective. Mental Dispositions on the other hand are “persisting modifications of the mind,” and in this respect they count as “psychological entities” like beliefs, desires, memories, thought-contents, etc. (p. 1; p. 5). “Psychological entities” have a material nature of their own, and so are presumably not like immaterial “qualia”: they causally interpenetrate actions, feelings, and perspectives (p. 6). As to what *kind* of material nature “psychological entities” constitute, we do not know; all we know from Wollheim’s account is that psychological entities may “ultimately” be “material entities,” but not entities whose origins are *a posteriori* (empirically derived) (p. 7). To illustrate, we might ask whether my desiring a scarf for its warmth is a Mental State (a subjective experience), a Mental Disposition (a lasting impression), or both at different times. If desiring a scarf reflects a “psychological entity” with consistent relations to scarfs, then it would seem that desiring a scarf is a Mental Disposition, since I both “desire” a scarf, “believe” that a scarf provides warmth, have “memories” for scarfs, etc. But it

would also seem that desiring a scarf for its warmth is a transient and subjective state. In any case, according to Wollheim, whatever “psychological entity” I may have for scarfs cannot have come from my subjective experience with scarfs.

Finally we get to emotions and intentionality. After delineating Mental States from Mental Dispositions, Wollheim links—in what may seem a contradiction given our everyday use of “disposition” and “state”—lasting Dispositions with *emotions* and transient States with *sensations*. We usually think of emotions as transient events compared to something like a mood or temperament, which we often associate with a “disposition.” Not so for Wollheim, who argues that “subjectivity attaches to mental States but does not attach to mental Dispositions” (p. 8). Using these distinctions we might imagine Xena, warrior princess, venturing into a cave to fight a two-headed Hydra; once inside she discovers that the Hydra actually has far more than two heads—it seems to have hundreds. She feels a palpable sense of fear and stealthily retreats, knowing that the beast cannot be bested head-on. Now according to Wollheim, Xena’s *sensations* (quicken heart rate, stiffened body, alarm, sharp inward breath, widened eyes, etc.) are subjective Mental States, while Xena’s *emotion*, fear, entails some kind of persistent modification of Xena’s mind, such as desiring to avoid death.

Now enter intentionality, which we hope will clarify the difference between sensations and emotions. For Wollheim intentionality “is the *thought-content* of a mental phenomenon, and it is intentionality that secures the directedness alike of Mental States and Mental Dispositions” (my emphasis and caps, p. 6). So in principle, we can say that intentional thought-contents count as the “objects” that elicit emotions *and/or* emotional sensations, depending on circumstances. However, what distinguishes an “emotion” from “emotional sensations,” according to Wollheim, is that emotions “possess intentionality but, unlike the Mental States in which they manifest themselves, they do not possess subjectivity” (p. 9). Clarifying again with Xena: she enters a cave and fearfully retreats after discovering that the Hydra is more threatening than expected. Xena’s “fearful retreat” involves *emotional sensations*—quicken pulse, fight or flight, etc.—but what makes her fear *emotional* is its intentional object, the Hydra, which leaves her with a Mental Disposition on account of the persistent effect on Xena’s mind (she “believes” that the Hydra is a threat, or “desires” that the Hydra be vanquished by some other means). So in Wollheim’s philosophy, emotions have persistent thought-contents (wishing to avoid a Hydra) independent from their subjective manifestations as feelings or sensations (paroxysms of anxiety, perceptions of sense data, etc.).

Now if I have followed Wollheim's distinctions accurately up to this point, then it seems we are left with a dilemma, and it is one that needs resolving if we are to place reader-response sensations in proper relation to their simulated contents. The dilemma is this: if an emotion has nothing to do with emotional sensations, and is only an emotion because of some intentional relation and lasting effect, then we have no way of knowing what it is *about* some intentional objects that make them emotional rather than some other kind of Mental Disposition, such as a non-emotional memory or belief. Wollheim seems to offer two possible answers.

The first, weaker answer is to assimilate transient sensations and percepts into a peculiar admixture of intentionality and subjectivity that Wollheim calls *phenomenology* (p. 8). On this answer, Wollheim might say that sensations and perceptions can obtain some sort of intentionality, but only a transient, non-dispositional kind. In other words, emotional sensations possess "quasi-intentionality." If I feel "frustrated," then my feeling is part of the phenomenology of frustration, which is subjective; but what transforms frustration into a dispositional emotion such as "jealousy" is the intentional aboutness of my psychological state. If my frustration is *about*, say, a sexual rival, *X*, who has gained the affections of my love, *L*, then this context furnishes the necessary conditions for a lasting disposition that we can call "jealousy" (p. 123). This position would seem to grant some kind of importance to sensations and perceptions, but only insofar as they direct attention to the intentional psychology of an emotion (what in our psychological state has us understand *X*'s relation to *L* in terms of sexual rivalry rather than something else, such as an evolved "innate idea" about sexual rivalry). Yet this answer leaves the original dilemma open, since we still need to know how the phenomenology of some intentional states becomes dispositionally emotional rather than subjectively sensational. We still need to know why, for example, the psychological context of my relation to *X* transforms the transient sensation of frustration into a lasting emotional Disposition, or why I perceived *X*'s relation to *L* as "rivalry" rather than a neutral visual event, such as seeing that "*X* orients to me less now because *X* also orients to *Z*," without any alarming sense of what *X*'s relation to *L* might entail in relation to me (and my genetic fitness, perhaps).

The second, stronger answer is to conclude, as Wollheim eventually does, that "there is no way of exhibiting feeling as integrated with emotion. Feeling must stand outside emotion, and remain a mere appendage to it, and an account of emotion that includes it must degenerate into a mere inventory" (p. 118). This answer, which is also the answer of Wimsatt and Beardsley, certainly "takes the dilemma by the horns" and accepts that all feeling states—all

sensations and perceptions—cannot be integral to emotion.⁷⁶ Whatever I may *feel* while reading about a bear, red wheelbarrow, Hydra, or whatever else can only ever be extraneous to the kinds of lasting influence these objects may achieve (or not). My emotion is a “psychological entity” that cannot be confused with knowledge, memories, or whatever else that I may have acquired from experience.

But this answer does not resolve the dilemma; it just circumvents it altogether. Wollheim leaves it up to us to decide whether the psychological entity in question is an emotional disposition or not. For all we know, we may already be in the grips of an emotion without knowing it. We might have a jealousy that *expresses* itself through a Mental State (a sense of anger, worry, etc.), even though we have no direct awareness of the originating thought-contents (e.g., that it was Iago who made me question Desdemona’s fidelity). But if this is possible, then the distinguishing feature of an emotional thought-content, such as “Cassio’s having an affair with Desdemona,” would have no integral relation to its manifest Mental State (a sense of anger, worry, hypervigilance), since as Wollheim has said, feelings cannot be “integrated with emotion”; there is therefore nothing *intrinsic about* my thinking of Cassio and Desdemona that makes me emotional rather than just obsessed or curious. Wollheim’s theory says only that there is a relationship between Mental States and emotional Dispositions.

So it seems the very thing Wollheim wishes to disaggregate from emotion—its accompanying feeling states—is what is needed to distinguish one kind of disposition from another. Just as a hot poker would just be a poker if we subtracted its heat, a scary/terrifying bear just a bear if we subtracted its scariness, jealousy and other emotions would just be perceptions of intentional properties. Without autonomic reactions—feeling “hot,” “fear,” “anger,” “rivalry,” etc.—we would be left with neutral intentional thought-contents, “poker,” “bear,” “*L* orienting to *X*.” But this is not how emotional sensations work. Emotional sensations *mean* something in relation to the type of thing experienced, and so emotional sensations are integral to the emotion. How we respond, physiologically, makes all the difference.

3.5 Neo-Empiricism and Reader-Response Epistemology

According to Wollheim, Mental States like sensations and perceptions are transient and subjective because they are not *about* intentional objects within a stable horizon of meaning. Mental States are only quasi-intentional. Mental Dispositions (thought-contents, ideas, memories, beliefs), on the other hand, are distinct from sensations and perceptions, for they take

⁷⁶ See for example Wimsatt and Beardsley’s discussion of emotions “contemplated as a pattern of knowledge” in poetry, rather than as some communicated effect “like an infection or disease” (1949, p. 52).

persistent intentional objects. For Wollheim the contents of thought, ideas, and beliefs are non-empirical, because they cannot derive from transient subjective experiences without losing their intentional quality. Or as he puts it, we must reject “the Empiricist thesis that the meaning of an ‘idea’ derives directly from its psychological content, or, in the terminology that I am using, that its intentionality *is* its subjectivity” (original emphasis, 1999, p. 227).

He says the “role of belief is to provide a creature with a *picture of the world it inhabits* . . . a picture that depicts the world more or less as it is” (original emphasis, p. 13). The meaning of a belief, that is, derives directly from a “psychological entity” of a picture-like nature, an entity *depicting* the world. There is a resemblance between this thesis and its supposed antithesis, however. The antithesis is the empiricist thesis that “the meaning of an ‘idea’ derives directly from its psychological content,” or least this is the empiricist thesis according to Wollheim’s characterization (p. 227). In either case, Wollheim does not question how beliefs, conceptual pictures, or whatever we wish to call the depictive psychological faculty, could *represent* the world “more or less as it is” without multimodal memories acquired from sense data. Wollheim simply (or complexly yet implicitly) rejects the possibility. “The reason why a certain thought is a thought of a horse,” says Wollheim, “is not because part of what it is like for the thinker to have such a thought is for him to have the image of a horse” (p. 7). We can only assume that “image,” in this context, signifies for Wollheim an empirically isomorphic relationship between conception and perception that is not on par with pictorial belief. We can also assume, extrapolating from his other writings, that pictorial belief is comparatively heteromorphic or at least “twofold” (both a visual impression and a psychological representation), and so, perhaps, the empirical doctrine of isomorphism is what is problematic, because presumably it maintains a “onfold” theory of visual representation. Yet this would misrepresent eighteenth century empiricism, for Hume maintained a clear distinction between “simple” impressions and “complex” ideas (2000, p. 8). Simple impressions, such as seeing red, are distinct from complex ideas, which combine several simple impressions in the imagination (p. 8). “I can imagine to myself,” wrote Hume, “such a city as the *New Jerusalem*, whose pavement is gold and walls are rubies, tho’ I never saw any such” (p. 8). New Jerusalem is a complex idea of a manifold nature, so I have a difficult time seeing how perceptual representation, even according to eighteenth century empiricism, is any different from pictorial representation, if both engender “a picture that depicts the world more or less as it is.”

Elsewhere, consistent with the above, Wollheim has said that “pictorial representation is a perceptual, more narrowly a visual, phenomenon,” and that psychological “[r]epresentation is perceptual” (1998, pp. p. 217, p. 226). Translating this and the above into the language of grounded cognition, we can now summarize Wollheim’s theory of intentional contents. Thought-contents for Wollheim are *not* modally instantiated memories acquired from experience, either directly (e.g., by viewing a cow) or indirectly (by viewing a picture of a cow); rather, the contents of thought are pictorial, but not imagistic; they are representations that reliably capture features of perception in memory. Fidelity between percepts and concepts, on this view—unlike what we find in grounded cognition—derives from some unstated supra-personal psychological faculty, perhaps by reason or consciousness. Rather than an empiricist exchange between experiences and ideas, Wollheim would say that simple ideas (such as “red”) are not acquired from simple impressions (a red “sense datum”), nor would he say that complex ideas (New Jerusalem) capture the complexity of Mental Dispositions, which can include, among other things, emotional Dispositions (not just sense impressions; though it is unclear what an emotional Disposition would amount to if it lacked encoded impressions).

If my summary is correct, then Wollheim’s theory of representation strains to achieve a real distinction from empiricism yet falls short, on account of his implicit reliance on subjective mental contents in the formation of thought-contents. His theory of emotional intentionality is for this reason inconsistent with neuro-intentionalism, which upholds the “Empirical thesis that the meaning of an ‘idea’ derives directly from its psychological content” (p. 227), or in the case of emotions, that the meaning of an emotional idea depends no less on multimodal memories acquired intro- and extro-spectively (from imagination or direct perception) than non-emotional ideas. For this criticism to work, however, we need to make an important addition to the Empirical thesis, as Wollheim understands it: namely, an understanding of evolved native systems for not only vision, touch, etc., but also for emotional kinds (a thesis I shall refine in Chapter 4). Sexual jealousy, for example, depends both on perceiving certain patterns (X ’s orientation to L) that also, as primates, register as naturally salient (Tooby & Cosmides, 2008, p. 116). From the standpoint of grounded cognition, then—which has been called a “neo-empiricist” framework on account of its accommodating nativism—perceptual systems encode not only unimodal impressions (an understanding of “red” within the color system) but also at the same time a number of other associated kinds of impression (impressions for emotion, olfaction, audition, etc.). Thus, for any given emotional event—perceiving “sexual rivalry” and feeling “jealous,” for example—grounded cognition needs to claim that the

emotion is contingent on encoding perceptions of an emotional kind (such as an evolved ability to detect salient properties in the domain of sexual rivalry).⁷⁷ A multimodal concept thus associates percipient properties of various kinds together to form what Hume called “complex ideas,” or what I have been calling “composite objects,” such as a unicorn (and perhaps even an emotional concept like “sexual jealousy,” if the sense of “rivalry” counts as a percipient property we have evolved to detect and associate with a threat). This is why grounded cognition claims that different modality-specific systems encode memories of perceptual events *multimodally* and not just modally: if we perceive an apple we also encode its shape, taste, size, colors, textures, proprioceptive impressions relative to its use, and so forth, so that for each domain of perception, there is a corresponding, evolved kind of system enabling our ability to detect a kind of property. What Wollheim seems to assume, however, is that empiricism cannot accommodate *conceptual* multimodality for emotional properties, and so locks itself into directly perceived impressions without any explanation of native psychology. Perhaps Wollheim would accept “neo-empiricism” after seeing that it accommodates nativism, as described, and so there would no longer be any inconsistency with empiricism and his theory of emotions, though I suspect there are additional motives driving his position.

Compared to Wollheim’s nuanced expositions on such matters as pictorial representation, however, saying “intentional contents are multimodal, empiricism is right after all, ergo Mental Dispositions are founded on thin air” sounds glib and shallow, so I should like to flesh out the consequences of this assertion by exploring relevant examples and counterarguments.

Returning now to Wollheim, there are two familiar intuitions lending support to his anti-empiricist thesis worth considering. I should like to get them out of the way before turning to direct criticisms. One is the observation that we can *imagine* “what it is like” to experience something *without* actually having experienced it—e.g., we can comprehend what it would be like to see a sunset without having actually seen one, or getting stuck in a coral reef and drowning without actually getting stuck in a coral reef and drowning. Another intuition supporting Wollheim’s position, related somewhat to the first, is the idea that “abstract concepts” apparently lack specifiable perceptual and sensory contents—“justice” and “prime numbers” seem undefinable in terms of sense data alone, for instance. And from this intuition, it

⁷⁷ Curiously in recent collaborations between Barsalou and Lisa Feldman Barrett, this evolved component for emotional perception—or the idea that emotions qualify as “natural kinds”—is put into question (Wilson-Mendenhall et al., 2011). I shall challenge the “psychological construction” theory of emotion in Chapter 4.

seems the empiricist thesis insufficiently explains the nature and origins of thought-contents. I have already addressed this perceived deficiency in my criticism of Deigh's "intellective ideas" above, though for those who remain skeptical, Jesse Prinz sufficiently works through the challenge of abstract concepts for the empiricist thesis elsewhere, so I will not address this particular line any further here (2004, pp. 28, 184–187). I should like to respond to the first intuition, however—namely, the argument that because we can think of things without having experienced them directly, the contents of thought are not (necessarily) grounded in modal memory (even with the stipulation that modal memories are often acquired indirectly, i.e., video footage, verbal communication, introspection). Let us call this intuition the "indirect experience" argument, given our hypothetical capacity to experience what it would be like to do something *without* having sufficient modal memory to do so.

So what is problematic about the indirect experience argument? Let us suppose that Xev, having lived her life in Plato's allegorical cave, has never sensed or seen the sun, a sunrise, or any other sun-related phenomena. Let us assume, nevertheless, that she is able to comprehend what it would be like to experience a sunrise. How would Xev do this? Could she comprehend what a sunrise would be like without modal memory? Are the contents of her comprehension intentional in some way that discounts sensibilia? I ask rhetorically because I cannot fathom positive answers, though I am open to there being one. All I seem able to do, outside the physicality of sense data and modal memory, is entertain negative possibilities. So from this vantage, it seems Xev could only *comprehend* the conditions of the event (sunrise) if she possessed sufficient modal memories *about* relevant environmental conditions—the movement of the sun relative to the earth, the phasing of dark to light, the sensation of sunlight, and so forth. If on the other hand Xev did not have stored memories about the sun's warmth, its relative movement, and so forth—and here enters the negative aspect—she would also not understand these aspects of a sunrise, as communicated (i.e., someone trying to explain the movement of the sun relative to the earth). Xev could simulate something approximating what someone is trying to communicate about a sunrise, pointing to memories from *her* environment (a fire's light and warmth, and so forth), but without having seen a sunrise directly, she would be hard pressed to know what this is like, or even perhaps what it means, more generally.⁷⁸

Now I should like to refine this rebuttal of the "indirect experience" argument with two additional examples. The first is a reconsideration of Hume's story (taken from *Don Quixote*)

⁷⁸ A parallel argument may be found in the so called "Mary's room" thought experiment, developed by Frank Jackson (1982). A full treatment of this argument was omitted for want of space. See *There's Something About Mary* (2004) for a comprehensive collection of Jackson's argument and reactions to it.

about the two kinsmen with equal “hereditary” capacity for judging wine. After being invited to sample an old, presumably good vintage, both kinsmen pronounce the wine good, but after their pronouncement, each detects a peculiar additional taste. One says he tasted a hint of leather, the other iron. Both were the laughingstock of all present until, after emptying out the hogshead, an iron key with a leathern thong was discovered within.

What is telling about Hume’s kinsmen, and what relates their perceptual experience to the indirect experience argument, is how and why each kinsman only detects *one* part of the key, but not both. The kinsmen may have equally keen “hereditary” judgment when it comes to tasting wine—the modern-day equivalent of monozygotic twins—but putting this judgment to *use* requires prior exposure to particular types of taste, such as leather and iron. Without sufficient encoded modal memories for these tastes, they may not have detected the particular presence of iron or leather, or if they did, they would not know what the tastes were *of* (much as one may have memories about zarfs but not know that they have a name).

Since both kinsmen possess the same hereditary capacity for detection, what accounts for the perceptual difference? The answer seems to me, and I would guess Hume also: *prior experience*. Memories about certain tastes and smells depend on experience no less than other sense modalities (Small et al., 2004, pp. 1899–1901). Range, kind, type, and reconsolidation of particular memories—in this case *training* our sense of smell and taste—produce idiosyncrasies of sensory perception, misperception, bias, custom, and the like. If, for example, we only ever patronized Californian vineyards, we might lack the capacity to appreciate subtle differences in French or Italian wines. Training our senses produces in some cases stark neurological differences that then factor into reader-response. A memorable example of this was found in a study that showed an increase in volume of hippocampal gray matter in taxi drivers compared to controls, a difference in volume best explained by experience, not predisposition (Maguire, Woollett, & Spiers, 2006). Extensive training over a two to four year period—having to learn “the layout of 25,000 streets in the city, thousands of places of interest, leading to stringent assessments at the Public Carriage Office in order to obtain an operating license”—actually changes the volume of taxi drivers’ hippocampi (p. 1091). Such a finding suggests that a taxi driver’s spatial sense of London differs enough from a non-taxi driver that both would represent a narrative about driving through the streets of London differently. Professional musicians, jugglers, and bilinguals also show increased gray matter volume in areas specialized for their task performance compared to controls (p. 1099). These data would also suggest that if I were

reading about a musical or juggling performance in a novel, my simulated sense of these events would differ from the professional musician or juggler. Of course, none of these data preclude hereditary aptitude for acquiring certain types of skill. This is not my point. I am accounting for differences in taste when hereditary aptitudes are shared, as between Hume's kinsmen.

Assuming the kinsmen share aptitudes, the only way to account for the perceptual difference is autobiographic memory, or "environmentally driven plasticity." Differences in experience thus generate different simulated sense without denying underlying commonalities. Both kinsmen detected different qualities, to be sure, but they also both pronounced the wine good.

Another means of illustrating perceptual differences arising from varied autobiographic memory, perhaps with a more familiar example, is Wittgenstein's interpretation of the duck-rabbit figure. On this I shall rely on Wollheim's summary, for it is his use of Wittgenstein within the context of both *On the Emotions* and *Art and Its Objects* that I am particularly interested in:

Wittgenstein has shown us that psychological phenomena like the altering perceptions of a Necker cube, where one moment one face of the cube comes towards us, at another moment it recedes from us, or the duck-rabbit figure, where we see now a duck in the drawing, now a rabbit, cannot be adequately described, let alone explained, solely in terms of changing intentionality or solely in terms of changing subjectivity or even in terms of a mere conjunction of the two. It is only if we recognize the fusion of the two that we get a coherent picture. (1999, p. 8)

I believe this view mistaken. To see why, let us imagine an alternative to the duck-rabbit figure featuring (one) a rabbit, as in the original, and (two) Gorn from *Star Trek*. I purposely use Gorn because few will recognize the name and, more importantly, the *imagery* associated with the name. Now let us suppose that we show this new rabbit-gorn figure to someone who assuredly has never *seen* the fictive character from *Star Trek*. We then ask our naïve viewer the characteristic question that accompanies such double images: "What do you see, Gorn or the Rabbit?" (And here we may wonder whether the question itself prompts what to look for, especially in more ambiguous double images such as the old woman and the wife.) In this new version of the figure, at least, we should expect someone unfamiliar with Gorn to see *only* the rabbit, even though Gorn is plainly perceptible. But then why does our viewer *only* see the rabbit if Gorn is also there in the image?

The answer is painfully obvious yet no less significant: Gorn goes unseen because our viewer lacks sufficient multimodal memory to see Gorn. To be sure, someone may say that he “sees a rabbit or a lizard-like humanoid,” but this would only further substantiate the relationship between encoded modal memory and object recognition, working as it does by *degrees* relative to experience. Assuming that the alternative Gorn-rabbit “illusion” works as I say it does (and so informs what takes place, perceptually and representationally, whenever we look at double imagery), then it would seem that we have a means of explaining *why* we switch between two recognitions: with sufficient “subjective” exposure to rabbit and duck stimuli, we encode correspondingly sufficient “intentional” contents *about* ducks and rabbits to recognize them. Yet in the case of a gorn-rabbit, we cannot *imagine* what Gorn looks like—or understand what the other half of the gestalt image is—without first having been exposed to Gorn; sensory training is therefore necessary to encode sufficient modal memory to represent Gorn.

Now let us consider the (negative) counterexample to the indirect experience argument once more, from a slightly different angle. When I see a zarf for the first time, though I may not know the object has a name, I mentally encode its percipient qualities, its “sense perceptions” or “data of sense” (shapes, textures, perhaps how it feels to the touch, how it fits in the hand, and so forth).⁷⁹ Now, if you know what a zarf is *from* its encoded sense data, when someone asks, “pass the zarf,” you will not hesitate. You will pass the zarf. On the other hand, if you lack sufficient modal memory to comprehend the *meaning* behind what is asked, you may field a question in return: “What’s a zarf? You mean this thing here?” followed by “Ah, I see. I’d never heard the word before. I’d seen a zarf but didn’t know its name.” (This is why we say language *supervenes* on—or “co-occurs” with—modal memory, but not vice versa.)⁸⁰ So it seems, consistent with empiricist philosophy in the vein of Hume and Russell, that intentional contents are “wholly constructed out of [their] subjectivity” (p. 7), though *only* when “subjectivity” is construed in modal representational terms—that is, only when the contents of cognition are properly understood as lasting, *modally instantiated* memories. It then follows, at least from this example, that Wollheim’s Dispositional Thought-contents are likewise multimodal.

Through the above analysis I hope to have highlighted at least two shortcomings of Wollheim’s anti-empiricist intentionality. The first is assuming that sensations cannot be integral to emotional response. By thinking of “sensations” as transient and subjective,

⁷⁹ The OED definition for a zarf is “A cup-shaped holder for a hot coffee-cup, used in the Levant, usually of metal and of ornamental design.” See also footnote 37.

⁸⁰ For an overview of co-occurrence theories, see Zwaan and Madden (2005).

Wollheim cannot see how they actually relate to the process of encoding new, salient memories for objects and events. “Having a sensation” is more than a transient feeling; it is also a physiological transaction between perceived properties and memory. Feeling “negative” or “positive” sensations entails the encoding of some quantum of *meaning* about the object’s biological salience (Chapter 4). So if I react negatively to Mr. Darcy’s letter about Mr. Wickham, and perceive this letter as overbearing, then my feeling will attribute a dimension of “badness” to Mr. Darcy’s character. This feeling may be out of sync with what the text ought to mean—a matter I shall consider in the next two chapters—but the feeling is still a part of my memory for Mr. Darcy, along with other feelings (positive, negative, surprise, etc.); this is why feeling bad or good about a literary episode is not something merely additional to my understanding; it’s definitive.

The second side-effect of Wollheim’s anti-empiricist intentionality follows from supposing that we do not need “subjective” experience with objects and events to imagine what they mean. If we can imagine what a zarf or Gorn is like, then some believe that we do not need any *a posteriori* knowledge for these objects. But this is to misconstrue, again, the nature of multimodal experience: imagining what it is like to eat caviar or undergo extreme sensory deprivation is not the same as actually encoding experiences for these events. I can imagine what caviar or sensory deprivation is like but this cannot provide sufficient knowledge about the properties of these events.

There are other important differences between imagining and embodying experience, which I shall explore in the next chapter in relation to divergent comprehension. All that I wish to stress, at this stage, is that downplaying the role of “sensation” (of a pictorial or emotional kind) vitiates our understanding of intentional relations and reader-response. If a work does not multimodally *represent* what it is like to do things or think in certain ways, then I cannot fully empathize with the characters and their situations; or if a work fails to provoke *feelings* of various sorts, then I will have failed to embody a sense of salience for the work’s events. Downplaying my own or others’ feelings while I or they respond to a work, therefore, may overlook important clues about the work’s *values* (a thesis I shall develop fully in Chapter 4).

So what have I accomplished in this chapter? My main goal has been to canvass philosophic problems concerning the “epistemology” of comprehension and emotional response, while also explaining how native systems evolved to detect certain biologically natural kinds of property. Intentionality, I have argued, is the best way to explore related problems. I began with a look at Hirsch and others’ treatment of intentionality, alighting—at

times very briefly—on the influences of Husserl, Frege, Russell, and other philosophers. Neuro-intentionalism is the most comprehensive reader-response epistemology, I have argued, because it offers both epistemic stability and interpretive flexibility. Neuro-intentionalism is essentially an *empiricist* account of representational contents, one that incorporates a nativist understanding of evolved perceptual systems, and so I examined “anti-empiricist” approaches to intentionality and emotion to see how grounded cognition stands up. Some theories of intentionality, I explained, presuppose anti-empiricism either directly in the form of language-based semantics or indirectly through propositionalism or anti-psychologism. Wollheim’s philosophy of representation and emotion—which I believe offers a strong challenge to the empiricist program—cannot escape the need for empirically acquired contents, despite its overt disavowal of the “Empiricist thesis” (the belief that intentional contents derive from “subjective” encounters with objects and events in the world). Rather than reject Wollheim’s philosophy of representation and emotional response, however, I have tried to incorporate his unique perspective into a neuro-intentionalist framework. Along the way I have tried to raise philosophic challenges that I shall need to address, again, in the next chapter.

4.0 Artistic Value

This chapter has three parts: the first determines how and why we attribute value to texts and performances, from the standpoint of neuroscience and philosophy; the second considers a short pragmatic example of how we might parse the values of a poem; and the third performs an analytical sketch of Shakespeare's *Coriolanus* with an eye to provisionally adjudicating between competing evaluations.

As some philosophers have noted, if there is a *property* underlying value it must in some way link to emotion.⁸¹ George Pitcher has argued that “having some apprehension and making some evaluation are characteristic features of emotion-situations” (1965, pp. 337–338)—that is to say, whenever we experience some emotion, such as “hate,” we evaluate the emotion’s intentional object (its perceived cause) as if it too were hateful. “[W]hen *P* hates *Q* for certain things *Q* has done,” explains Pitcher, “he thinks that these things are bad, detestable, horrendous, or something of the sort. If he thought that there was nothing whatever *wrong* with what *Q* has done, he could not, without oddity, hate him for having done those things” (my emphasis, p. 337). The same principle also applies to more basic emotions, such as fear, so that if I feared falling from heights, then “falling from heights” would carry an evaluative dimension, an event that would be “harmful.” If this view holds, then all value predicates on intact emotional systems able to respond to emotional kinds of stimuli, and it is this predication that binds emotional “properties” to all claims to value.⁸²

Within the sphere of art we find parallel arguments linking emotion to value, and it is with these that I am principally concerned. Malcolm Budd has made just this link by arguing that “artistic value” is “sentiment-dependent” insofar as valuing art entails having had some rewarding experience *of* a work (2003, p. 269). Whenever a work provokes an experience we find “rewarding,” then we also have come to value the work for its “kind” of reward, as a work of art (p. 264). We do not, however, value a work only in terms of our having felt a sense of reward, for this would reduce artistic value to rewarding feelings that have no clear relation to

⁸¹ The usual philosophical sense applies to “property” here, i.e., a universal class of characteristics. Though what is “universal” need not mean, as I believe, something that obtains at all times without exception or deviation (i.e., I can say that a property of a fish is having gills, but some fish might be born without them, some gills might be less functional, etc.). For this reason I qualify the extension of emotional “properties” as entailing “biological natural kinds” rather than “natural kinds” (as discussed later). See Zinck and Newen (2008) for an interesting overview of emotional classification. Also, for an overview of historic philosophic approaches to value, or “axiology,” see Hart (1971).

⁸² Whether the “kind” of stimuli is a “natural” one—whether evolved emotional systems track kinds of biological property—is a point of deep contention. Some theorists, as will be discussed later, contest the very idea that an emotion includes “natural kinds” of property, be they psychological or perceptual, while others maintain that a neurobiological account of emotion is inescapable (cf. Barrett 2006 and Panksepp 2008).

the work itself. So to avoid reductionism of this sort, Budd argues that as long as our experience follows from understanding a work's contents, then whatever values we have for the work shall be intrinsic to "the experience the work offers" *as* a work of art (p. 269).⁸³ When he stresses that we must value a work "*as* a work of art" of a certain kind, Budd appears to mean two things concurrently: first he means that we must not only value a work but value it *as* a painting, musical rendition, poem, novel, etc., so that our value includes an awareness or "(full) understanding" of the painting, poem, or novel's rewarding experience, *as art*, rather than any other kind of "instrumental" aftereffect, such as valuing a painting for its didacticism or a poem for its pleasure, when all that we value is education or pleasure, not the work (p. 268; p. 263). And second, Budd means for us to understand that artistic value belongs, in a relational yet very direct way, to a work's properties, as experienced, so that if we value a work, it is the work's properties that we value and not merely the rewarding experience it provides (p. 264). The view that there is some *sui generis* kind of value specific to art is rejected by Robert Stecker, since it "assumes that 'artistic' designates a particular perspective [. . .] defined by a kind of value," and I agree, since categories of "art" (genres) do not implant conceptual givens of a unique kind for each genre that precede or supersede our need to understand a work's properties, multimodally (2005, p. 186). But in the sense that valuing art "as art" implies a necessary link between percipients and works valued *for* their properties and not something else—not for what we discover about the process of their creation, or for their *a priori* conceptual intent—I take Budd's theory as correct. We must value works for the manifest experience they afford, or be able to link our experience in some way to features of a work, if our value is to be truly of the work.⁸⁴

⁸³ What is meant by "understanding" in Budd's theory is ambiguous. In a wide sense, understanding can just mean responding to the work's properties and not something besides. In a narrow sense, however, he seems to mean that we must understand classical works *as* classical works, plays *as* plays, novels *as* novels, etc., with the implication that we must understand, first, the *function* of a work's genre before we can properly understand the work's properties *as* a work of art. I grant the wide but not the narrow sense, though I do believe the wide sense can encompass an acquired understanding of what is unique about an author or genre. Some see this view as mistaken, since fictional experience is always within some previously developed "category" that stands apart from the percipient properties of a work (Walton, 1970). We develop a cultivated sense that a work is by Joyce rather than Hesse, and so our experience of Joyce is particular to our understanding of Joyce as a category with distinct properties (that, for example, stream of consciousness is deployed rather than magical realism). So when we read Joyce we track not only the contents written but our sense of who wrote them and why an author or his genre is unique. I grant the importance of learning about particular qualities unique to authors or traditions, but this learning is achieved within the confines of grounded cognition: we learn through experience what stream of consciousness is, but that does not override our need to translate the textual codes from stream of consciousness into representational messages that recapitulate the same basic kinds of property.

⁸⁴ This does not mean that works whose understanding is instruction-dependent—such as Walter de Maria's *Vertical Earth Kilometer*, an unseen 1-kilometer rod buried vertically in the earth—have no value whatever; rather, it means we cannot value such works *for* their percipient properties (i.e., we would hardly find Maria's installment remarkable if not

Budd thus binds (intrinsic as opposed to extrinsic) artistic value to at least two conditions: (one) a work's intersubjective qualities, as understood, and (two) the rewarding experience that these qualities confer. This formulation has the virtue of rejecting theories of value that would locate value in either (one) or (two) alone, such as valuing a work only for its concrete particulars (as some formalist critics have done), or valuing a work only for its emotional experience (as some "affective critics" have done, in the sense developed by Wimsatt and Beardsley, 1949). Another virtue is allowing for multiple values. If a work "offers more than one experience," argues Budd, then "it has more than one artistic value or an artistic value composed of these different artistic values," such as, for instance, valuing a work both for its innovative forms *and* its timeless emotional subject matter (2003, p. 264).

Now I agree with Pitcher that emotion always entails an element of value—a sense that something is wrong, right, bad, or good—and that our emotions must be "directed towards something" (Pitcher, p. 326), or "intentionally related" as argued in the last chapter. For literature this means that what we respond to emotionally is simulated sense data prompted by texts, not textual symbols themselves, and so only an "indirect realist" stance on value can be had for literary works (with few exceptions, i.e., some types of "concrete poetry"). I also follow Budd's characterization of intersubjective evaluation, especially his dissociating sentiment-dependency from sentimentalism and subjective appraisal (p. 269), a move that rightly rejects the long-held belief that emotions must always be private and in one's head rather than public and intersubjectively related to perceived events. Moving to reject any necessary relation between subjective response and emotional response allows critics to bind an emotional event *to* a work's perceived qualities, intersubjectively, so that our value for a work is intrinsic to the experience *it* affords (p. 264).⁸⁶

Jesse Prinz also argues that emotion links to artistic value, or "goodness" (2011). On his view, artistic appraisal has two phases: we first respond to a work and then assess whether the work was good or bad. The second phase of aesthetic appreciation, or "assessment," necessitates emotional response, while the first, or "initial response," does not (p. 7). So during the response phase we perceive, analyze, and react to a work's features, affectively or disinterestedly; and then when assessing a work's merit, "We consider the responses evoked by

for our being told that there is a 1-kilometer rod buried in the earth). In such cases the work's value is extrinsic to its perceptive properties.

⁸⁶ Budd likely draws his use of the term "sentiment" from Hume, a broad term for emotionality found in *Of a Standard of Taste* and elsewhere; and indeed, Hume's usage captures the "universal" aspect of human nature so central to intersubjective value (2008, p. 100). However, Budd rightly criticizes Hume's identifying "a person's judgement about a work's artistic value with the sentiment it arouses in the person," a criticism at the back of Budd's philosophy of value that I take to heart (p. 100).

the work in light of our aesthetic values,” values that may include recognizing a work’s “technical skill,” originality, or some culturally ingrained preference (p. 8). It is a curious feature of Prinz’s theory that only on the second phase of assessment do we ascribe values to a work, since we may value features that do not elicit emotional responses. So using Prinz’s schema, “if a work *W* has [a good-making] feature *F*,” even if *F* is non-emotional, then “to that extent *W* is good to degree *N*” (p. 12). When reflecting upon the non-emotional *F*, then, we may experience an aesthetic emotion, “wonder,” and on this basis judge *W* good (pp. 16–20).

While I think Prinz’s view is generally on track, it has at least three limitations. First, perhaps because Prinz concerns himself with the visual arts, such as paintings, rather than the verbal arts, such as novels or plays, he supposes that artistic value is something we retroactively project onto works after tallying up their features, rather than something we undergo while perceiving works, initially. This approach has the undesirable side-effect of decoupling artistic value from the experience a work offers, an effect Budd was careful to avoid. Only during the assessment phase of viewing a work, on Prinz’s view, do we undergo a “total emotional state that results from our encounter with the work,” or wonder, but this state does not clearly follow from the experience of a work, nor does wonder seem a likely candidate for the range of emotions and impressions we should like to include under a net appraisal (p. 9). No one would say that the value of *Othello* reduces to “wonder”; rather, there are representational episodes that we understand in *Othello* that culminate in rewarding experiences that we value, many of which are quite distinct from one another. The reason Budd cautioned against decoupling rewarding experience and value was to avoid ascribing values from *post-facto* judgments of a work rather than the work’s properties, for then it is not the work that we value but a detachable aesthetic preference. Another problem is not distinguishing between artistic “value” and qualitative goodness or badness; it is one thing to relate value to emotion yet quite another to say that a work is altogether *good* because we were awed by it (i.e., we could be “amazed” by a bad yet emotional piece of art, such as a towering, garish sculpture). Prinz conflates goodness with wonder, so that a work is good or bad only if, after reflecting upon its features, we undergo a qualitative feeling of “wonder” or not. A sense of goodness does not need to come from an aesthetic assessment, however. Most emotions contain an element of goodness or badness by default, as Pitcher observed, so that if we feel angry at a work’s features, then this feeling contains a sense of “badness” for those features (and sometimes for this feeling we may think a work good). For Prinz on the other hand aesthetic goodness and badness come not from

responding *to* a work's features with an emotional sense of goodness or badness, but from assessing (judging) whether a work's features were good or bad, in retrospect. This approach leaves open the possibility—a problematic one—of judging neutral or ambiguous properties with an emotional value through “second-order judgments,” a position developed by Sharpe against empiricist approaches to artistic value like Budd's (2000). This brings me to a third problem in Prinz's account. Unlike wonder, emotions such as fear, anger, etc., may be readily understood in terms of corresponding intentional relations: fear tracks threatening properties, love desirable properties, disgust properties of distinctive distaste, etc. “Wonder” on the other hand seems arbitrarily linked to any number of possible experiences that we deem rewarding. Prinz supposes, rightly, that if a work has “multiple different emotions” then this would make it more difficult “to make an overall assessment,” but this is precisely what we must do for complex works with more than one kind of emotional reward.

Now as I should like to consider in the next section, neither Budd nor Prinz's arguments/distinctions take us very far if we wish to unpack the *positive* nature of value-attribution as a kind of material exchange between texts and readers. For here I believe we must consider the neurobiological composition of value, its underlying mechanisms and sources, and the material basis of divergent response, so that whenever we encounter a “clash of values” over a work of art, we can explain what is taking place in empirically accessible terms, in terms of knowing what material (physical, real) differences subsist between diverging views. Although Budd sets the bar for analyzing artistic value, I believe he has left several core issues unexamined. He does not, for example, consider the possibility that some values may be inherently punishing rather than rewarding, that different types of emotion (as natural kinds) may translate into different types of value, and that some values may be learned while others remain wholly innate. All such possibilities, I shall argue, ought to take center stage in any account of artistic value, and so cannot be ignored. If emotion in general can be more or less reflexive, conceptually dependent, or socially conditioned—and if emotion is the wellspring of all value—then we need to discern how such influences (reflexive, conceptual, and social) impact artistic values, and whether such influences can be accommodated without maintaining that works of art are only ever valuable for individuals at particular places and times, as does Barbara Herrnstein Smith, rather than intrinsically valuable to anyone able to comprehend a work's contents at any given time (1988). Such a task, I believe, requires treating artistic values as natural, measurable phenomena, as opposed to normative or *a priori* concepts, or what Husserl thought of as “transcendent objects” (Crane, 2009, p. 476). My motivation here is

consistent, more generally, with the tenets of grounded cognition developed previously. For if we were to leave the problem of clashing values open—or as merely holding “incommensurate” points of view, as Budd would suggest—then we would not be able to make strong claims about artistic values for works that prompt strong divergent reactions. We would need to concede that there is nothing about Shakespeare’s *Coriolanus*, Nabokov’s *Lolita*, or any other divisive work that prompts divergent valuations, and that such works merely serve to confirm the impossibility of intersubjective grounding. I feel we need not make this concession. And with the advent of such burgeoning fields as “affective neuroscience,” “social neuroscience,” and the like, the time seems right to bring more precision to Budd’s assertion that artistic value is bound to “affective response,” and to whether affective responses may be intersubjectively grounded (p. 269).

4.1 Value and Natural Kinds of Emotion

Whenever we say that a text or performance is “good” or “bad,” any number of qualities may be implicated: we may think that a character is “evil” or “magnanimous,” that a text is “poorly designed,” “unrealistic,” “unimaginative,” or the opposite of these things. A plurality of evaluative terms, however, need not suggest an absence of some unifying factor underlying their use, and that factor I believe is identifiable with the emotions a work provokes. There is, however, an important distinction to be made between an emotion such as jealousy and, say, a primary-process affect such as pain, especially for kinds of emotion evoked by literary events; specifically, the former (tertiary-process emotion) requires representational developments that the latter (primary-process emotion) does not. I shall return to this distinction below, several times, in an attempt to clarify its importance for kinds of emotion felt from literature. For now, when I use “emotion” I do so in a very broad sense that includes primary-process affects (pain, rage, fear) and other types of reaction, such as tertiary-process emotions that include robust cognitive inputs from social learning (jealousy, guilt, blame) (Panksepp, 2012a, p. 9).

First consider how even the most “formal” of qualities—saying that a plot is “unbalanced” or “balanced,” for example—cannot be understood in descriptive terms alone; rather such qualities, if they are to be evaluative, must convey dissatisfaction or approval, or must link in some way with what Hume has called the “general principles of approbation or blame” (1965, p. 9). If there is a perception of imbalance, then underlying the perception is some *negative response* to perceived imbalance (unless we know imbalance was intended); or if harmony was perceived instead, then underlying the perception of harmony was some *positive*

response (unless we know a work's context makes harmony inappropriate), and so forth (considerations explored further below). So it seems that we can say, for every instance of value (or at least for every perception of a value-conferring property), that there is some conjunction between perceived stimuli and emotion—a conjunction that is consistent, at least in simplified form, with Frank Sibley's "evaluation-added property terms" (2001, p. 92).⁸⁹ Valuing a work of art for Sibley entails perceiving descriptive properties then adopting a "favorable or unfavorable attitude" towards those properties (p. 92). Yet Sibley's formulation seems no less limited than Budd's, for it does not explain *how* descriptive properties produce "favorable or unfavorable" attitudes, nor does it say *what* favorable or unfavorable attitudes amount to, exactly, if they cannot always be normative.

A possible way forward is to identify value with "natural kinds" of emotional response, so that valuing any work of art, and perhaps the process of value-attribution in general, may be elucidated in terms of a work's ability to provoke fear, disgust, jealousy, desire, pain, and so forth.⁹⁰ And again, it is unclear whether something like "pain" or "disapprobation" amount to kinds of emotion, but what matters, at this stage, is recognizing that values link to some kind of emotional response. How this formulation applies to formal properties like "imbalance" shall be addressed below, though for now we can say that the basic thrust of the thesis I should like to entertain is this: the physiological basis of any given value *is* emotional response itself, with the convenient corollary, for literary critics, that no work may be valued without its having provoked an emotional response. This does not imply that value reduces to emotional response alone, since values must still be prompted by the work (if our response is *to* the work and not something else). What it does imply is that when an artwork is as affecting as a painted fence or routinely patterned carpet—that is, not very affecting at all—then a critic may be justified in saying that the work cannot be valued because there was nothing in or about the work that moved her (a platitude that might, after all, have some interesting entailments). For one, even works whose depictions ought to hold intrinsic value for their "natural" rewards and punishers—such as depictions of death, love, or war—may nevertheless fail to achieve value *as* works of art if their depictions cannot provoke a response.

⁸⁹ There seems no need to separate aesthetic properties and terms from non-aesthetic properties and terms, as Sibley and others sometimes do; such a division, to me, implies that we cannot treat aesthetic stimuli as we do any other kind of stimuli. So I opt instead to treat all simulated and perceived stimuli as experience-like in nature, *à la* situated simulation; this places all so-called "aesthetic" experience into the same sphere as experience in general, since the same multimodal processes underpin both. This argument was developed in the previous chapter. See also note 81.

⁹⁰ For those arguing against the possibility of "natural kinds" of emotions, see Barrett (2006) and Griffiths (1998).

To illustrate how we might value works differently on account of their emotional properties, let us consider, first, two paintings depicting death whose contents provoke strikingly different responses, such as *Saturn Devouring His Son* and the *Death of Major Peirson*.⁹² In this case it would seem intuitive to think that the former achieves far greater emotive impact—for most viewers, at least—while the latter achieves greater technical command over its subject matter; and for this difference (between technique and provocation) we might be led into thinking that the former’s depiction of a type of death achieves “intrinsic value,” while the latter’s does not. And the reason for this, we might say, is that *Saturn Devouring His Son* exploits universally provocative properties—blood, a crazed physiognomy, etc.—while *Death of Major Peirson* does not.⁹³ But can we say this? Not without qualification, since *Death of Major Peirson* shows apparently “natural” expressions of fear and commotion (and if we “understand” the work, then we ought to also impute additional dimensions of value linked to war, valor, death of an admirable figure, etc.). But there does appear to be some basis to the intuition that between the two works there is some significant difference, and that the difference links to more versus less ostensible properties of an emotional kind.

Another example might be two very different poetic treatments of jealousy, one mawkish and the other realistic. Now if most humans respond to depictions of jealousy with sympathetic fear, or some other pattern of emotional response, then it seems plausible to say that jealousy counts as a “natural kind” of value-conferring property. But then (considering now some extant examples) could I claim that, say, Rupert Brooke’s *Jealousy* is less valuable compared to segments of Shakespeare’s *Othello*, if the one proves mawkish and the other realistic? On what basis could I make this claim? How can I “prove” that one work is mawkish and the other realistic? My answer—if there were one—would seem dependent on some normative standard outside the work, some consensus about jealousy that allows us to distinguish “mawkish” from “realistic” instances of jealousy. If so, then the “intrinsic value” of a work’s depicted jealousy may require extrinsic knowledge about its possible iterations. I shall

⁹² Links for either painting may be found in *Wikipedia* by entering their titles.

⁹³ Demonstrations “in passing” must leave much out, of course. We cannot say that “a type of death” is all that can be found in Goya’s painting, when there is much more going on (its wondrous fictional/mythical import, dark composition, etc.). We may also attribute additional complex values to what “more” is going on in either painting, such as admiring either work’s technique, composition, etc. Copley’s painting, I suspect, would also stand to gain much from historical sensitization. A military man might find the scene and backdrop deeply moving; and the mythical backdrop of Goya’s painting, for perhaps a similar reason, may lend it an austerity that would be lost if we assumed the depiction had no intertextual basis. Historically contingent and formal values, however, may issue not from the works themselves but from our (perhaps “sentimental” in Budd’s sense) understanding of formal skill and historical context.

consider such possibilities, below, though for now I should like only to support the thesis that what makes for value in either Brooke's or Shakespeare's work (at the most elemental level) is either's depiction of jealousy. On the basis of this thesis, whether a work is deemed value-less for failing to provoke emotion, value-ful for succeeding; more valued because more emotively forceful; aesthetically but not thematically valued, etc., I expect at least two useful outcomes: that (one) critics may stipulate what it is *about* any given work that elicits—or fails to elicit—a value-conferring response, with some claim to “objectivity” (i.e., that a work does in fact contain valuable properties, even if these properties must be inferentially linked to simulated properties from text); and that (two) critics may use these properties to assess the warrant of any critical judgment, so that by reference to a work's representational developments (*muthoi*), an evaluation can be seen as more or less justified, as tracking more or less closely an understanding of the work's intrinsic qualities (either this or tracking extrinsic, specialized knowledge about the works' forms—or some combination).

Of course any equation between value and response may at first seem facile or superficial, for such an equation, as Wimsatt and Beardsley rightly warned, appears to strip a work of its formal contents (1949). “We might as well study the properties of wine by getting drunk,” quipped Eduard Hanslick, and indeed, if we were only mindful of our feelings, and not at all how the work's qualities prompted them, we would have little to say *about* the work itself (p. 31). Yet the “affective fallacy” may not follow from grounding artistic value in emotion if emotion is always about some (simulated or perceived) object or event in the first instance. So it may be the case that if a work moves us in some way, there must be something already *in* the work doing the moving (and if a work of art—or wine for that matter—was *not* intoxicating, we may have little to recommend its consumption). So there is nothing necessarily facile about identifying value with emotional kinds of response, if determining what it is about a work that affects us depends on unraveling complex emotional intentionalities, or more than one kind or combination of emotional subjects.

To seriously entertain equating artistic value with emotional response, however—and to avoid begging the question that what is valuable is also what is emotional—we need some reliable means of demarcating emotional from non-emotional contents, or what is intrinsically salient from what is conditioned. Perhaps a sound starting point for such a demarcation may have us ask what we as humans evolved to value, first, and in what respects we go against (or with) the grain of evolutionarily instilled values, second. If the basis of all value lies in species-typical emotions, then the particular values we ascribe to works ought to share the same

grounding, so that works whose contents fail to engage the emotions, species-typically, may not have any lasting basis for value ascription.

Now of course I say this is a “starting point” and not an ending point, since basic categories of emotion sometimes appear too blunt to explain more subtle forms of affective response. A critic of *Ulysses*, for example, may feel pleasure every time she reads “from the stairhead seaward where he gazed” in the first chapter, and if the only option for explaining this feeling were some basic emotion, like “joy,” then she would feel let down by an emotion-based theory of value: for how could the pleasure afforded by the line—if its simulated properties truly evoke pleasure on each re-reading—link to something as blunt as “joy”? To be sure, there seems to be more “value” in what the line offers than its pleasure alone, not to mention the implausibility of linking its pleasure to some basic emotion.⁹⁵ A more plausible explanation, perhaps, is that the line combines mellifluous sound patterns with a kind of wonder felt from simulating “gazing out to sea,” both qualities that evoke *aesthetic* beauty and not any kind of basic emotion. But even this explanation leaves us with a question about what “beauty” means, and how this concept affords value, and so leads us back to explaining beauty in terms of “affective” (if not “emotional”) experience linked to what we simulate, an experience that we would want to say stands for some type of value.

So we have to start somewhere if the problem space of value is to be clarified, and this is why it makes sense to begin by acknowledging that humans do not respond, instinctively, to a heap of dung as a dung-beetle does, nor to carbon dioxide as the mosquito does, since humans evolved to value dung and carbon dioxide differently.⁹⁶ This much is obvious, and it is partly on the basis of what is obvious that I must begin my analysis. But less obvious is the fact that we too—like dung-beetles and mosquitos—have our own set of instinctive preferences for objects and events in the world, preferences that I believe ground artistic value. These “instinctive preferences,” I shall argue—along with whatever preferences we acquire throughout life—link

⁹⁵ There are semantic complications between distinguishing emotions from pleasures and other kinds of affect. This has prompted Panksepp to distinguish between (1) “sensory affects,” or “the pleasures and displeasures aroused by low-level exteroceptive inputs,” (2) “homeostatic affects,” such as “hunger and thirst, which arise from interoceptors of the brain and body about which much is known,” and (3) “emotional affects,” or “prototypical types of action readiness” such as rage, fear, desire, lust, distress, nurturance, and playfulness (2012b, p. 9). I am primarily concerned with (3) when I think of basic dimensions of emotional value, though (1) and (2) surely factor significantly into valuable reading-experiences. I return to Panksepp’s distinctions in section II.

⁹⁶ The idea of a dung-beetle’s unique neuroecological history was inspired by a similar example raised in one of Brian Boyd’s lectures. I considered the importance of neuroecology in early chapters, or the relation between neurological mechanisms—such as basic kinds of receptor cells—and our evolutionary past, or the types of stimuli we were selected to perceive compared to other species, like dolphins. The neuroecological relation between percept and concept amounts to a kind of default, proto-intentionalism, and so is no less important here than it was in earlier chapters.

to core emotional systems in the brain. What we perceive or recall as liking, disliking, ugly, or beautiful—in a word, whatever we *value*—always anchors in something emotionally salient, whether the salience is for ourselves (our safety or advancement), for others with whom we care for (their safety and advancement), or (in perhaps lesser cases) for aesthetic properties that we find pleasing on some basic level (such as taking pleasure in a rainbow).⁹⁷ Even morality seems conscribed by what we can imagine about others’ existential condition, emotionally, i.e., whether they have “liberty” or seem brutally “oppressed,” whether their circumstances seem “favorable” or “unfavorable” (Johnson, 1993). But how can we empirically connect value to emotion?

Several recent papers try to establish a link, and the effort has been collected into a volume entitled *Neurobiology of Human Values* (Changeux, Christen, Damasio, & Singer, 2005). Contributors to this volume argue that emotional systems evolved to handle whatever could be valued by an organism, instinctively or otherwise. Damasio makes an especially convincing case. He argues that mechanisms underlying biological “homeostasis” must in some way link to an evolved set of values (p. 49). A homeostatic mechanism is one that returns an organism to optimal health, and it would seem that emotions often do just this: they indicate some potential harm or reward, however immediate or distant, and so can be seen as basic drives that prompt homeostatic behaviors (de Waal, 2011; Panksepp, 2000, 2012b). Social emotions in particular—gratitude, compassion, and indignation, for example—seem integral to everyday values directed towards ourselves (such as a negative self-image) or others (such as liking or disliking someone), and so these emotions may ground moral valuations (p. 51). Neuroscientific research also suggests that particular emotional systems, such as the amygdala, have evolved as natural kinds of saliency detectors, or relevance filters (Pessoa & Adolphs, 2010; Sander, Grafman, & Zalla, 2003). LeDoux has noted along these lines that “the amygdala is a key structure in the assignment of reward value” or “motivational value” to stimuli (2012, p. 662; 2008, p. 160), and that hippocampal-amygdal associations may attach “emotional value to context” (2008, p. 164). The amygdala has also been shown to assign punishment value for its role in the processing of threatening stimuli (Sander et al., 2003, p. 305). Such findings, then, have led some to conclude that “emotions are inherently about various [types] of goodness or badness” (Clore & Ortony, 2008, p. 638).⁹⁸

⁹⁷ As I argue, however, the pleasure of a rainbow may accord an “affective” value (in Panksepp’s sense) rather than an “emotional” value (see below).

⁹⁸ Not surprisingly, philosophers have long made connections between emotion and value. See Pitcher (1965) for example, who argued that the intrinsic nature of emotion is valuational. It could be argued, too, that Nietzsche’s

That value grounds in species-typical emotions does not imply that we can only value objects natural to our neurobiological niche, or as Stephen Dedalus puts it, that we can only admire “the great flanks of Venus because” because we feel “that she would bear [us] burly offspring,” or that we admire “her great breasts” because we suppose “she would give good milk to [our] children” (Joyce, 2007, p. 183). Rather, it implies that even apparently “unnatural” values—such as perhaps masochism and amathophobia (fear of dust)—may all in some way depend on utilizing “natural” value systems. So while there seems no better candidate for natural values than evolutionarily instilled emotions, drawing too heavily on an evolutionary-historical framework for value—to the point where we can only think of Venus in terms of her sexually fit flanks—would risk confusing distal causes with proximal psychological effects, or selective *origins* with observable cognitive *functions*. Unlike a visceral organ such as the heart or lungs, a cognitive function may take over tasks quite removed from how it came into being through selection. We may not have a “language instinct,” for example, so much as an inborn capacity to associate sounds and symbols with memory impressions, or an emotionally driven need to communicate (Panksepp, 2008b). A more parsimonious account of language, then, may see its function not as adaptive in itself, but as a byproduct of learning, memory, and emotion.

Some cognitive functions seem much more “organ like” than others, however, and emotion seems one such. Just as lungs need to reliably oxygenate blood, emotions need to reliably reproduce characteristic physiological states suitable for each emotion-appropriate situation, such as recoiling with pain after touching a hot stove, feeling fear or aggression when sensing different types of threat, etc. So emotions must have some organ-like underpinnings, even if we can no longer think of emotions as primitive on account of their systemic integration with “higher order” faculties, or physiologic interconnectivity with each kind of modal input. And indeed emotion can be seen to function reflexively and stereotypically across individuals, suggesting strongly that anatomically innate structures underpin emotional expression (LeDoux, 2012; LeDoux & Phelps, 2008; Panksepp, 1998).

Yet there is still a pressing need to distinguish innate from acquired emotions, a need that may not be sufficiently met by evolutionary psychology. As Stephen Dedalus’s criticism suggests, distinguishing what is innate from what is acquired—a wish at the back of

perspectivism hinges on links between affective states—such as the feeling of power, or *Machtgefühl*—and moral valuation. “What is good?” asked Nietzsche: “—Everything that enhances people’s feeling of power, will to power, power itself” (2006, p. 4). Contentions surrounding “natural kinds” of emotions are elaborated upon below.

evolutionary psychology that is sound, if at times invalidly pursued—does not require appealing to “just-so stories” about our distal evolutionary past, such as knowing, precisely, what types of selection pressure led to particular adaptive mechanisms that now fix value. We may only need, instead, significant proximal data from neuroscientific research showing how emotional systems innately privilege certain types of stimuli over others, in terms of attention, response, and recall; and from these data it may be sufficiently clear that emotional systems have been *adapted* in the strong sense, without having to explain value vis-à-vis imagined evo-historical pressures. In this way, neuroscience may not need to account for precise selective conditions leading to an adaptation as a precursor to saying some neurologic function counts as innate, yet neuroscience still needs to determine what counts as innate versus acquired. The reason for this need is clear enough for any theory of emotion, where challenges to the “natural kind” status of neurological systems may undermine nativist accounts in favor of social constructivist alternatives, as we find in Barrett’s critique (2006).

Of greater importance for my purposes is the parallel need to support a theory of “intrinsic value” for works of art, as Budd attempted. “Intrinsic value” is a philosophic term with a pedigree going back to at least the nineteenth-century, in moral philosophy and in philosophy of art. Generally the term is a metaphor for values contained within a work, or rewarding experiences offered by a work’s properties without dependency on supplementary knowledge external to those properties. This does not mean that a work may have intrinsically valuable properties that we fail to detect without supplementary knowledge, in some cases, but what it does mean is that artistic value comes back in some way to the work: “It is the nature of the work that endows the work with whatever artistic value it possesses; this nature is what is experienced in undergoing the experience the work offers,” and so for Budd “the work’s artistic value is the intrinsic value of this experience” (p. 264). Now as I should like to argue, a work’s intrinsic value seems contingent on there being *innate* emotions that respond selectively to biologically salient kinds of property. Without some natural basis for a property–response paradigm, there could be no value *in* works of art, as experienced. Literary works in particular, on this view, would need to simulate kinds of sense data that reliably trigger corresponding kinds of emotional response. Determining which systems in the brain link to emotion, and how these systems activate while reading, must therefore be established before I can claim that certain kinds of literary representations provoke rewarding experiences.

One technique used to disentangle innate from acquired emotional phenomena is showing how certain neuroanatomical divisions respond selectively to emotional kinds of

stimuli (both congenitally and homologously across mammalian species). Anatomically distinct neural circuitry, like systems for vision, touch, and sound, come with genetic blueprints that map out each system's neural architecture prior to extensive learning, though of course epigenetic (environmental) influences modulate the activation of innate circuitries throughout life (LeDoux, 2012, p. 656). Numerous theories demonstrate the neurobiological basis of emotion, where "survival circuits" in the brain can be shown to link to emotional expressions, and each has had a significant influence on my understanding.⁹⁹ I shall not explore each theory's distinctive claims, here, since many capable reviews already achieve this aim, and since technical differences between competing theories have little bearing on my position.¹⁰⁰ So rather than consider which theory is most correct, I should like focus on what I believe to be the three most important threads uniting all the theories within my purview, then extrapolate from these threads a basis for linking emotional response to kinds of value-instantiation.

First, all neurobiological theories of emotion begin by dividing systems dedicated to emotion from other systems whose function is non-emotional in nature, i.e., systems dedicated to touch, sight, sound, and smell (Antonio R. Damasio, 1996; Panksepp, 1998; Pessoa & Adolphs, 2010; E. A. Phelps, 2006). Emotional systems include but are not limited to the amygdala, pulvinar, and periaqueductal grey (de Gelder et al., 2011; LeDoux & Phelps, 2008; Pessoa & Adolphs, 2010). These systems are shown to be pre-organized both physiologically and functionally. On the physiological side, different afferent inputs—such as those signaling pain—terminate in areas specialized for processing painful stimuli, such as the periaqueductal grey (A. D. B. Craig, 2003). On the functional side, whenever an emotional system falters, we see a corresponding loss of function consistent with the type of emotion subserved, i.e., an inability to regulate pain following damage to the periaqueductal grey, diminished early visual detection of emotional stimuli following impairment of the pulvinar, inability to detect aversive stimuli following loss of amygdal function, and so forth. So the first thread uniting all

⁹⁹ See for example Panksepp's "affective neuroscience" framework, Damasio's primary and secondary emotions model, LeDoux's subcortical model (and his more recent "survival circuitry" framework), and others (1996; 1996, 2012; 1998). My perspective on emotion has been informed by elements within each of these theories, though I also keep in mind more recent research that addresses problems in the older theories, such as the presumed dichotomy between (and separation of) "affect" and "cognition," or thinking that the amygdala is solely responsible for processing biologically salient stimuli, when there may be other equally relevant anatomical systems involved, such as the pulvinar (Luiz Pessoa, 2008; Pessoa & Adolphs, 2010). Though of course the debate continues; see for example de Gelder, van Honk, and Tamietto (2011).

¹⁰⁰ For reviews, see the following authors (Dalgleish, 2004; de Waal, 2011; Dolan, 2002; LeDoux & Phelps, 2008).

neuroscientific theories of emotion is the existence of innate systems dedicated to processing emotional kinds of stimuli.

Anatomical specialization of function need not suggest any compartmentalized “modularity,” since each type of emotion interpenetrates several other perceptual domains. We sense a hot stove but we also feel pain; we hear rumbling in the woods but we also feel alarmed; we smell rotting food but we also feel repulsed. Clearly then emotional systems interpenetrate each mode of perception, though what we may not realize is that emotional systems, though always intentionally related to perceived (or simulated) objects and events, are not only passively reactive to intentional objects. Emotions also act directly on the formation and retrieval of memories (Bechara et al., 2003; LaBar & Cabeza, 2006; E. A. Phelps, 2004).

It is important to think about how emotion affects not only perception but memory consolidation, for on my view, if emotional response is an instance of value-instantiation, then a work’s value (though not necessarily its quality) is the sum of all its emotionally modulated memory instantiations; the reason for this claim is that we do not simply respond emotionally to a work, without its properties affecting our minds; instead, we respond emotionally and encode what we have responded to into memory.¹⁰¹ Neuroscientific theories of emotion routinely show that emotional systems directly shape memory during the earliest stages of perception, so that memory is often deeply influenced by whatever was emotionally salient about a perceptual stream (Tamietto & de Gelder, 2010; Vuilleumier & Huang, 2009). Adrenal stress hormone has been shown to mediate memory consolidation, for example, and it has been shown that emotional events (not only stressful ones) often trigger the release of this hormone and so facilitate memory retention (McGaugh, 2004). What is emotional, then, often translates into what is memorable.

To exploit the relation between stress hormone and emotional learning, β -adrenergic receptor antagonists—a type of neurochemical that blocks stress-hormone release—can be administered during learning situations to alter the effects of emotional arousal on memory (p. 5). In one such study, patients are shown a slideshow with an accompanying story, where the

¹⁰¹ I should note here a difference between the physical encoding of emotional memory versus conscious recollection of the emotional experience (Elizabeth A. Phelps & Sharot, 2008; Redelmeier, Katz, & Kahneman, 2003). In Redelmeier et al. it is shown that patients can remember a colonoscopy as less painful if the end of the procedure is made less painful, even if the actual procedure was just as painful on the whole compared as other colonoscopies. But this finding does not then suggest that the less painful seeming colonoscopy, as a procedure, was *actually* less painful, at the level of encoded memory for the experience (or that if we remember a deeply moving play as less moving than it actually was, after we have seen it, on account of a flat ending, that the play on the whole lacked value). Also, “pain” from a procedure is not analogous to undergoing an emotional experience from viewing a play, since from the play we experience full-blown emotional scenarios, not just blunt reactions to an instrument. The quality of a value has other dimensions that I shall briefly sketch below, such as how long the emotional memory lasts.

beginning and end of the story relate emotionally neutral content while the middle involves relating details about an auto accident (LaBar & Cabeza, 2006, p. 57). Patients administered a placebo recall more details about the auto accident a week later, during a surprise memory task, than they do details about neutral contents, while patients who receive a β -adrenergic antagonist do not show any such memory enhancement for emotional content. Now what makes this finding interesting is that patients with amygdala damage show the same behavioral deficit as subjects with β -adrenergic blockades, that is, they cannot recall emotional stimuli any more than neutral stimuli, suggesting that the amygdala produces endogenous stress hormones that then enhance memory consolidation for emotional events (p. 57). In general, then, emotional arousal, mediated by the amygdala, appears to enhance memory consolidation.

Extrapolating from the above data and applying them to reader-response theory, we might say that emotionally arousing simulations etch themselves into memory more than neutral simulations, so that an emotional work enhances recall of its forms more than a neutral work. If the “emotional response = value” thesis holds, moreover, then there would appear to be a physiological link between emotional properties, arousal, and recall of those properties, so that it is our memory of a work’s emotional properties that we value, not just our emotion. Indeed, it may be the case that an emotion’s intentional objects—all the properties held in working memory that an emotional episode is about—become more memorable by default of their emotional salience. Something similar could be said about works whose properties, because they *cannot* provoke emotion, or because they are not emotional enough, fail to consolidate into remote memory (and so for that work we cannot hold any memory to value).

Neuroscientists distinguish between encoded stimuli that we can readily *recall* versus those that we only find *familiar* after being prompted, and emotion often determines our ability to *recall* what we have perceived (p. 58).¹⁰² As Elizabeth Phelps notes in her research, a patient with amygdala damage can *remember* that an object correlates with a shock in fear-conditioning paradigms, but since the patient cannot express any autonomic arousal in anticipation of the shock when the object is presented alone, the object’s pairing with a shock has failed to encode any *emotional memory* for the object (2006, p. 39). On my view, then, even though the object

¹⁰² The recollect/familiar distinction may be associated with different terminology, such as declarative/procedural memory, or implicit/explicit memory (p. 54).

was remembered, it may lack value.¹⁰³ This consideration will need refining in the next section, though for now I wish only to stress that there is a strong connection between emotion, perception, and memory. What we sense during perception and, subsequently, recollection—even if we sense something non-consciously—may depend on an object or event’s ability to stimulate emotional arousal (Tamietto & de Gelder, 2010). And indeed, some studies suggest that emotional intensity more than valence (positive or negative features) determines our ability to recall episodes from past experience more generally (Talarico et al., 2004). The interrelation between perception, emotion, and memory, in fact, seems so often emphasized in neuroscientific research on emotion that I believe it ought to serve as the second key thread uniting all neurobiological theories of emotion.¹⁰⁴

Emotion not only modulates perception and subsequent recall, but also plays a central role in introspective problem solving (Antonio R. Damasio, 1996; L. Pessoa, 2008; Storbeck & Clore, 2007). Damasio offers a prototypical example with his “gambling task” paradigm, where participants with amygdal lesions cannot avoid accruing major losses when tasked with playing a simple gambling game compared to healthy participants who quickly learn to avoid such losses (Bechara et al., 2003). Damasio conjectures from these findings that patients with amygdal damage cannot associate negative feedback with “losing” outcomes, and so cannot emotionally index memories in a way that facilitates learning how to avoid mistakes (p. 361). Similar amygdala-mediated effects for representing and recalling rewarding stimuli have also been observed (Baxter & Murray, 2002, p. 570). Thus, our sense of what is “right” or “wrong” about a choice may depend on emotional feedback about the perceived or simulated properties of objects under consideration.

The results of the “gambling task” and related research may lead one to suppose that memory—being the matter of reason—is on equal footing with emotion, for it is always the case that we need to represent both an object’s sense data *and* its emotional properties before we can accurately determine the object’s value. However, it seems more accurate to suppose that because emotion exerts such a disproportionate influence on daily life—on memory, action, and attention—that emotion is not merely one factor influencing cognition among many, but the *most* influential factor—the most central, the most directive. Emotion, not memory, delimits the *scope* of human values. We need emotion to “reason” about what we ought to do in the face of

¹⁰³ Though there of course may be other emotional subsystems that attribute value to the object besides the amygdala, such as the pulvinar; if so, the object has value insofar as one of these systems developed neural wiring in response to the object’s presentation.

¹⁰⁴ See for example the following authors (LaBar & Cabeza, 2006; E. A. Phelps, 2004; Vuilleumier & Huang, 2009).

ever shifting environmental conditions; and we also need emotion to signify the presence of biologically *salient* or conditioned stimuli of general or contextual relevance. And although you will not find a neuroscientist who says that all rational deliberation “ought” to serve emotional ends, something akin to Hume’s assertion that “reason is and ought only to be the slave of the passions” can be found in most neuroscientific theories of emotion (or at least those with which I am familiar, to date). In each major study on the interface between emotion and cognition, emotional systems are shown to at least facilitate—if not altogether *drive*—whatever we might call “introspection,” “problem solving,” and “judgment” (Knudsen, 2007; McGaugh, 2004; Panksepp, 1998; Pessoa & Adolphs, 2010; Vuilleumier, 2005). Thus, emotion, as Robert Solomon has long maintained, cannot be relegated to the status of the merely vestigial, extra-rational, or “primitive” (Bechara et al., 2003; Solomon, 2008). Emotion’s central role in both “top-down” and “bottom-up” cognition—a role not to be confused with supposing that everything the brain does is emotionally contingent, which clearly is not so—counts as the third most important thread uniting all neuroscientific theories of emotion.

To summarize: three factors bind neurobiological theories of emotion, including (one) anatomically dissociated systems dedicated to processing various types of emotion, such as fear, disgust, anger, and so forth, or the “organ-like” nature of emotional systems; (two) bidirectional integration of emotional systems with perceptual and memory systems; and (three), the cardinal nature of emotion in cognition more broadly.

Several conclusions follow from the above three factors, though only a few seem relevant to conceptualizing value-attribution for reader-response. One is that emotional systems—though dissociable from visual, auditory, and other perceptual domains—are themselves inherently perceptual in function. This premise may seem counterintuitive at first, since we are unaccustomed to think of emotions as inherently *about* perceived kinds of objects or events in the world. But since emotions are biologically attuned to classifiable kinds of stimuli—interpersonal and environmental threats and rewards, most generally—we can think of emotional systems as (first and most basically) perceptually dedicated to tracking “biologically salient” kinds of stimuli, or those stimuli most likely to promote biological homeostasis (Antonio R. Damasio, 2005).¹⁰⁶ Then (second and more complexly) emotional systems link to numerous other kinds of conceptualization, whether they seem “natural” or not.

¹⁰⁶ I distinguish “natural” from “biologically natural” kinds; the former is related to categories such as “gold,” with *projectable* (stable, mind-independent) features enabling classification (R. Boyd, 1991); the latter are also projectable, although the features in question are not “natural” in the sense of extrinsic, abiotic physical properties in the world, but in

What counts as “emotionally salient kinds of stimuli” is not always easy to infer, however, since emotional associations may be acquired through personal habit, socialization, and mere exposure. Both “classical” and “instrumental” conditioning, for example, demonstrate how we may learn to respond emotionally to otherwise non-emotional stimuli. Classical conditioning occurs when some neutral stimulus, such as a tone, pairs with an unconditioned stimulus, such as a shock; pairing continues until the neutral stimulus alone elicits the same response as the unconditioned stimulus. Instrumental learning on the other hand uses reinforcements, punishments, and “extension” (the absence of either punishments or reinforcements) to shape behavior over time. Both types of conditioning make it very clear, however, that the effect of associating neutral stimuli (such as tones) with unconditioned stimuli (such as shocks) diminishes over time when neutral stimuli are no longer paired with punishments or rewards. That is to say, without the accompaniment of some *biologically natural kind of emotional stimulus*, neutral objects and events cannot maintain strong emotional associations (Hartley & Phelps, 2010). Without exploiting natural reactions to aversive and rewarding stimuli, we thus cannot shape behavioral responses and motivations over time (Seymour, Singer, & Dolan, 2007).

Consider an example. If someone were to claim ownership of a hair plucked from Nietzsche’s mustache bought in auction from the Nietzsche estate, then that hair, though insignificant and unaffacting on its own, would assume a value by proxy of its association with an historical figure who has already been conceptualized as valuable (*as a “philosopher,” “radical thinker,” “sensitive intellect,” or whatever else*). As long as the hair’s associated object retains value—namely, Nietzsche and his writings—then the hair will retain its proxy value over time. If, however, Nietzsche were to lose his value as an historic figure, then the hair would no longer have value. So whenever we say that some associated object or event has “attained conceptual value,” our concept must still have some grounding in a natural kind of emotional association (in this case, for Nietzsche himself to attain value, he must have written philosophic treatises that reliably prompt strong emotional reactions); else whatever we might call an “associated” or “conceptualized” value would have no innate capacity to retain its value over time. I have chosen this example to illustrate how far away Nietzsche and his mustache

the sense of biologically pre-organized systems attuned to specific types of stimuli (in brains this would be a neurological system; in trees or plants it would be a cellular system; etc.). Emotional systems are intrinsic and biotic, so the types of stimuli they evolved to process are much more gradational, dynamic, and multifactorially related to perceived stimuli than whatever we could say obtains for substances like “gold.” For related debates, see Barrett (2006), Griffiths (1998) and critical respondents, such as LeDoux, Panksepp, Scherer, and Colombetti (Colombetti, 2009; LeDoux, 2012; Panksepp, 2008a; Scherer, 2009). Louis C. Charland has also discussed the natural kind status of emotion, favorably (2002).

seem from anything we might think of as “naturally” valuable. The point is that for anything to attain a value-association it needs to provoke an emotional response, so that when an object fails to achieve such a response—either, in this example, because Nietzsche’s writings have been destroyed or we can no longer understand them—then the object loses its potential value.

On this account, all values, learned or innate, must eventually be grounded in emotional systems that themselves cannot be arbitrarily linked to just any kind of stimuli, in or from the world, even if we come to value something that is not in itself valuable. So Nietzsche’s mustache hair, far from counter-exemplifying the “value = natural kinds of emotional response” thesis, demonstrates how systems innately responsive to threatening or rewarding properties may ground values for objects that do *not* evince innately valuable properties (Nietzsche and his mustache). This is how we can say value-neutral references acquire value associations indirectly through value-positive or value-negative objects and events *already* encoded and conceptualized as valuable (allusions, symbols, and so forth, thereby acquire value, which makes some poems difficult to parse if they lack overtly affecting imagery).

Now I should reiterate, also, that if value depends on perceiving biologically natural kinds of emotional stimuli in the world, such as aversive and rewarding objects and events, then the neuro-intentionalist stance obtains no less for values than it did previously for visual, auditory, and other kinds of stimuli. Just as visual systems evolved to respond selectively to visual kinds of stimuli, auditory systems to auditory kinds of stimuli, and so forth, we can say that emotional systems evolved to respond selectively to emotional kinds of stimuli, or what are sometimes called “emotionally competent stimuli” (Antonio R. Damasio, 2005, p. 51; Panksepp, 2008a; Rudrauf et al., 2009). The very nature of emotional response, then—and by extension the values emotion instantiates—implies some dimension of intentionality, or aboutness, to the extent that valuing a work implies having had some emotional response to features of the work that we value, features “recapitulated” from encoded stimuli in or from the world (Addis et al., 2009).

It is important to realize, in addition, that emotional intentionality (the depictive aboutness of an emotional response) does not necessitate a one-to-one relation between emotions and objects perceived or introspected. Viewers or readers may always be conditioned to respond emotionally to otherwise neutral stimuli, or with an exaggerated response to moderately emotional stimuli. A red wheelbarrow may not evoke much emotion, on its own, yet when we find this object in a poem written by William Carlos Williams within the context of an

important manifesto on poetic imagination, then its otherwise mundane qualities may assume greater emotive force. We may also associate positively valenced values with otherwise negative objects, as the anthropomorphized stool in *South Park*, Mr. Hanky, attests; or vice versa, we may think of harmless objects as somehow threatening, as some do with smiling clowns after watching the *Poltergeist* films.

If an emotional response entails the attribution of value, then there will always be occasions when we must paradoxically value a work that we wish not to value at all. We may for instance respond passionately to a work that we deem unworthy of intense feeling, yet by dint of responding with emotional force, we have *already accorded* a quantum of value to the work that we cannot take back.

Understanding this last point requires shedding a strong—often needful—prejudice about the nature of value as a category (either for reasons of morality or accustomed usage). Usually when we think of “value” we presuppose some positive dimension—i.e., “that book is valuable,” “that A paper I marked is of greater value than the C paper,” “I value your friendship,” etc. Yet value as an emotional dimension is “value-neutral” in the usual sense applied to this term. So when we respond with aversion to the rape sequence in *The Girl with a Dragon Tattoo* we *value* this sequence for the aversion it generates, even though we qualify what we have valued in disagreeable terms (we do not like what it is that we have responded emotionally to); or if we react aversively to racist poetry, we *value* the poetry for its racism, not because we desire or identify with racism, but because we disapprove strongly of racism and its social consequences.¹⁰⁷ So although emotion is what we value in works, generally, the quality of an emotional value can vary radically—it can be desirable, undesirable, good, or bad. Emoting to a work thus entails an investment of value that cannot be returned or exchanged, only (at best) forgotten or overwritten. We are always prone to irrevocable shortchanging. There is no indemnity against unplanned exposure to damaged, mediocre, or undesirable goods.

To restate the first conclusion once more before moving on to the next, I have argued that we must perceive or simulate emotional stimuli, *in* or *from* a work, before we can say a work’s contents offer intrinsic value; otherwise, we must associate apparently non-emotional stimuli with previously conceptualized values of an emotional kind (as was the case with Nietzsche’s mustache hair having to link backwards in a chain of value to Nietzsche’s writings).

¹⁰⁷ Such a poem, then, could be said to have no intrinsic value if the contents cannot evoke response on the back of their own simulated sense. However, a naïve reader may assume that the contents of, say, H. P. Lovecraft’s racist poetry (discovered from a Google search) entail a sincere representation of an undesirable object; in this case, the negative characterization of the object may carry value. For related discussions, see Budd (1995, pp. 83–123)

A second conclusion that follows from the neuroscientific sketch, above, is that there is some degree of *automaticity* involved with emotional processing. Automatic emotional response to types of rewarding or punishing stimuli is strikingly demonstrated in patients with temporary visual impairment. Subjects rendered blind from stroke or brain surgery may nevertheless respond with fear to fearful images, even though they cannot report having seen anything provoking fear, a phenomenon known as “affective blindsight”; patients with retrograde amnesia have also been shown to forget that they have received a hand-shock from a joy-buzzer concealed beneath a researcher’s hand, though they will nevertheless refuse to shake hands with researchers who have administered shocks in this manner (Tamietto & de Gelder, 2010, p. 699). So it seems clear that emotional kinds of stimuli affect behavior and response even beneath the threshold of consciousness, and so occur automatically or without deliberation. That we respond to emotional kinds of stimuli in this way reinforces the idea that we sometimes cannot help attributing value to events that display potential threats or rewards, or perhaps any event characteristic of a certain class of emotion. As Damasio notes, “A baby chick in a nest does not know what eagles are, but promptly responds with alarm and by hiding its head when wide-winged objects fly overhead at a certain speed” (1996, p. 132). The object need only match certain specified features—i.e., a hawk-shaped kite oriented in a particular direction—but so long as the features are present, the chick will respond automatically as if the object were threatening. We find a similar effect in newborn babies. Infants are shown to automatically express joy, interest, surprise, sadness, anger, disgust, contempt, and fear when exposed to stimuli keyed for each of these emotions (Izard et al., 1980). So again, emotional systems are early responders to types of stimuli that may threaten or promote homeostasis, and these types of stimuli drive our sense of value for objects and events. In this respect, all that we do to strive after health, prevent circumstances leading to death, and procure conditions that promote “optimal” rather than “defective function,” count as biologically natural kinds of *value* with respect to homeostatic regulation (Antonio R. Damasio, 2005, p. 48). Perceived emotional events, then, may signal to the organism that there is some biologically relevant stimulus at hand, some rewarding or threatening object or event that falls into a class of emotional response (p. 49), and this premise ought to apply no less to works of art than it does to everyday occurrences.

Now of course when we react to, say, the machinations of Coriolanus Snow in the *Hunger Games*, we perceive this character not as an “immediate” biological threat in any true

sense, because we ourselves are not biologically threatened; but just as baby chicks respond with instinctive fear to certain characteristic shapes and movements, we too cannot help but respond to *simulated* threats and rewards as if they were real (this is because, as I have argued, our brains react to simulated properties as if they were real properties, despite our knowledge to the contrary; as far as our brains are concerned, we track properties as the chicks do, assuming the properties have been simulated with sufficient realism). Simulated kinds of emotion, no less than simulated kinds of mental imagery, therefore depend on dedicated neurological systems able to perceive biologically natural kinds of property.

Responding emotionally is not always automatic, of course, and we can be misled by what *appears* to be an automatic response. We can misunderstand a work's properties and emote to what our misunderstanding suggests, for example; or we can project a value onto an object that we suppose, falsely, holds some preconceived property of a desirable or undesirable kind. We may develop prejudices about classes of people and then react to their presence with aversion or reward since we assume, falsely, that inherent in their class is an essentially undesirable or desirable property (as segregationists were prone to do during the American Civil Rights Movement).¹⁰⁸ So it should go without saying that we need not be locked into accepting that a work of art—no less than a person—is essentially “good” or “bad” simply because we have emoted to a presumptive essence. Holding an emotionally instantiated value of an *automatic* kind, therefore, need not suggest that such values are the end-all of aesthetic appreciation, for we may also develop subsequent values of an opposing valence for the same objects and events.

So there is a line to be drawn between (a) those emotions automatically prompted by a work and (b) the process by which we adjudicate between competing interpretations and the emotions they recommend, or (for that matter) deciding whether one or another kind of valence (positive or negative) is of greater warrant for the same literary object (for instance, whether it is more correct to “like” or “dislike” Martius, Humbert Humbert, Raskolnikov, etc.). If intersubjective understanding determines the warrant of competing judgments, then through a process of discovery (some kind of “heterophenomenological” calibration to a work's properties) we can adjust our net value for a work (such as attuning ourselves to value-conferring properties that we overlooked on first exposure). In this way, the line between valuation and evaluation, between first-impressions and adjudication, is always provisional and epistemological in nature.

¹⁰⁸ Humans seem especially prone to this kind of mistake (the so-called “fundamental misattribution error”), leading some to posit that we are evolutionarily disposed to “essentialize” objects and events. See Lisa Zunshine's short yet informative discussion of this tendency in her (2002, p. 129).

A theory of intrinsic value can thus be open-ended with regard to adjudicating a work's value, though not so open-ended as to suggest that a work warrants an indefinite number of valuations (value is still of the work, after all). Memory impressions are malleable but not infinitely so.

Indeed, the impressions a work leaves us, since they do not consolidate into lasting memories instantaneously, can sometimes shift from one emotional valence to another.¹¹¹ An example of this is seen in what some psychologists call “cognitive reappraisal” (Ochsner & Gross, 2005). Participants reacting negatively to an image of a woman crying outside a church, in one trial, can react positively to the same image in another; they need only be informed that the woman in the image, rather than weeping during a funeral (as they supposed) was actually weeping with joy after a wedding (Ochsner et al., 2002). In such instances, a shift in perspective may be all that is needed to shift the valence of a value. Not all values may be conceptually reframed in such a manner, however. Plato's *Republic* illustrates the fixedness of some values memorably with the tale of Leontius. Unable to counter his desire to gaze upon dead bodies after a public execution, for want of sufficient will to overcome his desire, Leontius curses his eyes for forcing him to perceive what he would rather not have (1991, p. 119). Acquiring a negative value for the dead bodies—a sense of “disgust”—was thus for Leontius a *fait accompli*: for after the fact of this value instantiation, no amount of contrary will or reason could shift his attitude about what he saw, nor his wish to see in the first instance.¹¹² And indeed, it may be the case that we more often face situations analogous to Leontius' than Ochsner's ambiguous church image (though rather than try to resist seeing dead bodies we sit through films like *Final Destination* or stream graphic footage taken from a warzone). Our ability to respond with different types of emotion to the same set of *ambiguous* stimuli need not suggest value-relativism of any sort, since non-ambiguous stimuli—dead bodies, a hot stove, etc.—cannot so easily dislodge from neural tissues after an emotion has anchored them there. We may laugh at something that has made us cry, or cry at something that has made us laugh, but crying joyously versus crying grievously necessitates perceiving incommensurable attributes. Joyful crying requires rewarding stimuli; mournful crying requires punishing stimuli;

¹¹¹ For reviews of how kinds of emotion memory—even those strongly engrained—can be untrained, and how there is a time-course for memory consolidation, and the profound effect of emotion on consolidation, see the following authors (Dudai, 2004; Hartley & Phelps, 2010; Nader & Hardt, 2009; Roozendaal & McGaugh, 2011).

¹¹² Bloom suggests that if only Leontius had sufficient reason to satisfy his curiosity, rather than resist an otherwise repulsive sight, then the outcome of seeing dead bodies would have been a positive one (p. 376).

and neither the two shall identify.¹¹³ So in addition to the premise that (one) we cannot value objects or events without some inherently emotional content factoring into the value, directly or by proxy of another value, and that (two) we may automatically value emotional kinds of stimuli as basically understood, there seems another premise: that (three) we can ascribe values to properties that cannot simply be reversed by will alone, even though we may, as I shall demonstrate later, *add* additional and contrary values to those we have already inscribed (or what could be called a type of meta-evaluation of values).¹¹⁴

Antonio Damasio offers a framework that may further elucidate how automatically inscribed values underlie values applied by proxy. According to Damasio, we may think of innate, automatic emotional responses as “primary emotions” and acquired responses as “secondary emotions” (Bechara et al., 2003; Antonio R. Damasio, 1996, p. 136). On this view, we can learn to attenuate automatic responses, or “primary emotions,” through conceptual reframing or repeat exposure, i.e., we may react with instinctive aversion to house spiders, though with repeat exposure (and education) come to view them as harmless; or we may fear heights yet learn to feel comfortable with heights in certain contexts, such as a climbing gym. Attenuated or reframed responses entail a shift in attitude through learning, though any emotional response that is acquired or shaped through association is termed “secondary,” even if no shift in attitude takes place (Antonio R. Damasio, 1996, pp. 136–139). Even so, all secondary emotions, on Damasio’s view, presuppose the activation of pre-organized, primary emotional circuitries (p. 137). So we cannot have a secondary emotion without first developing an underlying primary emotional association. Envy may be contingent on feelings of anger, for example, so that I cannot envy Fred for having published without first feeling angry that I myself have not published. And since primary emotions require types of stimuli sufficient to provoke a characteristic response, whatever object or event we respond emotionally *to* must be thought, in some way, to bear attributes that we deem emotionally warrantable. I say “must be thought” and not “must be,” for in some instances—as with all cases of moral misattribution—the supposed primary emotional ingredients cannot be found in the object or event itself, and so must be altogether projected onto the object, or “seen-in” to the object as suggested above. We weep with sadness when we perceive a loss; we well up with tears when we perceive a hard-

¹¹³ Anthony Kenny makes a similar case (2003, pp. 134–136): “One cannot be afraid of just anything, nor happy about anything whatsoever,” he argues; “each of the emotions is appropriate . . . only to certain restricted objects” (p. 134). I agree on this point, yet Kenny’s general position seems overstated. We often hold inappropriate emotions vis-à-vis some object or event, as when we feel prejudicial disgust, anger against our better judgment, or accept what we know to be a glib judgment of another’s behavior for expediency’s sake, or fatigue.

¹¹⁴ Not to be confused with Nietzsche’s “transvaluation of values,” though some conceptual overlap may obtain.

won gain. Yet if an object or event bears no primary emotional attributes upon scrutiny, even though we have already responded as though it did, then we may deem our response *intentionally* but not *empirically* related; we have cried at a thing that lacked properties warranting our response.

Offering an overview now of what has been said so far, it seems, first, that for us to value a thing we need to have perceived or simulated the thing that we now value. Emotions are in this way always *intentionally related* to perceiving a work's depicted objects and events. This idea of intentional relation links to Barsalou's situated simulation, since what we simulate relies on stored memories from experience. Second, emotions seem both a global and specific indicator of *value*, or the rank-ordering of whatever we suppose counts as "good" or "bad" between and within works, essentially or by association. Thus, whenever we respond emotionally to an object or event, we also thereby attribute value to that object or event, so that we can *identify* the "valuative" ingredient in any judgment with its underlying emotion or complex of emotions (with pain, disgust, pain tinged with anger, anger tinged with disgust, or a meta-value such as feeling angry that we took pleasure in something we know to be base). Work by Kringelbach, Damasio, and others have independently shown an integration of multimodal input and "reward value" in the orbitofrontal cortex, which may explain how our sense of hedonic or punishing feedback modulates our ongoing sense of value for whatever we simulate or perceive (Antonio R. Damasio, 2005; Kringelbach, 2005, p. 699; Peters & Buchel, 2010). This does not mean that our valuative responses are always correct, however. Mistaken understanding can lead to valuing properties that were not actually present in a work, or we can overlook properties that ought to have factored into our response. Or as Nussbaum has argued, personal relations to stimuli may alter our valuative sensitivities to types of stimuli, such as cultivating deep kinship bonds that others cannot share; these types of bonds may also influence how we respond to natural kinds of emotional stimuli. In such cases we may experience some simulated event through our own valuative windows, as Nussbaum would say—through our own perspectival valuative relation to what we simulate. Though again, these types of value-inflections may be correct or incorrect with respect to the work (if incorrect, then they may be called "sentimental" valuations, in Budd's sense). Whatever the case may be for any exchange of value *for* a work, it is still the valuative properties *in* the work that allow us to say whether it

is the work that affords value, rather than something extrinsic to the work's semantic horizon.¹¹⁵ Determining the extent to which our valuative responses are correct usually requires intersubjective verification and consideration of others' alternative value-perspectives, *before* we can say that we "know" the work is what we value and not our own perspective, even if values and perspectives go hand-in-hand; however, the process of assessing the validity of our own values ought to be distinguished from the nature of valuative responses to a work, on first exposure, or from how we value natural kinds of emotional stimuli (see section 4.2 below for more on this crucial distinction).

The "representational" element in any value judgment, on the other hand, must comprise a work's perceived or simulated characteristics, and these characteristics, as I shall suggest in the final chapter, may produce qualitatively distinct emotional responses within the same class of value. For instance, a work whose subject matter is unrealistic, incoherent, and flat, may evoke a grade of emotion distinct from another whose subject matter is realistic, coherent, and nuanced, even if both works are grounded in the same class of emotion (sexual desire, fear, wonder, etc.). So while I maintain the thesis that all value identifies with emotional response to salient kinds of property, I am not proposing any reduction of a work's value to emotional experience alone, since most emotions felt while reading (as opposed to primary-response affects such as itches, acute pains, or surprises) are predicated on antecedent representational developments, and these developments may vary in quality (and memorability).¹¹⁶

And third, I have argued that the ambiguity of an emotional response—whether it is subtle or blunt, seemingly primary though perhaps secondary—poses no challenge to the process of value attribution more generally, since all emotional responses, from gross pains to subtle aesthetic sensations, become united by their capacity to attribute *saliency* or relevancy to perceived objects or events. Even background sensations or moods (boredom or optimism, for example) follow from situated contexts (inactivity or feeling secure about future prospects). Even so, we may be wrong about what we think we have responded to in a work, emotionally: I may dislike a fictional character because he reminds me of someone I dislike in real life, even though I falsely attribute my dislike to the *character's* properties, not to whomever he reminds me of. Skepticism with regard to our own responses, and how we ought to adjudicate among

¹¹⁵ A work's semantic horizon, or "identity," is developed at length by Stephen Davies; he focuses on musical scores and as publically accessible objects with normative traditions for performance, and I think this is roughly analogous to how we can treat textual "scores" for literary works (2001).

¹¹⁶ I am here responding to the charge of "reductionism" made against Budd in (Sharpe, 2000).

them, is thus of principal importance if we wish to cultivate a more “correct” understanding of a work’s properties.

Now I should like to align the foregoing more closely with reader-response theory. I have made general claims about the relation of emotion to value, though how these claims might apply to reading and responding critically to literature may require some adaptation. If for example we grant that emotion is a type of sensory system of its own, a system that modulates input from other modal systems—visual, auditory, tactile, etc.—then it seems only parsimonious to assume (as was the case for modal representation, *qua* grounded cognition) that we attribute value to simulated contents from fictional worlds as we do perceived contents from real worlds. Responding emotionally to a fictionally represented event, in other words, ought to be no different in kind (not in degree) to responding to a perceived or imagined event of the same emotional type. We can feel despondent when Anna Karenine commits suicide and when a friend commits suicide, and it should be obvious that the latter’s order of magnitude surpasses the former’s, since we have embodied more emotional memory for a friend than we have for Anna; but if grounded cognition obtains for emotional memory as much as representation in general, then the same *kinds* of emotional events underpin values for Anna and our friend; it is only the qualitative scope of object’s properties, and the differences in the degree of our response, that differ.¹¹⁷

The claim that we respond emotionally to simulated sense data (introspectively) in much the same way (in kind) that we respond to perceived sense data (extrospectively) has strong empirical backing. Participants in neuroimaging studies have been shown to respond emotionally to written prompts as they do to visually presented pictures or videos, and in some studies, “instructed fear” using language is shown to condition fear associations comparable to those of “classical conditioning” without language (Canli et al., 2000; LeDoux & Phelps, 2008,

¹¹⁷ Many philosophers have a problem with applying perceptual psychology to aesthetic experience, however, since it seems obvious to these philosophers that we cannot emote to fictional worlds in the same way that we do to real worlds (Radford & Weston, 1975; Walton, 2008). Such philosophers can go to great lengths to avoid any overlap (in kind) between fictional and non-fictional worlds, since they view such an overlap as challenging commitments to realism. Radically “disjunctivist” categories of representation and emotion have thus been proposed, so that we now have “fictional emotions,” “quasi emotions,” and “illusional emotions.” So I shall not concern myself with the so-called “paradox of fiction,” here, and simply focus on how emotions experienced from fiction are on par with emotions experienced from daily life, with differences in degree but not kind between them. I grant that the paradox introduces some legitimate concerns, but it seems to me not at all problematic to say that I actually fear an ax murderer in a film, despite knowing that the murderer can’t actually harm me, because as far as my brain is concerned, the stimuli of the murderer *can* harm me; my knowledge of the fiction does not alter the kinds of properties I represent. This is because, as I have argued, grounded cognition puts “factual” perception on the same footing as “simulated” perception; in both cases, the contents of understanding are multimodal properties (the one directly perceived and the other indirectly simulated).

pp. 167–168; E. A. Phelps et al., 2001). From the neuroimaging examples, we see that comparable patterns of neural activity underlie both reading and viewing emotional stimuli (which is not to say that a duplicate experience underlies both, only that the same *kinds* of event allow us to comprehend and respond, emotionally). Following an instance of “instructed fear,” for example, the behavioral and neural outcome (activation of insular cortex and amygdala and a subjective report of fearful anticipation) is comparable to that of classical conditioning, where real shocks are administered in the training of fearful anticipation (Phelps et al., 2001). These data seem sufficient to believe that *reading* about an emotionally evocative event is correlative with actually *seeing* or directly sensing the event, both in terms of underlying faculties, behavioral outcomes, and somatosensory reactions. And again, “correlative” does not mean “the same.” Directly perceiving a bull charging after someone cannot be *exactly* like reading about a bull charging after someone, yet the underlying neural activity and somatic reactions prompted by both shall be of the same *kind* (even if fictionally prompted emotions diverge in degree of intensity or multimodal vividness from everyday emotions and perceived emotional properties). So not only does grounded cognition hold for representational systems but also—to the same extent, and for the same reasons—emotional systems as well.

Now, if identifying emotional response with value-attribution seems solid enough, as a general rule of thumb, then it may be useful for critical purposes to think not in terms of “evaluating” a work but “*emotiating* to” a work. If emoting imparts a value, then we do not so much “evaluate” as we do “emotiate” a work’s properties. The term “evaluation,” by contrast, often has little to do with the type of value exchange that takes place between readers and simulated sense data. No material goods, in the usual sense, are being appraised, and no monetary considerations are at hand; nor are we thinking of values in sociopolitical terms, or as manifestations of socialism, nationalism, fanatically held religious belief, and the like. Emotiation by contrast is much more fundamental insofar as it underpins all other types of value as a type of basic cognitive process. Saying that we “evaluate” works of art also carries undesirable temporal connotations—a sense of prolonged, careful deliberation, for example. Yet when I read or see a performance of some emotionally evocative event, and so attribute value to that event—a sense of “goodness” or “badness”—I am not so much *evaluating* the event, *post facto*, as I am *emotiating* to that event, in real time; I am not deliberating about what values I ought to inscribe; rather, I am having values inscribed into me by default of undergoing an emotional experience. So although I would not advocate using such ugly neologisms in general, it would make more sense on a theoretical basis to say that Hamlet, Iago, etc., embody

inherently *emotiative* characteristics, not valuable characteristics, since each of these fictional characters possess traits that we cannot help emoting *to* (not only their overtly emotional properties, which we may react to in any case, but also their individual insights and commentaries on human motivation and character. Iago, after all, is not just “villainous”; he is also a highly perceptive machiavel with philosophically provocative lines—“Our bodies are our gardens, to the which / our wills are gardeners,” he says, and to this we could dedicate some serious consideration).

Saying that we do not so much evaluate as emotiate also suggests a useful range and limit to value’s spectrum. Each emotion may carry its own value, and literary works generally provoke more than one kind of value, each with its own antecedent representations; yet it is also true that no value ranks higher than any other insofar as its classification is concerned. We might rightly rank intense longing above mild amusement, since the one has more emotive force than the other, but a work’s value is often a matter of a plot’s developed quantity more than any local intensity within its parts. The presence of some developed class of value (such as jealousy) may matter more than its acute expressiveness without development (a point I shall elaborate below). There is also, as mentioned above, the “value-neutral” quality of emotiation. If a work is equally attractive and repulsive then both types of response contribute equally to the work’s value, so that the one kind (repulsion) cannot be said to be lesser than the other (attraction), assuming both are integral to the work. A simulated or perceived event may thus be “positive” or “negative” without suggesting that positive emotions (such as awe) were in themselves more valuable than negative emotions (such as fear).

On the other hand, if a work is viewed as formally inept or morally repugnant, then the value afforded by such properties may not be integral to the work, as a work of art, but rather byproducts of “second-order judgments” about the work’s properties.¹¹⁸ This can of course lead to seemingly counter-exemplifying situations where, if a work is so spectacularly inept that each viewing engenders repulsion, then we would need to say the work holds intrinsic value (perhaps not *as* a work of art, but value in its most basic sense, all the same). However, it would be a mistake to suppose that formal quality is equivalent to representational quality. We would not say, for example, that a poorly executed production of *Othello* makes *Othello* bad, as a play, nor

¹¹⁸ See for example R. A. Sharpe’s critique of empiricist approaches to value, where he believes “second-order judgments” can apply to a work “independent from experience” (2000, p. 332). I would think, however, that some basis in our experience of a work must be held in memory for us to say our criticism or praise is truly *of* a work and not our own freestanding conceptual value.

would we say that an excellent production of a shallow work lends it depth. As Budd has commented, “A poet who has nothing worth saying may in one sense write better poetry than another who does have something interesting to say, but what she writes may be a poem of less value,” and so “good writing for its own sake [. . .] has minimal value unless in conjunction with something worth saying” (1995, p. 105). Negative reactions to inept art cannot therefore equate with negative reactions to an absence of significant content, nor can a work’s formal shortcomings cancel out its rewarding emotional developments.

It is worth noting in this context, also, that the same emotional category may have different emotiative functions (some formal, others developmental or plot-oriented), so that we can say, for example, that fear positively reinforces a transition between scenes, negatively reinforces our dislike of a character, or “prefocuses” attention to imminent emotional outcomes (Carroll, 1998, p. 262). Each emotional class (such as “fear”) can thus carry a number of value-conferring dimensions for types of subject-matter or formal context. We can thus emotiate with anger (a type of badness) or attraction (a type of goodness), react with varying degrees of responsivity within a single emotional class (anger versus rage), and layer emotional classes together (such as anger and repugnance, or “righteous indignation”). As mentioned above, there also may be different types of emotional response linked to different mediums of expression, some more “aesthetic” than others. Representational emotional experiences afforded by longer works, where responses follow from narrative arcs, do not seem on a par with what Frank Sibley calls “aesthetic judgments,” such as claiming that a work has “balance,” “grace,” or “unity,” even if these judgments are constitutive of the narrative (1965). Nor do emotions felt from sonnets or aphorisms—which, in the case of Shakespeare’s sonnets, at least, Brian Boyd persuasively argues lack full narratives (2012)—seem equivalent to the emotions felt from reading entire plays, even if we feel an equal pitch of intensity for both mediums of expression. I shall address these issues again in the concluding chapter, though for now it seems that differences between each class of emotion—aesthetic, sententious, and narrative—may link to differences in emotional memory, where percipients must draw more or less from “remote” episodic memory to understand a work. When reading a sonnet, for example, we may need to identify, largely, with abstracted “situated conceptualizations” of life experience—for instance, how in despair we can think upon a friend and find reassurance—as opposed to “situated simulations” that develop in a narrative arc—for instance, how certain events could lead into despair and how visiting with friends could compensate (Barsalou, 2009). There may be no clear way to clarify or define such differences in value, though from this cursory overview of

possibilities, at least, I hope it is clear that the “value = emotional response” thesis does not reduce value to a unitary kind, even if the underlying ingredient of all value is emotional.

I mentioned above the idea of “second-order judgments” of a work. Now I should briefly qualify what this could mean alongside the “value = emotional response” thesis. There is a class of emotionation that seems contingent on metacognitive awareness of our own emotionations. When I cry during a film yet feel angered by an apparent lack of warrant between my crying and the film’s developments, feel annoyed by a novel that exploits stock emotional scenarios (vengeance, martyrdom, romance), realize that I have been cozened by sensational music or gratuitous violence, catch myself responding favorably to a character resembling a friend, or unfavorably to a character resembling an enemy, then in each case I have responded with a kind of emotional valuation to my own emotional valuations. Cultivated awareness of some pattern—of exploitative artistic tropes (the knacks of craft) or prejudice, perhaps—can thus factor into “second-order” appraisals, or “metacognitive emotionations,” since some value grafts onto a value. Of course I may be wrong to appraise my own appraisals, if there was, after all, sufficient warrant to cry, even if I was manipulated, or if a prejudice is incidental to our primary reaction to a character. This is why adopting skepticism about the warrant valuations is so crucial, and why general “evaluation” needs to be set apart from particular instances of “valuation.”

Thinking of value in terms of embodied, emotion-conferring properties also entails important philosophic consequences. First, naturalizing value in neurophysiological terms challenges the fact/value dichotomy insofar as it assumes that “values” are physical, psychological events linked to instantiated memories of objects and events in the world, or as sharing the same empirical constraints as “facts.” Where *emotionation* (or valuation, to switch back to more conventional terms) entails a range of neurophysiologically instantiated values as natural biological kinds, *evaluation* often signifies some “nomological dangler” or epiphenomenal quality that, by definition, cannot be explained in natural terms. Such danglers are avoided on the embodied values thesis, even if a coherent picture of value must be saved for some distant future when neuroscience comes of age.

Second, grounding value in the neurophysiology of emotion challenges moral edicts against thinking of values in value-neutral terms, for now it is simply a matter of fact that fictional depictions of “bad” emotional events, such as violence, are on par with normatively “good” emotional events, such as tranquility. As far as emotional systems are concerned, we

value both violence and tranquility with near equal force, and in some contexts, we may even value violence more than tranquility (in the brute sense of the term value).¹¹⁹ So for example if I react with anger to Iago and “value” this character’s representation as a kind of “social threat,” then the value-attributing mechanism underlying my response would be a pre-organized system, such as perhaps the amygdala, and the value itself would be whatever the brain consolidates into emotional memory for Iago (Green & Phillips, 2004, p. 337; Sander et al., 2003). The quantum of value attributed to Iago in this case would be the emotional association *for* Iago’s attributes under simulation, and so our feelings for Iago would also be contingent on successfully comprehending his attributes. For this reason, whenever the term “value” is used (in the “emotive” sense) there is also some “empirical” exchange that has taken place—that is, an emotional memory *for* some simulated or perceived sense data has been encoded or embodied. Thus, if a work has “intrinsic value” then it is able to present or simulate some property that provokes emotion, *a posteriori*, or if a work is valuable for some reason extrinsic to its percipient properties—such as valuing Duchamp’s *Fountain* for its historically ironic status as a work of art—then we will have emoted to the work by proxy of some aesthetic concept or socio-historically mediated norm outside the work.¹²⁰ “Value” and “value,” therefore, cannot “trade on” normative and natural senses, for all value collapses into some network of emotional intentionality. “Evaluate” (judge) and “evaluative,” on the other hand, can only ever be normative on the basis of some empirically provisional theory about a work’s net value, a theory that is open to public scrutiny with regard to a work’s properties. So when I use the term “evaluate” I keep it apart from particular “valuative” experiences that a work offers, and so on this distinction “evaluative judgment” never implies any absolute (*a priori*) claims.

And third, a work’s value, since it entails an embodiment of emotional experience, also makes a strong case for art’s “instrumental” or “cognitive” value, that is, any kind of value that links to yet succeeds the experience of a work. After we read a novel, poem, view a play or film, our understanding of the natural and social order of things may broaden:

¹¹⁹ It was G. E. Moore who classically supposed that “goodness” cannot be defined in natural terms (1993). For an overview of this position and the related “naturalistic fallacy,” see Frankena’s excellent essay, *The Naturalistic Fallacy* (1939). Also, some types of value may be instinctually privileged over others, as research on the so-called “negativity bias” demonstrates (Vaish, Grossmann, & Woodward, 2008).

¹²⁰ This is not to say intrinsic value is necessarily better than extrinsic value, though only works with intrinsic value can perhaps “stand the test of time.” Conceptual art can be valued *as* art, if its perceptible features provoke value, or if the “language” of the piece reliably translates into situated simulations that hold intrinsic value. Most conceptual art, however, confers value only as a byproduct of some extrinsic mediation that affects us emotionally; the value may thus be historically time-bound and contingent on our knowledge that the piece is a urinal, etc. Works may also of course have both intrinsic and extrinsic values at once.

When works of fiction regularly lead us to grasp in the imagination the psychological states of characters, we enhance our ability to do something similar with real people. If such works lead us to imagine fictional situations from points of view other than our own (namely, those of the narrator or characters of the work) and empathize with those points of view, again we become better able to do this for real situations. (Stecker, 2005, p. 198)

Grounded cognition makes a strong case for this type of value. Emotion is physiologically bound to recollection, and so any work whose properties impress us with memorable emotional moments may also then export those moments into our lives. We may embody a work's simulated experience as we embody knowledge of everyday objects and events, so that a work's simulated properties literally become a part of our lives. If "moral insight" is acquired from a work, for example, then consolidated memory of "moral insight" ought to repay value in some future circumstance that shares properties with the work's experience (2005, p. 189). This would be so even for works largely *about* moral ideals intervening where nature would otherwise hold sway.

Now it seems clear from the above examples and possibilities that a naturalized approach to value-attribution affords significant explanatory power (at least in theory). In practice, however, this power does not necessarily translate into making cut-and-dried value judgments, or even at times a clarification of our valuative experience. For some works, I can fear, esteem, and become apathetic towards a character at different stages throughout a reading, so that the net effect is a type of jumbled ambivalence. Or I might simulate and encode a property with "badness" and another with "goodness," and so find myself unable to make out whether I think a character or theme is altogether bad or good. Or I may feel overwhelmed by a work's themes at a certain stage in my life, given some contextually primed relation to its subject matter, and then realize, later, that my first impressions were exaggerated or misguided.

None of these difficulties suggest any significant challenge to a naturalized axiology, however. Experiencing multiple, conflicting values for a work may only reflect its complexity, and feeling confused by the "good" or "bad" status of a character or theme is often what makes a work challenging and memorable. If, finally, we wish to argue that a work has *intrinsic* value, then it must be the work that moves us, not our particular life's circumstance, and so shifting attitudes towards a work that come from maturation, moods, misfortunes, etc., do not militate against the work's having intrinsically reliable kinds of value (though it is always the case that

we need a wealth of *general* life experience before we may comprehend any subject or theme in the first place).

The greater critical challenge, then, is not always determining whether we have had some response to a work—since “having a response” usually entails an awareness of having it—but rather assuring that our assessment of a work’s values aligns with its properties (and so achieves “empirical warrant”). My value for a work, after all, may be as closely bound to a work’s properties as your value, even if we both reacted differently. And you may not have attended to certain properties in a work that I later disclose to you or help you understand; then, after a second reading or viewing, these properties may confer values that alter your overall judgment, and so your understanding will have gained greater empirical warrant (“heterophenomenologically”). In any case, a critical praxis able to parse out what is “basically” emotional (in kind) from what is “complexly” emotional by deliberation (in type), intrinsic to understanding from what is not, instinctual from what is culturally conditioned or metacognitive, and so forth, is needed. It is this type of praxis that I hope to demonstrate in the next section.

4.2 Critical Dimensions: Valuation and Evaluation

I have so far argued that the physiological basis of artistic value is our responding emotionally to a work’s percipient properties; that these properties encode into “emotional memories” that can potentiate “instrumental values” (values a work offers after undergoing its experience); that a distinction should be made between “valuations” (emotions) and “evaluations,” where the latter counts as a judgment of a work’s overall value and how its properties should be understood, and the former a value-conferring experience. Now I should like to organize the foregoing into useful distinctions for assaying the value of particular works, starting with a short poem and then moving on to *Coriolanus*. As argued, there are three broad, overlapping valuative modes: the first is responding reflexively to biologically natural kinds of emotional stimuli, or having what Damasio and Panksepp call a “primary” emotional response (e.g., recoiling with fear from a snake or feeling sexual attraction when viewing a nude); the second is having a conditioned or “secondary” emotional response, such as a racial or moral prejudice, a learned preference such as liking sci-fi or disliking romance, etc.; and the third is using our metacognitive awareness of *how* we respond to a work—knowing for example that we have responded in such-and-such a way for such-and-such reasons—to reevaluate our own primary and secondary values. To get a feel for these three valuational modes at work—primary, secondary, and meta—let us return to the poem discussed at the close of Chapter 2:

so much depends
upon

a red wheel
barrow

glazed with rain
water

beside the white
chickens.

‘Basically comprehending’ this poem’s contents first requires recapitulating memories already encoded from experience (memories for WHEELBARROWS, RED, CHICKENS, etc.). These memories then comprise the poem’s multimodal representations under working memory, or the poem’s situated simulations. Translating linguistic codes into representational messages, as argued in previous chapters, leads naturally into analyzing a work’s simulated sense data so that we may ask, under the “first-fold,” what is epistemically necessary and/or sufficient to render the poem’s objects and events into intelligible representations, and what in our backgrounds may enhance or detract from our level of comprehension. As far as the poem above is concerned, I suspect that most of us will have encoded impressions sufficient enough to say that we share a high fidelity of comprehension for the work’s contents. It is unlikely, at least, that our representational proxytypes for RED, WHITE, CHICKENS, etc., will vary substantially enough to render the scene altogether differently between readers.

However, when we turn to evaluating a work—or determining the poem’s potential values—it may seem puzzling to consider what (if anything) about the work provokes emotion. If Panksepp is right to say that “sensory affects” are distinct from “emotional affects,” where the former amount to “pleasures and displeasures aroused by low-level exteroceptive inputs,” and the latter “prototypical types of action readiness,” such as anger, fear, desire, and so forth, then what type of “affect” does the poem evoke? (2012b, p. 9) Is it “low-level” pleasure or “prototypical” emotion? If we feel moved by the poem, our response may seem too slight to suggest that we have had an “emotion” so much as a “sensory affect” of some kind, since there is apparently little in the poem’s simulated sense that warrants provocation of a distinct

emotional kind. So we might rather think that whatever feeling the phrase “so much depends upon” generates is akin to responding to isolated melodies, emotively expressive gestures, calming patches of color, or balanced compositional arrangements, all of which would seem to me more affective than emotional.

What other modes of value might there be in the poem, if not low-level pleasures? Do wheelbarrows and chickens—however mundane these objects may seem—somehow tap into previously acquired, positively dimensioned values, such as those procedurally encoded from garden-work, urban-farming, etc., or negative values such as disliking menial labor or rural affairs? On such a possibility, if we have already encoded the poem’s contents with an emotional value index for “barrows” and “chickens” *prior* to reading the poem—given our sentimental fondness or distaste for gardening/labor—then the mere act of simulating the poem’s objects would evoke a sense of “goodness” or “badness” apart from whatever else the poem’s simulated sense could achieve, emotionally. Our valuing the poem’s objects would thus be sentimentally bound to pre-consolidated emotional experience for “barrows,” “chickens,” etc., apart from whatever experience *the poem’s* imagery may prompt (that is, whatever our “basic comprehension” of the poem amounts to, as pointed out in the last chapter). We would thus need to conclude that the poem has no *intrinsic value*, given the fact that whatever emotional experience *the poem* offers is contingent on pre-consolidated, sentimental associations with its contents.

Another possibility is that we both render a poem’s contents in real-time and respond to *these* contents as if they were perceived anew, directly, *and* we simulate the poem’s objects and events in a manner squaring with *our* unique understanding of them, an experience that may include an emotional orientation (“positive,” “negative,” “neutral,” procedural, conceptual, etc.). Imagine a cat-lover reading a poem about a demonic housecat, for example. At first the “simulator” for HOUSECAT will carry a positive valence, though as soon as the reader discovers that the poem’s cat is demonic, a new, negative valence will encode from *the poem’s* simulated sense data. Now in this case the poem’s simulated sense overrides the reader’s previous emotional orientation for its object (cats) and instantiates an independent value for its novel creation (a demonic cat). This example (silly as it is) may prove paradigmatic for all works of art, if whatever any work may achieve, emotively, depends on the value of its objects and contexts as encoded from experience (*ab origine*), *and* whatever emotional values the poem is able to generate from *its* experience, as a work of art. Neither must override the

other, though I would assume along with Budd that it is the experience of the work that matters most for judging *its* values.

If the above reasoning is correct, then a poem's simulations confer only as much value as *their* contents achieve independently, as reconstituted intentional objects and events able to provoke emotion on their own; whatever value from this simulated sense is what counts as the poem's "intrinsic value"; then combined with this value are "extrinsically" valued dimensions, that is, values that come not from the work's simulated sense alone but their conceptual associations, such as understanding the meaning of learned rhetorical devices ("so much depends upon"), that the poem was originally contextualized in an artistic manifesto of sorts (*Spring and All*) that challenged poetic conventions, only later removed from its context and placed into anthologies, etc. On this view affective tropes ("so much depends upon"), haiku-like simplicity, and other such formal elements may reliably prime us with transient, pleasurable associations—or "affective sensations" for the poem's objects—and from these associations a poem may impart some semblance of mimetic value each time we simulate its contents anew. Yet I would suppose that such feelings, as with the effect of rhetorical devices more generally, cannot consolidate lasting values *for a poem's* representational contents if these contents lack primary emotional properties, on their own. Though it does seem clear that, with a little rhetorical boost, otherwise mundane objects may conjure up some modicum of value, whether *we* have found the objects emotiative from *our* interactions with the objects or not.

I should mention in this context that some theorists, such as Wolfgang Iser, suggest that arbitrary, "subjective" associations for objects and events fundamentally alter our response to a work's contents (1988, p. 15). The "the reliability of human knowledge is undermined by the revelation of its dependence on personal fixations," argues Iser (p. 63). On this reasoning we value a work's simulations relative to our own "subjective" emotional orientations. As shown in the previous chapter, however, we recall only those associations *appropriate* to an object's context rather than think upon every possible association, i.e., if shown a blurred image of a bathroom sink with an object resting nearby, we assume this object will be a hairdryer rather than, say, a power-drill, even though both objects (dryer and drill) share perceptually common forms (Bar, 2004). When simulating objects like chickens and wheelbarrows, then, our minds will not *automatically* jump to extra-contextual associations such as zoo animals or construction sites, nor for the same reason will we infer that the barrow's "redness" symbolizes communism or the chickens' "whiteness" aryanism (unless by deliberation we came to think so). Rather, we

“basically comprehend” a work’s contents, first, then respond to these contents with emotion or pleasurable affect, second. It may be objected that for Williams’ poem we receive instructions about how the poem ought to be read, allowing us to understand that its contents challenge poetic conventions, and so cannot be understood on their own terms; yet if a work needs supplementary material to be understood, when this material is not directly related to the work’s contents, as basically understood, then this type of material externalizes the work’s value to normative conventions. So if a work’s simulations are contextually bound then so too are its values, and appealing to valuable contexts outside a work cannot supplement whatever values the work must generate on its own (a premise following from the distinction between intrinsic and extrinsic value made above). And again, I should remind readers that a work whose value is extrinsic does not mean that it must be less valuable as a result, or that a work is either intrinsically or extrinsically valuable. T. S. Elliot’s *Wasteland*, for example, requires significant supplementary understanding to uncover much of its intrinsic value, and so if all of this material were suddenly lost, we would have a hard time appreciating the work’s more subtle allusions; what would remain, however, would be whatever the work can offer from understanding its language.

So far I have only examined how a work might be valued, from its experience, not how a work might be “evaluated” or judged as having intrinsic value. For the red-wheelbarrow poem there seem two possibilities. On the first, we might say that the poem’s simulated context and contents do not prompt emotion by *their* simulated sense alone, and so the poem lacks intrinsic value of an emotional kind. This would be a strong claim, and perhaps uncharitable, but no less valid (and I think sound). On the second, we would need to argue that *everyone* feels some emotion or “affective sensation” when perceiving rain-soaked objects of any sort, or that *most* have encoded procedural values for barrows and rain, or that at least *some* have encoded values for chickens, etc., though only *if* we wish to maintain that the poem confers *intrinsic* value (in at least one respect and possibly others). So on this possibility, it could be argued that the poem recreates a universal feeling of wonderment for those able to immerse themselves in its world of imagery, and incites us to place additional value on those images; thus, the poem holds an ever-potentiated intrinsic value, “wonderment,” along with its central (and so not merely sentimental) extrinsic value, namely, that the poem requires of us to understand that it challenges poetic conventions and (perhaps also) stands for agrarian power.

Now I am not suggesting, here, that either the first or second possibility is correct—rather at this stage I am only framing how we might go about determining a poem’s value in

neurocritical terms (that is, in terms of thinking both about a work's "primary" and "secondary" emotional meanings, in Damasio's sense). So if I were to appeal to intersubjective verdicts of the poem's value, and my intersubjective pool of appeal were anthologized criticism of the poem, then I would have to concede that the poem offers intrinsic value, since critics generally appeal to the wonderment of the work's meaning and not just its function of challenging poetic conventions (though perhaps, following Socrates' example, I could show that the arguments used to say the poem has value lack appeal to emotional kinds, and so amount to critical "knacks"). Or perhaps I could conduct a psychological study and expose a sizable, randomized sample of students to the poem. I could then conjecture that if this were done, without offering instructions about how the poem ought to be understood, then little intrinsic value could be discovered *in* the poem's sense. In lieu of this kind of research I have prompted as many of my colleagues and friends as possible to talk with me about the poem to see what they think it means, lending especially close attention to views contrasting with mine (a process whose importance is underestimated). And from this I have made "heterophenomenological" adjustments to my understanding of the poem's values. The result, for me, has been seeing the poem as largely one that has extrinsic but little intrinsic value. At this stage in my analysis, however, I am framing what *could* be said about any work's value (using a poem as a model), not what is true about Williams' poem. The frame I have recommended is threefold: we can think of a work as either (one) intrinsically valuable, including those properties held in memory in relation to earlier elements experienced from the work; (two) extrinsically valuable by proxy of some sentimental association, culturally familiar trope, or central knowledge of a work's historical context/commentary; or (three) acquired metavalue through deliberation and revaluing our own values (so that if we found Williams' poem empty or silly on first reading, we may question our reactions and seek out some supplementary explanation, such as the idea that the poem was challenging poetic conventions; and from this process, we would come to value the poem, extrinsically). The "value = emotional response to simulated sense" thesis therefore offers a means of framing artistic value, even if a particular work's values seem elusive, or if what we feel from a work does not prompt an emotion so much as an affect.

Determining a short poem's emotiative dimensions may be more challenging than parsing out the values of a novel, play, or epic. This is because longer works offer more simulated sense to work with, more working memory from which we may encode new impressions, and (most often) an explicit plot-structure revolving around some emotional

subject. In stand-alone verse, by contrast—such as a lyric—there is often no plot-line to guide us, no episodic action over time within settings that become increasingly familiar. Short poems are in this respect more like aphorisms or memory mosaics than reenacted experiences, more like pondering a painting’s sense-impressions in passing than reading a novel.¹²³ How a lyric confers value is on par, I suspect, with how short poems confer value more generally, with two important exceptions: (one) lyrical verse uses more organized structure and scansion, and (two) lyrics have traditionally concerned themselves with particular emotional experiences. I shall not concern myself with these differences here, however; only I will say that it would seem a type of academic parochialism to expect students to value a work solely in terms of its supplementary material, rather than the work’s percipient properties.

To see how we might go about analyzing the shades of value in a longer work, I should next like to offer an experimental “reading” of Shakespeare’s *Coriolanus*. There is much about the play I cannot anatomize, for want of space, though I shall try nevertheless to relate all that I find relevant about the work—formally and thematically—without glossing over its complexities, even if I must review points in haste. I should note, also, that a “neurocritical” reading does not entail keeping everything “neuro”; this would miss the point of the tools I am trying to develop. Criticism needs freedom to explore a work without confining everything said to a system, or reducing everything that seems relevant about a work to a calculus of value. Nevertheless, I should like to explain “everything that seems relevant” within the neurocritical purview, all the same. So the restricted function of my analysis is to highlight the “applied-side” of neurocriticism as a guiding framework for how we grapple with a work’s themes and subjects, in general; and in particular I will emphasize the major points of value presented by the play, and how these points may impact audiences differently yet remain no less consistent across readers, representationally.

¹²³ This is not to suggest that shorter works are less valuable than plays or films, *as* works of art, but it may suggest that we cannot help valuing plays and films *more*, simply because there is *more* data to value in a plays or films, *more* consolidated memory holding sway over us in a manner approximating evocative episodes from life. But again: the power of aphorism, its capacity to exploit what we already *know* from life, by reconceptualizing familiar experiences with greater focus, serves as a cautionary note against setting one kind of art against another on a scale of value. It may be the case that some aphorisms capture for us *more* value than events from a play, if those events cannot compare to the quanta of memory conjured up in an instant by a single aphoristic line.

4.3 Valuing Coriolanus's Psychology of Power

Perhaps what we should do is simply to suggest a similarity between the way we attribute *value* (aesthetic value) to art objects and the *value* that Nietzsche attributes to a certain kind of man, both resting on a set of common reactions, and on reactions that have much in common. —Philippa Foot (2001, p. 216)

4.3.1 Overview

In this section I argue that at the core of *Coriolanus* is a social psychology of power—a representation of what power is and how it is perceived, interpersonally and personally (between political factions and individuals and in or of oneself). A “psychology” does not mean the execution of enculturated scripts; rather, in this context, “psychology” means a neurobiological propensity to perceive, conceptualize, and respond to social situations and stimuli in characteristic ways. So although socialized norms and values play highly significant roles in augmenting attitudes about power, a “psychology of power” entails the presence of biological kinds of property *for* power, or those properties that single out what power is, who possesses it, and how it is lost, gained, mediated, and perceived.

As discussed earlier, there are certain kinds of stimuli that we have come to value, as a species—namely, stimuli that affect biological homeostasis (at the most general level, potential threats and rewards). And there are learned kinds of value that depend on some underlying, basic emotional association. If this thesis is correct, and if “properties of power” can be perceived as primary kinds of punishments or rewards, depending on one’s social context and personal bearing, then perceiving power-properties ought to instantiate values (in the “emotiative” and “metaemotiative” senses, i.e., valuing kinds of power-properties, automatically, and/or holding moral injunctions against or for these automatic valuations). Now since emotions do not usually arise from mere exposure to a provocative stimulus, but rather follow from a preceding chain of events, it is important to frame a complex emotional category like power with its situated context in mind. This is why I should like to consider whether simulating intergroup power relations—when represented with verisimilitude—amount to a kind of “value simulator,” or robust representational knowledge about an emotional category and its origins.

Simulators, as introduced in Chapter 1, are categories of acquired knowledge about objects and events in the world and within ourselves (Barsalou, 1999, p. 586). An example

would be embodied knowledge about “smartphones” across sense modalities. We learn how to hold smartphones, look at them, text with them, develop visuospatial conceptions of what their user-interfaces look like and what emotional prompts they signal. After such knowledge is firmly inscribed, we have a “smartphone” simulator, and thereafter we may represent and understand what this object means and what it affords in certain contexts. Simulators are thus *learned* representations, replete with contextual relations, even if what is learned (speaking now in general and not in relation to smartphones) is about unlearned faculties or behavioral tendencies, such as learning about the “hippocampus” and its functional relation to memory, or cultivating a metacognitive sense of how we tend to forget certain types of information (such as remembering to bring something to work in the morning).

A “value simulator,” then, would be something an author tries to recreate, a kind of simulated emotional outcome that, when perceived and understood, generates an emotional response with a magnitude and “instrumental resonance” (lasting, emotional memory) contingent on the *quality* of the simulator’s representation.¹²⁴ By quality here I mean a number of possible variables, such as successfully organized plots, thematic significance, acting with understanding, formal nuance and skill, and any other aesthetic category that might be more or less successfully employed to enhance a work’s value.¹²⁵ Though most fundamentally by quality I mean an author’s ability to understand and then realistically recreate preconditions leading to emotional experience, as opposed to employing what Socrates would call a “knack” (a type of formal craft, rhetorical device, or aesthetic concept used solely to gain pleasure rather than impart genuine understanding of a value’s meaning).¹²⁶ An author does not merely represent “anger” when writing about an angry episode, stripping the emotion of its proper intentional relations; rather she usually develops a concatenated chain of events *leading* to an angry

¹²⁴ I put “instrumental resonance” in quotes to signify the term’s relation to “instrumental value,” in the conventional philosophic sense.

¹²⁵ Artistic quality is distinct from artistic value, on this view, so that some (not all) of Sibley’s “criteria of merit”—“unified,” “balanced,” “dynamic”—may enhance criteria of value in the sense developed above (i.e., experiencing fear, anger, jealousy, vicarious Machtgefühl, etc., may be qualitatively better or worse if antecedent conditions are verisimilar, perspectively complete, “balanced,” etc.). I lack the space to address, adequately, the nature of artistic quality vis-à-vis value, though I do consider problems introduced by this distinction in the post-amble. For a general starting point for artistic quality, see Michael Brenson’s “Is Quality an Idea Whose Time has Gone?” in the July 22, 1990, edition of the *New York Times*. See also Peter Lamarque’s nice primer on the subject (2007) along with Willie van Peer’s look at “ideology” vs. “quality” for determining the literary canon (1996). For Sibley’s categories of merit, see his inaugural address to the Aristotelian Society (1974).

¹²⁶ This idea of quality resembles Aristotle’s, who argues that catharsis following from “probable incidents” themselves is better than catharsis relying on “spectacular effects” (elaborate staging, costumes), “signs” (scars, necklaces), and “inference” (realizing what happened without seeing the event represented) (cf. 53b1–11 and 54b19–55a20). On Socrates’s distinction between “knacks” and expertise, see *Gorgias* 462c–466a and 500e–501c; see also for a similar view, worked out at length, in the *Phaedrus*. Advocating Socrates’s distinction between knacks and expertise, of course, does not require advocating Plato’s general disdain for poetry.

episode. Thus, in the process of developing emotional antecedents—perhaps owing to an inability to recall what an emotional episode’s causal elements were, distinctly, or to a misunderstanding or misattribution of an emotion’s antecedents—an author may produce a work that fails to re-present her intended emotional experience. Value simulators may therefore be more or less realistically situated, more or less founded on understood social psychological backdrops that develop into emotional outcomes.

If something like the above takes place when writing about power—that is, if there are types and kinds of “value simulators” and if “properties of power” rank among them—then a work able to recapitulate a power dynamic, with verisimilitude, ought to afford valuative and evaluative reading/viewing experiences, assuming (and this needs to be argued out) that when we simulate successfully situated “properties of power” we cannot help responding emotionally to them (and so value them).

And again, to recap points made in the last two sections, saying that some properties confer values automatically does *not* mean that we must be (one) locked into valuing those properties with the same valence (since A can like *x* and B dislike *x* with equal intensity), or (two) that if we correctly understand properties we must also value them with identical perspectives (since A can like *x* because of its correct relation to *y*-perspective, while B can like or dislike *x* because of its correct relation to *z*-perspective, as when A likes Hamlet because he identifies with his noble deceptions and B likes Hamlet because of his keenly reflective mind), nor (three) must we always correctly understand why we have come to value/disvalue properties the way we have (since A can like *x* because of *x*’s properties but attribute the like to *not-x*’s properties, as when someone values a sex scene for the sex but intellectualizes the value as non-sexual). I also stressed the fallibility of value in terms similar to Budd’s, arguing that it may always be the case, on account of the “competitively selective” nature of attention (Knudsen, 2007), that we have failed to detect value-conferring properties, or have selectively attended to properties that we find partial or familiar. We may compensate for such value fallibilism, I have proposed, through a sort of critical “heterophenomenology” about a work’s properties, where we actively try to learn from others about which properties we have overlooked, undervalued, or misvalued, so that we may, on a second viewing/reading, recalibrate our understanding and along with it our net sense of the work’s value (or if we cannot alter *our* inscribed value for a work, we may at least come to terms with *others*’ values, or that a work is perspectively rich and so warrants conflicting values for the same properties).

4.3.2 *Classical and Universal Psychologies of Power*

Of course, we can count on attitudes regarding the nature of power to fluctuate. What power amounts to, who has it, and how we ought to value power are historically and culturally inflected. Thus, the properties of power cannot be purely distilled into an understanding that circumvents the vagaries of interpretation, or the psychological baggage of our times. That power is socio-historically contextualized does not lead to the conclusion that the nature of power itself fluctuates, or that the properties of power must be *altogether* historically contingent, as some counter-axiologies have proposed.¹²⁷

So although *Coriolanus* closely tracks Plutarch's *Life of Coriolanus* and retains much of its pagan austerity and Roman sensibilities, it is equally worth considering whether a "psychology" of power—classical or contemporary—actually captures invariant features of power or not, since any genuine psychology of anything should.¹²⁸ The consequence of this stance is twofold. On the one hand, the meaning of power in Shakespeare's *Coriolanus* is faithful to Plutarch's "classical" psychology of power, and so retains this psychology's prevailing attitudes—i.e., that power is a masculine and martial principle, its presence an index of strength and its absence weakness.¹²⁹ Some aspects of this classical psychology may have no scientific merit whatever. On the other hand, there should also be something transhistorical in Plutarch's classical conception of power, assuming this conception is not altogether falsely predicated—something of human nature, behavior, and perception.

Let us now consider what power meant to ancient Greeks and Romans, since *Coriolanus*'s psychology of power falls within the classical tradition. For Pericles, Cicero, Sallust, and many others, the most definitive characteristic of power's psychology is its "essentialism," the belief in an individual's *constitutional* capacity (*ingenium*) and inborn strength and ability to command (*virtus* and *andreia*).¹³⁰ As J. E. Lendon notes, "ancient men

¹²⁷ Here I have in mind Barbara H. Smith's magisterial *Contingencies of Value* (1988).

¹²⁸ Plutarch himself borrowed from and made modifications to Dionysius' history of Coriolanus, making him more prone to anger and defective on account of his lack of education, so that "he remained a noble barbarian"; see for this D. A. Russell's essay comparing Dionysius' version to Plutarch's (1963, p. 27).

¹²⁹ See for example Barbara Boyd's informative study of Sallust's views on Rome's decline, such as *virtus* being eclipsed by *luxuria* (1987, p. 193), and the tradition of linking Rome's power to manly strength, or *virtus*.

¹³⁰ I intentionally leave out Plato and Aristotle not because they lack essentialist views on power, but because they critique traditional Greek relations between *andreia* (maleness) and *arete* (excellence) even against the popular linkage between these qualities during their own times (Dover, 1974, pp. 161–170; Salkever, 1986). In McDonnell's study, however, it is said that Cicero's "proposition that the state should be directed by men who possess *virtus* [...] echoes Platonic and Aristotelian thought (Pl. *Leg.* 690B–C; Aristot. *Pol.* 1284A 10, 1325B 14–20, 1328A 38)" (p. 338). It is important to note, also, that although Popper criticizes what he sees as "methodological essentialism" in Aristotle, and read Plato's *Republic* as a proto-fascist treatise, neither view holds up to what was actually written. Hallowell gently disabuses Popper's misreading of Plato's "metals" as a "Nazi doctrine of blood and soil" analogue (1965, p. 277), and though Popper rightly criticizes what he calls "methodological essentialism"—which is more akin to rationalism, or the belief that we can use our intuitions to discern underlying realities, and that these realities can be "unchanging"—he does

were happier than modern to think that their contemporaries acted thus and so because it was their singular nature to do so: ancient men thought in terms of permanent character, we in terms of fungible personality” (1999, p. 304). For Roman men, especially—though as we shall see, women too could possess constitutional strength, or *virtus*—being endowed with the “singular nature” of positive power was not only admirable; it was viewed as the lifeblood of the Roman body-politic (Earl, 1961, pp. 19–40). Power was what an individual obtained and the state gained through its incorporation into the “body politic.”¹³¹ So although *Coriolanus* depicts a “social” psychology of intergroup power—a clash between plebeians and patricians—its emphasis is not surprisingly on an *individual’s* power: the power of Martius—a man of unsurpassable vigor (*virtus*) and spiritual determination (*animus*), or the characteristics of “natural nobility” common to the likes of Beowulf and Cú Chulainn (and so many others in the Western tradition, such as Achilles, Hercules, Samson, Thor, and Lancelot).¹³²

I have suggested that a “classical” psychology of power—if it is not altogether false—ought to capture something of what is universal about power, across cultures and times. And indeed, what is perceived as universal in the classical model has carried over into notable historical permutations: just as Isocrates distinguished between “high birth as a gift of fortune” (τύχη) and “innate ability” (ἀρετή)—influencing Cicero’s distinction between *nobilitas* and *virtus* in turn—Machiavelli talks of *virtù* as something inborn and not entitled, as a force that commoners may possess and princes harness, and his conception of power was complexly indebted to the Roman model of *virtus*.¹³³ Edmund Burke, drawing on Cicero, espoused a naturalistic conception of nobility in contrast with artificial nobility, a point made to sustain his status earned through public service, not peerage (Browning, 1984, p. 60). Then moving up to the nineteenth century, we find Nietzsche’s “higher types” whose inborn mastery, or *Vornehm*,

not distinguish this view from the more basic notion of essentialism as a belief in innate properties. Plato and Aristotle were often essentialists on properties but *not* on class distinctions. As Salkever notes, against Arendt and others’ readings, Aristotle did not provide “a pseudo scientific apology for male supremacy” but rather criticizes the “Greek attachment to virility and the love of honor, and of the extreme hierarchy and differentiation of gender roles which are its consequence” (pp. 251–252).

¹³¹ See McDonnell’s analysis of *virtus* and martial courage (2005, pp. 59–71).

¹³² And in the East, we find the likes of Yu Gong, Arjuna, Rostam, and many others. Purely fictional examples abound as well: Tarzan, Conan, Superman, etc. An essentially strong character with little mental capacity is also a staple of some of the best parodies of the warrior caste (see Sergio Aragonés’ award-winning *Groo* series, for example). With regard to individual vs. state views on power, Gary B. Miles argues, misleadingly, that “in a Christian world salvation is individual; in the Roman world it is collective and political” (1989, p. 272); this is misleading because Roman *virtus* was still an *individual* ability that needed public confirmation through actions and deeds.

¹³³ A discussion of Greek influences on Roman rhetoric—and Isocrates on Cicero—is found in (McDonnell, 2005, p. 331). For relations between Roman political history and Machiavelli, see Pocock (2010). *Virtù* was even used in strictly medical senses during the Italian Renaissance, as a kind of life-force or strength (Gilbert, 1951, p. 54).

propels them into positions of rank—a conception of power that exemplifies natural nobility—and for this Nietzsche’s classical philological training was greatly responsible (Dionysus, Caesar, Thucydides, Callicles, and other classical figures were all at the fore of his thought on power). And most recently, we find evolutionary and anthropological accounts of natural dominance and submission behavior, along with the leveling effects of a democratic “ethos,” or socially prescribed values that limit strong individuals from dominating collectives (though quite exceptionally, such accounts make only passing reference to classical influences) (Boehm, 1999; Cummins, 2000). Also informing such accounts is primatology work done by Frans de Waal, whose observational data, over many years, has shown that capable chimpanzee males—and sometimes strong females, though only for short periods in lieu of males—vie for top positioning within fairly stable yet shifting social dominance hierarchies (2007).

So where does Shakespeare fit into this sketch of classical power psychology and its lasting influence? Because Shakespeare’s works consistently draw a line between natural and circumstantial nobility, and since he himself was influenced by classical sources, I believe that Shakespeare follows in the same tradition as Cicero, Burke, Nietzsche, Strauss, and so many others insofar as he propagates an essentialist, classical conception of power. Of course Shakespeare’s views cannot be reliably extrapolated from his plays—and such an extrapolation is far from my aim. Yet I believe we can—adopting Stephen Davies’s “value-maximizing” theory of interpretation—appreciate some of Shakespeare’s works *more* if we understand that in them he represented a classical psychology of power.¹³⁵ Indeed, it may be an understatement to say that Shakespeare’s corpus is replete with prototypes of “natural nobility” and related themes; whether Shakespeare meant to laud—like Cicero, Burke, and Machiavelli—the value of innate ability over peerage, the idea of natural nobility itself is at least a leitmotif spanning his work, with growing prominence in his last plays, and it is a leitmotif invariably cast in a positive light.¹³⁶ One instance (of natural nobility with marked Roman influence) is found in *Cymbeline*, where characters’ success or failure correlate with essential or circumstantial power. Cloten is

¹³⁵ Davies holds the view that “interpretation is a matter of considering the meanings that can be put on a work with the aim of maximizing its value,” consistent with respecting its identity, and that “when it comes to adjudicating among work-compatible interpretations, those that make the work out to be artistically more meritorious as literature are to be preferred” (2010, pp. 183–184). A number of books cover Shakespeare’s interest in Rome, though none to my knowledge have considered what this interest entails in terms of emotional kinds of response, or what it is about Roman values that may overlap with properties of power more generally. Eugene Waith has dedicated a chapter to Shakespeare’s heroic Romans—Antony and Martius (1962)—and so intuits a kind of admirable pattern in the heroic prototype; though he does not link this pattern with kinds of value, nor does he consider other works whose contents capitalize on the same pattern without being overtly “Roman” or “heroic.” Understanding that *Coriolanus* in particular adopts a classical conception of power, while also recognizing the limitations of this power, does much to “preserve its identity” as a play (p. 187).

¹³⁶ Admittedly the sonnets are a harder test-case, though we can find analogues, such as “nature” instilling enduring qualities for some but not others, as in sonnet 11, as well as the idea of natural as opposed to false beauty, as in sonnet 20.

nobly born yet naturally ignoble; Posthumus ignobly born yet naturally noble; and Arviragus and Guiderius, though reared in ignoble conditions, cannot help thriving on the basis of their natural nobility and so triumph against the odds. After witnessing Arviragus and Guiderius show their kingly natures—though they lack knowledge of their true father, the king—Belarius exclaims: “How hard it is to hide the sparks of nature!” (3.1.80). Shakespeare, then—and this observation shall be further substantiated below, vis-à-vis *Coriolanus*—is at times a clear proponent of a classical kind of natural nobility, or the idea that some—not all—possess *Vornehm* and *virtus* in an “essentialist” (not a “gendered”) sense.

At this stage a caveat—and a rather major one—is in order. We moderns have grown accustomed to shiver at the thought of systematized congenital advantage, of the patriarchal arrangement, of “Social Darwinism,” “Nazi eugenics,” gender essentialism, and the like, and we have been saturated with inspiring, counter-exemplifying cases where the physically weak or genetically challenged become exceptionally strong (the scrawny young Arnold Schwarzenegger transforming himself into Mr. Universe, Vincent Freeman bucking his genetic disprivilege in *Gattaca* and securing his place among the elite, etc.). And for postmodern humanists, sensitivity to class and gender struggle is even more acute. One of the most persuasive and influential postmodern references for sexual difference, for example, is Pierre Bourdieu’s *Masculine Domination*, where *virtus* is characterized as an arbitrary social construct that pretends to “biologically founded objective” form (1996, pp. 196–197; 2001, pp. 49–50). Thus, in the context of arguing for some set of properties that automatically confer value, along with the thesis that there are works of art with “intrinsic value,” it is easy—too easy—to cross over from these ideas into the territory of “degenerative art,” “biopower,” or “masculine domination.” This is why it is crucial to distinguish between a *psychology* of power’s properties and an institutionalized *ideology* of power, even if the danger of transitioning from one to the other is ever-present (and even if, as some believe, a psychology of power is at the back of every ideological institutionalization of power).

The above caveat is crucial, since I maintain that one of the most controversial (and misunderstood) accounts of “natural nobility” is at the same time the most apposite to understanding *Coriolanus*’s power dynamic, and that is Nietzsche’s. With his emphasis on “perspectival” vs. “psycho-physiologies” power, the clash of aristocratic and demonic castes, the self-overcoming individual pitted against the self-succumbing “mass,” his extolling ancient Greek and Roman values and the “will to power,” it should be obvious that Nietzschean themes

become *Coriolanus*, and that *Coriolanus* becomes Nietzsche. That this connection between Nietzsche and some of Shakespeare's works has not been emphasized seems to me remarkable, since Nietzsche references Shakespeare throughout his corpus, and dedicates entire aphorisms to the man whom he suspected might be Francis Bacon.¹³⁷ And the relation seems a little more remarkable when we realize that Nietzsche likely read *Coriolanus* in Schlegel's German translation, opening up the possibility (however slight) of some intertextual influence beyond what is mentioned explicitly about Shakespeare's other plays.¹³⁸ So as I shall argue below, there is an uncanny connection, both in philosophic relatedness and possible influence, between the Bard and Fritz.

Pairing Nietzsche's moral philosophy with *Coriolanus* needs further prolepsis, however, since I wish to obviate fears of "physiological" approaches to value and valuation. As any modern and postmodern theorist knows, pairing "innateness" with "value" can lead into morally dangerous territory, such as thinking that natural nobility's countertype is a decadent habitus found among certain kinds of people—the "poison" of the disabled and "weaker" types, or those with a naturally diseased constitution. We may consider, for example, the often-quoted recommendation of Herbert Spencer, at which I cringe: "[I]f the unworthy are helped to increase, by shielding them from that mortality which their unworthiness would naturally entail, the effect is to produce, generation after generation, a greater unworthiness" (quoted from Ruse, 2006, p. 17). Then there is Nietzsche, who at times makes similar proclamations (e.g., using abbreviations, in *HH* 439; *BGE* 257) and, regrettably, links social decline in general to a counter-genealogy of the "higher type," namely, the "last man" with apparently little intrinsic value.¹³⁹ Such ideas led Danto to remark that the "physiologization of moral concepts, the proposal that in the end moral differences must be physiological differences or that a certain physiognomical paradigm must be a paradigm of health, all other variants being sick, are among Nietzsche's most reckless and dangerous conjectures" (2005, p. 259).¹⁴⁰ I agree.

¹³⁷ Shakespeare is mentioned 33 times across 17 volumes in Colli and Montinari's collected works of Nietzsche (e.g., using abbreviations, *GS* 98; *D* 240; *BGE* 224) with references to particular plays (*Hamlet*, *Twelfth Night*, *Julius Caesar*, and *Macbeth*), though there is no explicit mention of *Coriolanus*. Nietzsche's enthusiasm for Shakespeare was influenced by Schopenhauer, Goethe, Emerson, and 20th-century German Shakespearean critics (he owned a highly marked copy of Emerson's lecture on Shakespeare in *Representative Men*).

¹³⁸ The footnote to the Cambridge edition of *GM* links Schlegel's translation of Shakespeare's works to Nietzsche (1994, p. 96), though he may have looked at portions in English.

¹³⁹ He equates "valuations" with "physiological demands for the preservation of a certain type of life," links "physiology" with Darwinian selection and class predilections, etc. (i.e., *BGE* 268). Though most often he simply treats "physiology" as synonymous with psychosocial drives like "revenge" and group conformity (*BGE* 3, 14; *GM* 20, 202).

¹⁴⁰ All of this is made the more divisive when, historically, we learn that *Coriolanus* was staged in Nazi Germany with Martius depicted as an Aryan Übermensch, and that a production in France, after the fall of the government's socialist leader in 1934, led to riots after it was taken as a "right-wing polemic" cheered on by "royalists and Fascists" (2010, p. 81). So clearly *Coriolanus* can be potentially problematic from a moral standpoint, since its themes can so readily be co-

However, the warning can become a moral injunction that has us overlook genuine relations between Nietzsche's philosophy and elements of Shakespeare's corpus, especially those in *Coriolanus*. If the "physiologization of moral concepts" is conceived in ideological terms and then projected onto the "neurophysiological" account of valuation presented above, then this would amount to a caricature, and there would be no insight gained by the process of considering how we value properties of power, and how *our* shifting position within social dominance hierarchies may sometimes skew perceptions of *Coriolanus*'s properties, either in positive or negative directions unwarranted by the text (a possibility I consider further below). There can also be a moral injunction against the idea of "intrinsic value" that would have us overlook the longstanding philosophic use of this term (in both moral philosophy and the philosophy of art).¹⁴¹ "Intrinsic" versus "extrinsic" artistic value was discussed above as a means of demarcating between values that derive from experiencing a work's properties, on the one hand, and values that append to a work's properties after experiencing them, on the other (along with values that we "see-in" to a work's properties). I have also argued that the processes underlying "valuation" identify with the neurophysiology of emotion, so that responding emotionally to perceived properties entails a physiological transaction of "value." Simulated or perceived properties thus become "valuable" when they encode into emotional memory. Now of course it follows from these arguments that works *without* emotionally salient properties lack intrinsic value, a consequence not only entailed by neurocriticism but embraced as a primary aim (as is the case for any aesthetic axiology). However, if we were to extend this aim into a policy of wholesale dismissal for works without apparent value then we would be gravely mistaken. For there is a logical gulf between saying that works lacking properties of value ought to be criticized, and saying that for the same reason works ought to be "committed to the flames," as Hume once said we might do for "any volume" not containing quantitative reasoning or matters of fact.¹⁴² Aesthetic values thus overlap with moral values but they do not

opted by ideologues, just as (importantly) Nietzsche's work has been co-opted by National Socialists. See for example Whyte (2008).

¹⁴¹ A *JSTOR* search for "intrinsic value" yields 19289 hits, with many on target for artistic and moral problems. In my exposition of "intrinsic value" above, I drew heavily from Budd's philosophy of value, so I recommend his analysis, first; though next to this, and for some counterbalance, I would recommend Beardsley's primer on the subject (1965).

¹⁴² From Hume's *Enquiry*: "When we run over libraries, persuaded of these principles, what havoc must we make? If we take in our hand any volume; of divinity or school metaphysics, for instance; let us ask, *Does it contain any abstract reasoning concerning quantity or number?* No. *Does it contain any experimental reasoning concerning matter of fact and existence?* No. Commit it then to the flames: for it can contain nothing but sophistry and illusion."

thereby necessitate *policies* of value for kinds of natural property.¹⁴³ For similar reasons, framing *Coriolanus* in Nietzschean terms (though not my primary aim) is bound to be divisive, since so many readers are apt to take his criteria of moral value as a kind of license for social discrimination; but it is precisely this kind of divisiveness that is needed to understand divergent critical receptions of *Coriolanus*, and to struggle with the potential moral lessons to be gained from understanding its apparent clash of values.

4.3.3 *Coriolanus's Intrinsic and Extrinsic Values: A Tentative Neurocritical Sketch*

“Divisiveness” comes to mind when considering the history of criticism on *Coriolanus*, though just as readily, “divisiveness” describes the internal workings and matter of the play’s plot. Martius, the hero (or antihero, depending on your view) earns contempt or praise, gains or thwarts sympathy. He is either friend or fiend to the people *within* the play, insofar as characters divide over whether Martius ought to be loathed or admired; and he is also either friend or fiend to the people *without*, to the audience or readers who view him as either repugnant or commendable. So *Coriolanus* is both internally and externally *perspectival* in quality—an apt term applied to Nietzsche’s philosophy of value that also equally applies to Shakespeare’s penchant for representing contrasting views with a kind of “principle of charity.”¹⁴⁴ Perspectivism may thus be the most useful lens through which we may survey—and understand—the clash of values presented by *Coriolanus*, assuming these values carry distinctly different points of view and rationales that may not be grasped on first readings/viewings.

Hermann Ulrici, a contemporary of Nietzsche and anthologized Shakespearian critic, said of *Coriolanus* that “Its principal object is to illustrate the struggle of democracy and aristocracy, as the conflicting *principles* of a republican polity” (original emphasis, 2004, p. 120). Democracy and aristocracy, Ulrici claimed, “come into conflict only where heroic greatness, manly worth, and moral power are still looked upon as gifts of nature, consequently as dependent upon noble birth,” while “the consciousness of the equal rights of all men is [at the

¹⁴³ This is not to suggest that aesthetic and moral values do not sufficiently overlap to make sound comparisons between valuable art-properties and valuable people-properties, or that the values we find in people can also be the same kind of values we find in art; instead, it suggests that our attitudes about what we *ought* to do with works deemed valueless can be more or less tolerant, more or less radical. See Sharpe (2000) for a stimulating critique of “empirical” approaches to intrinsic value, and how such an approach might apply to people; and see also my response to Sharpe, *Valuing Coriolanus*, still under review for publication (forthcoming, 2013).

¹⁴⁴ Perspectivism, according to Nietzsche, is the position that we should not presume that *our* views and sense of things—and concomitant values—are the only senses and values that there are; rather, we should remain skeptical about what is taken as the “good” and “bad” in anything, and suspend judgment until we acquaint ourselves with a multiplicity of perspectives and values. For a general overview of perspectivism alongside Nietzsche’s philosophy, see (Schacht, 2005). And again I should most like to recommend Lanier Anderson’s spirited overview of perspectivism (1998). For a study on Shakespeare’s ability to complexly relate two contrasting perspectives, including those found in *Coriolanus*, see Rabkin (1981).

same time] beginning to make itself felt, because of their equal moral and mental capacities” (p. 187). What Ulrici calls the “principles” of Roman aristocracy and democracy, then, are not only “ideological” but also “natural” insofar as they reflect properties of power, either those instilled within the noble minority (patricians) or those held by the collective majority (plebeians). As suggested above, making this argument is eased by the fact that within the context of ancient Rome, “morality” and “power” were already understood in *naturalized* terms, that is, as material measures of man rather than exclusively normative ideals. “Good” and “bad” for ancient Romans—though normative in everyday conception—were always bound to natural properties, such as inborn strength as contrasted with weakness, or innate human ability (*virtus*) as distinct from environmental influences or shifts in fortune (*fortuna*).¹⁴⁵ I should thus like to capitalize on the austere, primal Romanness of Shakespeare’s play, since it offers an apt testing ground for how we come to value evolved kinds of sociobiological saliency, or those properties that we perceive as threatening or rewarding, homeostatically “defective” or “optimal” (2005, p. 48).

Coriolanus also allows us to consider whether Nietzsche was at all right to say that “master” and “slave” moralities value the properties of power from radically different perspectives, and whether there is any neurobiological basis for this claim.¹⁴⁶ If “master” and “slave” can loosely translate into “dominant” and “submissive,” then perhaps the answer is a tentative “yes.” We may consider, for example, that neuroscientists have identified context-specialized “defense circuitry” in primates selectively responsive to types of threat, including behavior linked to social dominance, and that social hierarchies may be reversed by selectively inhibiting or exciting the medial prefrontal cortex in dominant and submissive rats, respectively (LeDoux, 2012, p. 656; Wang et al., 2011). And in humans, Boksem et al. have recently shown

¹⁴⁵ See Myles McDonnell’s analysis of *virtus* as an innate quality contrasted with *fortuna* (2005, pp. 84–99). Although Nietzsche attaches a relation between “good” and “bad” in Roman and Greek culture to innate qualities, he rarely uses the term *virtus* (it only makes an appearance six times in his collected works, and once in some of his lecture notes, as far as I am aware, e.g., “Finis = appetitus. Virtus = potentia”; “increscunt animi, virescit volnere virtus”; “aller Idealismus der Kraft der griechischen Natur warf sich auf jenes Verhältniss, und wahrscheinlich sind junge Leute niemals wieder so aufmerksam, so liebevoll, so durchaus in Hinsicht auf ihr Bestes (virtus) behandelt worden, wie im sechsten und fünften Jahrhundert”; and “Das Christenthum aber gehört, als Religion, zum vulgus; es hat für die höchste Gattung virtus keinen Sinn”).

¹⁴⁶ Daniel Dennett has suggested, with much qualification, that there may be some truth behind Nietzsche’s “amazing and ingenious tale” about the “aristocrats” ruling “by might over the weak” who were “cunningly tricked (by the ‘priests’) into adopting [. . .] inverted values” (1995, p. 464). Dennett is correct to say that this is one of Nietzsche’s more fantastic “Just So Stories,” though there is apparent empirical support for Nietzsche’s “inverted values” hypothesis in Christopher Boehm’s “reverse dominance hierarchy” thesis, where “the weak combine forces to actively dominate the strong” and consciously develop an “egalitarian ethos” that holds powerful political actors at bay (Boehm, 1999, p. 3; 67–68). I shall return to Boehm’s thesis in later subsections.

that “high-status subjects” focus more “on (rewarding) outcomes” while “low-status subjects are more inclined to evaluate outcomes in terms of potential (social) threat and losses,” data suggesting that social status augments perception and valuation of individuals who we perceive as “higher” or “lower” than ourselves (2012, p. 305). Taken together, these data strongly suggest that emotional systems respond selectively to biologically salient kinds of social threats and rewards, under which the properties of power likely fall.

There may be—as Philippa Foot suggests—a “common attitude to remarkable men of exceptional independence of mind and strength of will. Such men hold our attention, and are often willingly served”; if so, then it would make sense “to say that *we value* strong and exceptional individuals” by default of their exceptional qualities (original emphasis, 2001, p. 216). The critical reception of *Coriolanus*, however, shows that Martius is perceived as exceptionally “bad” as often as he is “good,” so some explanation is needed for this pattern of divergence. Thus, I should like to consider—to recap earlier plans—whether (one) what is perceived as morally “good” or “bad” in the play tracks biologically salient kinds of property that automatically confer value, such as perceived dominance and submission behavior; (two) whether readers like or dislike Martius in accordance with class-inflected perspectives (“upper” or “lower,” “master” or “slave,” etc.); or (three) whether multiple factors work in unison to produce valuative responses (some automatic, others acquired).

If an “egalitarian ethos” was present in ancient Rome, alongside it would have been its antithesis: a culture steeped in enforced differences between social castes, or an aristocratic ethos.¹⁴⁷ How much of this ethos is reflected in Plutarch’s *Lives* is uncertain, though it is clearly present in his version of *Coriolanus*, and it is this presence that kindled Shakespeare’s imagination. Many critics see an aristocratic ethos in *Coriolanus*, though only some take this ethos as reflecting Shakespeare’s own, and usually with exaggerated pronouncements: Georg Brandes saw in *Coriolanus*’s descriptions of the people Shakespeare’s aristocratic contempt for the “mob,” and he approved (2004, p. 273).¹⁴⁹ William Hazlitt supposed that Shakespeare sided

¹⁴⁷ It is unclear in Boehm’s work whether a society like Rome would have had an egalitarian ethos, since he suggests that in “larger societies, like chiefdoms, both hierarchy and strong political authority are readily countenanced by public opinion, and statements implying that ‘firsts’ must also be ‘equals’ are never heard. A handful of sedentary foragers also lack the egalitarian ethos and support a hierarchical order” (p. 69). However, from surveying the complexities in Roman social mobility, it seems plausible that some form of egalitarian ethos was present (especially after the institutionalization of the plebeians). See for example T. J. Cornell (1995, pp. 242–271). Also, an aristocratic ethos does not necessitate enforced caste divisions, though in Rome, India, England, Germany, and elsewhere such divisions seem strongly correlated with it.

¹⁴⁹ David George notes in his introduction to Brandes’s criticism that he “considered himself both an aristocrat and a radical as his *Aristocratic Radicalism* (1889) witnessed. His claim that Shakespeare worshipped his hero Coriolanus is doubtless based on Brandes’ own ‘sort of aristocratic hero-worship that praised radical individualism and embodied the

with authority and “spared no occasion of baiting the rabble,” and he disapproved (p. 98). Neither account unwaveringly accords with Shakespeare’s play. Shakespeare’s “natural affinities” may have been “with the court and the nobility,” since he was himself an aspiring *homo novus* (Tolman, 1914, p. 298), yet Shakespeare’s works do not generally disparage the people, and *Coriolanus* is no exception.¹⁵⁰

It is unnecessary, in any case, to *know* what Shakespeare himself believed before we can settle on what *Coriolanus* most likely meant. Insofar as Shakespeare faithfully represents Plutarch’s *Life*—and he does—he also represents its classical conception of power, with all its particular habits of mind. One such is the idea that “goodness” springs from all that is associated with naturally noble qualities, while “badness” falls to what is taken as ignoble, or to qualities at times associated with plebeians and slaves (a view revealed by Menenius in Act One, where he uses the metaphor of an ill-bred dog to describe the leader of the plebian revolt [1.1.154–7]).¹⁵¹ An analogue of this idea in social psychology is “intergroup bias,” or the tendency to favor one’s own group while derogating the out-group (Hewstone et al., 2002). Though I think Nietzsche’s “master morality”—an exaggerated form of intergroup bias where the in-group sees themselves as *essentially* superior—much more aptly fits the spirit of *Coriolanus* and the divisiveness of critical reactions to Martius.

cult of personality’ (Charles Forker, *Shakespeare: The Critical Tradition, Richard II* [London, 1998]: 360)” (2004, p. 272).

¹⁵⁰ The introduction of the Oxford edition handles this subject capably (p. 34–38), and notes some possible contemporary figures resembling Martius, who Shakespeare knew (one personally—Robert Devereux) and may have had in mind when writing the play. For essays on Shakespeare’s attitudes towards the people, see Friesner (1969) and Tupper (1912). I mention *homo novus* because, like Cicero, Shakespeare lacked noble peerage and military training, yet he (also like Cicero) may have tried to associate himself with the qualities of *virtus* to impress his aristocratic associations (and he did eventually purchase himself the title of gentleman). “The martial excellence that *virtus* denoted was a quality prized by all Romans [sic] citizens, and one that Romans nobles sought to demonstrate and advertise, which is precisely why a reputation for *virtus* was the best way for a new man [*homo novus*] to make his entry into the senate” (McDonnell, 2005, p. 329). If there is any reliable historical knowledge about Shakespeare’s class-orientation—his social status as a gentleman, his property ownership and amassment of grain during times of shortage overlapping with the writing of *Coriolanus* (Archer, Marggraf Turley, & Thomas, 2012; Greenblatt, 2004, pp. 74–84)—we may use these data as ancillary support for adjudicating between claims about how we ought to value *Coriolanus*, a view consistent with Paisley Livingston’s recognition that knowledge about an author’s social context may, with caution, correctly inform an axiology for the author’s particular works (2005, p. 152).

¹⁵¹ See for example McDonnell’s short yet telling discussion of *virtus* and slaves, where even those slaves volunteering for combat (*volones*) could rarely be thought to possess *virtus*: “Nor did all Romans agree that even a former slave could possess *virtus*, as witnessed by an incident in 46, in which the general, Metellus Scipio, refused to award the military decoration of the golden armband to a brave cavalryman, on the grounds that it would defile military honor to so decorate an ex-slave” (pp. 159–160). See for example *What is Noble?* where these terms are discussed in a manner mirroring Martius’s character (F. W. Nietzsche, 2008a, p. 153). For a relevant overview of Nietzsche’s naturalized approach to social hierarchy formation, see Appel (1997). For one of the most explicit linkages between what is “bad” and “weaklings who constitute the majority the human race who make the rules” and “try to cow the stronger ones,” etc., see Callicles’s exposition in *Gorgias* 482e–484b.

The idea of “master morality”—a morality flowing from “natural” dominance over comparatively “weak” inferiors, as “the osprey [is] to the fish, who takes it / By sovereignty of nature” (4.7.34–5)—captures both Martius’s constitution and bearing towards the people. Yet it is this bearing that seems most “foreign and embarrassing to current taste because of the severity of its fundamental principle: that we have duties only towards our peers, and that we may treat those of lower rank, anything foreign, as we think best or ‘as our heart dictates’” (F. W. Nietzsche, 2008a, p. 155). We certainly catch a glimpse of such non-normative austerity when Martius entertains what he would do, by impulse, if he were not held in check by his peers: “Would the nobility lay aside their ruth [pity] / And let me use my sword, I’d make a quarry / With thousands of these quartered slaves as high / As I could pitch my lance” (1.1.194–7). No one would doubt the gruesomeness of this image, which likens slaves (and by contextual implication, the revolting mob) to a towering mound of slaughtered game. However, from the vantage of “master morality”—and so Martius’s *constitutional* sense of entitlement—the lower citizens of Rome may as well be “slaves,” or even less—a type of mass that has no more function than feeding and breeding (and perhaps for a similar reason we may understand the positive estimation of Martius’s son for “mammocking” a butterfly [1.3.67–70], an episode that otherwise oddly associates “goodness” with an heritable, violent tendency).¹⁵²

Indeed, Martius is “the most Roman, the least ‘gentle’ and least Christian, of Shakespeare’s major heroes” (Brower, 1971, p. 372), and many may be inclined to dismiss him on these grounds alone. However, even if Martius is the dominant osprey in *Coriolanus*, he also shows a considerable countermeasure of concern for the weaker fish, the plebeians. Despite his overtly disdain for the people, he also wished to free the “poor man” held prisoner in Corioles (1.10.82–7), sympathizes with the widows and mothers who have lost their husbands and sons in the war (2.1.173–4)—a sympathy echoed when returning, outcast, to Corioli’s gates (4.4.1–6)—and believes it would be a “sin to doubt” the people’s willingness to die for their country (1.8.69).¹⁵³ Menenius also makes it clear that Martius talks roughly in public yet “lives like a

¹⁵² The term used by Menenius for the mob is “multiplying spawn,” which as the Oxford edition notes is a “literal translation of *proletarii*; ‘The lower classes of Romans were known as *proletarii*, good only to breed children (*proles*)’ (Chambers)” (2.2.76; p. 226). The *proletarii* were also normally exempt from military service. It is perhaps revealing that Shakespeare’s “mob” is fully cognizant of their masters’ morality, for as the First Citizen claims, it is circumstantial “leanness that afflicts” them, or *fortuna*, rather than an absence of *virtus* (though it is also true that the people deserted Martius on the battlefield). From this vantage, the citizens perceive themselves as having no choice but to appear weak, low, and downtrodden—an apparent lowness that is then used by the patricians, ironically and self-servingly, as “an inventory to particularize” their dominance (1.1.18–20).

¹⁵³ There is some concern over whether Martius really cared about the servant he wished to free (1.9.77–90), since he forgets his name. Stanley Fish, for example, thinks the servant is “not important” to Martius and so “is less someone to be remembered than a shackle to be thrown off” (1980, p. 208). And as MacCallum notes, some take Martius’s forgetting “as betraying the indifference of the aristocrat for an inferior whose name he does not think it worth while to remember”;

lamb,” privately, and so in civil action cannot be thought ruthless even if he intimates otherwise (2.1.12). And while it is true that Martius leads soldiers into battle “like a thing / Made by some other deity than nature,” suggesting a kind of immoral, machine-like compulsion, the play’s thematic would become incoherent if, after all, Martius were “not / Of stronger earth than others” and so responsive to human distress, even when he knows his life may be on the line for being so (4.6.94–6; 5.3.27–8). So Martius can be rehabilitated, to some extent, even if from the standpoint of practical politics his achievements are principally militaristic, or of a *Machtpolitik* kind.

Martius was sent into the school of war, directly, by his mother at an early age, so that most of his “education” came not from mentorships or the *ludus* but from warfare itself. “[H]e has been bred i’th’ wars / Since a could draw a sword, and is ill-schooled / In bolted language,” says Menenius, and according to his mother, Martius’s son follows suit: “He had rather see the swords and hear a drum than look upon his schoolmaster” (3.1.323–5; 1.3.58–9). So although it seems clear that Martius embodies natural strength and intelligence, he cannot be said to possess “class refinement” for want of a certain kind of education. It would be anachronistic, however, to say that he lacked education altogether, since it was commonplace among Roman elites to educate their youth in the art of war—first at home and then on to what was coincidentally named the “Campus Martius” (McDonnell, 2006, pp. 181–182). Martius’s mother, to be sure, taught him many crucial precepts, “That common chances common men could bear,” “That when the sea was calm all boats alike / Showed mastership in floating,” which may seem a type of home-schooling (4.1.5–7); but such precepts only serve to reinforce a preexisting “master morality,” and so cannot count as “moralizing” or “civilizing” influences as we generally understand these terms (such as teaching global concern for others’ wellbeing, irrespective of caste). It would be more in tune with a classical psychology of power, then, to think of

but he is quick to rejoin: “Surely not. Coriolanus is experiencing the collapse that follows his superhuman exertions, the exhaustion of body and mind when one cannot think of the most familiar words” (cited from George, p. 314). And as Brian Vickers observes, more broadly, Martius shows a “sensitivity to the feelings, and especially the sufferings of others” not found anywhere else in the play besides Virgilia, and he cites the same instances in support as I have (1976, p. 38). Augustine Skottowe made a strikingly similar point in 1824 (p. 107 in George’s collected criticism). Even if we disagree that Martius is as compassionate as Vickers suggests, MacCallum argues persuasively that it is unlikely Shakespeare would have intentionally changed Martius’s host in Corioli into a plebian when in Plutarch he was wealthy, nor would he make the request intimately private when in Plutarch it was public, without intending a more favorable view of Martius’s behavior (George, p. 314). Such a view escapes many productions of *Coriolanus*, however, since it is altogether too easy to portray Martius’s forgetting in a negative light: all it takes is a slight, sarcastic chuckle, as we see in the otherwise excellent BBC production featuring Alan Howard (<http://youtu.be/pDWa6-yAmxY>, time-index 3:55).

Martius's education in terms of "self-becoming," or learning how to be what one is rather than what one ought to be.¹⁵⁴

Of course what Martius "is" may be viewed in positive or negative lights, both in terms of the play's (and Plutarch's) warranted attitudes about Martius's traits, and in terms of how we react generally to his apparent "heroic rage" or irascibility. A recurring characterization of Martius is that his spirit has so much momentum that it cannot be other than overtly expressed, even when he prepares himself for self-constraint (a trait exploited both by the tribunes in Act Three, to bring about his exile [3.3.27–30], and by Aufidius in Act Five, to bring about his death). And it is precisely a kind of irrepressible self-expression that brings Martius into factional conflict with the tribunes. We may consider, for example, that "His heart's his mouth. / What his breast forges, that his tongue must vent, / And, being angry, does forget that ever / He heard the name of death" (3.1.261–6). This is what Menenius says in defense of Martius's one-man insurrection, his reactionary rebuke of tribunal power in the face of capital punishment (a breathtakingly intrepid—if not foolhardy¹⁵⁵—act paralleling Martius's final, fatal attitude towards Aufidius). We could say, then, that although Martius commands others in the art of war he cannot command himself in the art of diplomatic, moderating speech, and this was precisely Plutarch's point of criticism. Yet within the context of *Coriolanus*'s thematic, I believe it would negate Martius's authentic self-becoming—his steadfast adherence to who he is, rather than what he ought to be—if he were to constrain or mask his will to speak. Unlike Hamlet, Martius is not in a position, *ab initio*, where he must deceive others to protect himself; he is only confronted with the prospect of deception, or "policy," in Act Three, Scene Two (a point I shall return to). Indeed, as we shall see, supposing that Martius's irascibility is *only* a matter of hamartia and not also a means of amplifying another, more fundamental theme in the work—the theme of ill-fated, intergroup valuations of power—would amount to a misunderstanding (and, in turn, a potentially skewed evaluation).

Stopford Brooke has said of Martius, caustically, that "'to be true to his nature' is his only conscience; and when the nature is selfish, it is the hardest selfishness in the world" (cited by George, p. 289). Such a view would accord, to an extent, with the picture developed here—that Martius's constant *virtus* is at the same time his most destructive quality, at least from the

¹⁵⁴ It is unnecessary to acquaint oneself with the idea of "self-becoming" before the link can make sense, though if curiosity is piqued, see Solomon (2002, p. 72) for an overview.

¹⁵⁵ Cominius suggests that "manhood is called foolery when it stands / Against a falling fabric," with the building corresponding to the plebeians, and manhood the patricians (3.1.247–8), and this might suggest that Martius is foolhardy for opposing the people. But the context is very different for Martius's initial reactionary rebuke and the situation we find him in in 3.1, where the tribunes have had time to organize the people with a common cause against him.

standpoint of those who perceive him as a threat. Yet if *Coriolanus* encapsulates a classical conception of power—where patrician dominance is seen as naturally immanent and “good”—then denouncing Martius for his egocentric willfulness and tactlessness alone, as if these qualities were the crux upon which to understand his downfall, would be mistaken (though only, as we shall see, as an *evaluative* judgment and not a *valuative* response, since responding aversively to “dominant” stimuli may happen automatically for some, even if, later, these same stimuli are evaluated as rewarding). In terms of understanding the psychology of power represented in *Coriolanus*, however, if Martius were evaluated as “bad” for his unbending dominance alone, then this critical judgment would require overlooking one of the play’s more fundamental points, namely, that “What cannot be amended” in Martius’s nature ought to be “excused” or at least understood as a natural outcropping of an intergroup power struggle (4.7.11–12; cf. also 4.6.111–12).¹⁵⁶ This is not to say that *Coriolanus* is only correctly understood if we see its thematic as apologizing for violent instincts or Calliclean virtues, as Brandes and others have argued, or that—by the same token—we should avoid thinking of the moral ramifications of such a reading; rather, it is to say that what is tragic about Martius would be lost if we simply blamed *him* for his own failings, without taking into account the broader context of the play—that his adherence to “natural nobility” is situated within the context of a revolutionary faction opposed to his power. Understanding this point, along with what I see as the play’s greater emphasis on “nature” over “nurture”—or how one *is* over how one *ought* to be—makes it evident that *Coriolanus* is not so much a play about normative ethics as it is about the social psychology and nature of power itself.¹⁵⁷ Though again, this is an *evaluative* judgment, and it is one that still needs bearing out.

First, insofar as a social psychology of power is concerned, we find—in the play as much as in life—that however much magnanimity and self-constraint one cultivates in a position of power, no amount of humility can stop others from perceiving that position as a

¹⁵⁶ Nowhere is this tendency to suppose “that *the strong may freely choose to be weak*” captured so provocatively than in Nietzsche’s *Genealogy of Morals*: “Just as the common people distinguish lightning from the flash of light and takes the latter as *doing*, as the effect of a subject which is called lightning, just so popular morality distinguishes strength from expressions of strength, as if behind the strong individual there were an indifferent substratum which was at *liberty* to express or not to express strength. But no such substratum exists; there is no ‘being’ behind the doing, acting, becoming [. . .]” (2008b, p. 29).

¹⁵⁷ See Boehm (1999, p. 69; 85–88) for a discussion of the perceived danger in upstarts. Again, this is not to say that the play advocates “natural law” in the Calliclean/Hobbesian vein. Though I do believe that my point about Shakespeare’s emphasis on kinds of human nature is not exceptional vis-à-vis Martius but rather extends to most of his work. R. H. Wells argues out a similar thesis well enough, though, as I discuss below, he lapses into neo-historicism when it comes to *Coriolanus* (2005). I would enjoy disagreeing but I have not the space for that.

threat rather than a merit, as more latently “bad” than “good.”¹⁵⁸ Such a perception may likely become amplified whenever powerful figures apparently exhibit *no* humility whatever, a trait that some (though certainly not all) of the play’s “citizens” and “servingmen” falsely attribute to Martius (not to mention the many critics who find nothing in Martius’s character warranting sympathy).¹⁵⁹

Now if *Coriolanus* encapsulates a psychology of power, as I have suggested, then we ought to find certain principles shared by its characters that reflect this psychology—and we do: Aufidius extrapolates one such from his own experience over the course of the play when he observes that *overt* power undercuts itself through its own display—“power, unto itself most commendable, / Hath not a tomb so evident as a chair / T’extol what it hath done” (4.7.51–3). The underlying assumption of Aufidius’s observation is that perceived power provokes not affinity but anger in those who feel themselves disempowered. Such a positive claim about the psychology of power, a claim that I shall return to below, suggests that Shakespeare wished to frame power in natural rather than normative terms—and there is much in the play to recommend this thesis.

Another principle of power suggested by *Coriolanus* is its natural basis. The word “power” occurs twenty-eight times in *Coriolanus*, twenty times “more than any other Shakespeare play” (*Coriolanus*, p. 12), and so critics have rightly made much of this word’s relation to the play’s thematic. However, what is perhaps of greater significance to understanding Shakespeare’s representation of power in *Coriolanus* is this representation’s association with the word “nature.” Though far less mentioned than in some plays (eighteen on my count, as compared to *Lear*’s forty-one and *Hamlet*’s thirty-one), each instance of “nature” in *Coriolanus* nevertheless signifies an evidently *essentialized* sense—namely, that we possess inborn, definitive characteristics, that it is “our nature” to be and do such-and-such, that power

¹⁵⁸ Individuals abiding by an “egalitarian ethos,” in Boehm’s terms, may retain power for longer than individuals who flout the rules, but no manner of leadership can escape the obligation of “the rank and file” to “deliberately dominate their potential masters if they wish to remain equal” (1999, p. 128). And with an accidental Nietzschean confirmation, Boehm later adds that “When the human moral community arose [. . .] public opinion and active moral sanctioning acted together to make people conform to social mores that often went *against* human nature” (original emphasis, p. 207).

¹⁵⁹ As is often the case in Shakespeare’s works, he deftly captures the *perspectival* nature of socially perceived power—that is, a type of mixed view of a lead character’s behavior as refracted through a play’s various characters. In the case of Martius, every critical perspective in the play is counterpoised with its opposite. The citizens, for example, are always of mixed opinion about Coriolanus’ pride or merit until the tribunes goad them into unanimity (2.3.150–205). We also see that although one officer thinks Coriolanus “leaves nothing undone that may fully discover him [the plebeians’] opposite,” the other officer defends his manner as merely attending “his noble carelessness” [2.2.7–22]). It seems also a form of dramatic irony to show Coriolanus’ regular displays of humility amongst his peers, while depriving the same kind of displays to the plebeians; since *we* see the humility in one context but not another, we feel dramatic tension whenever Coriolanus is thought unwaveringly proud. For an analysis of unsympathetic critical reception, see Oliver (1959).

does indeed have *properties*.¹⁶¹ And so we find, consistent with a classical psychology of power, that “nature” hooks onto descriptions of power: a citizen remarks at the outset of the play that “What he cannot help in his nature you account a vice in him” (1.1.38–9); Aufidius says “his nature / In that’s no changeling,” referring to Martius’s commanding manner (4.7.10–11); and Brutus predicts that Martius will fall into a rage “as his nature” inclines him after he discovers that the people have refused his consulship (2.3.254), etc. So it seems Martius *is* powerful on the basis of his *essential* strength and spiritedly outspoken convictions, and for this he is compelled to act as he “is” and as he has been bred to be, not as he “ought” to behave in accordance with courtly decorum, Christianized ideals, or accidentally acquired habits.¹⁶²

And again, this does not mean that we must react to Martius’s properties in the same way. What he “is”—his properties of power—can be received as either “good” or “bad” depending on who’s doing the seeing, both within the play and without. Within, he is hailed by all of Rome upon return from Corioli, save for the tribunes who look upon him with jealous contempt; and as he is abominated by Rome’s citizens, under the sway of the tribunes, the patricians look upon him with admiration. And without, as we shall see, there is a similar divisive pattern: just as Martius seems at the pitch of greatness a reader or viewer will “see in” him the epitome of evil.¹⁶³ Such perspectival differences may reflect something of our own psychological disposition at the time of viewing *Coriolanus*, such as a shifting sense of dominance or submission vis-à-vis Martius’s powerful attributes, a tendency Boehm links to an innate “political ambivalence” for our superiors, an ever-fluctuating willingness to subordinate ourselves to leadership (pp. 162–169). This is a possibility I shall soon expand upon.

¹⁶¹ Adrian Poole takes note of Shakespeare’s use of “nature” in *Coriolanus* as well, yet he seems preoccupied with reading a “fixed” or “fatalistic” sense into the word rather than thinking in terms of a biological trait (p. 105). A biological natural kind is always malleable within a spectrum of possible expression, and so is not an “essential” natural kind like gold, and so the properties of power—being biological—cannot be thought absolute, even in characters like Hercules and Samson. Of course Poole is correct, semantically, and his commentary keen, yet his reading leaves out Martius’s “self-becoming” and self-affirmation throughout the play. Martius is not merely fixed as he is—he also “chooses” to remain as he is (or believes that he does) even in the face of the tribunes’ trying to make him other than what he is. In any case, Martius would also be culturally comfortable with allowing himself to be as he is, as a member of the Roman warrior-patrician caste.

¹⁶² T. McAlindon has suggested that *Coriolanus* is an “essentialist tragedy” without then explicitly substantiating his claims (1993). McAlindon provides an insightful overview of ideologically motivated critiques of *Coriolanus*, many of which still seem in vogue today, yet McAlindon also oddly overlooks everything that plainly supports the view that *Coriolanus* stands as an exemplar of essential strength.

¹⁶³ For a modern overview of antipathetic readings, see Brittin (1956). Terry Eagleton has most recently referred to Martius as the embodiment of “evil” in his book on the subject, *On Evil*. And much as Brontë used *Coriolanus* to reform one of her fictional characters’ despotism (Robert in *Shirley*), we find that Suzanne Collins has chosen “Coriolanus” as the namesake for her super-villain in the *Hunger Games* trilogy.

The meaning of “nature” and its link to “power” is only part of a larger narrative arc whose structure reflects—is mimetic of—an intergroup psychology of *virtus*. An essentially powerful “nature” is taken further than the word’s sense into the realm of imagery and concepts, such as the play’s various animal metaphors (“Nature teaches beasts to know their friends” [2.1.6]), its affirmation of genetic inheritance (from mother to son [3.2.131–2] and from father to son [1.3.69]), Menenius’s “body-politic” fable, and its reliance throughout on physiological images, metaphors, and concepts (diseases, wounds, medical treatments, humors, etc.). Then there are the essentialized descriptions of Martius himself, whose qualities invite a kind of Bradleyan “character analysis.”¹⁶⁴ Plutarch’s *Life of Coriolanus*—from which Shakespeare borrowed most of his plot-structure and even some language, verbatim—revolves around the theme of Martius’s natural nobility and how such a nature sets its own course when left untutored, even against the grain of newly established civil powers. Martius is depicted as “a stout man of nature” whose “natural wit and great heart did marvelously stir up his courage to do and attempt notable acts” (p. 321; 297); when his peers would wrestle him in sport, “they were overcome [. . .] by reason of his natural strength and hardness of ward” (p. 297). His only fault, writes Plutarch—which is “the common fault and imperfection of man’s nature wrought in him”—was that he lacked the moderating influence of education, which made him “so choleric and impatient that he would yield to no living creature” (p. 297).

In the hands of Shakespeare, however, Martius shows himself capable of congeniality amongst his peers and family, so that he is not, as some critics insist, “altogether unfit for any man’s conversation” (p. 297).¹⁶⁵ We see that Menenius loves Martius as a “son,” and Virgilia, his wife—far from fearing his wrath—is always inclined to display an innocent, dedicated love for her husband. Virgilia’s unwavering, tender concern for Martius’s wellbeing, though not explicitly developed, suggests domestic equanimity, not tyranny. We see also that Martius is revered by the younger nobility and deeply respected by his fellow commanding officers. Lartius and Cominius speak admiringly of Martius’s deeds as a warrior, not by coldly acknowledging his battle prowess but from a deep fellowship of feeling (3.2.6; 1.7). Martius follows Cominius’s orders and asks for permission to engage Aufidius, and so does not always act as if he were stubbornly following his own will. Martius praises Lartius’s military success,

¹⁶⁴ An impossible yet useful abstraction of attributes away from the play’s greater representational context (impossible because such an abstraction would fail to understand *Coriolanus*’s carefully developed *social* psychology of power, even if I believe it is right to focus on Martius’s “character-traits” vis-à-vis his social context). See Taylor (2001, p. 47) for an overview of reactions to and support of Bradley’s “character analysis.”

¹⁶⁵ H. N. Hudson, for example, echoes Plutarch in saying that Martius is “unfit for any sort of intercourse with men” (cited from George, p. 165). A. C. Bradley, though he acknowledges Martius’s “nobleness of nature” and sees that it is this and not tyrannical power that drives him, nevertheless also thinks of him as “an impossible person” (p. 328).

showing his regard for others even in an area where he is accustomed to excel; and crucially, he would rather be a “servant” to the patricians than go along with their political designs (1.7.34–37; 2.1.198–99). Such behavior is clearly inconsistent with the idea that Martius was unfit for any man’s conversation, even if it is true that he chooses not to converse with *just* any man. “You should account me the more virtuous that I have not been common in my love,” he tells the people (2.3.90–1), and perhaps if we took his advice, we too could think more of Martius for his uncommon love, not less, as Stanley Fish and many other critics have done.

The reasons for this suggested attitude, which for some may require a “transvaluation of value,” are fourfold: first, *Coriolanus* follows Plutarch’s *Life* in lending Martius a reputation for open patrician hauteur (though curiously, this reputation is less prominent in Shakespeare’s version). There are instances in the play where Martius seems “arrogant” in manner, perhaps most notably when he berates the people in Act One. Here Martius asseverates sharply: the plebeians are untrustworthy, fickle, hypocritical, morally inconsistent, resentful, ungrateful, and presumptuous (1.1.164–193). And as some of my colleagues have assuredly reported, Martius delivers these claims with a mocking, sarcastic sneer. But how can we make proof of this claim? When analyzing 1.1.164–184, in isolation, I can see how Martius could be thought “arrogant” if by this word we meant an air of authority and a penchant for interpersonal criticism. But arrogance has another meaning that more often seems intended, and that is professed, self-entitled superiority; and if it is *this* that is meant by arrogance, then nothing in 1.1.164–184 fits the bill (unless “Hang ye! Trust ye?” is sufficient proof, or if it is clear that Martius stands in metonymic relation to the “noble Senate” who keep the people “in awe”; but neither claim seems very strong). So what do we see in 1.1.164–184, if not “unduly exalting one’s own worth”? A more fitting label might be “political assessment” or “social psychological description.”

Second, there is Martius’s haughty reputation, established through others’ perspectives; though to these Shakespeare always offers contradictions. We find, for example, that when a citizen accuses Martius of “being proud” another says “Nay, but speak not maliciously”; and when the tribunes question whether Martius mocked them, one citizen responds that “No, ’tis his kind of speech. He did not mock us,” while the rest apparently feel otherwise (2.3.156)—though later, again, the people claim to have felt pressured into holding their former attitude (4.6.149–154). Yet the best argument for understanding Martius’s ingenuous disdain for the people is made in the play itself, by the Second Officer: “neither to care whether they [the

people] love or hate him manifests the true knowledge he has in their disposition, and out of his noble carelessness lets them plainly see't" (2.2.11–14). That is to say, Martius openly shares his assessment of the people's behavior as a kind of true political knowledge.

Third, Martius's ingenuous disdain for the people is closely linked to the play's development of his character. Much of the plot—almost the entirety of Act Three, for example—revolves around his inability to conceal or mask his nature and bearing towards the people: "he has been bred i'th' wars / Since a could draw a sword, and is ill-schooled / In bolted language" (3.1.323–325). The import of this Act, and the plot of the play, I shall analyze more closely, later, with respect to Martius's nature.

Fourth, Martius's attitude towards the people is consistent with a classical psychology of power (to which he is accustomed), where natural nobility is thought to create a natural "pathos of distance" between rulers and the ruled (*BGE* 257). This means that within the context of ancient Rome, a context carefully (and for the most part faithfully) reconstructed from Plutarch's *Life*, "essential ability," or *virtus*, was understood to be the most valuable of the Roman values, or virtue "in the Renaissance style" of *virtù*, virtue that is "moralinfrei."¹⁶⁶ Of course this is not to suggest that we ought to think positively of Martius's tendency to dismiss others, in isolation from his social context; this would be a facile extrapolation of my position; rather, I am suggesting that we need to understand Martius's attitude towards the "rabble" as both consistent with his amassment of military honor, self-conscious patrician affiliation, and with Roman attitudes about socially stratified power relations more generally.

Summarizing the above four points, I have claimed that there is insufficient evidence to characterize Martius's manner and action as "assertive self-aggrandizement" (to borrow a key phrase from Boehm's work).¹⁶⁷ A more fitting evaluative description, rather, would be that Martius is a passionate conservative agitating for patrician principles, a man who openly dislikes the multitude yet does so without self-love, who feels offended by public honors yet honored by his peers, who offers up all the spoils of war yet wants for nothing (2.1.162–3; 1.10.27–40). That readers/viewers nevertheless *valuate* Martius *as if* he were openly self-aggrandizing may have strong empirical relation to his properties as a dominant, "alpha" figure

¹⁶⁶ Nietzsche refers to this kind of virtue in (using abbreviations) *AC* 2 and 3, and unfortunately links it here with "breeding." Though the idea of "moralinfrei" (from Nietzsche's neologism, *Moralin*) is meant to criticize "self-righteous, priggish morality"—cf. the footnote from (F. W. Nietzsche, 2003, p. 182).

¹⁶⁷ Unless—as any critic who sees in Martius a "cheerless and unattractive snob" (Wyndham Lewis)—his response to Aufidius at the close of the play is counted as proof (5.6.115–117); but the singularity of Martius's context at this point—and all that we know of the play leading up to it—makes the remark not one of snobbery but recrimination, a rebuke in kind following an awful, ironic, lying injustice. The only real instance of condescension seems to be 2.3.76–7, where he seems to toy with the people. But even here we cannot abstract his behavior away from the grotesqueness of his context.

(an idea I shall return to). Some may object that Martius is self-evidently self-aggrandizing because he constantly humiliates others, but again, the onus is on the evidence, and I have suggested there is no clear evidence for this objection (hence my pointing to a social psychological explanation).

Now if we can elevate *Coriolanus*'s themes to the level of psychological principle, as I have argued, then Phyllis Rackin's view that *Coriolanus* is "not so much a paradigm of a universal human predicament as [it is] a cautionary illustration of the inadequacy of the Roman ideal of *virtus*" would stand to be challenged (1983, p. 77).¹⁶⁸ Such a view seems to me false on at least two counts. First, *virtus* is not only a "Roman ideal" but an essential quality, a quality of innate strength and heroic ability. This is especially true of *Coriolanus*'s pre-Classical Rome, where "the predominant meaning of *virtus* was physical courage," though it was also true for Classical Rome (McDonnell, 2005, p. 62). As Cicero argued during the later phase of Rome's history in his defense of conservative Roman values, "*virtus* is the badge of the Roman race and breed," "a heritage that [our] ancestors bequeathed" (quoted from McDonnell, 2005, p. 3). It was also commonplace in both Classical and Pre-Classical Rome to contrast "innate human ability [*virtus*]" with "either the favor or opposition of fortune [*fortuna*]" (p. 84), a contrast rendered explicitly in Martius's exchange with Volumnia after his banishment:

Nay, mother,
Where is your ancient courage? You were used
To say extremities was the trier of spirits;
That common chances common men could bear;
That when the sea was calm, all boats alike
Showed mastership in floating; fortune's blows
When most struck home, being gentle wounded craves
A noble cunning. (4.1.2–9)

And in Plutarch's *Life of Coriolanus* we find that "valiantness was honoured in Rome above all other virtues; which they call *virtus*, by the name of virtue itself, as including in that general name all other special virtues besides. So that *virtus* in the Latin was as much as valiantness" (p. 297). It is this pre-Classical sense of *virtus* that Plutarch links, contextually, to Martius's "natural strength and hardness of ward" (p. 297), a sense and context that Shakespeare replicates in Cominius's encomium on Martius's "deeds" (2.2.82). Shakespeare substitutes the more familiar "valour" for the Roman "virtus," which inclines some readers to think "valour"

¹⁶⁸ Rackin may have A. C. Bradley's criticism in mind here: "No doubt the story has a universal meaning," declares Bradley, "since the contending forces are permanent constituents of human nature" (quoted from George, p. 324).

carries a Christianized or medieval connotation, an idealized Arthurian chivalry or some other contemporary meaning far removed from ancient Rome. So whenever we conflate post-Classical meanings of “valour” with “virtus” in any of its Roman senses, then use this conflation as an interpretive rubric, we cannot help introducing critical inconsistencies vis-à-vis the play’s contents.¹⁶⁹ To avoid any such tendency, “valour” and “valiant” should be yoked to the Roman “virtus,” whose synonyms—in addition to “manliness” and “valour”—include “steadfastness,” “worth,” “merit,” and “ability” (*Oxford Latin Dictionary*, 1968, p. 2073). Any other meaning would strip *Coriolanus* of its quintessential Romanness, even if the play’s Classical fidelity were owed entirely to its Plutarchan derivations.

William Salter once noted that “virtue in general finds its definition with Nietzsche in terms of strength—and after all this is only returning to ancient usage. Virtue for him is literally *virtus*, ἀρετή, Italian Renaissance *virtù*, i.e., strong excellence of some sort, manly superiority” (1915, p. 392). If the same can be said of Shakespeare’s usage in *Coriolanus*, then not only do some critics misconstrue the meaning of *virtus* when considering Plutarch’s influence, but they also overlook the more obvious, empirical disrelation of this meaning with the play’s contents. Volumnia, for example, says that Martius *inherited* his “valiantness” from her (“thou suck’st it from me”), a trait that has been passed on to Martius’s son (3.2.131; 1.3.70). And when Aufidius battles Martius, the soldiers who come to Aufidius’s aid are said to be “not valiant” (1.9.14), or lacking in *virtus*, and so the psychological dynamic of the situation automatically registers a comparative sense of innate power. For by assisting Aufidius when he is plainly engaged with his arch rival, his soldiers betray a need to pit greater numbers against a stronger foe, a commonplace behavioral pattern in tribal societies, chimpanzee colonies, and presumably humans in general (Boehm, 1999, pp. 182–183; de Waal, 2007). The suggested weakness in the soldiers helping Aufidius (and Aufidius himself, by extension) is made all the more forceful by the scene’s context, as just before Aufidius exits—either to avoid the ignominy of losing to Martius with the help of others, or (most likely) because he wishes to avoid the appearance of weakness himself—an equation is made between valour and power: “For thy revenge, / Wrench

¹⁶⁹ Robin Headlam Wells, despite his rejection of anti-essentialism and affirmation of human nature in *Shakespeare’s Humanism*, seems quite comfortable conflating a medieval sense of valour with the Roman senses of *virtus*, and sees Martius as imagining himself in “a fantasy world of chivalric deeds in which plebeians play no part” (2000, p. 421). He argues from a neo-historicist vantage that Shakespeare wrote *Coriolanus* as a cautionary tale against the martial chivalry championed by Prince Henry, and so was an “emphatic denunciation of heroic values” (p. 422). Wells’s reading is informative yet unpersuasive as far as the action of *Coriolanus* is concerned (his chapter on *Coriolanus* in *Shakespeare’s Masculinity* does much the same; even in *Shakespeare’s Humanism* when it comes to *Coriolanus* Wells seems unwilling to hold a mirror up to Martius’s properties with a naturalized lens). There is certainly a connection between *virtus* and medieval chivalry, one that Nietzsche notes in his work, yet to think these qualities carry more ideological than descriptive weight in *Coriolanus* is highly problematic.

up thy power to th' highest," shouts Martius (1.9.10–11).¹⁷⁰ Aufidius is thus beckoned to demonstrate his *virtus*—his intrinsic power—with its only means of empirical verification, namely, physical prowess and willful determination. That Aufidius should perceive weakness in the soldiers who come to his aid is thus consistent both with a classical conception of power—since *virtus* is estimated by battle-prowess and courage, or aristocratic “emulation” as it is most often called in *Troilus and Cressida*—and with “human nature,” or the perceived need, in a dominance hierarchy, to use coalition force to overthrow physically powerful leaders.¹⁷¹ And last, if valour’s identity with essential strength or ability were not central to the play’s thematic—and as I shall soon suggest, to the play’s *value*—then Act Five would fail to cohere with the play’s earlier developments. In this final act it is Aufidius who overwhelms Martius with the aid of assassins, an action paralleling, inversely, the valuation made by Aufidius against his assisting soldiers in Act One. Aufidius thus commits the very fault that he himself identified in those who came to his aid in the first act, and so now it is Aufidius who must not be “valiant.” So although both Martius and Aufidius show themselves to be naturally valiant, it is Aufidius who must yield to cunning (not the type of cunning positively valued in Ulysses and Hamlet, though surely of the same underlying kind, but the type of cunning that comes from “lower-ranking individuals” who have no choice but to deceive rivals, since they cannot challenge them by equal force).¹⁷² Aufidius admits as much himself:

Five times, Martius,
I have fought with thee: so often hast thou beat me,
And wouldst do so, I think, should we encounter
As often as we eat. [. . .]
Mine emulation
Hath not that honour in't it had; for where
I thought to crush him in an equal force,

¹⁷⁰ These lines, I should note, come from what has to be one of the fiercest taunts ever displayed in literature—here we have a man who has fought singlehandedly for three hours prior to his engagement with Aufidius, and remains at the ready with a mask of blood drawn from his sword, taken from Aufidius’s people.

¹⁷¹ “Emulation” functions in *Troilus and Cressida* as valour does in *Coriolanus*, though “emulation” in a sense approaching “virtus”; “emulation” also makes a few appearances in *Coriolanus* and *Julius Caesar*.

¹⁷² See Cummins (2000) for an overview of deception in chimpanzee colonies and extrapolations to human domination behavior. In one interesting passage, he suggests that “One of the primary purposes of deception is outwitting those who have power to constrain or inhibit your behavior. The capacity to represent others’ internal states, however, has other, less Machiavellian, uses. It also allows for greater compassion, and social codes based on something other than social norms. In short, it sets the stage for the development (or evolution) of a code of morality, particularly one based on harm to others” (p. 19). This very thesis was put forth by Nietzsche in *BGE 257*: without the barbarian “lust for power” “that other, more mysterious pathos could not have grown up either—[. . .] the development of ever higher, rarer, more remote, further-stretching, more comprehensive states—in brief, simply the enhancement of the type ‘man,’ the continual ‘self-overcoming of man,’ to use a moral formula in a supra-moral sense.”

True sword to sword, I'll potch at him some way
Or wrath or craft may get him. (1.11.12–16)

Immanent assessments of weakness and strength are further instanced in the final act, both from Martius's reaction to Aufidius's taunt and the nobleman's lamentation after Martius's assassination. If Shakespeare understood "valour" in terms of Roman *virtus*, then the diction in the noblemen's lamentation—"Thou has done a deed whereat valour will weep" (5.4.133)—must also remain consistent with other uses of "valour" throughout the play, so that Valour is personified in a manner reminiscent of Rome's personification of war and might as an Amazonian warrior, *Virtus*. And last, Martius's response to being called a "boy" in Act Five follows the same pattern of equating power with valour, for neither boys nor slaves were said to possess *virtus* in ancient Rome (McDonnell, 2005, p. 159). Martius's volatile reaction to Aufidius thus carries a double meaning, for not only does Aufidius suggest that Martius cannot be a man—that he has no *vir*—but that as a consequence he cannot possibly embody essential strength.¹⁷³ This is the highest (or lowest) insult anyone could pay to Martius, an insult that attempts to efface the very "truth" that he knows himself to be (cf., 3.2.122–25). However, if we were to adopt a prescriptive view of power, and so suppose that the struggle between Aufidius and Martius were an existential rather than an ontological affair, then it would follow that Aufidius's inability to be valiant is a matter of choice (not from an inborn necessity, or a means of compensating for a *lack* of intrinsic power, but a choice *freely* taken, a kind of context-free treachery). Such a choice is nowhere to be found in the play's plot; and as I have argued, we find that the opposite is so.

From all such instances of Martius's essential strength, his inadvertent provocation of *ressentiment* (in the tribunes and Aufidius), and Shakespeare's unwillingness to paint him as altogether uncongenial, I believe it would be mistaken to suppose that Martius's valiant spirit—"never known before / But to be rough, unswayable, and free"—should of a sudden turn against itself. "No idle dream of honour impels [Martius] to seek for renown," observed Gervinus; rather "he wishes *to be*, not to *seem* the first; [and] in this sense he is an aristocrat in the simplest and noblest meaning of the word" (original emphasis, 2004, p. 154). That is, in the sense of "rule by the best," or in Roman times, rule by those embodying and demonstrating *virtus*.

¹⁷³ "What hurts most" about Aufidius' "boy of tears" epithet "is the impugning of his manhood—his heroic *virtus*," says Eugene Waith in a similar critical mode (1962, p. 142). Waith does not distinguish the ideal of *virtus* from its physical instantiations, however, and seems to only hint at the essentialist implications of *Coriolanus*.

If this is true, and *Coriolanus* is (on the main) not about how we *ought* to think of power but how the psychology of power *is*—not just in a man, abstracted, but in a man socially embedded—then our valuative and evaluative appraisals of the play’s contents may exist at times apart, at times in concordance, though in either case more or less correctly warranted. We may, for example, appreciate that Martius is made to seem other than what he is in the service of (seemingly) arbitrary customs: he is made to wear the gown of humility before the people, even though both we and they should already know of his merits, of how he *is*; and he is coerced into acceding to the tribunes’ call for exile, though both we and they should already know that a forced exile goes against the grain of everything Martius stands for—as a man, father, husband, and patrician who has given himself over more than anyone else to Rome. But these “should already know” qualifications are *not* apparently known by many theatergoers or readers, for Martius is often *disliked* just at the point where he needs to be understood. His nature and deeds forgotten, he is disparaged for his lack of humility before the people, and so policy (a type of *fortuna* in the context of *Coriolanus*) commands attention more than a man’s established natural ability (*virtus*).

Yet the conflicted interplay between Roman “policy” and Martius’s “nature” cannot make sense if we *expect* him to be anything “other than one thing,” if we suppose him able to be submissive and base rather than noble and elevated (4.7.41–2; 5.6.24–5). “What he cannot help in his nature you account a vice in him,” says a citizen at the start of the play; and of himself Martius asks, “Would you have me / False to my nature? Rather say I play / The man I am” (1.1.38–9; 3.2.14–15). Supposing that Martius could be anything other than what he *is*, then, would require a valuation out of tune with the play’s plot-structure.¹⁷⁵ Even when we *are* surprised by Martius—when he capitulates to familial appeals, and “melts”—he does so in accordance with “Great nature” who “cries ‘Deny not’” (5.3.33), so this moment—often viewed by critics as his moral redemption—is also more correctly understood as a natural psychological response to the appeal of family bonds. The play’s tragic elements thus hinge on the intuition that Martius will follow his nature unto death, if that is where it must take him, though this intuition may only be afforded if we understand Martius as a man whose life hinges on being what he is, rather than what others think he ought to be (either for policy or for the sake of the

¹⁷⁵ On Budd’s terminology, such an appraisal may count as “sentimental,” for it would be a secondary emotional response removed not only from the play, as perceived, but also its historical setting (pre-Christian Rome, 500 BCE), as correctly understood.

tribunes' security). Martius's life is one that cannot subsist in a world that would deny his nature.

“[T]he full meaning of any one of [Shakespeare's] plays is not in itself alone, but in that play in the order in which it was written, and in its relation to all of [his] other plays earlier and later,” argued T. S. Eliot: “we must know all of Shakespeare's work in order to know any of it.” It may help my case, then, to point out that foisting an “unnatural” wedge of policy between man and nature is a common theme in Shakespeare's corpus.¹⁷⁶ Policy runs counter to Hamlet's noble spirit when Claudius takes the throne and expects Hamlet to treat him as a father, calling him “my son” and urging him to “throw to earth / This unprevailing woe, and think of us / As of a father” (1.2.65; 1.2.8–10). It seems clear from the context of the play, moreover, that Hamlet does not “happily feign madness” against his nature; rather he is forced to feign madness to preserve himself against the most awful of cynical circumstance: a hostile environment whose major players see him as a threat. And the very same theme is repeated in *Cymbeline* to greater effect, where a man with natural nobility, but no rank, is thought unfit to wed a princess, and where two young men reared as commoners nevertheless display natural nobility, owing to their blood ties to the king.¹⁷⁷ So we see that Cloten is killed without compunction not only because he is “an aggressive dolt,” but because, on my reading, he lacks *virtus* enough to sustain himself against a stronger, nobler opponent. And in *Timon of Athens*, a collaborative effort between Shakespeare and Middleton, we see a man of noble nature stripped of his estate because he cannot repay his creditors.

Now if all the aforementioned clues were not enough to support the thesis that *Coriolanus* is a play largely about natural nobility and how this trait, when unmoderated, cannot help but incite social *ressentiment*—the perception that another's dominance is the *cause* of our weakness, and so must be “bad” relative to ourselves, the “good”—Shakespeare supplies us with a riddle whose answer lends further credence to my thesis. Aufidius's frequently-quoted

¹⁷⁶ In *Troilus and Cressida*, policy affords the trade between a Trojan prisoner and a Greek maiden; in *Merchant of Venice* policy threatens a man's life, both of which can be thought quite unnatural. I focus here on policies that more explicitly conflict with natural nobility.

¹⁷⁷ In fact *Cymbeline*'s themes so closely parallel those of *Coriolanus*, in terms of an essentially strong hero fighting for his proper station, that the two plays ought to be read together. *Cymbeline* offers an interpretive corrective for *Coriolanus* if we doubt that Shakespeare could have thought of natural nobility as a kind of independent property, one that any man may possess, irrespective of class. Reading *Cymbeline* alongside *Coriolanus* makes it clear that the latter cannot be “satirical,” as some critics have maintained, for if it were satirical in *Coriolanus* then it would also need to be satirical in *Cymbeline*. All this said, there is no reason to think that Posthumus and Martius's natural nobility, in the sense of *virtus*, make them immune to other types of weakness. Intrinsic power does not translate into intrinsic morality, in the conventional sense (one that is often anachronistically expected). On account of youthful naiveté, perhaps, Posthumus gives in to Iachimo's challenge to seduce Imogen; and like Othello Posthumus intends to take Imogen's life on false knowledge of infidelity. So clearly natural nobility does not mean natural saintliness, or freedom from “human, all too human” corruptions.

speech on the historicization of power—“So our virtues / Lie in th’ interpretation of the time”—also contains, more significantly, a kind of *mise en abîme* which I believe reflects the entire play’s thematic structure:

Whether ’twas pride,
Which out of daily fortune ever taints
The happy man; whether defect of judgement,
To fail in the disposing of those chances
Which he was lord of; or whether nature,
Not to be other than one thing, not moving
From th’ casque to th’ cushion, but commanding peace
Even with the same austerity and garb
As he controlled the war; but one of these—
As he hath spices of them all—not all,
For I dare so far free him—made him feared,
So hated, and so banished. (4.7.37–48)

The riddle-like quality of these lines seems to parallel the “caskets episode” in *Merchant of Venice*, where only one choice of three presented side-by-side is “correct,” and we are not told which to choose. Rather than select between “gold,” “silver,” or “lead,” in this case, we are offered “pride,” “defect of judgement,” or “nature”; only one of these traits has unraveled Martius’s noble knot, even if there are “spices of them all” in his character. And in both riddles the answer is the third choice: “lead” is what the princes ought to have chosen, and here it is Martius’s “nature” that has made him feared, hated, and banished. His *virtus* did not move from “th’ casque to th’ cushion” (from “sprightly walking” war to “sleepy” peace) and so provoked cooperative action against a perceived “bad” element (Martius) for the sake of those who wished to preserve themselves, the “good” (tribunes). Yet what is “good,” as Nietzsche challenges us to consider, is not always what is felt to be morally “correct,” but what is “naturally” strong or worthy, what is admirable in “men of exceptional independence of mind and strength of will” (Foot, 2001, p. 216). A parallel point is made by Malcolm Budd, also drawing on Nietzsche:

we value the remarkable ability of the greatest dramatic characters, even when their lives are ruined, to express thoughts and feelings that are adequate to the people they are, how they have lived and the situation in which they find themselves. For this is an ability that we admire in itself, and someone who possesses this ability is a different kind of person, and in this respect a more

impressive person than someone who does not. [. . .] admiration for the individual's 'greatness of soul' mingles with regret for his or her fate.

(1995, p. 122)

To this I would add that Martius not only possesses the ability to express himself in a way “adequate to” how he is, but that our value for him is contingent on registering his properties of power, by responding with favor or disfavor to his *virtus* and magnanimity.¹⁷⁸ In paranoid opposition to this type of “good” is often the value set by a collective mass opposed to a perceived threat to themselves, even if that threat is not in itself deserving of blame or is duty-bound to protect the mass. So it is that Martius’s “knightly-aristocratic” nature “presuppose[s] a powerful physicality, a rich, burgeoning, even overflowing health, as well as all those things which help to preserve it—war, adventure, hunting, dancing, competitive games, and everything which involves strong, free, high-spirited activity” (*GM* p. 19).¹⁷⁹ Yet when Rome turns away from warlike activities to internal affairs of a political kind, it is only “natural” to find that Martius—unable to temporize, unable to bridle his valour—should now seem like a threat to those in the public sphere without honorifics (the tribunes). “In Roman culture,” writes McDonnell, “demonstrations of prowess in battle—*virtus*—were rewarded by election to public office and the prestige the office conferred, both of which were denoted by *honos*” (2005, p. 213). Thus, when Martius is denied the consulship and exiled, “policy” trumps “nature” in a manner paralleling the unnaturalness of Hamlet’s new “father,” Diomedes’s new “wife,” Timon’s cession, and Posthumus’s banishment. To deny Martius the consulship is to deny him his *virtus* and *honos*. And it is with this denial that we should understand how, “On a dissension of a doit,” that Martius could metamorphose into a “dragon” with fell eyes set on Rome. We

¹⁷⁸ Some have suggested that Martius measures up to Aristotle’s “great souled man” (*megalopsuchos*), while others say he falls short due to his lack of prudence (Carson, 2007). I do not have enough understanding of Aristotle’s *Ethics* to weigh in on the matter, though I suspect that, while such a comparison may be fruitful, it would be speculative to suggest that Shakespeare had Aristotle’s *Ethics* in mind when writing *Coriolanus*. In any case, supposing that Rome “does not owe [Martius] the office of consul merely because he has proved a splendid soldier,” and that he “mistakenly thinks his prowess as warrior should earn him the honor of chief executive,” as does John Alvis, would go against all that we know of Roman history (1978, p. 8). It was “a belief in *virtus* as the preeminent qualification for public office,” and the demonstration of *virtus* through successful war campaigns, that most often paved the way to consulship (Rosenstein, 1990, p. 263). Indeed, men who desired political power in Rome often failed for lack of military experience, a fate dealt even to Cicero (McDonnell, 2005, p. 355). Cornell also notes that consuls were elected by the *comitia centuriata* (army officials) from the royal period of Rome up through the Republic, adding further support to the argument that Martius would certainly have been eligible for consul (1995, p. 196; p. 226).

¹⁷⁹ The tribunes react with characteristic *ressentiment* since they perceive Martius’s natural power “over” them as representing the “bad” or “evil” element in Rome that needs purging, on the one hand, while they take themselves, in a position of weakness, as the “good.” I would not follow Nietzsche in thinking that this dynamic only plays out between noble and base, aristocratic and common, however. It is clear that within any dominance hierarchy—no matter its scale or significance, or whether its members are “elite” or “common”—there is a fluctuating sense of who is “bad” and “good” with respect to psychological perceptions of power, so that many hierarchies may have little to no basis in “real” properties of ability, or perhaps only properties of a virtual kind (i.e., being a “commander” in a virtual combat simulation without any real-life qualities of command, or a high ranking member of an effete political organization).

may struggle with Martius's apparent "treachery," and his shift in allegiance may seem out of keeping with his nobility. But to leave our assessment at this level would depend too much on modern sensibilities removed from Martius's psychological reality. For if "nobility" is an essential set of traits with its own ethos, rather than a moral ideal, then it is not a matter of existential *choice* that Martius rejects his forced obsolescence; rather, it is also a matter of existential *ontology*. He is compelled to exist as he is, not as we expect him to be, which means seeking out an alternative outlet for his *virtus*: the Volscian camp. And again, this is not apology but social psychology; it is understanding Martius's actions, not accepting them; and with respect to the identity of the play, it is a means of aligning critical judgment with simulated sense. So even if we must depreciate Martius's manner we can still learn to appreciate his fate.

4.4 Perspectivism and Divergent Valuations of Martius

Now if "nature" as it *is*, not as we think it *ought* to be—according to class or moral standards—is central to *Coriolanus*'s plot and thematic structure, as I have argued, then too much criticism has focused on whether Shakespeare sided with aristocratic or democratic principles, with Martius or the people. If we knew what political faction Shakespeare held to greater account, some critics seem to think, we would know how to judge Martius as more or less a tragic figure, more or less the cause of his own undoing. Commenting on a collection of *Coriolanus* criticism, David George notes that

Of the seventy-seven critics in this collection, fifteen found that Shakespeare was anti-plebeian or (what amounts to the same thing) a Tory dramatist out to demean the populace of this play. Twelve of them found that he concentrated on the hero or that he deplored or regretted his failings. Actually, these divide into two camps, those who saw a noble, wronged Coriolanus and those who saw a flawed or (in extreme cases) a dreadful, 'impossible' man. A slight majority (sixteen) found Shakespeare even-handed or without any discernible politics, and these critics number among their ranks some very distinguished names [. . .]. In fact any particular verdict tends to reflect contemporary politics and the social origin of the critic (2004, p. 37).

While I would not wish to contradict George's insight, it is misleading to think that the primary factor generating divergent responses to Martius, *as* a character, is political ideology. Political leanings may correlate with evaluative judgments of *Coriolanus*, the play, but salient kinds of property drive valuations of Martius, the character (and other elements within the play).

Specifically, I have suggested that we react negatively to Martius for the same "natural kind" of

reason that we react positively, and that is for his socially situated properties of power. Shakespeare represents not only an individual's power but how others perceive power relative to themselves, and so captures the perspectival nature of dominance (or what Boehm would call "innately structured psychological ambivalences" [p. 227]). I have also suggested that Shakespeare captures intergroup power relations with verisimilitude—with a keen understanding of dominance, its causal relations, social perceptions, etc.—so that audience members or readers cannot help but respond to the properties and situations developed in predictable ways (with either aversion or attraction). *Coriolanus* is in this respect a successful value simulator, a vehicle for exploring the properties of power.

What is "natural" in our response to Martius, however, cannot be reduced, as Jesse Prinz attempts in his essay on aesthetic value, to a unitary emotion like "wonder," or in the case of *Coriolanus*, our response cannot be reduced to whatever emotion is provoked when "responding to the properties of power"; rather, I have tried to show that to Martius's properties we can respond with different types of emotion while sharing a representational sense of those properties. We thus on this view share the same potential degree of emotiative value for the same kind of simulated object, even if the valence of our values differ (e.g., if you "admire" and I "abhor," if you feel "attraction" and I "aversion," etc.). Because this type of response profile is neurobiological, then it is to some considerable extent automatic: if we simulate the play's contents with basic understanding, we respond to those contents with value of a certain kind and type, even if our valancing of the value clashes.

But this is only the frame of a more nuanced picture. Just as we tend to blame ourselves or others for what we or they have already done, as if we or they could have done otherwise, we may all find cause to blame Martius for his actions—if not on first reading or viewing, then on second or third. All that we need is some context in our lives where a powerful, dominant figure threatens our livelihood or status, forcing a loss of self-possession or change in fortune. At such times, we may find ourselves instinctively inclined to react badly to Martius's overbearing nature, even if we previously found his behavior rewarding.

To some this possibility will sound familiar. Barbara H. Smith famously argued in her *Contingences of Value* that all evaluative judgments are "contingent" on several extrinsic factors: conventional assumptions, contextual experience, publishing standards, and academic authority among them (1988). Smith conceded that "species-wide mechanisms of perception and cognition" likely guide some aspect of evaluation, but only the most abstract sort—nothing like a "trait" or "property"-specific kind of biological value (p. 15). The "experience of literary

and aesthetic value cannot be altogether accounted for, reduced to, or predicted by [biophysiological] mechanisms,” she concluded (p. 15). Smith’s position is the new orthodoxy within the literary humanities, and deservedly so for many reasons; but her position does not account for what a “biophysiological mechanism” really entails, so I should like to suggest alternative explanations for the “impurities of value”—the contingent nature of some emotive responses—by drawing on the positions developed above.

A familiar heuristic may help frame the complex of responses to Martius’s properties of power: “nature versus nurture.” On the nature side of the spectrum, I propose the following scenario plays out: audience members automatically attune to Martius’s displays of natural strength *and* his general bearing or attitude (especially after receiving public recognition, *honos*). His success against Corioli is one side of *virtus*—the active side—and his manner after receiving recognition is the other—the passive side, where *honos* is achieved in the public eye. When in action, Martius is intersubjectively represented as a commanding, towering presence, a “force of nature,” whether he is liked or not for this very reason; and in his passivity, he is embarrassed, munificent, and self-abnegating; he wishes to be as he is and not what others perceive him to be, though he has knowledge of what he is, and so knows of his “desert” even if it is not his “desire” to receive public recognition (*honos*); and I believe he *is* this way whether we perceive him as such or not (1.10; 2.2).

So our representations of Martius’s power, on the “nature” side of the “nature-nurture” heuristic, fall under the class of registering a kind of social dominance, and this class may be understood as sharing biologic properties of behavior that confer emotional value (Boehm, 1999, pp. 251–252; Hewstone et al., 2002). If uneasiness is felt when perceiving Martius’s *virtus*, then we ourselves may feel instinctively disempowered and so threatened by displays of dominance; and if admiration, then the reverse—we may feel naturally empowered and so cannot help admiring what resembles ourselves (or perhaps we simply do not register properties of power as threatening if we already feel socially secure).¹⁸¹ Fearing or admiring properties of power, in any case, counts as “primary” responses following from “basic comprehension” (a simulated sense that has yet to be subjected to analysis); at this level of response, there is no ideological type of contingency, no type of political (in the colloquial sense) “allegiance” or

¹⁸¹ See for example Boksem et al. who demonstrate empirical correlations between perceived rewards/punishers and high/low-status or power (2012). Also, social security may be a byproduct of socioeconomic security, which may explain correlations between ideology and evaluation: a type of “submission” sensibility that may come from affiliating with the political underclass.

“opposition.” We may very quickly make these associations, after responding basically to Martius’s *virtus*, but they have not at this stage conjoined with our impression of value *for* his properties. Thus, to the extent that we “basically comprehend” Martius’s attributes and respond emotionally *to* them, we also *value* those properties. In this way, Martius is “intrinsically valuable” as a character.

“Basic” valuations of Martius need not conform to “complex” evaluations of his character *after* viewing or reading the work, however. And this where the critic gets into difficult problems of reconciling the “nurture” side of response with the “natural” side, on the one hand, and reconciling our overall evaluative impression with the play’s contents, on the other. Secondary, “complex” appraisals may assume value-dimensions at variance with initial, primary valuations of *Coriolanus*, so that if we loathed the tribunes’ actions, on first reading, we may later—after viewing a new production, hearing out the arguments of colleagues or critics, or conceptualizing what we have experienced in relation to some moral framework—come to sympathize with the tribunes’ position and means of attaining power (or the reverse); or if we lack patience or caution, we may complexly judge Martius as a “Nietzschean individualist,” with a positive or negative connotation, and then forget that we ever recoiled from or admired his *virtus* on first exposure. However, since it is the nature of complex appraisals to stand apart from our experience of a work, to some degree (not in Sharpe’s “secondary-judgment” sense), such appraisals can hold more or less “correct” empirical relation a work’s simulated contents. So it may be the case—and this I shall explore further—that some of our valuations follow from extrinsic concerns that do not align with (do not inform) the play’s meanings.

On the “nurture” side of the heuristic misalignments of value seem most frequent. It may be the case that class identity, one’s own position within a shifting dominance hierarchy, independent of class, or both together prime selective attention to (and recollection of) aspects of Martius’s behavior. In modern, sedentary societies, class identity and social status are massively modulated by epigenetic factors (i.e., one could identify with the dominant class yet be submissive; another could identify with a submissive class yet be dominant; even entire groups or civilizations may be hierarchized or overtaken for no apparent genetic reason).¹⁸² If dominance hierarchies in rats can be reversed, as mentioned above, by manipulating a particular

¹⁸² Robert Sapolsky argues that “inventing material technology and the unequal distribution of its spoils” leads to subordination of “have-nots” irrespective of their genetic dominance potential (2005, p. 652). Jesse Prinz has also argued that India’s caste system “is a biocultural institution, reinforced by emotions of obedience, deference, and superiority,” and so exemplifies epigenetically modulated hierarchy formation (2007, p. 278). And more generally, LeDoux notes that “innate stimulus processing is nevertheless subject to epigenetic modulation by various factors inside and outside the organism during development, and throughout life” (2012, p. 656).

area in the brain that appears to control dominance behavior, then hierarchy formations have a clear neurobiological substrate; but such formations are subject to manipulation (Wang et al., 2011). As Jesse Prinz argues in the *Emotional Construction of Morals*,

Within simian societies, rank is enforced by power assertion and favors. Ruling apes are stronger and more generous. Those who vie unsuccessfully for power feel deferential, and, perhaps, a sad sense of defeat (see Price et al., 1994 on the evolutionary origins of depression). Among humans, rank is not established merely by power; it is taught. We are told to respect authority. We are told that certain individuals (parents, leaders, elders, etc.) are *entitled* to their high social station. People who don't obey this rule are not just imprudent (as in the ape case); they are violating the rights of people in power. On this conceptualization, a rank violation is a crime against another person, and crimes against persons elicit anger. (original emphasis, 2007, p. 279)

Social policy may thus in some cases supplant essential properties of power, a theme that I have argued is central to *Coriolanus*'s psychology of power (where a figure of great *virtus* apparently violates “the rights of people in power,” or in this case, the newly appointed tribunes). And from a neurocognitive standpoint, especially, “nurture” is not a matter of disembodied learning, without any element of nature; rather, it seems more accurate to think of “nurture” as a phenotypic state that includes embodied knowledge, habits, personality, and temperamental norms, all of which may influence our appraisal of emotional kinds of stimuli (Graybiel, 2008; Sapolsky, 2004, pp. 407–408). If one reader situates within the bottom rung of a dominance hierarchy at work, for example, he may perceive Martius's military and personal might as overbearing and oppressive, and so value Martius with a negative valence (Sapolsky, 2005). However, a shift in status may produce a corresponding shift in valence. If we move from low to high status, for example, our response to Martius's natural prowess may shift from threatening to neutral or rewarding; or if we move from high to low—after feeling acutely depreciated by a superior, demoted, etc.—we may view Martius's prowess as more bullying than heroic.¹⁸³

¹⁸³ One anthologized critic of *Coriolanus* demonstrates precisely this type of perspectival shift. David George notes in his preface to H. N. Hudson's criticism that his attitude towards Martius shifted after the Civil War. Before the war, Hudson had thought of Martius as “towering and majestic”; after the war, he amended this comment to “towering arrogance” (p. 163). Hudson's wartime superior, notes George, was “overbearing” and “caused [him] to turn sour on Coriolanus and his ‘mellow and considerate’ mother Volumnia” (p. 163). Coincidentally, not long after revising this chapter, I was surprised

Valuative shifts do not entail a warping of intentional relations between affects and objects, however (as Smith believes). For if we have represented and responded emotionally to some value simulator, its intersubjective properties do not change on account of a shifting valency. The valence of a value can alter (“when it alteration finds”) on account of some personal experience—a decline in social status, jealous entanglement—but a value’s properties do not then shift in kind along with it: we still value simulated properties of power and jealousy, *as* properties of power and jealousy, only we value them differently (“through our own windows,” as Nussbaum would say). Fictional representations may thus converge across readers even when valuations diverge between them. In this respect, a value simulator can be just as proxytypical as any other kind of simulator, since successful simulation of some valuable kind—fear, power, desire, etc.—requires accurately re-presenting that kind’s antecedent properties and conditions. So although Prinz, Smith, and others correctly link dispositional and societal influences to shifting valuations, *what* we value—and *why* we value what we value—remains neurobiologically predicated (and so is stable and predictable). Natural kinds of emotion track property-specific contents, so that those who like or dislike Martius intersubjectively like or dislike his “natural nobility,” “dominance,” “commandingness,” etc.

So far I have concentrated on how nurturing influences may shift *valuations*, or automatic responses to emotional kinds. Yet we may still wonder how an *evaluative* judgment of *Coriolanus* could shift to the point where a critic thinks it warranted to adjudicate all positive interpretations of Martius’s “heroic” or “tragic” status as false. Let us imagine some reader who finds Martius basically admirable, on first reading, and then, after considering his behavior through the lens of some historical appropriation, gradually depreciates what was once admired to the extent that *Coriolanus* seems morally repugnant. Such a reader may have discovered, for example, that *Coriolanus* was read in schools during Nazi Germany, and that teachers at this time urged comparisons between Martius and the “Führer” (*Coriolanus*, p. 123–4). Now I would assume that such a discovery, if taken to heart, would certainly darken our perception of Martius, especially his claim that (would the patricians but let him) he could pile plebeians into a mound of corpses as high as he could throw his lance (1.1.194–7; see also 3.1.237–8).¹⁸⁴ A

to experience the very thing I had predicted in this section. As I wrote at the time: “given my recent sense of depreciation” and feeling powerless to alter the perception that I am “somehow no good, I became vividly attuned to the poor citizens in the episode where Martius/Howard excoriates them from his horse. My usual feelings of identity for Martius gave way to empathy for the people, and a tinge of disappointment was clearly felt in association with the former, who now seemed more peremptory than confidently plain-spoken.”

¹⁸⁴ Even before entertaining this possibility, I was prompted into re-reading 1.1.194–7 from Hazlitt’s criticism, and thereafter I could no longer feel anything but a pang of dislike when reading these lines over again. Thus, it seems, anecdotally, that I learned to attend to the line’s ramifications, heterophenomenologically, in a way that I had not done

metaphorical transference may then take place, so that Martius becomes the prototype of immoral individualism, a haunting reminder of a personality type linked to atrocity. From such a standpoint, or one like it, some may adjudicate against positive interpretations of Martius's character, if not the merit of *Coriolanus* as a play (though both have been done).

Whether such a categorical adjudication is practicable or not (and some criticism of *Coriolanus* suggests it is), I think all critics should ask whether it is wise to allow negative associations of an ethical kind to dictate *net* evaluative impressions of Martius's qualities of a natural kind. As understandable as such a move may be, at least for instrumental ethical values, I believe it technically amounts to what Budd has called a "sentimental value"—that is, a value that comes not from appreciating a work's properties, at any given time, but from appreciating what a work's properties remind us of, at a particular time (2003, p. 269).¹⁸⁵ For this reason, along with preserving the identity of *Coriolanus* and maximizing value for *its* simulated properties, extrinsic ethical associations cannot have a bearing on *Coriolanus*'s intrinsic value, as a work of art, even if it is the prerogative of any critic to adjudicate against *Coriolanus* for ethical reasons. Just as we cannot understand and appreciate Nietzsche if his philosophy is always associated with Nazi appropriations, we cannot understand and appreciate *Coriolanus* if Martius's properties of power always stand for a transcendently "evil" kind of tendency.¹⁸⁶ So what Philippa Foot says of Nietzsche's portrayal of the "higher type" applies as aptly to Shakespeare's Martius: "Like Callicles in Plato's *Gorgias* Nietzsche objects to the 'taming' of the strong man by society, but where Callicles urges that the strong should throw away all restraint and allow their passions full rein Nietzsche was scornful of such a suggestion" (p. 217). Replace "Callicles" with "Martius" and "Nietzsche" with "Shakespeare" and the parallel falls in place: *Coriolanus* does not urge that the strong should throw away all restraint, but it does object to the exorbitant taming of a strong man by society. Martius's *anagnorisis* in Act Five,

previously from re-readings (and I admit to feeling embarrassed that I could overlook the gruesomeness of the imagery). What is important to note, however, is that the image is not part of the action of the play but mentioned in a side-comment, in private and between patricians (establishing their friendship), and so the context allows for the lines' scansion as rhetorical bluster or metaphorical extension of Martius' power, situated within a classical context. Knudsen's "competitive selection" of attention may also explain why I did not attend well enough to what was said, because in the context I was already affected by a sense of admiration for Martius (a positive valence), whereas other readers affected by a negative valence may see the lines as a confirmation of Martius's barbarism (pointing to the perspectivism explored in this section).

¹⁸⁵ I should note that for Budd "sentimental value" is not a reproach; it is not synonymous with "silly" or "ignorant." All artistic values on Budd's view are sentiment-dependent. For critical purposes, though, retaining the reproachful connotation of "sentimental" is useful more times than not.

¹⁸⁶ As previously mentioned, Eagleton makes a brief but memorable adjudication against Martius, the "Ruthlessly self-consistent" "bourgeois individualist" (1987, p. 73), who later stands for a "peculiarly pointless and malevolent" prototype of evil (2010, p. 86) whose traits deny others' value in a way that links to Nazi anti-Semitism (p. 87).

Scene Three, serves as a general safeguard against the former (throwing away constraint), even though *Coriolanus* is not about constraining power but (a) the psychological parameters of power in general and (b) how exceptional individuals can be leveled by blind policy. This is *not* to say that when it comes time to weigh in on Martius's value that we should forget historical appropriations, or that we should abandon strong views against Calliclean virtue; rather, my position is that the experience *Coriolanus* offers does not warrant any judgment against Martius on the grounds that his fictional circumstances conceal an apology for proto-fascism or "might makes right."

So, rather than adjudicate against *Coriolanus* from some vantage apart from the work, I should think the most "correct" critical interpretation needs to align itself with the play's contents; this may be done from the spirit of "hypothetical intentionalism," where the most epistemically suitable understanding of Shakespeare's meaning makes the greater interpretation, or from the "value-maximizing theory," where the most rewarding understanding of *Coriolanus*, as a play, takes precedence over understandings that offer less reward (Davies, 2010, pp. 179–190). I adopt the value-maximizing approach retrofitted with the "value = emotional response to salient properties" thesis developed above. This combined approach entails dropping the idea of "pleasurable" experience as the basis of artistic value (p. 33) and replacing it with positive and negative emotions *for* a work's representational properties. The combined effect produces a kind of perspectival "objectivism" where the most correct interpretation requires at once acknowledging *and* distancing ourselves from all values, from all that we find emotionally punishing and rewarding about *Coriolanus*'s properties.¹⁸⁷ Acknowledging that we have some emotional attitude for Martius, in particular, helps us understand that there is something *about* Martius that is intrinsically valuable. Distancing ourselves from Martius's value, on the other hand—whether we sympathize with him or not—lets us entertain alternative or additional values that accord with the work's contents.¹⁸⁸

So what is accomplished with this recipe for "correct" evaluation?

First, I believe that it would be an ideological conceit to say that Martius, the character, lacks natural strengths worth admiring, *as* understood within his social psychological context. If

¹⁸⁷ Again, see Lanier Anderson's essay on Nietzsche's "objectivism" (1998).

¹⁸⁸ Much of this reasoning is based on the assumption that the valence of a value (positive/negative) may modulate attention to properties that offer an opposed valence, when understood (a kind of negative or positive "confirmation bias"). I do not have space to explore all the related research in this area, one sadly underrepresented in the neurosciences, though I will cite a few articles that offer introductions. In (Dawson, Gilovich, & Regan, 2002) there is an overview of the "confirmation bias" phenomenon, and as previously cited, working memory is always "competitively selective" in its retention of perceived stimuli (Knudsen, 2007), which can be seen as a mechanistic precursor for biasing of any sort.

Martius is not seen as an admirable figure, the play's plot trajectory would make little sense: rather than invidious deception, we would need to see sensible guile in the tribunes; rather than resenting Martius, we would need to see Aufidius's unqualified admiration; rather than a political ambivalence in the people, we would need to see a uniform dislike, etc. Second, the principal value of *Coriolanus* is power, and it is Martius who embodies the properties of power most verily; this is so whether we find these properties punishing or rewarding. Without acknowledging that Martius embodies properties of power—not just his physical strength, like Ajax in *Troilus and Cressida*, but his “exceptional independence of mind and strength of will”—we would need to concede that there is nothing valuative about Martius. This last acknowledgement is made in the play itself by the Second Officer, who argues that since Martius “hath so planted his honours in their [the people's] eyes and his actions in their hearts that for their tongues to be silent and not confess so much were a kind of ingrateful injury”; and so for the First Officer, and perhaps also whomever wishes to preserve the identity of *Coriolanus*, saying that Martius does *not* deserve a positive valuation, categorically, would be “a malice that, giving itself the lie, would pluck reproof and rebuke from every ear that heard it” (2.2.27–32).¹⁸⁹ And third, failing to acknowledge Martius's deficiencies—even if we overlooked them on first exposure—would have us undervalue integral aspects of *Coriolanus*'s plot. Some may suppose that the moral of *Coriolanus* is summed up by saying that “Moderation has been turned into a virtue to limit the ambition of great men, and to comfort average people for their lack of fortune and lack of merit,” a moral in line with Brandes's take on Martius's position (La Rochefoucauld, V: 308). Yet such a moral would fail to capture the entirety of *Coriolanus*'s characters and events, and would especially fail to account for the regular, aversive reaction to Martius's dominance. Not everyone who thinks badly of Martius is “average,” in need of “comfort,” or lacks fortune and merit.¹⁹⁰ Some may dislike Martius—it is at least conceivable—because they would rather not have their own dominance threatened by the sight of another's, or because they see in Martius's power the kind they themselves lack. The critical views of the plebeians (and at times the patricians) would also be stripped of value if we attended only to Martius's admirable qualities, and so let ourselves forget that we ever perceived anything contrary. The people's plight at the start of the play is realistically rendered

¹⁸⁹ It is also revealing that this argument, for the First Officer—who is usually dissenting, or who carries the other side of the perspectival divide—is forced to agree: “No more of him. He's a worthy man” (2.2.33).

¹⁹⁰ George Pierce Baker, for example—who thought of Martius as “that poorest of human products, a creature so uncontrolled and with so little knowledge of his real self that he has not the strength to be mainly good or mainly bad”—was the chair of Yale's drama department and director of the Yale theatre (2004, p. 298).

from their point of view: they cry out from starvation, not revenge (1.1.22–3), and their enumerated points of exploitation reveal an awakening to “equal moral and mental capacities,” as Ulrici noted (1.1.79–81). One of the play’s central themes, moreover, draws directly from Plutarch’s critical juxtaposition of Martius’s natural strength with one-sided nurturing—his warrior’s “education” on the battlefield with his dearth of refinement. We cannot say, as Prospero does of Caliban, that Martius is a “born devil, on whose nature / Nurture can never stick”; though I believe we can say that Martius is a born Titan on whose nature Nurture has lopsidedly reinforced.¹⁹¹

All these elements within the play would be lost without distancing ourselves from ourselves. Responding to Martius with a positive dimension of emotion, alone, would have us systematically overlook his negative attributes; and responding with negative emotion, alone, would imply that we have failed to accord value to his merits as a commanding soldier, husband, and outspoken, ingenuous “individual” (with an unabashedly positive connotation). So if we accept the “value = emotional response to kinds of property” thesis, then maximizing *Coriolanus*’s value ought to take into account all of the play’s possible values, as represented, and without canceling out what is most passionately provocative about Martius’s tragedy.

4.5 Some Conclusions and Possible Objections

So what can we take away from the “reading” above in terms of value-attribution, and what about the reading sets it apart from others? Insofar as value is concerned, I have maintained that we cannot help valuing Martius’s properties, as a character. Even those moments when we react to his “bad” behavior (by modern standards if not universally), our reaction amounts to an instantiation of value for Martius’ properties of power. As long as we basically comprehend *Coriolanus*, on this view, we *automatically* attribute value to Martius, not only because he *appears* powerful, commanding, etc., but because these properties—as they *are*—claim invariant valuative force when perceived or represented, generally (even if the valence of his value is positive or negative). On this view Martius’s *virtus* does not *only* serve as an idealized concept for “manliness,” *qua* Rackin, but also stands for an essential quality that anyone (including women) may possess,¹⁹² a quality of commandingness, determination, or

¹⁹¹ Or as Adrian Poole says, “He epitomizes an unholy identification of the two forces, by virtue of which nature has never been thwarted by custom nor custom by nature” (p. 107). With this observation, however, Poole then argues that Martius’ exile is unnatural not, as I believe, because he is made to put his essential power into suspended animation, but because his “ideals” no longer serve any function without Rome (p. 107).

¹⁹² The Roman goddess, Virtus, is an Amazonian warrior, for example, and Cicero used *virtus* to describe his wife’s forbearance while in exile—“*te ista virtute, fide, probitate, humanitate*” (14.1.1)—as well as his daughter’s bravery (McDonnell, 2005, p. 163). McDonnell seems to think *virtus* as applied to women can only mean courage and not intrinsic strength, however, so I may be unintentionally exaggerating the point.

“power,” a quality with its own psychological makeup and valuative properties.¹⁹³ Indeed, since *Coriolanus* is not only a play about a powerful individual, but also a study of the social psychological effects of power, then we might extract a lesson from the play similar to the one we discover time and again in Boehm, namely, that whenever there is a perceived or real upstart who seems threatening, the predictable response is coordinated preemption. So predictable is this response, in fact, that we may as well call it the “Coriolanus effect” in Shakespeare’s honor.

Now if *Coriolanus* depicts “natural” more than “ideological” power, a type of power that is essential and merited by deeds, not accidental and politically contrived, then whatever normative values we may extract from *Coriolanus* would need to accord with its non-normative representational foundations (if our instrumental value is to remain *of* the work). We may believe, for instance, that Martius ought not to have joined the Volsces, ought to have shown greater humility, or “should or shouldn’t” have done whatever else. Yet to more fully appreciate *Coriolanus*, as a play, and to respect *its* identity, I have suggested that we need to keep in mind two things: (one) that Shakespeare successfully depicts not only a psychology of power, but Plutarch’s classically inflected psychology, with *its* acceptance of *virtus* as an essential trait; and (two) that *Coriolanus*’s plot encourages us to understand (through Aufidius’s speech and other elements discussed above) that Martius may not have been able to do what we or anyone else expects of him. The point of *Coriolanus* is not that Martius’s constitution is shared by no one else; rather, the point is that (a) Martius has an exceptionally powerful constitution that *others* perceive, erroneously, as singularly riddled with faults, as distant from themselves, when if only they “could turn [their] eyes toward the napes of [their] necks, and make but an interior survey of [their] good selves,” they would discover “a brace of unmeriting, proud, violent, testy magistrates, alias fools as any in Rome” (2.1.36–43); and the point is that (b), even though they (we) share some of Martius’s qualities, they (we) often perceive these qualities with clashing values, as either threatening, rewarding, or with ambivalence. Much is said, for example, of Martius’s disdain for the people. For largely ideological reasons, George argues, Martius’s disdain is either smiled or frowned upon (though for the more sober-minded critic, the slight majority, he is viewed with impartiality). But for those critics of an ideological bent no mention is paid to Brutus—the people’s representative—who speaks with contempt of the “popular throngs puff[ing] to win a vulgar station,” of a “prattling nurse” and “kitchen malkin” (slut)

¹⁹³ Boehm, as well as Nietzsche, enumerate many of the properties of power, including not only physical ability but psychological drive and willfulness; and both also note how others can perceive leaders with hostility if their own wellbeing seems threatened.

with greasy cheeks (2.1.201–211).¹⁹⁴ This attitude shows that Brutus is a false representative, whether we admire or dislike his opponent, Martius. I have suggested that we can overlook such information in the play if we do not distance ourselves from ourselves, from our own valuative responses. We might rightly claim that “if Martius were sufficiently educated, he could have suppressed his desire to reclaim command,” that “if he were more socially domesticated, he could have shown greater deference to the people,” and suchlike propositions. But in making such assertions, I believe we should understand that Martius behaves not according to *our* moral standards, but those of Rome, those of a classical psychology of power. If so, then Martius’s personality may be better understood in light of Nietzsche’s *moralinfrei*, a manner flowing with natural confidence and dominance—*virtus*, *Machtgefühl*—a sense of command unhampered by an anti-natural “conscience.”¹⁹⁵ When Martius concedes to his mother, for instance—to highlight the most normative-seeming instance in the play—we may certainly take away moral lessons, such as realizing that we should not put our own *virtus* before the needs of others, and that familial love ought to outweigh self-love. However, such lessons should also be understood as *evaluations* that do not derive from moral ideals developed *in the play* (nor from “universal laws of social living,” an idea that would confound Boehm’s “egalitarian ethos” with a Kantian-like moral absolutism). There is no Passion of Christ in Martius’s self-sacrifice, no Judas in Aufidius, nor any other kind of religious allegory, but we can—we ought to—extract from the work instrumental values with warranted *relation* to the play.¹⁹⁶

There is also the matter of representational quality. I have not been able to explore this subject adequately here, for want of space, but I should note that some values in *Coriolanus* may be socially emergent and so require a plot structure that captures their preconditions—that

¹⁹⁴ Nowhere in David George’s collected criticism is Brutus’s attitude here mentioned, though we find, astonishingly, that Stopford Brooke thinks that “Sicinius and Brutus alone are self-controlled and quiet. All they say then and afterwards is full of care for Rome, for the people, for the patricians who only care for their own safety” (p. 288). If this is not confirmation bias, what is?

¹⁹⁵ Though even here we find clues suggesting that Martius has “self-overcome” enough to go against his own word, as when Brutus hears him swear that “never would he / Appear i’th’ market-place nor on him put / The napless vesture of humility,” yet Martius does both (2.1.227–30). Regarding Nietzsche’s views, we might first consider Boehm’s: “When the human moral community arose [. . .] public opinion and active moral sanctioning acted together to make people conform to social mores that often went *against* human nature” (1999, p. 207). Nietzsche, after noting the same phenomenon, thinks it is problematic: “It is a measure of strength how far one can rid oneself of virtue; and heights could be imagined where the concept of ‘virtue’ would have been rethought so that it sounded like *virtù*, the virtue of the Renaissance, virtue free of moralin” (2003, p. 182). However, a Nietzschean view does not mesh with Martius’s magnanimity, as argued above, since Martius does not always loathe the people; nor for that matter does a “Nietzschean” view mesh with Nietzsche, whose philosophy of power was not simply Calliclean.

¹⁹⁶ This is not to suggest that there is no Christian influence on *Coriolanus* whatever. Some of the play’s language and metaphors show biblical influence, and if North augmented Plutarch’s *Life* with his own Elizabethan, Christianized sensibilities then this would make some imprint on Shakespeare’s adaptation. Yet the fidelity of Shakespeare’s version of Martius to Greco-Roman heroic values apparently far outweighs any other influence (and is much more in tune with the play’s subject matter, language, and themes) (Brower, 1971). There are moral lessons to be found *in* the play, too—just not the usual colloquial kind: “All’s well, and might have been much better if / He could have temporized” (4.6.17–18).

is to say, just as jealousy requires the social precondition of perceived sexual rivalry, “commandingness” requires (among other things) a comparative sense of social dominance. If a play is to capitalize on the invariant value of power, command, strength, force, etc., then it needs to also accurately depict the social conditions prerequisite to perceiving power as power, command as command, etc. Not only the object of power but its proper context must be taken into account. And this is what we find throughout *Coriolanus*. Even at the very start of the play we are faced with a situation where an armed mob wishes to “proceed [. . .] against” Martius by force (1.1.24). And so we find, in the midst of violent dissension, that a lone man “proceeds,” alone, against the very mob set to overthrow him (a pattern repeated four times successfully against Rome’s rebellion, the soldiers in Corioli, the tribunes’ mob, and Aufidius’ home, with one last, inverted instance in Corioli, where rather than overpowering the rest, the rest overpower him; though in this last instance, he has forethought of his possible demise [5.3.190]). Plot establishes character as much as character establishes plot, and for the first instance of Martius’s facing off against an oppositional group, he simply enters, is hailed by Menenius, says “Thanks,” then swiftly rebuffs the people’s revolt with only his looming presence and cutting words. Yet it is the plot structure itself, in such instances, that forms our impression of Martius as much as whatever he may *say*: the very act of positioning one “eagle” against many “crows” immediately establishes Martius’s dominance.¹⁹⁷ In this way, Shakespeare situates his characters as precisely as he does the form of a sonnet. Everything has its place. The careful structural arrangement of *Coriolanus*’s episodes—the concatenation of representational properties needed for successful value simulation—establishes *Coriolanus*’s psychological realism. And with the addition of so many prosodically charged lines and tumultuous situations, with aphoristic asides and powerful metaphorical imagery, Shakespeare also exploits devices that embellish his plot. “Nobody makes an audience flinch as instantly and instinctively as Martius does,” writes Adrian Poole, who sees *Coriolanus* as Shakespeare’s most “voluble” play (1988, p. 8); though I would think the better term for Martius’s “volume” is

¹⁹⁷ By “dominance” here and elsewhere I do not mean the sole leader. Martius is of course deferential to his patricians and is second in command to Cominius, though we do not know any of these things at the start of the play. It is important to note, in relation to Martius’s dominant presence, that Edmund Kean’s performance as Martius failed in part because his “smallness of stature and weakness of voice were unquestionably adverse to his exertions,” which suggests that a performer’s physical properties, alone, may be incongruous with the language and circumstance Shakespeare develops for Martius (quoted from Ripley, 1998, p. 155). Though we see from the start that there is more to Martius’s dominance than physical strength; he also embodies commandingness, self-control (despite his temper in some circumstances), sincere recognition of his superiors, determination, etc.—all those things associated with the modernist idea of “personality” mixed with a Roman patrician ethos.

carefully developed “emotional prosody,” a type of emotional tone that aptly suits both contents and persona (and so enhances the overall emotive force of any delivery).

I have no remaining space to cover all that could be said about *Coriolanus* in terms of its evaluative and (especially) valuative dimensions, so I should like to close this chapter with a rough schematization of what *could* be said alongside what I *have* said already, then provide an overview of the philosophic consequences of the thesis developed in this chapter on the nature of artistic value. First my basic arguments in summary form:

1. Because *Coriolanus* represents biologically natural kinds of emotional stimuli—social psychological conditions, natural characteristics, etc., or the *successful* depiction of intergroup power—we can say that the play’s simulated contents are “intrinsically valuable” in the philosophic sense, irrespective of whatever ideological commitments we may possess prior to a viewing or reading. This means that other works—perhaps drawing on the idea of “conceptual art” or something similar—may fail to successfully simulate a natural kind of value, and so not have “intrinsic” but “extrinsic” value (value derived from a shared conceptual context). For this kind of value to be truly valuable, however, there still needs to be a simulated set of emotional properties.
2. That we have diverging, perspectival reactions to Martius, the character, does not entail any subject-relativism for *his* emotional properties. Instead we intersubjectively represent his properties, proxytypically, irrespective of previously established evaluative orientations to those properties. So the *type* of value we attribute to Martius may diverge even while the *kinds* of value his properties evoke remain the same (command, physical prowess, strength, etc., all count, I would think, as species-typical “emotionally competent stimuli,” or properties of power).
3. We can augment both our knowledge and valuations of a work, with heterophenomenological effort, but we cannot altogether expunge our basic, consolidated values for a work’s emotional properties. If we read or view the play, and *basically* comprehend its contents, then we will value the play (in at least the valuative sense, though I doubt anyone can suspend evaluative judgments on a work). So we may on first reading/viewing feel unsympathetic for Martius’s demise in Act Five, since we lack sufficient understanding to see a tragic element in his loss; but this does not mean we have not *valued* several episodes in the play.

4. When we first read or view *Coriolanus* we cannot commit all its stimuli to remote memory. What we *do* commit constitutes what I have called our “basic” comprehension of the work, and this comprehension is subject to “competitively selective” pressures. Pressures may be automatic (“primary”), acquired (“secondary”), or both (including executive and epigenetic pressures).
 - a. Automatic pressures include valuing intrinsically emotiative properties that we cannot help attending to (even if what we attend to is a gruesome mental image of a “quarry” of bodies), as well as temperamental pressures that act internally (we may be hypersensitive and so avoid films or types of literature that overwhelm us, or grow accustomed to submission and so react badly to dominance, or grow accustomed to dominance and so react badly to submission, without any counterbalancing humility in either case).
 - b. Acquired pressures may include prejudice, taste, class identity, content-relevant knowledge, etc. We may, for example, identify with Martius because we too have felt the brunt of unexpected social obstruction, whether we are ourselves constitutionally weak or strong. Or if we find Martius overbearing and threatening, perhaps we have had our share of encounters with overbearing personalities and so re-consolidate a familiar aversion. We may also strongly attend to rule-violations when they factor into hierarchical maintenance, as Prinz, Boehm, and others have noted (i.e., the rules of an egalitarian ethos). We may also acquire counterbalances to supposedly “automatic” dispositions, such as learning to override one’s dominance and so treat those with low status kindly, or override submission and become dominant.

Now for some possibilities of neurocriticism that I have not yet demonstrated:

1. Since our “basic” memory for a work constitutes the “critical space” within which we make value judgments, we need to take care that we have acquired sufficient remote memory for a work’s data before we judge its value; and this requires repeat exposures/readings, a close watch over our own emotiative events, and an entrained ability to compensate for bias. If we can only recall Martius’s positive attributes, for example, then we have not explicitly encoded his negative attributes (and vice versa), as the critical positions of Brandes and Hazlitt demonstrate. Yet I have not

explored how we might respond to various sub-plots and minor characters within *Coriolanus*, both independently and in terms of how we react to the play's protagonist.

2. I have not done what many other critics do with Shakespeare's work, and that is focus on his diction, imagery, and historical context. On this there is much that could be applied from earlier discussions of necessary and/or sufficient knowledge/experience for comprehending a work's contents, and I suspect a method akin to Dennett's "heterophenomenology" would need apply.
3. Last and most important, something in our background knowledge or embodied experience may significantly augment what we are able to know of the play, and our values may follow suit (more often in degree than kind, however—i.e., we may understand Martius's resentment at having to stand before the people and ask for their voices, though we may not fully comprehend this episode without ourselves having been made to ask for what we already know we possess; or if we have never experienced cooperative obstruction, given our tendency to avoid social conflict altogether, then perhaps the tribunes' behavior may seem less reprehensible or even innocuous). Our "level" of comprehending certain events in *Coriolanus*, then, may depend on having had analogous experiences ourselves.

5.0 Post-amble

To close my thesis, I should like to consider, first, what neurocriticism offers that other approaches do not, then broach some of the problems that neurocriticism faces and how future research might resolve them.

Rather than summarize arguments developed in each chapter, blow-by-blow, I should like to pretend that I've been fielded the following question: "What does a neurophysiology of memory and emotion offer the analysis of literature that a cultural framework does not?"

Now, if I were to respond to this question, imaginatively, I should likely begin by pointing out that whatever culture amounts to, it must embed in (or negotiate) neurobiological foundations. Enculturation is not like molding clay or scrawling on a wax tablet, I might say; it is much more like raising mice in a vast, lifelike Skinner box (a crude but memorable analogy). Then, I would need to stipulate the conditions of the mice and the world they live in. First, I would say that mouse brains have evolved architectures, and that these architectures interface with their bodies. I would refer to this mouse-brain interface, conjointly, as "brain-body properties." I could say, after making the latter assertion, that brain-body properties interface in turn with Skinner box environments—or "box-world properties." Hence, in this simulated ecology, there are basically two things: mice and environments, "brain-body" and "box-world" properties. Next I would stipulate that whenever these two things interact, an epistemological transaction takes place: brain-body properties "transduce" sense impressions from box-world properties, forming a repository of "remote memories" and "simulators" about objects and events in the box-world.¹⁹⁸ How the box-world "shows up" for mice, I could then suggest, ought to reflect not only the conditions of the box-world—its various locales, objects, and events—but also the conditions of the mice themselves, or whatever genetically imprinted modes of perception and valuation they possess. I would stress that this latter premise—the idea that mice have genetic hardwiring—is crucial because it means that there is a "mouse nature" that allows box-world properties to show up in predictable ways, across mice. Epistemic regularity of this sort is only possible if it is the nature of mice-memories to imprint knowledge of "projectable" properties in the box-world (objects and events with stable characteristics over time, as in the work of Richard Boyd, including natural or biological properties, such as those for gold or

¹⁹⁸ "Simulation" is more or less what "remote memories" do, since we encode memory multimodally and recall memories cross-modally, and so is a metaphor that captures the dynamic "replay" quality of encoded impressions. There may be memories that supply properties for simulation that don't themselves amount to simulators (non-conscious procedural memories, perhaps), though I am unsure what these would be.

power). I could then stress that this kind of environmental “imprinting” is precisely the function of memory in general, that is, to represent stable properties in the world fallibly yet reliably. If two mice live on isolated ends of the box and never encounter one another, for example, they would still share much the same sense of things in the box-world, and they would still respond to threats and rewards in much the same manner. Okay, I would then say: that’s the basic situation for mice in a Skinner box: it’s all about brain-body properties representing, in memory, box-world properties. But I would still need to create some kind of cultural dynamic, one that satisfies the needs of realpolitik, social intrigue, and of course fiction writing. I would need to go a bit sci-fi and say that the box-world is often socially engineered in ways that produce desirable or undesirable outcomes: rewards and punishments are supplied; there are environmental tweaks, varying foraging and rearing conditions; and some kind of mice-culture, like sharing ideas about how and where to eat, what kinds of female and male properties to avoid or approach, etc. Then it would be easy to understand that if mice could write stories about their lives, much would be said about the desirability or undesirability of their box-world events: “Wait, so you think you were *conditioned* to respond with fear to the tone? I think you’re paranoid. The tone is what guides us. Follow the Tone”; “Look—you see that mouse over there? He’s the one trying to take over my mouse-hold,” etc.

Eventually I would have to stop elaborating and bring home the obvious moral of the analogy: I would have to say that if *human* ecologies bear any resemblance to mice in Skinner boxes—with all that is uniquely human thrown in—then human stories ought to also reflect desirable and undesirable properties in *our* worlds (without, I would stipulate, collapsing the human into the world or the world into the human).

Then I would pause to gauge the effect of my analogy. If anyone was still listening, I might add that the sooner literary critics come to terms with this arrangement, the sooner they can understand and appraise the kinds of stories that humans write about in their social contexts (even stories that are about anti-human box-worlds or even anti-human humans). If I noted skepticism, I would need to ask, “So, what do you think of this analogy? Do you think we write stories about things in our worlds like mice do in the imaginary world I concocted? Or is it all just too farfetched?”

My Skinner box analogy likely won’t go over well, in either case—whether it has any rhetorical force or not. Cultural critics will run for the hills, especially (and I would join them if not for the basic truths underlying the comparison of mice and men). But it is the cultural critics that I care most about persuading in some fashion, so I would have to anticipate their reactions.

For this tough crowd, rejoinders might come in the form of saying that “interpretive communities,” “contingencies of value,” “semiotics,” and the like, have already shown that my Skinner box analogy can only ever be crude and reductive. I. A. Richards once developed a “psychoneurological account of value” that masked the propagation of “canonical judgments” that were passed off as newfangled “versions of evaluative absolutism and objectivism” (Smith, 1988, p. 21). This I ought to know already. So there is no reason to believe that my so-called “neurocriticism” is any less deluded or reductive (in fact, it may even be worse if my theory amounts to an apology for “impossible people” like Martius). Is it not possible, then, that your so-called “neurocritical” framework—a rather fashionable term, don’t you think?—amounts to an “unedifying physiology,” a type of neuro-speak that fails to grasp the culturally contingent quality of literary value and interpretation? (p. 21)

I admit that such reactions seem plausible on several levels. I don’t want to be reductive. I don’t want to apologize for ill behavior or promote an “unedifying physiology.” But I do believe that the actual argumentative basis of neurocriticism paints a very different picture from the one offered by naysaying reactions.

To highlight the difference, let’s compare, say, the concept of “simulation” in neuro-intentionalism to Bourdieu’s *habitus* in what could be called a “cultural-intentionalist” framework. This comparison can perhaps supplement the box-world analogy above. So, on the neuro side of intentionalism, “simulators” embody encoded representations of the world, or thought-contents about percipient properties; and on the cultural side, *habitus* embody elements from the world; the only difference, then, would be that *habitus* embody “social structures” rather than modal memories (1998, p. 98). This is what makes *habitus* a “cultural” rather than a “neurobiological” intentionality, even though both simulators and *habitus* share many general features: they both embody ways of being in the world, kinds of knowledge, preferences, and values. And for Bourdieu, at least, there is nothing wrong with saying there are “objective” structures, an actual ecological exchange between agents and worlds, and that whatever is written or spoken of reflects physically embodied properties.

Most important, both simulations and *habitus* allow us to say things about how individuals perceive and respond to properties in the world: they both offer a rich explanation of conceptual *aboutness*. As a demonstration I might argue that growing up within a lower class stratum has imprinted a submissive *habitus*, and so now, if I am meek, this would mean that my meekness reflects an embodied, lower-class way of being. As a result of this dispositional

inculcation I may read things differently: I may not help but cower and feel angry at characters like Martius. This example is hypothetical and oversimplified, of course, but the point is that *habitus* tries to explain how social inscriptions affect reception.

Now let us compare the *habitus* explanation to the neuro-intentionalist way of thinking about the same example, as developed above. First, research could be cited that shows how environments impact cognitive development (Weaver et al., 2004). Individuals reared in lower class strata, it could be argued, often have mothers who cannot provide consistent care to their children during critical developmental phases; as a result, lower class children develop higher levels of baseline and post-stress corticosterone secretion and anxiety-like behavior (that is, higher levels of everyday stress hormone, both before and after stressful experiences) (Meaney & Szyf, 2005). This outcome would count as an epigenetic influence, an influence of an environment on an organism: inconsistent rearing and low-frequency nurturing has led to an anxious temperament. Now if this were so, then a neuro-intentionalist could draw a connection between a kind of physiological temperament (an anxious disposition) and reader-response valuations. Martius might seem like more of a threat to individuals raised in lower-class strata, less of a threat to individuals reared in higher-class strata, with attentive stay-at-home-moms and consistent nutrients, etc. There might be other possibilities as well: it could be shown that even a lower-class reader exposed to inattentive rearing could nevertheless be endowed with a “resilient phenotype,” in which case he or she may not show the same pattern of class conditioning; for these readers, endemic “resilience” would modulate their perception of Martius, making him perhaps less threatening (Feder, Nestler, & Charney, 2009).

Again, the above example is exaggerated and oversimplified; the only function it serves is to illustrate how, from a neuro-intentional standpoint, an individual’s background may embody modes of reception that account for whatever a *habitus* theorist would want to explain—and more. Yet in the neuro-intentionalist case the explanatory power comes from embodied modal memories with intersubjective physiological characteristics, not “social structures.” This means that readers may respond to fictional events in accordance with their intersubjective natural endowments, over and above any kind of social conditioning, or readers may behave more in line with their acculturated sensibilities (though even these would share intersubjective properties with others); but at least a neuro-intentionalist framework allows critics to make the distinction.

Resemblances between neuro- and cultural-intentionalism can only be superficial, therefore, since on the neuro side reading comprehension is always a byproduct of memory

inscribed by experience *and* psychologically native systems; whereas on the cultural side, dispositional properties reflect “social” embodiments, so that from acculturation alone we acquire *habitus* that condition our values and modes of understanding (Bourdieu, 1988, pp. 783–784; Hanks, 2005, p. 69). Encoding “simulative sense” offers the more variegated and accommodating framework of the two on display, I believe, since dispositional meekness, strength, or whatever other mode of understanding may vary as a function of cultural properties that trigger biologic outcomes (an “epigenetic” instance), *or* biologic properties triggering cultural outcomes (a “biological essentialist” instance) (Devitt, 2008). In either type of instance, however, cultural properties *coexist* with pre-existing biological kinds of property (modal and executive systems). So it is the combination—and the ability to attribute greater or lesser weightings to empiricist or nativist factors—that gives neurocriticism its explanatory range. Such versatility is not on offer in either predominantly “cultural” or “biological” approaches, though it is offered by “biocultural” approaches.¹⁹⁹

Now, the point of the box-world analogy and *habitus* vs. simulators is that all literary theories presuppose an ontology that affects how we analyze stories. The ontology advocated by my thesis has been a neurobiological one, which I believe best clarifies the story-making arrangement between worlds and minds. Since I draw on a neurobiological ontology, my emphasis has been on the “neuro” side of reader-response where others have stressed the “anthropological,” “Marxist,” “feminist,” or whatever other side. I do not presume that my “side” excludes other sides, of course, though I do believe a naturalized ontology imposes restrictions both on what we can value and find meaningful. And of course neurocriticism, like any theoretical program, faces many challenges, some more intractable than others. These I shall now consider.

5.1 Neuro-this-that-and-the-other

The first challenge is in the name: aside from the sense of callowness that any type of theory-branding seems to garner, “neuro” as a prefix has grown as trendy in folk psychological circles as it has fallen into disrepute in academic circles.²⁰⁰ “Neuroaesthetics,” “neurophilosophy,” “neurolinguistics,” and the like, all seem (at times) overzealous in their

¹⁹⁹ “Biocultural” is a term perhaps most extensively developed by Nancy Easterlin (2001). For a sampling of biocultural approaches, see Davis and Morris (2007) and Boyd (2006). I am thankful for having worked under both Morris and Boyd, and for Easterlin’s examination of my thesis.

²⁰⁰ For a populist account of this trend, see Steven Poole’s article in the *New Statesman* (<http://www.newstatesman.com/culture/books/2012/09/your-brain-pseudoscience>).

application of neuroscientific findings. Semir Zeki’s “neuroaesthetics,” especially—despite its seeming affinity with “neurocriticism”—offers little akin to the problems explored here. As Alva Noë comments, “we find *not* that neuroaesthetics takes aim at our target and misses, but that it fails even to bring the target into focus” (2011). This seems an accurate assessment, since we cannot conclude that “activation of the brain’s reward system with a certain intensity” says anything about the *kind* of reward offered (the value simulator), *why* a work was rewarding, nor what antecedent conditions *led* to the feeling of reward (Kawabata & Zeki, 2004, p. 1704). And yet reducing beauty to neural activity is what Zeki seems to recommend. Against this tendency, I have argued that two different works can conceivably have the same degree and kind of value, insofar as we respond emotionally to the work’s properties, proxytypically (the term used by Jesse Prinz for representational consistency) (2004); though I have also at the same time argued that there is always something *about* the work’s properties that confers values, and that this “aboutness” cannot be overlooked. Thus, if two works explore the same kind of value—“betrayal” or “jealousy,” for example—it is on the basis of the work’s unique properties that we value the work, not its emotional experience alone (an argument that Budd has made very forcefully, and that I follow). For Zeki, on the other hand, two works may have equal beauty *despite* their differences, not because of them. He acknowledges that different works produce different perceptual registries (p. 1702), but what makes them “beautiful,” in any case, is the physiological reward they offer (orbitofrontal cortex activity), not understanding their unique properties. This seems to me a mistake.

Whatever may be said, derisively, of neuro-this-that-and-the-other—and this is the main point—is of little concern to me, since lampooning neuro-appropriations is not the same as delegitimizing the validity of neuroscientific findings and *their* applicability to reader-response theory. Dropping the term “neurocriticism” altogether would not have any bearing on the merits of my thesis’ arguments, so I shall move on to the next problem.

5.2 Language

Literary critics must concern themselves with language, with unique, often brilliant uses of diction, style, metaphor, description, and tone. What one author does with a “value simulator” (whatever kind of emotion a story explores) can differ widely from what another author does, and the difference usually plays out at the level of language (Chapter 4). This is why it often seems backward to emphasize what language “does” for situated simulation rather than what language “is,” and why I never feel surprised when colleagues say something like, “Surely all the situated simulations provoked by Shakespeare’s *Hamlet* cannot compare to the

play’s breathtakingly unique language! It’s Shakespeare’s style, diction, metaphors, and configurational choices that count, not *our* ‘simulations’ of those choices. Emphasizing simulation over language blithely sidesteps Shakespeare’s genius: it ignores the power of *his* language, downplays *his* art, craft, and theatrical magic. For ‘neurocritics’ language may as well not exist.”

But this line of thinking misses the point and is far from true.

Authors begin with sensibilia—with whatever they know of or can imagine from their sensible world—and end with a textual script that (they hope) approximates their vision, perhaps even surpassing their vision through the self-reflexive process of writing itself (Oatley & Djikic, 2008). So language is always of central importance to figuring out what types and kinds of property come into simulative play. That Williams picked “glazed” rather than “soaked” or “wet” is not trivial; it changes the quality of how we simulate a rain-covered wheelbarrow: it has not only been “rained upon” but is “glazed,” and this word alone conveys a distinctly different sense. Such differences cannot be downplayed; they count for much of what anyone can say about a simulation; so language counts.

Yet at the same time, it is easy—all too easy—to forget the neurological processes *preceding* Williams’ act of setting words to page: there was a vision guiding his lexical choices. His education—formal and informal—furnished him with words, and from these he could make careful choices about how to express his visions; but from the standpoint of grounded cognition, words (however kaleidoscopic and brilliant they may be) can only ever function as the handmaidens of a vision; words may surface that trigger new visions, but the context of a word’s “surfacing” can never escape the epistemic world of the author, and the words that surface themselves must be understood in terms of their multimodal contents. So in the end it is the vision and not the words that we value, and this is why a sensitive critic ought to always consider what an author’s language “does” in the service of sense, not what language “is” under the spell of language-based semantics.

5.3 Memory

I have left much to be said about the relation between memory consolidation and the quality of situated simulations. Primarily I have appealed to research showing a deep connection between emotional arousal and memory (Roosendaal & McGaugh, 2011). I have argued on the basis of these reports that what we value is physiologically contingent on emotional responses, and that emotional responses further impact what we can recall about a work’s contents. Much

research has also shown that there is an important difference between how much we *feel* that we know versus how much we *actually* remember about some experience (Kensinger, Addis, & Atapattu, 2011). We may feel that we remember something more vividly even though our actual memory is comparable to that of a less vivid-seeming recollection (Elizabeth A. Phelps & Sharot, 2008, p. 150). These findings may further impact what can be said about a work's value (if, for example, what a work offers, emotionally, does not align with what we actually recall of a work's properties).

Consider a striking illustration: for colonoscopy patients it has been shown that if the colonoscope is left in the rectum for up to three additional minutes after the procedure, then patients will remember their overall experience as being less painful, even if their *actual* experience involved more pain than patients whose colonoscope was *not* left in the rectum for an additional three minutes (Redelmeier et al., 2003). Daniel Kahneman labels this kind of difference—between remembrance and actual experience—the “experience-memory gap.” Now if such a difference applies to what we remember about a work versus what we actually felt, then what would this suggest about how valuable a work's contents *actually* are versus how we feel about them?

My approach to addressing (if not resolving) this question draws on two premises: first, that a work's contents fall into distinct *categories* of value, or “value simulators,” and that these categories take hold of basic “kinds” of emotional response (fear, jealousy, desire, disgust, etc.) and often develop them into more complex categories, or what Damasio has called “secondary emotions”; and second, if a work has sufficiently developed antecedent conditions leading to an emotional response, then how we respond to the work will have been prompted *by* the work's properties, as understood. Both premises, when taken together, should at least help frame differences between how vividly a work's contents seem to us, in memory, versus how vividly a work's contents *actually* are, as developed by the author (at least in terms of the core values that the work offers). If, for example, a critic deems a work valuable but cannot stipulate what it was *in* the work that led to feeling emotional about it, then the work may not offer a valuable experience from *its* properties (as they actually are—either that or through some associated extrinsic value). If on the other hand a critic can show that a work features some emotional kind category, perhaps one that displays the expressive *outcome* of fear without walking us through its antecedent causes, then it could be argued that this work's contents lack intrinsic reward, as a “value simulation” (even if we feel as if the work has moved us). An illustration might be watching a stabbing, rapidly, in a *Batman* movie, an event that clearly counts as salient. Now

compare this event to a man being stabbed by a knife within a broader social context, such as a war, where you can see the man's expressions of fear along with his enemy's fell intent (as seen in *Saving Private Ryan*). The difference between the two events makes all the difference: in the rapid knifing we only recognize the outcome, the stabbing, and perhaps this provokes sympathetic surprise. But we cannot possibly *empathize* with the character's circumstances leading up to the stabbing, because little or no context has been presented that adds representational scope to the outcome. In the contextualized knifing, by contrast, we have already come to recognize what is at stake, prior to the knifing: we see that there is more than just bodily harm involved but also a struggle for life, a battle between moral and physical wills, a sense of futility and needlessness. Thus, it would seem that the difference between a contextualized and snapshot emotional depiction affects how much we can value *of* the episode.²⁰¹

The whole problem of experience-memory gaps for valuation can be mitigated, of course, if we allow that any work whose properties seize and deeply affect us at least offers *some* form of intrinsic value. So long as our response legitimately follows *from* the work's properties then our value is *of* the work (and so cannot be a "subjective" projection on par with thinking that a colonoscopy was not as bad as it actually felt). This kind of countermeasure—or what Budd calls a work's "intrinsic value"—says nothing of the degree or *quality* of a work's values, however, nor how a work's properties were arranged in such a way that they provoked one kind of response rather than another (which in any case may remain unremarkable); but saying that a work has "intrinsic value" if *its* properties, when experienced, reliably provoke emotion, then at least we have a starting point for further inquiry (what kind of emotion? what kind of properties?).

Alas, much, much more could be said about the "experience-memory gap" for works of literature, along with related concepts, such as N. Carroll's "criterial prefocusing," so my response here is only a starting point for further research. Other problems may also enter into the mix that I have not been able to address: how "realistic" does an episode have to be for us to become immersed in its developments? Does "realism" factor into the *quality* of a work's

²⁰¹ Contextual elements from our lives can factor into how we react to a work, also: if I encounter Williams' "Red Wheelbarrow" poem or Duchamp's *Fountain* for the first time, and see clearly how each work challenges artistic conventions, I may find their formal qualities shocking; but in either case, it would not be the work's qualities that achieve the shock, as they are, but the awareness of how each work breaks with tradition, in which case the shock comes not from the work but from our supplementary understanding of its properties (and this is what makes any work extrinsically rather than intrinsically valuable). This is not to say, again, that Williams' poem or Duchamp's *Fountain* lack some kind of intrinsic value, only it is unclear what this would be insofar as an *emotion* is concerned.

value? If, for example, a work is a sci-fi dealing with otherworldly events, can we empathize as much with its value simulators if they lack the same kind of “realism” that a non-sci-fi novel would develop? If a work strings many snapshot emotional episodes together, without any connection between them, does its value differ from another work that thoroughly develops only one kind of value simulator? It may be difficult to determine, as critics, how much the fuzziness of memory (as it seems to us) factors into our ability to value a work, or whether a work has intrinsic value irrespective of the rate of our memory decay. But we may at least narrow our analysis to the nature of value in general.

5.4 Affect and Emotion

Some contents may evoke only a quantum of affect and so fail to achieve any lasting value-instantiation (as when we register minor amusements, irritations, or special effects without thereby strengthening neural bonds sufficiently to consolidate impressions into long-term memory). At other times, a mildly amusing turn of phrase or novel special effect can seem more memorable than a work’s primary emotions. Fictional portrayals of social emotions, such as sexual jealousy, may achieve more rich and dynamic reception over time than a portrayal of reflexive fear, as when a character must ford a raging river or seek out water in a desert. So it may seem obvious that an episode about a jealous entanglement would be more valuative (emotiative) than a work about reflexive fear, and we might conclude that the one, jealousy, counts as an emotion-proper while the other, or reflexive fear, counts as a “mere” affect with presumably less value. This may be on account of the “anoetic” (without learning, reflexive) nature of reflexive affects, as opposed to the “noetic” (learned, knowledge-based) of tertiary-emotions (Panksepp, 2012a, p. 14). Nevertheless, what is biologically salient, in the primary sense, may override subtle sensibilities, in a tertiary-sense, making an otherwise reflexive affective event more forceful (and so comparatively more valuable). A well done river fording scene may surprise us with vicarious fear and awe, for example (as is perhaps the case for the river crossing scene in the Coen Brothers’ adaptation of *True Grit*), while the rest of a work’s more subtle events offer less resonance.²⁰²

Many questions remain, however: how do we say that one kind of value is *more* valuable than another? Must every affect be less valuable than a natural kind of emotion? We would not wish to say, for example, that Basho’s works offer only slight emotiative impact

²⁰² Though of course there is much else going on in this scene, contextually, besides primary reactions—i.e., the surprising tenacity and fearlessness of the child, the juxtaposition of vulnerable youth and threatening environs, the small, fragile girl on a large horse, etc. Our memories of the preceding events may also make the scene less “primary” than we realize, and so a hard distinction seems difficult to maintain in every instance.

because they offer subtle affective qualities rather than kinds of value simulation. And for that matter, how do we even differentiate emotions from affects? Is it not possible that emotions are affect-like in some ways, and vice versa? Such questions need to be sorted out, to be sure, though I do believe that two premises, developed above, offer some guidance for future solutions. First, if an emotional response to a work is of a natural kind—those emotions that have dedicated neurological systems and projectable qualities of expression, across subjects (Scarantino & Griffiths, 2011)—then the properties that evoked the response ought to be identifiable in the work as depictive simulations. Critics may then use the work’s simulated data to negotiate what counts as an emotion rather than a “mere affect” (an itch, pain, acute fear, etc.). And second, if a strong emotion comes from the development of antecedent conditions that we do not respond as strongly to—such as seeing the adult world in *Romeo and Juliet* repeatedly fail to recognize the pure emotions of youth, prior to (and perhaps enabling) strong reactions to Romeo and Juliet’s suicide—then an emotional response ought to have *more* representational precedent, from the play’s plot, than an affective response would have, whose sensations can issue from a mere moment of newly introduced stimuli without developmental precedent.²⁰³ These two premises, though far from conclusive, ought to at least offer some means of roughly demarcating emotions from affects.

Another area of emotion that I have not explicitly addressed, but which is necessarily implicated in my analysis of *Coriolanus*, is the relation between literary value and empathy (or even empathy and emotion in general). Patrick Colm Hogan, for example, makes empathic response central to his analysis of emotion in fiction (2011); his analysis of empathy, then, ought to expand on the nature of reader response valuation and evaluation developed above. A work’s success, argues Hogan, requires a “depiction of events” that is “close enough to personal experience that the resulting simulation” provokes “parallel empathic emotions (e.g., compassion for the suffering of the protagonist)” in readers, but not so close as to require precise realism (p. 25). On this view, verisimilitude does not need to be the overriding quality of successful simulation, since literary representations often idealize plot elements to enhance emotional response (p. 25). An author may exaggerate a character’s emotional displays, perhaps to the point that I can only sympathize but not empathize with them, but the exaggeration itself may serve to intensify my valuative response (assuming the conditions leading to the response

²⁰³ Here again I am thinking of Panksepp’s analysis of *noetic* (reflexive) versus *anoetic* (knowledge-based) affect (2012a, p. 14).

have been developed). Whether a subject is idealized or not, Hogan believes that a work's success depends on cultivating empathic relations with its audience, relations that imply "egocentric" or personal identifications with simulated events (p. 23). For Hogan it would seem, then, that a work's value is largely an extension of its instrumental effects on our understanding of subjects or themes that we feel personally connected to, a connection that enhances our "emotional intelligence" of those subjects or themes in some way (p. 68). However, the nature of the personal connection is often complicated by different types of empathy, as Hogan points out: I can attend to a fictional character's emotional expressions ("allocentric empathy"), imagine how the character might feel ("projective empathy," or sympathy), or evaluate a character's actions based on a normative standard ("normative empathy") (p. 278).

If there is such diversity in empathic response, then how might I relate each type of empathy to valuing Martius, in both emotiative and evaluative senses? As discussed above, I may "identify" with Martius because I myself have had similar experiences and so respond to his plight in a strict empathic sense, that is, I respond to his emotional context because I actually *know* how he feels from having experienced a similar kind of social dynamic. I might then find Martius's feelings resonant in a way that another reader, lacking such experience, cannot. As Nussbaum would say, I would look at Martius's strife through my own window, a kind of window that Shakespeare has reconstructed on the basis of knowing what the window is like, in kind.²⁰⁴ If it is true that some readers empathize with Martius in ways that others cannot, on the basis of preexisting memories fitting or diverging from Martius's situation, then additional research would need to sort out how varying empathic relations modulate literary valuations and evaluations (emotiative responses and deliberative appraisals). I may ask, for example, whether my evaluation of a work is more correct than another's who lacks exposure to "power politics" (or more generally, to anyone who has never been ostracized on account of threatening others' sense of power). A reader ignorant of such experience—or who sees the situation from the other side of the window, looking at the situation from the vantage of having ousted a dominant figure from a group—may emotiate or evaluate Martius in predictable (but no less surprising) ways with respect to *Coriolanus*'s identity, as a play (a play with intersubjective properties of the power-political-kind). Consider some examples. Readers unable to identify with Martius, empathically, may not then fully understand the play's thematic, as written; such readers may

²⁰⁴ Some recent collaborative work by Jayne Elisabeth Archer, Richard Marggraf Turley, and Howard Thomas, a professor in plant sciences, suggests that Shakespeare identified with the patricians in *Coriolanus* more than we might expect (2012, p. 537). From their work, apparently Shakespeare was prosecuted several times for hoarding food during times of shortage, and so he had first-hand experience with public resentment prior to (and perhaps during) his writing of *Coriolanus*.

resist any perspective casting Martius's dominance in a positive light, even when shown segments of the play that invite such casting. Only allocentric and normative kinds of empathy would thus factor into such readers' appraisals, but not egocentric empathy. Alternatively, some readers may track all of the play's allocentric moments and project onto them a sense of sympathetic understanding, despite—and here is the surprising addition—despite their having themselves participated in ousting an imposing individual from a social group; for such readers, it may be possible to come away from reading Martius with a feeling of guilt, a sense of having forced an outcome that may not have been necessary. Such readers' "emotional intelligence" for dealing with dominant figures, as aptly explored in Boehm's work, would thus be augmented in a compassionate direction (the reader's egalitarian "pathos" would recalibrate to include greater sympathy for dominant figures who fail to understand the social consequences of their dominance). *Coriolanus*'s instrumental value may even lead some readers to go out of their way to bring overly dominant figures back into the social fold, rather than resort to banishment or defamation. Such considerations Hogan urges us to raise, and I see them as inviting further analysis and incorporation into a neuroscientifically informed reader-response theory (p. 278–282).

That said, a few precautions ought to be considered when incorporating Hogan's views on empathy, as is always the case when considering the influence of varying levels of understanding and interpretive appropriation on literary value. First, failing to empathize with a character like Martius does not lead to the conclusion that his properties lack intrinsic value. Martius is no less a dominant figure in the absence of empathic understanding. We may not appreciate this, valuatively, but we can at least take it into account, evaluatively. For as I have argued, it can be shown that (a) Martius's characterization and actions represent the properties of power, and that from these embodied properties, Martius gains both respect and honor from patrician peers; in many instances, he also gains respect from plebian supporters (from the second citizen in Act 1, the servingmen in Act 4.5, and the brace of citizens in 4.6.145–154). It can also be shown that (b) Martius's embodiment of power spurns opponents into malicious, deceptive action against him. These two sets of properties, discoverable *in* the play, dictate their own kind of emotiative outcomes, even if readers cannot empathize with them egocentrically or normatively. A second precaution when considering empathic variations would be this: the "instrumental value" gained from reading Martius, as Budd and others have shown, does not necessarily reflect or factor back into *Coriolanus*'s value, as a play with a preserved "identity"

(in the sense developed by Stephen Davies, cited above). Thus, even if readers' emotional intelligence is enhanced by *Martius*—an augmentation suggesting something important about the play's intrinsic success as a value simulator, I should think—such an enhancement cannot be confused with the emotional effects of *Martius*, as experienced in real-time, or what Budd calls “the experience” that the play offers, as a play. Textually represented properties may always be “indirectly real,” simulated as they are in minds rather than perceived in worlds. Yet indirect realism is still a species of realism: texts, once set down, take on mind-independent forms, even if rendering texts into sense is always mind-dependent. Perhaps most importantly, textually simulated properties already exist in readers' minds and aid in the production of epistemically reliable results (all the kinds of memory that a reader come equipped with, from developing sense impressions of the world as it is and has been). This last condition, developed in Chapters 1 and 2, is what Barsalou means by saying that simulated fictional properties “ground” in multimodal representations acquired from actually perceived properties in the world, directly or indirectly. And last, as is also stressed by Budd, we need to *understand* a work before we can say that the work, and not something extrinsic to its identity, is what we value. African bushmen may not empathize with elements of *Hamlet*, not because their cultural differences endow them with a fundamentally different habitus, but because they simply fail to understand the identity of the play. That is, they lack sufficient background knowledge to simulate the play's properties, as written, and so render what they learn of the play's contents using their own epistemic replacements; such replacements, it should go without saying, may misalign with the play's identity (though we might also expect to find much alignment as well, as we do when closely scrutinizing Bohannon's *Shakespeare in the Bush*). If the above two precautions are kept in mind, varying empathic responses—egocentric, allocentric, projective, or normative—should not militate against the emotional identity of a work. That is to say, perspectivism on value is not relativism on value.

5.5 Experimentation

Thought experimentation can only take us so far; hence I have appealed to “real” experimentation to support my claims. As literary scholars, however, we often presuppose that we cannot conduct our own empirical research. This is not so. It would have been useful to use a skin conductance response device to monitor the arousal of students as they read about *Martius* in Act 1 of *Coriolanus*. I could have then compared arousal levels of dominant and submissive personality types to controls, to see if there is a reliable difference in response; and I could have tweaked elements in the passage to see if I could bring about different response

patterns (such as adjusting properties that might lead to perceptions of arrogance). Another possibility could be demonstrating the effect of the “experience-memory gap” by altering the architectonics of a poem. I could append a neutral stanza to the end of an otherwise emotionally punishing poem and see if readers *remembered* the poem as more pleasant than it actually was (again, as measured by skin conductance). Such research would not have been hard to do with a little effort and guidance, and would have added an extra dimension of empirical support to my claims. Either that or I could have discovered some fatal flaw in my predictions, sparing myself much humiliation from harboring wrongheaded conclusions.

Thankfully I am not alone in thinking that such data can militate for or against interpretive and valuative claims. Although I am dubious of some types of experimental design, such as questionnaires, Willie van Peer, David Miall, Jonathan Gottschall, Joseph Carroll, and others, have all in their own way pioneered various means of empirical experimentation that everyday literary humanists may find useful. For my part, I can only hope to flesh out claims made here with experimentation at some later stage, even if I am wary of letting experimentalism stifle the imaginative spirit of literary criticism. All the problems mentioned in this post-amble, at least, can be seen as potential opportunities for future research, not impassible limitations.

Bibliography

- Abbey, R., & Appel, F. (1998). Nietzsche and the Will to Politics. *The Review of Politics*, 60(1), 83–114.
- Abell, C., & Currie, G. (1999). Internal and External Pictures. *Philosophical Psychology*, 12(4), 429–445.
- Acampora, C. D. (2011). *Nietzsche's 'Beyond Good and Evil'*: London ; New York : Continuum, c2011.
- Addis, D. R., Pan, L., Vu, M. A., Laiser, N., & Schacter, D. L. (2009). Constructive Episodic Simulation of the Future and the Past: Distinct Subsystems of a Core Brain Network Mediate Imagining and Remembering. *Neuropsychologia*, 47(11), 2222–2238.
- Addis, D. R., Wong, A. T., & Schacter, D. L. (2007). Remembering the Past and Imagining the Future: Common and Distinct Neural Substrates During Event Construction and Elaboration. *Neuropsychologia*, 45(7), 1363–1377.
- Adolphs, R., Tranel, D., & Buchanan, T. W. (2005). Amygdala Damage Impairs Emotional Memory for Gist but Not Details of Complex Stimuli. *Nature Neuroscience*, 8(4), 512–518.
- Adolphs, R., Tranel, D., & Damasio, A. R. (1998). The Human Amygdala in Social Judgment. *Nature*, 393(6684), 470–474.
- Aggarwal, N. K. (2009). Neuroimaging, Culture, and Forensic Psychiatry. *Journal of the American Academy of Psychiatry and the Law*, 32(2), 239–244.
- Akins, K. (1996). Of Sensory Systems and the “Aboutness” of Mental States. *The Journal of Philosophy*, 93(7), 337–372.
- Alexander, L., & Norem, L. (1989). *Coriolanus: An Annotated Bibliography*. New York: Garland Pub.
- Altieri, C. (2003). *The Particulars of Rapture: An Aesthetics of the Affects*. Ithaca: Cornell University Press.
- Alvis, J. (1978). Coriolanus and Aristotle's Magnanimous Man Reconsidered. *Interpretation: A Journal of Political Philosophy*, 7(3), 4–28.
- Amodio, D. M., & Frith, C. D. (2006). Meeting of Minds: the Medial Frontal Cortex and Social Cognition. *Nature Reviews Neuroscience*, 7(4), 268–277.
- Anderson, R. L. (1998). Truth and Objectivity in Perspectivism. *Synthese*, 115(1), 1–32.
- Anderson, R. L. (2005). Philosophy and Literature. 2010, from <http://philit.stanford.edu/programs/philosophyandliterature.html>
- Andrews, P. W. (2001). The Psychology of Social Chess and the Evolution of Attribution Mechanisms: Explaining the Fundamental Attribution Error. *Evolution and Human Behavior*, 22(1), 11–29.
- Anonymous. (2006). How Language Works: How Babies Babble, Words Change Meaning, and Languages Live or Die. *Publishers Weekly*, 253(26), 39–39.
- Appel, F. (1996). The Objective Viewpoint: A Nietzschean Account. *History of Philosophy Quarterly*, 13(4), 483–502.
- Appel, F. (1997). Nietzsche's Natural Hierarchy. *International Studies in Philosophy*, 29(3), 49–62.
- Archer, J. E., Marggraf Turley, R., & Thomas, H. (2012). The Autumn King: Remembering the Land in “King Lear”. *Shakespeare Quarterly*, 63(4), 518–543.
- Ardila, A. (2008). On the Evolutionary Origins of Executive Functions. *Brain and Cognition*, 68(1), 92–99.
- Arendt, H. (1970). *On Violence*: London, Penguin, 1970.
- Aristotle, Butcher, S. H., & Gassner, J. (1951). *Poetics* (S. H. Butcher, Trans. 4th ed.). New York: Dover Publication.

- Aristotle, & Heath, M. (1996). *Poetics* (M. Heath, Trans.). London ; New York, N.Y.: Penguin Books.
- Ashby, E. G., & Maddox, W. T. (2005). Human Category Learning. *Annual Review of Psychology*, *56*, 149–178.
- Austin, J. L., Urmson, J. O., Warnock, G. J., & Press, O. U. (1979). *Philosophical Papers* (pp. 316 p.). Retrieved from <http://www.oxfordscholarship.com/oso/public/content/philosophy/019283021X/toc.html>
- Austin, J. L., & Warnock, G. J. (1962). *Sense and Sensibilia*. Oxford: Clarendon Press.
- Aydede, M. (2006). *Pain: New Essays on Its Nature and the Methodology of Its Study*. Cambridge, MA: MIT Press.
- Baddeley, A. (2003). Working Memory: Looking Back and Looking Forward. *Nat Rev Neurosci*, *4*(10), 829–839.
- Baker, G. P. (2004). The Basest of Human Creatures. In D. George (Ed.), *Coriolanus* (pp. 296–298). London ; New York: Thoemmes Continuum.
- Bar, M. (2003). A Cortical Mechanism for Triggering Top-Down Facilitation in Visual Object Recognition. *Journal of Cognitive Neuroscience*, *15*(4), 600–609.
- Bar, M. (2004). Visual Objects in Context. *Nature Reviews Neuroscience*, *5*(8), 617–629.
- Bargh, J. A., & Chartrand, T. L. (1999). The Unbearable Automaticity of Being. *American Psychologist*, *54*(7), 462–479.
- Barrett, H. C., & Kurzban, R. (2006). Modularity in Cognition: Framing the Debate. *Psychological Review*, *113*(3), 628–647.
- Barrett, L. F. (2006). Are Emotions Natural Kinds? *Perspectives on Psychological Science*, *1*(1), 28–58.
- Barrett, L. F., Lindquist, K. A., & Gendron, M. (2007). Language as Context for the Perception of Emotion. *Trends in Cognitive Sciences*, *11*(8), 327–332.
- Barsalou, L. W. (1999). Perceptual Symbol Systems. *Behavioral and Brain Sciences*, *22*(4), 577–660.
- Barsalou, L. W. (2003). Situated Simulation in the Human Conceptual System. *Language and Cognitive Processes*, *18*(5-6), 513–562.
- Barsalou, L. W. (2005). Abstraction as Dynamic Interpretation in Perceptual Symbol Systems. In L. Gershkoff-Stowe & D. Rakison (Eds.), *Building Object Categories* (pp. 389–431). Mahwah, NJ: Erlbaum.
- Barsalou, L. W. (2005). Continuity of the Conceptual System across Species. *Trends in Cognitive Sciences*, *9*(7), 309–311.
- Barsalou, L. W. (2008). Grounded Cognition. *Annual Review of Psychology*, *59*, 617–645.
- Barsalou, L. W. (2009). Simulation, Situated Conceptualization, and Prediction. *Philosophical Transactions of the Royal Society B-Biological Sciences*, *364*(1521), 1281–1289.
- Barsalou, L. W. (2010). Grounded Cognition: Past, Present, and Future. *Topics in Cognitive Science*, *2*(4), 716–724.
- Barsalou, L. W., Santos, A., & Simmons, W. K. (2008). Language and Simulation in Conceptual Processing. In M. De Vega, Glenberg, A. M., Graesser, A. C. (Ed.), *Symbols, Embodiment, and Meaning*. Oxford: Oxford University Press.
- Barsalou, L. W., Simmons, W. K., Barbey, A. K., & Wilson, C. D. (2003). Grounding Conceptual Knowledge in Modality Specific Systems. *Trends in Cognitive Sciences*, *7*(2), 84–91.
- Basbaum, A. I., & Jessell, T. M. (2000). The Perception of Pain. In E. R. Kandel, J. H. Schwartz & T. M. Jessell (Eds.), *Principles of Neural Science* (4th ed., pp. 472–491). New York: McGraw-Hill.

- Baxter, M. G., & Murray, E. A. (2002). The Amygdala and Reward. *Nature Reviews Neuroscience*, 3(7), 563–573.
- Bealer, G. (1998). Propositions. *Mind*, 107(425), 1–32.
- Beardsley, M. C. (1965). Intrinsic Value. *Philosophy and Phenomenological Research*, 26(1), 1–17.
- Beardsley, M. C. (1983). The Refutation of Relativism. *The Journal of Aesthetics and Art Criticism*, 41(3), 265–270.
- Bechara, A., Damasio, H., & Damasio, A. R. (2000). Emotion, Decision Making and the Orbitofrontal Cortex. *Cerebral Cortex*, 10(3), 295–307.
- Bechara, A., Damasio, H., & Damasio, A. R. (2003). Role of the Amygdala in Decision-Making. *Annals of the New York Academy of Sciences*, 985(1), 356–369.
- Bechara, A., Damasio, H., Tranel, D., & Damasio, A. R. (1997). Deciding Advantageously before Knowing the Advantageous Strategy. *Science*, 275(5304), 1293–1295.
- Bechara, A., Tranel, D., Damasio, H., Adolphs, R., Rockland, C., & Damasio, A. R. (1995). Double Dissociation of Conditioning and Declarative Knowledge Relative to the Amygdala and Hippocampus in Humans. *Science*, 269(5227), 1115–1118.
- Beebe, H. (2011). Necessary Connections and the Problem of Induction. *Noûs*, 45(3), 504–527.
- Bell, C. (1997). The Aesthetic Hypothesis. In S. L. Feagin & P. Maynard (Eds.), *Aesthetics* (pp. 15–23). Oxford: Oxford University Press.
- Benson, S. (2006). ‘If I Do Prove Her Haggard’: Shakespeare’s Application of Hawking Tropes to Marriage. *Studies in Philology*, 103(103:2), 186–207.
- Berkeley, G. (2009). *Principles of Human Knowledge and Three Dialogues*. New York: Oxford University Press Inc.
- Binder, J. R., & Desai, R. H. (2011). The Neurobiology of Semantic Memory. *Trends in Cognitive Sciences*, 15(11), 527–536.
- Bingel, U., Quante, M., Knab, R., Bromm, B., Weiller, C., & Büchel, C. (2003). Single Trial fMRI Reveals Significant Contralateral Bias in Responses to Laser Pain within Thalamus and Somatosensory Cortices. *Neuroimage*, 18(3), 740–748.
- Bird, A. (2005). Naturalizing Kuhn. *Proceedings of the Aristotelian Society*, 105, 99–117.
- Bizzell, P. (1979). Thomas Kuhn, Scientism, and English Studies. *College English*, 40(7), 764–771.
- Blackburn, S. (2005). Hermeneutic circle *The Oxford Dictionary of Philosophy* (2nd ed., pp. viii, 407 p.). Oxford [England]: Oxford University Press.
- Blackburn, S. (2005). *The Oxford Dictionary of Philosophy* (2nd ed.). Oxford [England]: Oxford University Press.
- Blackburn, S. (2008). categorical/hypothetical imperative. In S. Blackburn (Ed.), *The Oxford Dictionary of Philosophy* (2nd ed., pp. viii, 407 p.). Oxford: Oxford University Press.
- Boehm, C. (1999). *Hierarchy in the Forest: The Evolution of Egalitarian Behavior*. Cambridge, Mass. : Harvard University Press, 1999.
- Bohannon, L. (2006). Shakespeare in the Bush. In D. Weissbort & E. Ástráður (Eds.), *Translation: Theory and Practice: A Historical Reader* (pp. 366–375). New York: Oxford University Press.
- Boksem, M. A. S., Kostermans, E., Milivojevic, B., & De Cremer, D. (2012). Social Status Determines How We Monitor and Evaluate our Performance. *Social Cognitive and Affective Neuroscience*, 7(3), 304–313.
- BonJour, L. (2002). Internalism and Externalism. In P. K. Moser (Ed.), *The Oxford Handbook of Epistemology* (pp. 234–263). New York: Oxford University Press.
- Bookheimer, S. (2002). Functional MRI of Language: New Approaches to Understanding the Cortical Organization of Semantic Processing. *Annual Review of Neuroscience*, 25(1), 151–188.

- Bordwell, D. (2010). What Snakes, Eagles, and Rhesus Macaques Can Teach Us. In B. Boyd, J. Carroll & J. Gottschall (Eds.), *Evolution, Literature, and Film: A Reader*: Columbia University Press.
- Boroditsky, L. (2001). Does Language Shape Thought?: Mandarin and English Speakers' Conceptions of Time. *Cognitive Psychology*, 43(1), 1–22.
- Boswell, J., & Lustig, I. S. (1995). *Boswell : citizen of the world, man of letters*. Lexington, Ky.: University Press of Kentucky.
- Boulton, J. T. (1967). Edmund Burke's 'Letter to a Noble Lord': Apologia and Manifesto. *Burke Newsletter*, 8, 695–701.
- Bourdieu, P. (1988). Vive la Crise!: For Heterodoxy in Social Science. *Theory and Society*, 17(5), 773–787.
- Bourdieu, P. (1996). Masculine Domination Revisited. *Berkeley Journal of Sociology*, 41, 189–203.
- Bourdieu, P. (1998). *Practical Reason: On the Theory of Action*. Stanford, Calif.: Stanford University Press.
- Bourdieu, P. (2001). *Masculine Domination* (R. W. Nice, Trans.). Stanford, California: Stanford University Press.
- Boyd, B. (2006). Exhortation: Getting It All Wrong: Bioculture critiques Cultural Critique. *The American Scholar*, 75(4), 18–30.
- Boyd, B. (2009). *On the Origin of Stories: Evolution, Cognition, and Fiction*. Cambridge, Mass.: Belknap Press of Harvard University Press.
- Boyd, B. (2012). *Why Lyrics Last: Evolution, Cognition, and Shakespeare's Sonnets*: Cambridge, Mass.: Harvard University Press, 2012.
- Boyd, B., Carroll, J., & Gottschall, J. (Eds.). (2010). *Evolution, Literature, and Film: A Reader*: Columbia University Press.
- Boyd, B. W. (1987). Virtus Effeminata and Sallust's Sempronia. *Transactions of the American Philological Association (1974–)*, 117, 183–201.
- Boyd, R. (1991). Realism, Anti-foundationalism, and the Enthusiasm for Natural Kinds. *Philosophical Studies*, 61(1), 127–148.
- Bradley, F. H. (1883). *The Principles of Logic*. London: K. Paul, Trench & co.
- Brandes, G. (2004). An Autocratically-Minded Poet. In D. George (Ed.), *Coriolanus* (pp. xvii, 455 p.). New York: Thoemmes Continuum.
- Brenson, M. (1990, 1990/07/22/). ART VIEW; Is 'Quality' An Idea Whose Time Has Gone?, Article, *The New York Times*. Retrieved from <http://go.galegroup.com/ps/i.do?id=GALE%7CA175530857&v=2.1&u=learn&it=r&p=ITOF&sw=w>
- Brittin, N. A. (1956). Coriolanus, Alceste, and Dramatic Genres. *PMLA*, 71(4), 799–807.
- Britton, T. (1976). 'Coriolanus'. Dublin: Helicon.
- Broad, C. D. (1933). Is "Goodness" a Name of a Simple Non-Natural Quality? Proceedings of the Aristotelian Society, 34, 249–268. Broad, C. D. (1954). Emotion and Sentiment. *The Journal of Aesthetics and Art Criticism*, 13(2), 203–214.
- Brockman, B. A. (1977). *Shakespeare, 'Coriolanus': A Casebook*. London: Macmillan.
- Brower, R. A. (1971). *Hero and Saint: Shakespeare and the Graeco-Roman Heroic Tradition*: Oxford, Clarendon Press, 1971.
- Brown, C. M., & Hagoort, P. (1999). *The Neurocognition of Language*: Oxford ; New York : Oxford University Press, 1999.
- Browning, R. (1984). The Origin of Burke's Ideas Revisited. *Eighteenth-Century Studies*, 18(1), 57–71.

- Bruel-Jungerman, E., Davis, S., & Laroche, S. (2007). Brain Plasticity Mechanisms and Memory: A Party of Four. *Neuroscientist*, 13(5), 492–505.
- Buchanan, T. W. (2007). Retrieval of Emotional Memories. *Psychological Bulletin*, 133(5), 761–779.
- Buckner, R. L., & Carroll, D. C. (2007). Self Projection and the Brain. *Trends in Cognitive Sciences*, 11(2), 49–57.
- Budd, M. (1983). Belief and Sincerity in Poetry. In E. Schaper (Ed.), *Pleasure, Preference, and Value: Studies in Philosophical Aesthetics* (pp. 137–157). Cambridge Cambridgeshire: Cambridge University Press.
- Budd, M. (1985). *Music and the Emotions: The Philosophical Theories*. London; Boston: Routledge & Kegan Paul.
- Budd, M. (1995). *Values of Art: Pictures, Poetry and Music*. London: Allen Lane, Penguin Press.
- Budd, M. (2003). Artistic Value. In P. Lamarque & S. H. Olsen (Eds.), *Aesthetics and the Philosophy of Art: the Analytic Tradition: an Anthology* (pp. 262–273). Malden, MA: Blackwell Pub.
- Budd, M. (2008). *Aesthetic Essays*: Oxford ; New York : Oxford University Press, 2008.
- Bullough, E. 'Psychical Distance' as a Factor in Art and an Aesthetic Principle. *British Journal of Psychology*, 5(2), 87–98.
- Burge, T. (1998). Frege on Knowing the Foundation. *Mind*, 107(426), 305–347.
- Burns, M. E., & Arshavsky, V. Y. (2005). Beyond Counting Photons: Trials and Trends in Vertebrate Visual Transduction. *Neuron*, 48(3), 387–401.
- Buschman, T. J., & Miller, E. K. (2007). Top-down Versus Bottom-up Control of Attention in the Prefrontal and Posterior Parietal Cortices. *Science*, 315(5820), 1860–1862.
- Byrne, P., Becker, S., & Burgess, N. (2007). Remembering the Past and Imagining the Future: A Neural Model of Spatial Memory and Imagery. *Psychological Review*, 114(2), 340–375.
- Byrne, R. W., & Whiten, A. (1988). *Machiavellian Intelligence: Social Expertise and the Evolution of Intellect in Monkeys, Apes, and Humans*. New York: Oxford University Press.
- Cabeza, R., & St Jacques, P. (2007). Functional Neuroimaging of Autobiographical Memory. *Trends in Cognitive Sciences*, 11(5), 219–227.
- Cacioppo, J. T., Berntson, G. G., Larsen, J. T., Poehlmann, K. M., & Ito, T. A. (2000). The Psychophysiology of Emotion. In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of Emotions* (2nd ed., pp. xvi, 720 p.). New York: Guilford Press.
- Calhoun, C., & Solomon, R. C. (1984). *What is an Emotion?: Classic Readings in Philosophical Psychology*. New York: Oxford University Press.
- Canli, T., Zhao, Z., Brewer, J., Gabrieli, J. D. E., & Cahill, L. (2000). Event-related Activation in the Human Amygdala Associates with Later Memory for Individual Emotional Experience. *Journal of Neuroscience*, 20(19).
- Cappelletto, F. (2003). Long-term Memory of Extreme Events: From Autobiography to History. *Journal of the Royal Anthropological Institute*, 9(2), 241–260.
- Carr, L., Iacoboni, M., Dubeau, M. C., Mazziotta, J. C., & Lenzi, G. L. (2003). Neural Mechanisms of Empathy in Humans: A Relay from Neural Systems for Imitation to Limbic Areas. *Proceedings of the National Academy of Sciences of the United States of America*, 100(9), 5497–5502.
- Carroll, J. (1996). Poststructuralism, Cultural Constructivism and Evolutionary Biology. *symplokē*, 4(1/2), 203–219.
- Carroll, N. (2004). Art and Human Nature. *The Journal of Aesthetics and Art Criticism*, 62(2), 95–107.

- Carroll, N. I. (1998). *A Philosophy of Mass Art*. New York: Oxford University Press.
- Carruthers, P. (2002). The Cognitive Functions of Language. *Behavioral and Brain Sciences*, 25(06), 657–674.
- Carson, H. (2007). Shakespeare's "Coriolanus" and Aristotle's Great-Souled Man. *The Review of Politics*, 69(3), 353–374.
- Cartwright, N. (2005). boat, Neurath's. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (2nd ed., pp. 1009 p.). Oxford; New York: Oxford University Press.
- Caterina, M. J., & Julius, D. (2001). The Vanilloid Receptor: A Molecular Gateway to the Pain Pathway. *Annual Review of Neuroscience*, 24, 487–517.
- Cattaneo, Z., Vecchi, T., Cornoldi, C., Mammarella, I., Bonino, D., Ricciardi, E., & Pietrini, P. (2008). Imagery and Spatial Processes in Blindness and Visual Impairment. *Neuroscience & Biobehavioral Reviews*, 32(8), 1346–1360.
- Cavell, S. (1983). "Who Does the Wolf love?" Reading Coriolanus. *Representations*(3), 1–20.
- Cavell, S. (2002). *Disowning Knowledge in Seven Plays of Shakespeare* (Updated ed.). Cambridge, U.K. ; New York: Cambridge University Press.
- Chalmers, D. (1992). Subsymbolic Computation and the Chinese Room. In J. Dinsmore (Ed.), *The Symbolic and Connectionist Paradigms: Closing the Gap*. Hillsdale, NJ: L. Erlbaum Associates.
- Changeux, J.-P., Christen, Y., Damasio, A. R., & Singer, W. (2005). *Neurobiology of Human Values Research and Perspectives in Neurosciences*, Retrieved from <http://dx.doi.org/10.1007/3-540-29803-7>
- Charland, L. C. (1997). Reconciling Cognitive and Perceptual Theories of Emotion: A Representational Proposal. *Philosophy of Science*, 64(4), 555–579.
- Charland, L. C. (2002). The Natural Kind Status of Emotion. *The British Journal for the Philosophy of Science*, 53(4), 511–537.
- Charland, L. C. (2005). The Heat of Emotion: Valence and the Demarcation Problem. *Journal of Consciousness Studies*, 12(8-10), 82–102.
- Chisholm, R. M. (1948). The Problem of Empiricism. *The Journal of Philosophy*, 45(19), 512–517.
- Clark, A., & Chalmers, D. (2010). The Extended Mind. In R. Menary & I. ebrary (Eds.), *The Extended Mind* (pp. 2–42): Cambridge, Mass. : MIT Press, 2010.
- Clore, G. L., & Ortony, A. (2008). Appraisal Theories: How Cognition Shapes Affect into Emotion. In M. Lewis, J. M. Haviland-Jones & L. F. Barrett (Eds.), *Handbook of Emotions* (3rd ed., pp. 628–642). New York: Guilford Press.
- Cohen, P. (2010). Next Big Thing in English: Knowing They Know That You Know, *New York Times*. Retrieved from <http://www.nytimes.com/2010/04/01/books/01lit.html>
- Collins, J. (2006). Proxytypes and Linguistic Nativism. *Synthese*, 153(1), 69–104.
- Colombetti, G. (2009). From Affect Programs to Dynamical Discrete Emotions. *Philosophical Psychology*, 22(4), 407–425.
- Connor, C. E., Egeth, H. E., & Yantis, S. (2004). Visual Attention: Bottom-Up Versus Top-Down. *Current Biology*, 14(19), R850–R852.
- Conway, M. A. (2001). Sensory-Perceptual Episodic Memory and Its Context: Autobiographical Memory. *Philosophical Transactions: Biological Sciences*, 356(1413), 1375–1384.
- Conway, M. A. (2001). Sensory-perceptual Episodic Memory and its Context: Autobiographical Memory. *Philosophical Transactions of the Royal Society B-Biological Sciences*, 356(1413), 1375–1384.

- Cornell, T. (1995). *The Beginnings of Rome: Italy and Rome from the Bronze Age to the Punic Wars (c.1000–264 BC)*. New York: Routledge.
- Cornman, J. W. (1962). Intentionality and Intensionality. *The Philosophical Quarterly*, 12(46), 44–52.
- Cowles, D. *The Critical Experience: Literary Reading, Writing, and Criticism* (2nd ed.). Iowa: Kendall/Hunt Publishing Company.
- Craig, A. D. (2003). Interoception: the Sense of the Physiological Condition of the Body. *Current Opinion in Neurobiology*, 13(4), 500–505.
- Craig, A. D. (2003). Pain Mechanisms: Labeled Lines Versus Convergence in Central Processing. *Annual Review of Neuroscience*, 26(1), 1–30.
- Craig, A. D. (2009). How do you feel — now? The anterior insula and human awareness. *Nature Reviews Neuroscience*, 10(1), 59–70.
- Craig, A. D. B. (2003). A New View of Pain as a Homeostatic Emotion. *Trends in Neurosciences*, 26(6), 303–307.
- Crane, T. (2009). Intentionalism. In B. P. McLaughlin, A. Beckermann & S. Walter (Eds.), *The Oxford Handbook of Philosophy of Mind* (pp. 474–493). New York: Oxford University Press.
- Critchley, H. D., Elliott, R., Mathias, C. J., & Dolan, R. J. (2000). Neural Activity Relating to Generation and Representation of Galvanic Skin Conductance Responses: A Functional Magnetic Resonance Imaging Study. *Journal of Neuroscience*, 20(8), 3033–3040.
- Critchley, H. D., Wiens, S., Rotshtein, P., Ohman, A., & Dolan, R. J. (2004). Neural Systems Supporting Interoceptive Awareness. *Nat Neurosci*, 7(2), 189–195.
- Crystal, D. (2007). *How Language Works: How Babies Babble, Words Change Meaning, and Languages Live or Die* (1st trade pbk. ed.). New York: Avery.
- Culler, J. (1990). *On Deconstruction: Theory and Criticism after Structuralism*. Ithaca: Cornell UP.
- Cummins, D. D. (2000). How the Social Environment Shaped the Evolution of Mind. *Synthese*, 122(1/2), 3–28.
- Currie, G. (1980). Frege on Thoughts. *Mind*, 89(354), 234–248.
- Currie, G. (1986). Fictional Truth. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 50(2), 195–212.
- Currie, G. (1991). Text Without Context: Some Errors of Stanley Fish. *Philosophy and Literature*, 15(2), 212–228.
- Currie, G. (1995). Imagination and Simulation: Aesthetics Meets Cognitive Science. In M. Davies & T. Stone (Eds.), *Mental Simulation* (pp. 152–169). Malden: Blackwell.
- Currie, G. (1995). Visual Imagery as the Simulation of Vision. *Mind & Language*, 10(1-2), 25–44.
- Currie, G. (2007). Both Sides of the Story: Explaining Events in a Narrative. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 135(1), 49–63.
- Currie, G., & Ravenscroft, I. (2002). *Recreative Minds: Imagination in Philosophy and Psychology*. New York: Oxford University Press.
- Dalgleish, T. (2004). The Emotional Brain. *Nat Rev Neurosci*, 5(7), 583–589.
- Dalley, J. W., Cardinal, R. N., & Robbins, T. W. (2004). Prefrontal Executive and Cognitive Functions in Rodents: Neural and Neurochemical Substrates. *Neuroscience and Biobehavioral Reviews*, 28(7), 771–784.
- Damasio, A. R. (1996). *Descartes Error: Emotion, Reason and the Human Brain*. London: Papermac.

- Damasio, A. R. (2005). The Neurobiological Grounding of Human Values. In J.-P. Changeux, Y. Christen, A. R. Damasio & W. Singer (Eds.), *Neurobiology of Human Values*. Berlin, Heidelberg: Springer-Verlag Berlin Heidelberg.
- Damasio, A. R., & Tranel, D. (1993). Nouns and Verbs and Retrieved with Differently Distributed Neural Systems. *Proceedings of the National Academy of Sciences of the United States of America*, 90(11), 4957–4960.
- Damasio, H., Tranel, D., Grabowski, T., Adolphs, R., & Damasio, A. (2004). Neural Systems Behind Word and Concept Retrieval. *Cognition*, 92(1-2), 179–229.
- Daniell, D. (1980). *Coriolanus in Europe*. London: Athlone.
- Danto, A. C. (2003). *The Abuse of Beauty: Aesthetics and the Concept of Art*. Chicago : Open Court, 2003.
- Danto, A. C. (2005). *Nietzsche as Philosopher* (Expanded Edition ed.): New York ; Guildford : Columbia University Press, 1983.
- Dargis, M. (2007). An American Primitive, Forged in a Crucible of Blood and Oil, Movie review, *The New York Times*. Retrieved from <http://movies.nytimes.com/2007/12/26/movies/26bloo.html?scp=1&sq=there+will+be+blood&st=nyt&pagewanted=print>
- Darnaudéry, M., & Maccari, S. (2008). Epigenetic Programming of the Stress Response in Male and Female Rats by Prenatal Restraint Stress. *Brain Research Reviews*, 57(2), 571–585.
- Davidson, D. (2001). *Inquiries into Truth and Interpretation* (2nd ed. ed.). Oxford: Clarendon Press.
- Davidson, D. (2001). *Subjective, Intersubjective, Objective*: Oxford : Clarendon Press, 2001.
- Davidson, R. J., & Irwin, W. (1999). The Functional Neuroanatomy of Emotion and Affective Style. *Trends in Cognitive Sciences*, 3(1), 11–21.
- Davies, S. (2001). *Musical Works and Performances: A Philosophical Exploration*. Oxford: Oxford University Press.
- Davies, S. (2006). Authors' Intentions, Literary Interpretation, and Literary Value. *British Journal of Aesthetics*, 46(3), 223.
- Davies, S. (2006). *The Philosophy of Art*. Malden, MA: Blackwell Pub.
- Davies, S. (2010). *Philosophical Perspectives on Art*: Oxford: Oxford University, 2010.
- Davis, L. J., & Morris, D. B. (2007). Biocultures Manifesto. *New Literary History*, 38(3), 411–418.
- Dawson, E., Gilovich, T., & Regan, D. T. (2002). Motivated Reasoning and Performance on the Wason Selection Task. *Personality and Social Psychology Bulletin*, 28(10), 1379–1387.
- de Gelder, B., van Honk, J., & Tamiotto, M. (2011). Emotion in the Brain: Of Low Roads, High Roads, and Roads Less Travelled. *Nat Rev Neurosci*, 12(7), 425–425.
- de Sousa, R. (2009). The Mind's Bermuda Triangle: Philosophy of Emotions and Empirical Science. In P. Goldie (Ed.), *The Oxford Handbook of Philosophy of Emotion* (pp. 95–118). Oxford: Oxford University Press.
- de Waal, F. B. M. (1998). *Chimpanzee Politics: Power and Sex Among Apes*: Baltimore : Johns Hopkins University Press, 1998.
- de Waal, F. B. M. (2006). *Primates and Philosophers: How Morality Evolved*. Princeton, N.J.: Princeton University Press.
- de Waal, F. B. M. (2007). *Chimpanzee Politics: Power and Sex Among Apes* (25th Anniversary Edition ed.): Baltimore: Johns Hopkins University Press.
- de Waal, F. B. M. (2011). What is an Animal Emotion? In M. B. Miller & A. Kingstone (Eds.), *Year in Cognitive Neuroscience* (Vol. 1224, pp. 191–206). Oxford: Blackwell Science Publ.

- de Waal, F. B. M., & Ferrari, P. F. (2010). Towards a Bottom-up Perspective on Animal and Human Cognition. *Trends in Cognitive Sciences*, 14(5), 201–207.
- Deary, I. J., Penke, L., & Johnson, W. The Neuroscience of Human Intelligence Differences. *Nat Rev Neurosci*, advance online publication.
- deCharms, R. C., & Zador, A. (2000). Neural Representation and the Cortical Code. *Annual Review of Neuroscience*, 23(1), 613–647.
- Dehaene, S. (2009). *Reading in the Brain: The Science and Evolution of a Human Invention*. New York: Viking.
- Deigh, J. (1994). Cognitivism in the Theory of Emotions. *Ethics*, 104(4), 824.
- Deigh, J. (2004). Primitive Emotions *Thinking about Feeling: Contemporary Philosophers on Emotions* (pp. 9–27). New York: Oxford University Press.
- Deigh, J. (2009). Concepts of Emotions in Modern Philosophy and Psychology. In P. Goldie (Ed.), *The Oxford Handbook of Philosophy of Emotion* (pp. 17–40). Oxford: Oxford University Press.
- DeLancey, C. (2002). *Passionate Engines: What Emotions Reveal about Mind and Artificial Intelligence*. New York: Oxford University Press.
- DeLeon, J., Gottesman, R. F., Kleinman, J. T., Newhart, M., Davis, C., Heidler-Gary, J., . . . Hillis, A. E. (2007). Neural Regions Essential for Distinct Cognitive Processes Underlying Picture Naming. *Brain*, 130(5), 1408–1422.
- Dennett, D. (1982). How to Study Human Consciousness Empirically or Nothing Comes to Mind. *Synthese*, 53(2), 159–180.
- Dennett, D. (1995). *Darwin's Dangerous Idea: Evolution and the Meanings of Life*: New York: Simon & Schuster, c1995.
- Dennett, D. (2003). Who's on First? Heterophenomenology Explained. *Journal of Consciousness Studies*, 10(9-10), 19–30.
- Dennett, D. (2009). Intentional Systems Theory. In B. P. McLaughlin, A. Beckermann & S. Walter (Eds.), *The Oxford Handbook of Philosophy of Mind* (pp. 339–350). New York: Oxford University Press.
- Dennett, D., & Haugeland, J. intentionality *The Oxford Companion to the Mind* (2nd ed.): Oxford University Press.
- Dere, E., Kart-Teke, E., Huston, J. P., & De Souza Silva, M. A. (2006). The Case for Episodic Memory in Animals. *Neuroscience and Biobehavioral Reviews*, 30(8), 1206–1224.
- Derksen, A. A. (2001). The Seven Strategies of the Sophisticated Pseudo-Scientist: A Look into Freud's Rhetorical Tool Box. *Journal for General Philosophy of Science / Zeitschrift für allgemeine Wissenschaftstheorie*, 32(2), 329–350.
- Derrida, J., & Houdebine, J.-L. (1973). Interview: Jacques Derrida. *Diacritics*, 3(1).
- Devitt, M. (2008). Resurrecting Biological Essentialism. *Philosophy of Science*, 75(3), 344–382.
- deVries, W. A., Triplett, T., & Sellars, W. (2000). *Knowledge, Mind, and the Given: Reading Wilfrid Sellars's "Empiricism and the Philosophy of Mind," Including the Complete Text of Sellars's Essay*. Indianapolis, IN: Hackett Pub.
- Diekelmann, S., & Born, J. (2010). The Memory Function of Sleep. *Nat Rev Neurosci*, 11(2), 114–126.
- Dolan, R. J. (2002). Emotion, Cognition, and Behavior. *Science*, 298(5596), 1191–1194.
- Douglas, H. (2004). The Irreducible Complexity of Objectivity. *Synthese*, 138(3), 453–473.
- Dover, K. J. (1974). *Greek Popular Morality in the Time of Plato and Aristotle*: Oxford: Blackwell, c1974.
- Dretske, F. (2004). Change Blindness. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 120(1/3), 1–18.
- Dretske, F. I. (1978). Reply to Niiniluoto. *Philosophy of Science*, 45(3), 440–444.

- Duchaine, B., Cosmides, L., & Tooby, J. (2001). Evolutionary Psychology and the Brain. *Current Opinion in Neurobiology*, 11(2), 225–230.
- Dudai, Y. (2004). The Neurobiology of Consolidation, Or, How Stable Is The Engram? *Annual Review of Psychology*, 55(1), 51–86.
- Duffy, M. F., & Mittelman, W. (1988). Nietzsche's Attitudes Toward the Jews. *Journal of the History of Ideas*, 49(2), 301–317.
- Dummett, M. (1982). Realism. *Synthese*, 52(1), 55–112.
- Dussor, G., Koerber, H. R., Oaklander, A. L., Rice, F. L., & Molliver, D. C. (2009). Nucleotide Signaling and Cutaneous Mechanisms of Pain Transduction. *Brain Research Reviews*, 60(1), 24–35.
- Eagleton, T. (1987). *William Shakespeare*. Oxford: B. Blackwell.
- Eagleton, T. (2010). *On Evil*. New Haven Conn.: Yale University Press.
- Earl, D. C. (1961). *The Political Thought of Sallust*: Cambridge, Eng. University Press, 1961.
- Easterlin, N. (1999). Making Knowledge: Bioepistemology and the Foundations of Literary Theory. *Mosaic: A Journal for the Interdisciplinary Study of Literature*, 32((32:1)), 131–147.
- Easterlin, N. (2001). Voyages in the Verbal Universe: The Role of Speculation in Darwinian Literary Criticism. *Interdisciplinary Literary Studies*, 2(2), 59–73.
- Egeth, H. E., & Yantis, S. (1997). Visual Attention: Control, Representation, and Time Course. *Annual Review of Psychology*, 48, 269–297.
- Eichenbaum, H., Yonelinas, A. P., & Ranganath, C. (2007). The Medial Temporal Lobe and Recognition Memory. *Annual Review of Neuroscience*, 30, 123–152.
- Elbert, T., Candia, V., Altenmuller, E., Rau, H., Sterr, A., Rockstroh, B., . . . Taub, E. (1998). Alteration of Digital Representations in Somatosensory Cortex in Focal Hand Dystonia. *Neuroreport*, 9(16), 3571–3575.
- Ellis, R. D. (2008). The Phenomenology of Alexithymia as a Clue to the Intentionality of Emotion. In L. C. Charland, P. Zachar & I. ebrary (Eds.), *Fact and Value in Emotion* (pp. 181–192). Philadelphia: John Benjamins Pub. Co.
- Emery, N. J., & Clayton, N. S. (2004). The Mentality of Crows: Convergent Evolution of Intelligence in Corvids and Apes. *Science*, 306(5703), 1903–1907.
- Falciatore, A., & Bowler, C. (2005). The Evolution and Function of Blue and Red Light Photoreceptors *Current Topics in Developmental Biology*, Volume 68 (Vol. 68, pp. 317–+). San Diego: Elsevier Academic Press Inc.
- Feagin, S. L., & Maynard, P. (1997). *Aesthetics*. Oxford ; New York: Oxford University Press.
- Fearnley, W., & Madden, D. (1980). *William Shakespeare 'Coriolanus'*. Dublin: Gill and Macmillan.
- Feder, A., Nestler, E. J., & Charney, D. S. (2009). Psychobiology and Molecular Genetics of Resilience. *Nature Reviews Neuroscience*, 10(6), 446–457.
- Fellows, R. (2000). Animal Belief. *Philosophy*, 75(294), 587–598.
- Fernandez-Duque, D., Baird, J. A., & Posner, M. I. (2000). Executive Attention and Metacognitive Regulation. *Consciousness and Cognition*, 9(2), 288–307.
- Fiedler, K. (2000). Beware of Samples! A Cognitive Ecological Sampling Approach to Judgment Biases. *Psychological Review*, 107(4), 659–676.
- Fiehler, K., Burke, M., Engel, A., Bien, S., & Rosler, F. (2008). Kinesthetic Working Memory and Action Control within the Dorsal Stream. *Cerebral Cortex*, 18(2), 243–253.
- Fine, J. (1993). *How Language Works: Cohesion in Normal and Nonstandard Communication*. Norwood, N.J.: Ablex.

- Fish, S. (1970). Literature in the Reader: Affective Stylistics. *New Literary History*, 2(1), 123–162.
- Fish, S. (1980). *Is There a Text in This Class?: The Authority of Interpretive Communities*. Cambridge, Mass.: Harvard University Press.
- Fish, S. (1984). Fish v. Fiss. *Stanford Law Review*, 36(6), 1325–1347.
- Fish, S. (1999). *The Trouble with Principle*. Cambridge, Mass.: Harvard University Press.
- Fodor, J. (2001). Doing without What's within: Fiona Cowie's Critique of Nativism. *Mind*, 110(437), 99–148.
- Fodor, J. A., & Pylyshyn, Z. W. (1988). Connectionism and Cognitive Architecture: A Critical Analysis. *Cognition*, 28(1-2), 3–71.
- Foot, P. (2001). Nietzsche: The Revaluation of Values. In J. Richardson & B. Leiter (Eds.), *Nietzsche* (pp. 210–220). New York: Oxford University Press, 2001.
- Foster, J. (2000). *The Nature of Perception*. Oxford: Oxford University Press.
- Fraassen, B. C. v. (1997). Sola Experientia?—Feyerabend's Refutation of Classical Empiricism. *Philosophy of Science*, 64, S385–S395.
- Fraga, M. F., Ballestar, E., Paz, M. F., Ropero, S., Setien, F., Ballestart, M. L., . . . Esteller, M. (2005). Epigenetic Differences Arise during the Lifetime of Monozygotic Twins. *Proceedings of the National Academy of Sciences of the United States of America*, 102(30), 10604–10609.
- Frankena, W. K. (1939). The Naturalistic Fallacy. *Mind*, 48(192), 464–477.
- Frankland, P. W., & Bontempi, B. (2005). The Organization of Recent and Remote Memories. *Nature Reviews Neuroscience*, 6(2), 119–130.
- Frege, G. (1948). Sense and Reference. *The Philosophical Review*, 57(3), 209–230.
- Frege, G., & Beaney, M. (1997). *The Frege Reader*. Malden, MA: Blackwell Publishers.
- Frege, G., Geach, P. T., & Black, M. (1977). *Translations from the Philosophical Writings of Gottlob Frege* ([2d ed.]). Oxford: B. Blackwell.
- Frege, G., & McGuinness, B. (1984). *Collected Papers on Mathematics, Logic, and Philosophy*. Oxford, UK; New York, NY, USA: B. Blackwell.
- Friesner, D. N. (1969). William Shakespeare, Conservative. *Shakespeare Quarterly*, 20(2), 165–178.
- Funayama, E. S., Grillon, C., Davis, M., & Phelps, E. A. (2001). A Double Dissociation in the Affective Modulation of Startle in Humans: Effects of Unilateral Temporal Lobectomy. *Journal of Cognitive Neuroscience*, 13(6), 721–729.
- Gabbard, G. O., Gunderson, J. G., & Fonagy, P. (2002). The Place of Psychoanalytic Treatments within Psychiatry. *Archives of General Psychiatry*, 59(6), 505–510.
- Gallese, V., & Sinigaglia, C. (2011). What is so Special about Embodied Simulation? *Trends in Cognitive Sciences*, 15(11), 512–519.
- Garrard, G. (2008). Nietzsche for and against the Enlightenment. *The Review of Politics*, 70(4), 595–608.
- Gaser, C., Nenadic, I., Volz, H. P., Buchel, C., & Sauer, H. (2004). Neuroanatomy of 'Hearing Voices': A Frontotemporal Brain Structural Abnormality Associated with Auditory Hallucinations in Schizophrenia. *Cerebral Cortex*, 14(1), 91–96.
- George, D. (2004). *Coriolanus*. London ; New York: Thoemmes Continuum.
- George, D., & Taft, E. M. (2008). *A Comparison of Six Adaptations of Shakespeare's Coriolanus, 1681–1962: How Changing Politics Influence the Interpretation of a Text*. Lewiston, N.Y.: Edwin Mellen Press.
- Gerrig, R. J. (1993). *Experiencing Narrative Worlds: On the Psychological Activities of Reading*. New Haven: Yale University Press.
- Gerrig, R. J. (2010). Readers' Experiences of Narrative Gaps. *StoryWorlds: A Journal of Narrative Studies*, 2, 19–37.

- Gerrig, R. J., & McKoon, G. (2001). Memory Processes and Experiential Continuity. *Psychological Science, 12*(1), 81–85.
- Gerrig, R. J., & Prentice, D. A. (1991). The Representation of Fictional Information. *Psychological Science, 2*(5), 336–340.
- Gerrig, R. J., & Rapp, D. N. (2004). Psychological Processes Underlying Literary Impact. *Poetics Today, 25*(2), 265–281.
- Ghazanfar, A. A., & Schroeder, C. E. (2006). Is Neocortex Essentially Multisensory? *Trends in Cognitive Sciences, 10*(6), 278–285.
- Giese, M. A., & Poggio, T. (2003). Neural Mechanisms for the Recognition of Biological Movements. *Nat Rev Neurosci, 4*(3), 179–192.
- Gilbert, F. (1951). On Machiavelli's Idea of Virtù. *Renaissance News, 4*(4), 53–55.
- Gilboa-Schechtman, E., Erhard-Weiss, D., & Jeczemien, P. (2002). Interpersonal Deficits Meet Cognitive Biases: Memory for Facial Expressions in Depressed and Anxious Men and Women. *Psychiatry Research, 113*(3), 279–293.
- Gillespie, P. G., & Walker, R. G. (2001). Molecular Basis of Mechanosensory Transduction. *Nature, 413*(6852), 194–202.
- Glock, H.-J. (2008). *What is Analytic Philosophy?* Cambridge, UK ; New York: Cambridge University Press.
- Glare, P. G. W., & Stray, C. (2012). *Oxford Latin Dictionary*. Oxford: Oxford University Press.
- Goldberg, J. (2000). The Anus in Coriolanus *Historicism, Psychoanalysis, and Early Modern Culture*. (pp. viii, 417 pp.). New York, NY: Routledge.
- Goldie, P. (2006). Wollheim on Emotion and Imagination. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition, 127*(1), 1–17.
- Goldman, A. H. (1995). *Aesthetic Value*: Westview Press.
- Goldstone, R. L., Feng, Y., & Rogosky, B. J. (2005). Connecting Concepts to Each Other and the World. In D. Pecher & R. A. Zwaan (Eds.), *Grounding Cognition: The Role of Perception and Action in Memory, Language, and Thinking* (pp. 282–314). New York: Cambridge University Press.
- Golomb, J. (1989). *Nietzsche's Enticing Psychology of Power*: Ames, Iowa: Iowa State University Press, 1989.
- Gorn. (2010, July 18, 2010). *Memory Alpha*. from <http://memory-alpha.org/wiki/Gorn>
- Gould, S. J. (1996). *The Mismeasure of Man* (Rev. and expanded. ed.). New York: Norton.
- Grandjean, D., Sander, D., Pourtois, G., Schwartz, S., Seghier, M. L., Scherer, K. R., & Vuilleumier, P. (2005). The Voices of Wrath: Brain Responses to Angry Prosody in Meaningless Speech. *Nature Neuroscience, 8*(2), 145–146.
- Graybiel, A. M. (2008). Habits, Rituals, and the Evaluative Brain. *Annual Review of Neuroscience, 31*(1), 359–387.
- Grebe, S. (2003). Marriage and Exile: Cicero's Letters to Terentia. *Helios, 30*(2), 127(120).
- Green, M. J., & Phillips, M. L. (2004). Social Threat Perception and the Evolution of Paranoia. *Neuroscience and Biobehavioral Reviews, 28*(3), 333–342.
- Greenberg, D. L., Rice, H. J., Cooper, J. J., Cabeza, R., Rubin, D. C., & LaBar, K. S. (2005). Co-activation of the Amygdala, Hippocampus and Inferior Frontal Gyrus During Autobiographical Memory Retrieval. *Neuropsychologia, 43*(5), 659–674.
- Greenblatt, S. (2004). *Will in the World: How Shakespeare became Shakespeare*. New York: W.W. Norton.
- Greiffenhagen, C., & Sharrock, W. (2007). Linguistic Relativism: Logic, Grammar, and Arithmetic in Cultural Comparison. *Language & Communication, 27*(1), 81–107.

- Griffiths, P. E. (1998). *What Emotions Really Are: the Problem of Psychological Categories*. Chicago, Ill.: University of Chicago Press.
- Griffiths, T. G. L., Steyvers, M., & Tenenbaum, J. B. (2007). Topics in Semantic Representation. *Psychological Review*, *114*(2), 211–244.
- Grill-Spector, K., & Malach, R. (2004). The Human Visual Cortex. *Annual Review of Neuroscience*, *27*(1), 649–677.
- Grodzinsky, Y., & Santi, A. (2008). The Battle for Broca's Region. *Trends in Cognitive Sciences*, *12*(12), 474–480.
- Gross, C. T., & Canteras, N. S. (2012). The Many Paths to Fear. *Nature Reviews Neuroscience*, *13*(9), 651–658.
- Grünbaum, A. (1977). Is Psychoanalysis a Pseudo-Science? Karl Popper versus Sigmund Freud. *Zeitschrift für philosophische Forschung*, *31*(3), 333–353.
- Gurr, A. (1980). *William Shakespeare, 'Coriolanus': Notes*. London: Longman [etc.].
- Guttenplan, S. D. (1995). *A Companion to the Philosophy of Mind*. Malden, Mass., USA: Blackell Publishers.
- Guttenplan, S. D. (1995). Intensional *A Companion to the Philosophy of Mind* (pp. 374–375). Malden, Mass., USA: Blackell Publishers.
- Haack, S. (2000). *Philosophy of Logics*. New York: Cambridge University Press.
- Habicht, W. (1986). Shakespeare in Nineteenth-Century Germany: The Making of a Myth. In H. Hammerschmidt (Ed.), *Nineteenth-Century Germany: A Symposium*: John Benjamins Pub Co.
- Hagemann, D., Waldstein, S. R., & Thayer, J. F. (2003). Central and Autonomic Nervous System Integration in Emotion. *Brain and Cognition*, *52*(1), 79–87.
- Haggard, P. (2008). Human Volition: Towards a Neuroscience of Will. *Nature Reviews Neuroscience*, *9*(12), 934–946.
- Halberstadt, J. (2003). The Paradox of Emotion Attribution: Explanation Biases Perceptual Memory for Emotional Expressions. *Current Directions in Psychological Science*, *12*(6), 197–201.
- Halliwell, S., & Aristotle. (1986). Aristotle's Poetics (pp. xi, 369 p.). Chapel Hill: University of North Carolina Press.
- Hallowell, J. H. (1965). Plato and his Critics. *The Journal of Politics*, *27*(2), 273–289.
- Hamann, S. (2001). Cognitive and Neural Mechanisms of Emotional Memory. *Trends in Cognitive Sciences*, *5*(9), 394–400.
- Hamann, S. B., Ely, T. D., Grafton, S. T., & Kilts, C. D. (1999). Amygdala Activity Related to Enhanced Memory for Pleasant and Aversive Stimuli. *Nature Neuroscience*, *2*(3), 289–293.
- Hamlyn, D. W. (2005). idealism, philosophical. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (2nd ed., pp. 1009 p.). Oxford; New York: Oxford University Press.
- Hamm, A. O., Weike, A. I., Schupp, H. T., Treig, T., Dressel, A., & Kessler, C. (2003). Affective Blindsight: Intact Fear Conditioning to a Visual Cue in a Cortically Blind Patient. *Brain*, *126*(2), 267–275.
- Hanks, W. F. (2005). Pierre Bourdieu and the Practices of Language. *Annual Review of Anthropology*, *34*, 67–83.
- Hannula, D. E., Simons, D. J., & Cohen, N. J. (2005). Imaging Implicit Perception: Promise and Pitfalls. *Nat Rev Neurosci*, *6*(3), 247–255.
- Hardcastle, V. G., & Stewart, C. M. (2002). What do Brain Data Really Show? *Philosophy of Science*, *69*(3), S72–S82.
- Harnad, S. (1990). The Symbol Grounding Problem. *Physica D*, *42*(1-3), 335–346.
- Hart, S. L. (1971). Axiology—Theory of Values. *Philosophy and Phenomenological Research*, *32*(1), 29–41.

- Hartley, C. A., & Phelps, E. A. (2010). Changing Fear: The Neurocircuitry of Emotion Regulation. *Neuropsychopharmacology*, 35(1), 136–146.
- Hassabis, D., & Maguire, E. A. (2007). Deconstructing Episodic Memory with Construction. *Trends in Cognitive Sciences*, 11(7), 299–306.
- Henke, K. (2010). A Model for Memory Systems based on Processing Modes rather than Consciousness. *Nature Reviews Neuroscience*, 11(7), 523–532.
- Herman, D. (2008). Description, Narrative, and Explanation: Text-Type Categories and the Cognitive Foundations of Discourse Competence. *Poetics Today*, 29(3), 437–472.
- Herman, D. (2008). Narrative Theory and the Intentional Stance. *Partial Answers: Journal of Literature and the History of Ideas*, 6(2).
- Herman, D. (2009). Storied Minds: Narrative Scaffolding for Folk Psychology. *Journal of Consciousness Studies*, 16(6-8), 40–68.
- Herwitz, D. (1991). The Work of Art as Psychoanalytical Object: Wollheim on Manet. *The Journal of Aesthetics and Art Criticism*, 49(2), 137–153.
- Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup Bias. *Annual Review of Psychology*, 53, 575–604.
- Hickok, G., & Poeppel, D. (2004). Dorsal and Ventral Streams: A Framework for Understanding Aspects of the Functional Anatomy of Language. *Cognition*, 92(1-2), 67–99.
- Hickok, G., & Poeppel, D. (2007). Opinion - The Cortical Organization of Speech Processing. *Nature Reviews Neuroscience*, 8(5), 393–402.
- Hirsch, E. D., Jr. (1960). Objective Interpretation. *PMLA*, 75(4), 463–479.
- Hirsch, E. D., Jr. (1968). Literary Evaluation as Knowledge. *Contemporary Literature*, 9(3), 319–331.
- Hirsch, E. D., Jr. (2001). Objective Interpretation. In V. B. Leitch (Ed.), *The Norton Anthology of Theory and Criticism* (1st ed., pp. 1684–1709). New York: Norton.
- Hirstein, W. (2005). *Brain Fiction: Self-Deception and the Riddle of Confabulation*. Cambridge, Mass.: MIT Press.
- Hjort, M., & Laver, S. (1997). *Emotion and the Arts*. New York: Oxford University Press.
- Hobson, J. A., & Pace-Schott, E. F. (2002). The Cognitive Neuroscience of Sleep: Neuronal Systems, Consciousness and Learning. *Nature Reviews Neuroscience*, 3(9), 679–693.
- Hogan, P. C. (2003). *The Mind and its Stories: Narrative Universals and Human Emotion*. New York: Cambridge University Press.
- Hogan, P. C. (2011). *Affective Narratology: The Emotional Structure of Stories*. Baltimore, Md.: University of Nebraska Press.
- Hogan, P. C. (2011). *What Literature Teaches Us About Emotion*. New York: Cambridge University Press.
- Hollingdale, R. J. (1999). *Nietzsche: The Man and his Philosophy*. New York: Cambridge University Press, c1999.
- Holquist, M. (2008). Presidential Address 2007: The Scandal of Literacy. *PMLA*, 123(3), 568–579.
- Holt, L. (1976). *From Man to Dragon: A Study of Shakespeare's 'Coriolanus'*. Salzburg: Institut für Englische Sprache und Literatur, Universität Salzburg.
- Honderich, T. (2005). The Oxford Companion to Philosophy. In T. Honderich (Ed.), (2nd ed., pp. 1009 p.). New York: Oxford University Press.
- Hopfinger, J. B., Buonocore, M. H., & Mangun, G. R. (2000). The Neural Mechanisms of Top-down Attentional Control. *Nature Neuroscience*, 3(3), 284–291.

- Hubbard, E. M., Piazza, M., Pinel, P., & Dehaene, S. (2005). Interactions between Number and Space in Parietal Cortex. *Nature Reviews Neuroscience*, 6(6), 435–448.
- Hudspeth, A. J. (2000). Hearing. In E. R. Kandel, J. H. Schwartz & T. M. Jessell (Eds.), *Principles of Neural Science* (4th ed., pp. 591–613). New York: McGraw-Hill.
- Hudspeth, A. J. (2000). Sensory Transduction in the Ear. In E. R. Kandel, J. H. Schwartz & T. M. Jessell (Eds.), *Principles of Neural Science* (4th ed., pp. 614–624). New York: McGraw-Hill.
- Huebner, B., Dwyer, S., & Hauser, M. (2009). The Role of Emotion in Moral Psychology. *Trends in Cognitive Sciences*, 13(1), 1–6.
- Hume, D. (1757). *IV. Of the Standard of Taste [in, Four Dissertations ... By David Hume, Esq.]*. London: Printed for A. Millar.
- Hume, D. (1955). *An Inquiry Concerning Human Understanding: With a Supplement, An Abstract of a Treatise of Human Nature* (1st ed.). Indianapolis: Bobbs-Merrill Educational Pub.
- Hume, D. (1965). *Of the Standard of Taste and Other Essays*: Indianapolis: Bobbs-Merrill, 1965.
- Hume, D., Norton, D. F., & Norton, M. J. (2000). *A Treatise of Human Nature*. Oxford ; New York: Oxford University Press.
- Hume, D., Selby-Bigge, L. A., & Nidditch, P. H. (1975). *Inquiries concerning Human Understanding and concerning the Principles of Morals* (3d ed.). Oxford: Clarendon Press.
- Humphries, R. (1999). Analytic and Continental: The Division in Philosophy. *The Monist*, 82(2), 253–277.
- Hurford, J. R. (2007). *The Origins of Meaning*. Oxford: Oxford University Press.
- Huxley, J., & Koch, L. (1964). *Animal Language. How animals communicate. Described by J. Huxley. Recorded by Ludwig Koch and the Parlophone Co. Photographed by Ylla*: New York: Grosset & Dunlap.
- Iser, W. (1978). *The Act of Reading: A Theory of Aesthetic Response*. Baltimore: Johns Hopkins University Press.
- Iser, W. (1988). *Laurence Sterne: Tristram Shandy*. New York: Cambridge University Press.
- Iser, W. (2006). *How to Do Theory*. Malden, MA: Blackwell Pub.
- Izard, C. E., Huebner, R. R., Risser, D., McGinnes, G. C., & Dougherty, L. M. (1980). Young Infants Ability to Produce Discreet Emotion Expressions. *Developmental Psychology*, 16(2), 132–140.
- Jackendoff, R. (2003). Precs of Foundations of Language: Brain, Meaning, Grammar, Evolution. *Behavioral and Brain Sciences*, 26(6), 651–+.
- Jackson, F. (1982). Epiphenomenal Qualia. *The Philosophical Quarterly*, 32(127), 127–136.
- Jackson, J. L. (1942). The Fencing Actor-Lines in Shakspere’s Plays. *Modern Language Notes*, 57(8), 615–621.
- Jacobs, N. (1937). Physicalism and Sensation Sentences. *The Journal of Philosophy*, 34(22), 602–611.
- James, W. (1994). The Physical Basis of Emotion (Reprinted from Psychological Review, Vol One, PG Five Hundred and Sixteen, Eighteen Hundred and Ninety-Four). *Psychological Review*, 101(2), 205–210.
- James, W., & Hardwick, E. (1980). *The Selected Letters of William James*. Boston: D.R. Godine.
- Jennings, D. (2009). Pain Beyond Words, and an Impulse Just to Endure, Medical Case, *The New York Times*. Retrieved from <http://www.nytimes.com/2009/09/22/health/22case.html?pagewanted=print>
- Jeshion, R. (2001). Frege’s Notions of Self-Evidence. *Mind*, 110(440), 937–976.

- Johnson, J. D., Minton, B. R., & Rugg, M. D. (2008). Content Dependence of the Electrophysiological Correlates of Recollection. *Neuroimage*, 39(1), 406–416.
- Johnson, M. (1993). *Moral Imagination: Implications of Cognitive Science for Ethics*: Chicago: University of Chicago Press, 1993.
- Jones, M. O. R. (2005). Foundationalism. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (2nd ed., pp. xix, 1056 p.). Oxford: Oxford University Press.
- Joyce, J. (2007). *A Portrait of the Artist as a Young Man: Authoritative Text, Backgrounds and Contexts, Criticism*: New York: W.W. Norton & Co., 2007.
- Joyce, J., & Kiberd, D. (1992). *Ulysses* (Annotated students' ed.). London: Penguin.
- Julius, D., & Basbaum, A. I. (2001). Molecular Mechanisms of Nociception. *Nature*, 413(6852), 203–210.
- Kahn, C. I. (1997). *Roman Shakespeare: Warriors, Wounds, and Women*: New York: Routledge, 1997.
- Kahn, I., Davachi, L., & Wagner, A. D. (2004). Functional Neuroanatomic Correlates of Recollection: Implications for Models of Recognition Memory. *Journal of Neuroscience*, 24(17), 4172–4180.
- Kandel, E. R., Schwartz, J. H., & Jessell, T. M. (2000). *Principles of Neural Science* (4th ed.). New York: McGraw-Hill.
- Kant, I. (1972). *The Critique of Judgment*. New York: Hafner.
- Kant, I. (2007). *Critique of Judgement* (J. C. Meredith, Trans.). New York: Oxford University Press.
- Kappas, A. (2006). Appraisals are Direct, Immediate, Intuitive, and Unwitting ... and Some are Reflective. *Cognition & Emotion*, 20(7), 952–975.
- Kawabata, H., & Zeki, S. (2004). Neural Correlates of Beauty. *Journal of Neurophysiology*, 91(4), 1699–1705.
- Kenny, A. (1995). *Frege*. London: Penguin.
- Kenny, A. (2003). *Action, Emotion and Will* (2nd ed.). New York: Routledge.
- Kensinger, E. A., Addis, D. R., & Atapattu, R. K. (2011). Amygdala Activity at Encoding Corresponds with Memory Vividness and with Memory for Select Episodic Details. *Neuropsychologia*, 49(4), 663–673.
- Kensinger, E. A., Garoff-Eaton, R. J., & Schacter, D. L. (2007). How Negative Emotion Enhances the Visual Specificity of a Memory. *Journal of Cognitive Neuroscience*, 19(11), 1872–1887.
- Kiefer, M. (2002). The N400 is Modulated by Unconsciously Perceived Masked Words: Further Evidence for an Automatic Spreading Activation Account of N400 Priming Effects. *Cognitive Brain Research*, 13(1), 27–39.
- King, B., & Shakespeare, W. C. (1989). *Coriolanus*. Basingstoke: Macmillan Education.
- Kitcher, P. (1985). *The Nature of Mathematical Knowledge* (pp. 300 p.). Retrieved from <http://www.oxfordscholarship.com/oso/public/content/philosophy/0195035410/toc.html>
- Klein, J., & Iser, W. (2003). *T.S. Eliot, poeta doctus : Tradition und die Konstituierung der klassischen Moderne*. New York: Lang.
- Kluckhohn, C. (1958). The Scientific Study of Values and Contemporary Civilization. *Proceedings of the American Philosophical Society*, 102(5), 469–476.
- Knauff, M. (2007). How Our Brains Reason Logically. *Topoi: An International Review of Philosophy*, 26(1), 19–36.
- Knauff, M., Kassubek, J., Mulack, T., & Greenlee, M. W. (2000). Cortical Activation Evoked by Visual Mental Imagery as Measured by fMRI. *Neuroreport*, 11(18), 3957–3962.

- Knudsen, E. I. (2007). Fundamental Components of Attention. *Annual Review of Neuroscience*, 30, 57–78.
- Knutson, B., Burgdorf, J., & Panksepp, J. (2002). Ultrasonic Vocalizations As Indices of Affective States in Rats. *Psychological Bulletin*, 128(6), 961–977.
- Kochin, M. S. (1999). War, Class, and Justice in Plato's "Republic". *The Review of Metaphysics*, 53(2), 403–423.
- Kosslyn, S. M. (2005). Mental Images and the Brain. *Cognitive Neuropsychology*, 22(3), 333–347.
- Kringelbach, M. L. (2005). The Human Orbitofrontal Cortex: Linking Reward to Hedonic Experience. *Nature Reviews Neuroscience*, 6(9), 691–702.
- Kringelbach, M. L. (2005). The Human Orbitofrontal Cortex: Linking Reward to Hedonic Experience. *Nature Reviews Neuroscience*, 6(9), 691–702.
- Kripke, S. A. (1980). *Naming and Necessity*. Cambridge: Harvard University Press.
- Kuhn, T. S. (1996). *The Structure of Scientific Revolutions* (3rd ed.). Chicago, IL: University of Chicago Press.
- Kutas, M., & Federmeier, K. D. (2000). Electrophysiology Reveals Semantic Memory Use in Language Comprehension. *Trends in Cognitive Sciences*, 4(12), 463–470.
- La Rochefoucauld, F. d. (2007). *Collected Maxims and Other Reflections* (E. H. Blackmore, Trans.). New York: Oxford University Press.
- LaBar, K. S., & Cabeza, R. (2006). Cognitive Neuroscience of Emotional Memory. *Nature Reviews Neuroscience*, 7(1), 54–64.
- Lai, C. S. L., Fisher, S. E., Hurst, J. A., Vargha-Khadem, F., & Monaco, A. P. (2001). A Forkhead-Domain Gene is Mutated in a Severe Speech and Language Disorder. *Nature*, 413(6855), 519–523.
- Lakatos, I. (1968). Criticism and the Methodology of Scientific Research Programmes. *Proceedings of the Aristotelian Society*, 69, 149–186.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books.
- Lamarque, P. (1981). How Can We Fear and Pity Fictions? *Brit J Aesthetics*, 21(4), 291–304.
- Lamarque, P. (2007). Aesthetics and Literature: A Problematic Relation? *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 135(1), 27–40.
- Lamarque, P. (2009). *The Philosophy of Literature*: Blackwell Pub.
- Lampert, L. (1996). *Leo Strauss and Nietzsche*: Chicago: University of Chicago Press, 1996.
- Larsen, J. T., Bernston, G. G., Poehlmann, K. M., Ito, T. A., & Cacioppo, J. T. (2008). The Psychophysiology of Emotion. In M. Lewis, J. M. Haviland-Jones & L. F. Barrett (Eds.), *Handbook of Emotions* (3rd ed., pp. 180–195). New York: Guilford Press.
- Laurence, S., & Margolis, E. (2001). The Poverty of the Stimulus Argument. *The British Journal for the Philosophy of Science*, 52(2), 217–276.
- Laureys, S., Faymonville, M. E., Peigneux, P., Damas, P., Lambermont, B., Del Fiore, G., . . . Maquet, P. (2002). Cortical Processing of Noxious Somatosensory Stimuli in the Persistent Vegetative State. *Neuroimage*, 17(2), 732–741.
- Leavis, F. R., Snow, C. P. T. t. c. a. A. s. l. e., & Yudkin, M. (1962). *Two Cultures? The significance of C. P. Snow ... Being the Richmond Lecture, 1962. With an essay on Sir Charles Snow's Rede Lecture, by Michael Yudkin*: pp. 45. Chatto & Windus: London.
- LeDoux, J. E. (1996). *The Emotional Brain: the Mysterious Underpinnings of Emotional Life*. New York: Simon & Schuster.
- LeDoux, J. E. (2000). Emotion Circuits in the Brain. *Annual Review of Neuroscience*, 23, 155–184.
- LeDoux, J. E. (2012). Rethinking the Emotional Brain. *Neuron*, 73(4), 653–676

- LeDoux, J. E., & Phelps, E. A. (2008). Emotional Networks in the Brain. In M. Lewis, J. M. Haviland-Jones & L. F. Barrett (Eds.), *Handbook of Emotions* (3rd ed., pp. 159–179). New York: Guilford Press.
- Leitch, V. B. (2001). *The Norton Anthology of Theory and Criticism*. New York: Norton.
- Leiter, B. (2004). *The Future for Philosophy*. Oxford: Oxford University Press.
- Lench, H. C., Bench, S. W., & Flores, S. A. (2013). Searching for Evidence, Not a War: Reply to Lindquist, Siegel, Quigley, and Barrett (2013). *Psychological Bulletin*, 139(1), 264–268.
- Lendon, J. E. (1999). The Rhetoric of Combat: Greek Military Theory and Roman Culture in Julius Caesar's Battle Descriptions. *Classical Antiquity*, 18(2), 273–329.
- Lennie, P. (2000). Color Vision. In E. R. Kandel, J. H. Schwartz & T. M. Jessell (Eds.), *Principles of Neural Science* (4th ed., pp. 572–589). New York: McGraw-Hill.
- Lennox, B. R., Park, S. B. G., Medley, I., Morris, P. G., & Jones, P. B. (2000). The Functional Anatomy of Auditory Hallucinations in Schizophrenia. *Psychiatry Research-Neuroimaging*, 100(1), 13–20.
- Leppänen, J. M. (2006). Emotional Information Processing in Mood Disorders: A Review of Behavioral and Neuroimaging Findings. *Current Opinion in Psychiatry*, 19(1), 34–39.
- Levenson, J. M., & Sweatt, J. D. (2005). Epigenetic Mechanisms in Memory Formation. *Nature Reviews Neuroscience*, 6(2), 108–118.
- Leventhal, H., & Scherer, K. (1987). The Relationship of Emotion to Cognition: A Functional Approach to a Semantic Controversy. *Cognition & Emotion*, 1(1), 3–28.
- Levinson, J. (2011). *Music, Art, and Metaphysics: Essays in Philosophical Aesthetics*. Oxford: Oxford University Press.
- Lewis, M., & Haviland-Jones, J. M. (2000). *Handbook of Emotions* (2nd ed.). New York: Guilford Press.
- Leys, R. (2010). How Did Fear Become a Scientific Object and What Kind of Object Is It? *Representations*, 110(1), 66–104.
- Leys, R. (2011). The Turn to Affect: A Critique. *Critical Inquiry*, 37(3), 434–472.
- Livingston, P. (2005). *Art and Intention: A Philosophical Study*. Oxford: Oxford University Press.
- Locke, J. (2008). *An Essay concerning Human Understanding*. Oxford: Oxford University Press.
- Ludlow, P., Nagasawa, Y., & Stoljar, D. (2004). *There's Something about Mary: Essays on Phenomenal Consciousness and Frank Jackson's Knowledge Argument*. Cambridge, Mass.: MIT Press.
- Lumpkin, E. A., & Caterina, M. J. (2007). Mechanisms of Sensory Transduction in the Skin. *Nature*, 445(7130), 858–865.
- Lynch, M. P., & Glasgow, J. M. (2003). The Impossibility of Superdupervenience. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 113(3), 201–221.
- Machery, E. (2005). You Don't Know How You Think: Introspection and Language of Thought. *Br J Philos Sci*, 56(3), 469–485.
- Machery, E. (2006). Two Dogmas of Neo-Empiricism. *Philosophy Compass*, 1(4), 398–412.
- Machery, E. (2007). Concept Empiricism: A Methodological Critique. *Cognition*, 104(1), 19–46.
- MacIntyre, A. C. (1959). Hume on "Is" and "Ought". *The Philosophical Review*, 68(4), 451–468.
- Magee, B. (1983). *The Philosophy of Schopenhauer*. Oxford: Clarendon Press.

- Maguire, E. A., Woollett, K., & Spiers, H. J. (2006). London Taxi Drivers and Bus Drivers: A Structural MRI and Neuropsychological Analysis. *Hippocampus*, *16*(12), 1091–1101.
- Mann, T. (1980). *The Magic Mountain* (H. T. Lowe-Porter, Trans.). New York: Random House, Inc.
- Mar, R. A., & Oatley, K. (2008). The Function of Fiction is the Abstraction and Simulation of Social Experience. *Perspectives on Psychological Science*, *3*(3), 173–192.
- Margolis, J. (1959). The Identity of a Work of Art. *Mind*, *68*(269), 34–50.
- Marinkovic, K., Dhond, R. P., Dale, A. M., Glessner, M., Carr, V., & Halgren, E. (2003). Spatiotemporal Dynamics of Modality Specific and Supramodal Word Processing. *Neuron*, *38*(3), 487–497.
- Martin, A. (2007). The Representation of Object Concepts in the Brain. *Annual Review of Psychology*, *58*(1), 25–45.
- Martin, K. (2004). Mind Time: The Temporal Factor in Consciousness. *Nature*, *429*(6989), 243–244.
- Martin, S., & Shakespeare, W. C. (1988). *Coriolanus: William Shakespeare: Guide*. London: Letts.
- Mather, J. A. (2008). Cephalopod Consciousness: Behavioural Evidence. *Consciousness and Cognition*, *17*(1), 37–48.
- McAlindon, T. (1993). Coriolanus: An Essentialist Tragedy. *The Review of English Studies*, *44*(176), 502–520.
- McCandliss, B. D., Cohen, L., & Dehaene, S. (2003). The Visual Word Form Area: Expertise for Reading in the Fusiform Gyrus. *Trends in Cognitive Sciences*, *7*(7), 293–299.
- McDonnell, M. A. (2005). *Roman Manliness: Virtus and the Roman Republic*. New York: Cambridge University Press, 2005.
- McG, F. (1925). Review: The Philosophy of “As If.”. *Studies: An Irish Quarterly Review*, *14*(54), 327–329.
- McGaugh, J. L. (2000). Memory—a Century of Consolidation. *Science*, *287*(5451), 248–251.
- McGaugh, J. L. (2004). The Amygdala Modulates the Consolidation of Memories of Emotionally Arousing Experiences. *Annual Review of Neuroscience*, *27*, 1–28.
- McGrath, J., Saha, S., Chant, D., & Welham, J. (2008). Schizophrenia: A Concise Overview of Incidence, Prevalence, and Mortality. *Epidemiol Rev*, *30*(1), 67–76.
- McIntyre, C. K., McGaugh, J. L., & Williams, C. L. (2012). Interacting Brain Systems Modulate Memory Consolidation. *Neuroscience & Biobehavioral Reviews*, *36*(7), 1750–1762.
- McLaughlin, B. P., Beckermann, A., & Walter, S. (2009). *The Oxford Handbook of Philosophy of Mind*. New York: Oxford University Press.
- Meaney, M. J., & Szyf, M. (2005). Environmental Programming of Stress Responses through DNA Methylation: Life at the Interface Between a Dynamic Environment and a Fixed Genome. *Dialogues in Clinical Neuroscience*, *7*(2), 103–123.
- Meyer, K., & Damasio, A. (2009). Convergence and Divergence in a Neural Architecture for Recognition and Memory. *Trends in Neurosciences*, *32*(7), 376–382.
- Miall, D. S. (2011). Emotions and the Structuring of Narrative Responses (Vol. 32, pp. 323–348): Duke University Press.
- Miles, G. B. (1989). How Roman are Shakespeare’s “Romans”? *Shakespeare Quarterly*, *40*(3), 257–283.
- Millan, M. J. (1999). The Induction of Pain: An Integrative Review. *Progress in Neurobiology*, *57*(1), 1–164.
- Mitchell, C. J., De Houwer, J., & Lovibond, P. F. (2009). The Propositional Nature of Human Associative Learning. *Behavioral and Brain Sciences*, *32*(02), 183–198.

- Mitchell, S. (1988). Constructive Empiricism and Anti-Realism. *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association, 1988*, 174–180.
- Montague, M. (2007). Against Propositionalism. *Noûs*, 41(3), 503–518.
- Montague, M. (2009). The Content of Perceptual Experience. In B. P. McLaughlin, A. Beckermann & S. Walter (Eds.), *The Oxford Handbook of Philosophy of Mind* (pp. 494–511). New York: Oxford University Press.
- Montague, M. (2009). The Logic, Intentionality, and Phenomenology of Emotion. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 145(2), 171–192.
- Moore, G. E., & Baldwin, T. (1993). *Principia Ethica* (Rev. ed.). Cambridge [England] ; New York, NY, USA: Cambridge University Press.
- Moran, D. (1996). The Inaugural Address: Brentano's Thesis. *Proceedings of the Aristotelian Society, Supplementary Volumes*, 70, 1–27.
- Mormann, T. (1991). Husserl's Philosophy of Science and the Semantic Approach. *Philosophy of Science*, 58(1), 61–83.
- Morreall, J. (1993). Fear Without Belief. *The Journal of Philosophy*, 90(7), 359–366.
- Morris, R. G. M. (2006). Elements of a Neurobiological Theory of Hippocampal Function: The Role of Synaptic Plasticity, Synaptic Tagging and Schemas. *European Journal of Neuroscience*, 23(11), 2829–2846.
- Morrison, J. C. (1970). Husserl and Brentano on Intentionality. *Philosophy and Phenomenological Research*, 31(1), 27–46.
- Moscovitch, M., Nadel, L., Winocur, G., Gilboa, A., & Rosenbaum, R. S. (2006). The Cognitive Neuroscience of Remote Episodic, Semantic, and Spatial Memory. *Current Opinion in Neurobiology*, 16(2), 179–190.
- Motto, A. L., & Clark, J. R. (1981). Maxima Virtus in Seneca's Hercules Furens. *Classical Philology*, 76(2), 101–117.
- Muir, K. (1984). *Troilus and Cressida*. Oxford: Oxford UP.
- Mukarovsky, J. (1979). *Aesthetic Function, Norm and value as Social Facts*: University of Michigan.
- Nader, K., & Hardt, O. (2009). A Single Standard for Memory: The Case for Reconsolidation. *Nature Reviews Neuroscience*, 10(3), 224–234.
- Nagel, T. (1974). What Is It Like to Be a Bat? *The Philosophical Review*, 83(4), 435–450.
- Neill, A. (1993). Fiction and the Emotions. *American Philosophical Quarterly*, 30(1), 1–13.
- Nelson, M. E., & MacIver, M. A. (2006). Sensory Acquisition in Active Sensing Systems. *Journal of Comparative Physiology a-Neuroethology Sensory Neural and Behavioral Physiology*, 192(6), 573–586.
- Newport, D. J., Stowe, Z. N., & Nemeroff, C. B. (2002). Parental depression: Animal models of an adverse life event. *American Journal of Psychiatry*, 159(8), 1265–1283.
- Niedenthal, P. M. (2007). Embodying Emotion. *Science*, 316(5827), 1002–1005.
- Nielsen, T. A., & Stenstrom, P. (2005). What Are the Memory Sources of Dreaming? *Nature*, 437(7063), 1286–1289.
- Nietzsche, F. (1998). *Beyond Good and Evil* (M. Faber, Trans.): Oxford University Press, USA.
- Nietzsche, F. (2006). *The Anti-Christ, Ecce Homo, Twilight of the Idols, and Other Writings* (J. Norman, Trans.). Cambridge: Cambridge University Press.
- Nietzsche, F. W. (1994). *On the Genealogy of Morality*: New York: Cambridge University Press, 1994.
- Nietzsche, F. W. (2001). *The Gay Science: With a Prelude in German Rhymes and an Appendix of Songs* (J. Nauckhoff & A. Del Caro, Trans.). New York: Cambridge University Press.

- Nietzsche, F. W. (2003). *Writings from the Late Notebooks* (K. Sturge, Trans.): New York: Cambridge University Press, c2003.
- Nietzsche, F. W. (2008). *Beyond Good and Evil: Prelude to a Philosophy of the Future* (M. Faber, Trans.). Oxford: Oxford University Press.
- Nietzsche, F. W. (2008). *On the Genealogy of Morals: A Polemic: By Way of Clarification and Supplement to My Last Book Beyond Good and Evil* (D. Smith, Trans.). Oxford: Oxford University Press.
- Nietzsche, F. W., Bittner, R., & Sturge, K. (2003). *Writings from the Late Notebooks*. New York: Cambridge University Press.
- Nietzsche, F. W., Clark, M., & Leiter, B. (1997). *Daybreak: Thoughts on the Prejudices of Morality*. Cambridge, U.K. ; New York: Cambridge University Press.
- Nietzsche, F. W., & Parkes, G. (2005). *Thus Spoke Zarathustra: A Book for Everyone and Nobody*. New York: Oxford University Press.
- Nietzsche, F. W., & Smith, D. (1996). *On the Genealogy of Morals: A Polemic: By Way of Clarification and Supplement to My Last Book, Beyond Good and Evil*. New York: Oxford University Press.
- Noë, A. (2009). *Out of Our Heads: Why You are Not Your Brain, and other Lessons from the Biology of Consciousness*. New York: Hill and Wang, 2009.
- Noë, A. (2011). Art and the Limits of Neuroscience. *New York Times*. Retrieved from Opinionator Online Commentary website:
<http://opinionator.blogs.nytimes.com/2011/12/04/art-and-the-limits-of-neuroscience/>
- Nussbaum, M. (2001). *Upheavals of Thought: The Intelligence of Emotions*. New York: Cambridge University Press.
- Nussbaum, M. (2004). Emotions as Judgments of Value and Importance. In R. C. Solomon (Ed.), *Thinking About Feeling: Contemporary Philosophers on Emotions* (pp. 183–199): Oxford University Press.
- Oatley, K. (1999). Meetings of Minds: Dialogue, Sympathy, and Identification, in Reading Fiction. *Poetics*, 26(5-6), 439–454.
- Oatley, K. (1999). Why Fiction May Be Twice as True as Fact: Fiction as Cognitive and Emotional Simulation. *Review of General Psychology*, 3(2), 101–117.
- Oatley, K. (2006). Simulation of Substance and Shadow: Inner Emotions and Outer Behavior in Shakespeare's Psychology of Character. *College Literature*, 33(1), 15–33.
- Oatley, K. (2008). The Mind's Flight Simulator. *Psychologist*, 21(12), 1030–1031.
- Oatley, K. (2011). *Such Stuff as Dreams: The Psychology of Fiction*. Chichester, West Sussex, U.K.: Wiley-Blackwell.
- Oatley, K., & Djikic, M. (2008). Writing as Thinking. *Review of General Psychology*, 12, 9–27.
- Oatley, K., & Gholamain, M. (1997). Emotions and Identification: Connections Between Readers and Fiction. In M. Hjort & S. Laver (Eds.), *Emotion and the Arts* (pp. 263–281). New York: Oxford University press.
- Oatley, K., & Olson, D. (2010). Cues to the Imagination in Memoir, Science, and Fiction. *Review of General Psychology*, 14(1), 56–64.
- Ochsner, K. N., Bunge, S. A., Gross, J. J., & Gabrieli, J. D. E. (2002). Rethinking Feelings: An fMRI Study of the Cognitive Regulation of Emotion. *Journal of Cognitive Neuroscience*, 14(8), 1215–1229.
- Ochsner, K. N., & Gross, J. J. (2005). The Cognitive Control of Emotion. *Trends in Cognitive Sciences*, 9(5), 242–249.
- Oliver, H. J. (1959). Coriolanus As Tragic Hero. *Shakespeare Quarterly*, 10(1), 53–60.
- Olsson, A., & Phelps, E. A. (2007). Social Learning of Fear. *Nature Neuroscience*, 10(9), 1095–1102.

- Ozturk, O., Shayan, S., Liszkowski, U., & Majid, A. (2013). Language is Not Necessary for Color Categories. *Developmental Science*, *16*(1), 111–115.
- Packard, M. G., & Cahill, L. (2001). Affective Modulation of Multiple Memory Systems. *Current Opinion in Neurobiology*, *11*(6), 752–756.
- Panksepp, J. (1998). *Affective Neuroscience: The Foundations of Human and Animal Emotions*. New York: Oxford University Press.
- Panksepp, J. (2000). Emotions As Natural Kinds within the Brain. In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of Emotions* (2nd ed., pp. 137–155). New York: Guilford Press.
- Panksepp, J. (2005). Affective Consciousness: Core Emotional Feelings in Animals and Humans. *Consciousness and Cognition*, *14*(1), 30–80.
- Panksepp, J. (2006). On the Neuro-Evolutionary Nature of Social Pain, Support, and Empathy. In M. Aydede (Ed.), *Pain: New Essays on Its Nature and the Methodology of Its Study* (pp. 367–387). Cambridge, MA: MIT Press.
- Panksepp, J. (2008). Carving “Natural” Emotions: “Kindly” from Bottom-up but not Top-down. *Journal of Theoretical and Philosophical Psychology*, *28*(2), 395–422.
- Panksepp, J. (2008). The Power of the Word May Reside in the Power of Affect. *Integrative Psychological and Behavioral Science*, *42*(1), 47–55.
- Panksepp, J. (2012). *The Archaeology of Mind: Neuroevolutionary Origins of Human Emotions*. New York: W. W. Norton & Company.
- Panksepp, J. (2012). What is an Emotional Feeling? Lessons about Affective Origins from Cross-Species Neuroscience. *Motivation and Emotion*, *36*(1), 4–15.
- Pannu, J. K., & Kaszniak, A. W. (2005). Metamemory Experiments in Neurological Populations: A Review. *Neuropsychology Review*, *15*(3), 105–130.
- Pascual-Leone, A., Amedi, A., Fregni, F., & Merabet, L. B. (2005). The Plastic Human Brain Cortex. *Annual Review of Neuroscience*, *28*, 377–401.
- Pasternak, T., & Greenlee, M. W. (2005). Working Memory in Primate Sensory Systems. *Nature Reviews Neuroscience*, *6*(2), 97–107.
- Patrick R. Hof, R. C. L. M. (2005). Cortical Complexity in Cetacean Brains. *The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology*, *287A*(1), 1142–1152.
- Paulin, R. (2003). *The Critical Reception of Shakespeare in Germany 1682–1914*. Hildesheim: George Olms.
- Pearl, M. B. (1999). Symptoms of AIDS in Contemporary Film: Mortal Anxiety in an Age of Sexual Panic. In M. Aaron (Ed.), *The Body's Perilous Pleasures: Dangerous Desires and Contemporary Culture* (pp. 210–225): Edinburgh: Edinburgh University Press, c1999.
- Pecher, D., & Zwaan, R. A. (2005). *Grounding Cognition: The Role of Perception and Action in Memory, Language, and Thinking*. New York: Cambridge University Press.
- Peichl, L., Behrmann, G., & Kröger, R. H. H. (2001). For Whales and Seals the Ocean Is Not Blue: a Visual Pigment Loss in Marine Mammals. *European Journal of Neuroscience*, *13*(8), 1520–1528.
- Pessoa, L. (2005). To What Extent are Emotional Visual Stimuli Processed without Attention and Awareness? *Current Opinion in Neurobiology*, *15*(2), 188–196.
- Pessoa, L. (2008). On the Relationship between Emotion and Cognition. *Nature Reviews Neuroscience*, *9*(2), 148–158.

- Pessoa, L., & Adolphs, R. (2010). Emotion Processing and the Amygdala: From a 'Low Road' to 'Many Roads' of Evaluating Biological Significance. *Nat Rev Neurosci*, *11*(11), 773–783.
- Peters, J., & Buchel, C. (2010). Neural Representations of Subjective Reward Value. *Behavioural Brain Research*, *213*(2), 135–141.
- Phelps, E. A. (2004). Human Emotion and Memory: Interactions of the Amygdala and Hippocampal Complex. *Current Opinion in Neurobiology*, *14*(2), 198–202.
- Phelps, E. A. (2006). Emotion and Cognition: Insights from Studies of the Human Amygdala. *Annual Review of Psychology*, *57*, 27–53.
- Phelps, E. A., & LeDoux, J. E. (2005). Contributions of the Amygdala to Emotion Processing: From Animal Models to Human Behavior. *Neuron*, *48*(2), 175–187.
- Phelps, E. A., O'Connor, K. J., Gatenby, J. C., Gore, J. C., Grillon, C., & Davis, M. (2001). Activation of the Left Amygdala to a Cognitive Representation of Fear. *Nature Neuroscience*, *4*(4), 437–441.
- Phelps, E. A., & Sharot, T. (2008). How (and Why) Emotion Enhances the Subjective Sense of Recollection. *Current Directions in Psychological Science*, *17*(2), 147–152.
- Pihlström, S., & Siitonen, A. (2005). The Transcendental Method and (Post-)Empiricist Philosophy of Science. *Journal for General Philosophy of Science / Zeitschrift für allgemeine Wissenschaftstheorie*, *36*(1), 81–106.
- Pinker, S. (2003). *The Blank Slate: The Modern Denial of Human Nature*: London: Penguin, 2003.
- Pinker, S. (2007). *The Stuff of Thought: Language As a Window into Human Nature*. New York: Viking.
- Pitcher, G. (1965). Emotion. *Mind*, *74*(295), 326–346.
- Plato. (1991). *The Republic of Plato* (A. D. Bloom, Trans. 2nd ed.). New York: Basic Books.
- Plato, & Halliwell, S. (1988). *Republic 10*. Warminster: Aris & Phillips.
- Plutarch. (1964). *Shakespeare's Plutarch: The Lives of Julius Caesar, Brutus, Marcus Antonius and Coriolanus in the Translation of Sir Thomas North* (S. T. North, Trans.): Harmondsworth: Penguin, 1964.
- Pocock, A. J. G. (2010). Machiavelli and Rome: the Republic as Ideal and as History. In M. J. Najemy (Ed.), *The Cambridge Companion to Machiavelli*. Cambridge: Cambridge University Press.
- Poldrack, R. A., & Packard, M. G. (2003). Competition Among Multiple Memory Systems: Converging Evidence from Animal and Human Brain Studies. *Neuropsychologia*, *41*(3), 245–251.
- Poole, A. (1988). *Coriolanus*. New York ; London: Harvester Wheatsheaf.
- Popper, K. (1970). Normal Science and its Dangers. In A. Musgrave & I. Lakatos (Eds.), *Criticism and the Growth of Knowledge* (pp. 51–58): Cambridge Eng. University Press, 1970.
- Popper, K. R. (1969). *Conjectures and Refutations: the Growth of Scientific Knowledge* (3rd ed.). London: Routledge & K. Paul.
- Porter, S., & ten Brinke, L. (2008). Reading between the Lies: Identifying Concealed and Falsified Emotions in Universal Facial Expressions. *Psychological Science*, *19*(5), 508–514.
- Posner, M. I., & Raichle, M. E. (1994). *Images of mind*. New York: Scientific American Library.
- Preston, S. D., & de Waal, F. B. M. (2001). Empathy: Its Ultimate and Proximate Bases. *Behavioral and Brain Sciences*, *25*(01), 1–20.
- Prinz, J. J. (2002). *Furnishing the Mind: Concepts and Their Perceptual Basis*. Cambridge, Mass.: MIT Press.

- Prinz, J. J. (2002). Richard Wollheim, On the Emotions. *Ethics*, 113(1), 188–190.
- Prinz, J. J. (2004). Emotions Embodied. In R. C. Solomon (Ed.), *Thinking about Feeling: Contemporary Philosophers on Emotions* (pp. 44–60). New York: Oxford University Press.
- Prinz, J. J. (2004). *Furnishing the Mind: Concepts and Their Perceptual Basis* (Paperback ed.). Cambridge, Mass.: MIT Press.
- Prinz, J. J. (2007). *The Emotional Construction of Morals*. New York: Oxford University Press, 2007.
- Prinz, J. J. (2011). Emotion and Aesthetic Value. In E. Schellekens & P. Goldie (Eds.), *The Aesthetic Mind: Philosophy and Psychology*: Oxford University Press.
- Pulvermüller, F. (2005). Brain Mechanisms Linking Language and Action. *Nat Rev Neurosci*, 6(7), 576–582.
- Purviance, S. M. (2006). Arguing against Cognitive Nativism: Hume vs. Locke. *History of Philosophy Quarterly*, 23(2), 137–150.
- Putnam, H. (1973). Meaning and Reference. *The Journal of Philosophy*, 70(19), 699–711.
- Putnam, H. (1994). Sense, Nonsense, and the Senses: An Inquiry into the Powers of the Human Mind. *The Journal of Philosophy*, 91(9), 445–517.
- Pylyshyn, Z. W. (2000). Situating Vision in the World. *Trends in Cognitive Sciences*, 4(5), 197–207.
- Pylyshyn, Z. W. (2002). Mental Imagery: In Search of a Theory. *Behavioral and Brain Sciences*, 25(2), 157–+.
- Pylyshyn, Z. W. (2003). *Seeing and Visualizing: It's Not What You Think*. Cambridge, Mass.: MIT Press.
- Quine, W. V. (2001). *From a Logical Point of View: Nine Logico-Philosophical Essays* (2nd ed.). New York: Harvard University Press.
- Rabkin, N. (1966). Coriolanus: The Tragedy of Politics. *Shakespeare Quarterly*, 17(3), 195–212.
- Rabkin, N. (1981). *Shakespeare and the Problem of Meaning*. Chicago: University of Chicago Press.
- Rackin, P. (1983). “Coriolanus”: Shakespeare’s Anatomy of “Virtus”. *Modern Language Studies*, 13(2), 68–79.
- Radford, C., & Weston, M. (1975). How Can We Be Moved by the Fate of Anna Karenina? *Proceedings of the Aristotelian Society, Supplementary Volumes*, 49, 67–93.
- Raffaella de, R. (2005). Prinz’s Problematic Proxies. *The Philosophical Quarterly*, 55(221), 594–606.
- Ramazani, R. J. (1989). Yeats: Tragic Joy and the Sublime. *PMLA*, 104(2), 163–177.
- Ramon, M., Mark, W., & Dennis, V. (2008). Musical Hallucinations: Case Reports and Possible Neurobiological Models. *Acta Neuropsychiatrica*, 20(2), 91–95.
- Ranganath, C., & Blumenfeld, R. S. (2005). Doubts about Double Dissociations between Short- and Long-Term Memory. *Trends in Cognitive Sciences*, 9(8), 374–380.
- Rauschecker, J. P., & Scott, S. K. (2009). Maps and Streams in the Auditory Cortex: Nonhuman Primates Illuminate Human Speech Processing. *Nature Neuroscience*, 12(6), 718–724.
- Reber, A. S., & Reber, E. S. (2001). *The Penguin Dictionary of Psychology* (3rd ed.). New York: Penguin Books.
- Redelmeier, D. A., Katz, J., & Kahneman, D. (2003). Memories of Colonoscopy: A Randomized Trial. *Pain*, 104(1–2), 187–194.
- Reichenbach, H. (1948). Rationalism and Empiricism: An Inquiry into the Roots of Philosophical Error. *The Philosophical Review*, 57(4), 330–346.

- Reisenzein, R. (2006). Arnold's Theory of Emotion in Historical Perspective. *Cognition & Emotion*, 20(7), 920–951.
- Rensink, R. A. (2000). The Dynamic Representation of Scenes. *Visual Cognition*, 7(1), 17–42.
- Rensink, R. A. (2002). Change Detection. *Annual Review of Psychology*, 53, 245–277.
- Repos, G., & Baddeley, A. (2006). The Multicomponent Model of Working Memory: Explorations in Experimental Cognitive Psychology. *Neuroscience*, 139(1), 5–21.
- Rey, G. (1998). A Naturalistic A Priori. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 92(1/2), 25–43.
- Richardson, J., & Oxford University Press. (2004). *Nietzsche's New Darwinism* (pp. 0 p.). Retrieved from <http://www.oxfordscholarship.com/oso/public/content/philosophy/9780195171037/toc.html>
- Ridout, N., Astell, A. J., Reid, I. C., Glen, T., & O'Carroll, R. E. (2003). Memory Bias for Emotional Facial Expressions in Major Depression. *Cognition & Emotion*, 17(1), 101–122.
- Riedel, W., & Neeck, G. (2001). Nociception, Pain, and Antinociception: Current Concepts. *Zeitschrift Fur Rheumatologie*, 60(6), 404–415.
- Ripley, J. (1998). *Coriolanus on stage in England and America, 1609-1994*. Madison [N.J.]: Fairleigh Dickinson University Press.
- Robinson, J. (2005). *Deeper than Reason: Emotion and its Role in Literature, Music, and Art*. Oxford: Oxford University Press.
- Rogalsky, C., & Hickok, G. (2011). The Role of Broca's Area in Sentence Comprehension. *Journal of Cognitive Neuroscience*, 23(7), 1664–1680.
- Rolls, E. T. (2005). *Emotion Explained*. Oxford: Oxford University Press.
- Roosendaal, B., & McGaugh, J. L. (2011). Memory Modulation. *Behavioral Neuroscience*, 125(6), 797–824.
- Rorty, R. (1979). *Philosophy and the Mirror of Nature*. Princeton: Princeton University Press.
- Rorty, R. (1999). *Philosophy and Social Hope*. London: Penguin Books.
- Rosch, E. H. (1973). Natural Categories. *Cognitive Psychology*, 4(3), 328–350.
- Rosenstein, N. (1990). War, Failure, and Aristocratic Competition. *Classical Philology*, 85(4), 255–265.
- Rudrauf, D., Lachaux, J. P., Damasio, A., Baillet, S., Hugueville, L., Martinerie, J., . . . Renault, B. (2009). Enter Feelings: Somatosensory Responses Following Early Stages of Visual Induction of Emotion. *International Journal of Psychophysiology*, 72(1), 13–23.
- Ruse, M. (2006). Is Darwinian Metaethics Possible? In G. Boniolo & G. De Anna (Eds.), *Evolutionary Ethics and Contemporary Biology*: New York : Cambridge University Press, 2006.
- Russell, B. (1957). *Mysticism and Logic* (Anchor Books ed.). New York: Doubleday & Co., Inc.
- Russell, D. A. (1963). Plutarch's Life of Coriolanus. *The Journal of Roman Studies*, 53, 21–28.
- Russell, J. A. (2003). Core Affect and the Psychological Construction of Emotion. *Psychological Review*, 110(1), 145–172.
- Sabatini, E., Della Penna, S., Franciotti, R., Ferretti, A., Zoccolotti, P., Rossini, P. M., . . . Gainotti, G. (2009). Brain Structures Activated by Overt and Covert Emotional Visual Stimuli. *Brain Research Bulletin*, 79(5), 258–264.
- Salkever, S. G. (1986). Women, Soldiers, Citizens: Plato & Aristotle on the Politics of Virility. *Polity*, 19(2), 232–253.
- Salter, W. M. (1915). Nietzsche's Moral Aim and Will to Power. *International Journal of Ethics*, 25(3), 372–403.
- Sander, D., Grafman, J., & Zalla, T. (2003). The Human Amygdala: An Evolved System for Relevance Detection. *Reviews in the Neurosciences*, 14(4), 303–316.

- Sanna, L. J. (2000). Mental Simulation, Affect and Personality: A Conceptual Framework. *Current Directions in Psychological Science*, 9(5), 168–173.
- Sapolsky, R. M. (2004). Social Status and Health in Humans and other Animals. *Annual Review of Anthropology*, 33, 393–418.
- Sapolsky, R. M. (2005). The Influence of Social Hierarchy on Primate Health. *Science*, 308(5722), 648–652.
- Sarno, J. E. (2007). *The Divided Mind: The Epidemic of Mindbody Disorders*. New York: Harper Paperbacks.
- Sasaki, Y., Nanez, J. E., & Watanabe, T. (2010). Advances in Visual Perceptual Learning and Plasticity. *Nat Rev Neurosci*, 11(1), 53–60.
- Saussure, F. d. (1998). from Course in General Linguistics. In R. C. Davis, Schleifer, Ronald. (Ed.), *Contemporary Literary Criticism* (4th ed ed., pp. 266–279). New York: Longman, c1994.
- Scarantino, A. (2012). Functional Specialization Does Not Require a One-to-one Mapping Between Brain Regions and Emotions. *Behavioral and Brain Sciences*, 35(3), 161–162.
- Scarantino, A., & Griffiths, P. (2011). Don't Give Up on Basic Emotions. *Emotion Review*, 3(4), 444–454.
- Scarry, E. (1999). *Dreaming by the Book*. New York: Farrar, Straus and Giroux.
- Schacht, R. (2005). "Nietzsche, Friedrich Wilhelm". In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (2nd ed., pp. 1009 p.). Oxford; New York: Oxford University Press.
- Schacter, D. L. (1999). The Seven Sins of Memory: Insights from Psychology and Cognitive Neuroscience. *American Psychologist*, 54(3), 182–203.
- Schacter, D. L., & Addis, D. R. (2007). The Cognitive Neuroscience of Constructive Memory: Remembering the Past and Imagining the Future. *Philosophical Transactions of the Royal Society B-Biological Sciences*, 362(1481), 773–786.
- Schacter, D. L., Addis, D. R., & Buckner, R. L. (2007). Remembering the Past to Imagine the Future: the Prospective Brain. *Nat Rev Neurosci*, 8(9), 657–661.
- Scherer, K. R. (2009). The Dynamic Architecture of Emotion: Evidence for the Component Process Model. *Cognition & Emotion*, 23(7), 1307–1351.
- Schlaggar, B. L., & McCandliss, B. D. (2007). Development of Neural Systems for Reading. *Annual Review of Neuroscience*, 30, 475–503.
- Schmidt, G. L., & Seger, C. A. (2009). Neural Correlates of Metaphor Processing: The Roles of Figurativeness, Familiarity and Difficulty. *Brain and Cognition*, 71(3), 375–386.
- Scott, S. K., McGettigan, C., & Eisner, F. (2009). A Little More Conversation, a Little Less Action—Candidate Roles for the Motor Cortex in Speech Perception. *Nat Rev Neurosci*, 10(4), 295–302.
- Searle, J. R. (1975). The Logical Status of Fictional Discourse. *New Literary History*, 6(2), 319–332.
- Searle, J. R. (1979). What Is an Intentional State? *Mind*, 88(349), 74–92.
- Searle, J. R. (1983). *Intentionality: An Essay in the Philosophy of Mind*. New York: Cambridge University Press.
- Searle, J. R. (1992). *The Rediscovery of the Mind*. Cambridge, Mass.: MIT Press.
- Searle, J. R. (1994). Literary Theory and Its Discontents. *New Literary History*, 25(3), 637–667.
- Searle, J. R. (1995). Intentionality. In S. D. Guttenplan (Ed.), *A Companion to the Philosophy of Mind* (pp. 379–386). Malden, Mass., USA: Blackell Publishers.
- Searle, J. R. (1998). How to Study Consciousness Scientifically. *Philosophical Transactions: Biological Sciences*, 353(1377), 1935–1942.

- Searle, J. R. (1998). *Mind, Language, and Society: Philosophy in the Real World* (1st ed.). New York, NY: Basic Books.
- Searle, J. R. (1999). The Future of Philosophy. *Philosophical Transactions: Biological Sciences*, 354(1392), 2069–2080.
- Searle, J. R. (2002). *Consciousness and Language*. New York: Cambridge University Press.
- Searle, J. R. (2002). Why I Am Not a Property Dualist. *Journal of Consciousness Studies*, 9(12), 57–64.
- Searle, J. R. (2007). Dualism Revisited. *Journal of Physiology-Paris*, 101(4-6), 169–178.
- Searle, J. R. (2008). Language and Social Ontology. *Theory and Society*, 37(5), 443–459.
- Segerstråle, U. C. O. (2000). *Defenders of the Truth: The Battle for Science in the Sociology Debate and Beyond*. Oxford: Oxford University Press.
- Seifert, F., & Maihofner, C. (2009). Central Mechanisms of Experimental and Chronic Neuropathic Pain: Findings from Functional Imaging Studies. *Cellular and Molecular Life Sciences*, 66(3), 375–390.
- Sellars, W. (2000). Empiricism and the Philosophy of Mind. In W. A. DeVries & T. Triplett (Eds.), *Knowledge, Mind, and the Given: Reading Wilfrid Sellars's "Empiricism and the Philosophy of Mind," Including the Complete Text of Sellars's Essay* (pp. xlvi, 288 p.). Indianapolis, IN: Hackett Pub.
- Sergerie, K., Chochol, C., & Armony, J. L. (2008). The Role of the Amygdala in Emotional Processing: A Quantitative Meta-analysis of Functional Neuroimaging Studies. *Neuroscience & Biobehavioral Reviews*, 32(4), 811–830.
- Seymour, B., Singer, T., & Dolan, R. (2007). The Neurobiology of Punishment. *Nat Rev Neurosci*, 8(4), 300–311.
- Shakespeare, W. (2008). *Coriolanus*. New York: Oxford University Press.
- Shakespeare, W. (2008). *Timon of Athens* (3rd ed.): London : Arden Shakespeare, 2008.
- Shakespeare, W. (2010). *Coriolanus*: Cambridge, UK ; New York : Cambridge University Press, 2010.
- Sharpe, R. A. (2000). The Empiricist Theory of Artistic Value. *The Journal of Aesthetics and Art Criticism*, 58(4), 321–332.
- Shedler, J. (2010). The Efficacy of Psychodynamic Psychotherapy. *American Psychologist*, 65(2), 98–109.
- Sherry, D. F. (2006). Neuroecology. *Annual Review of Psychology*, 57, 167–197.
- Shi, Y. S., & Yokoyama, S. (2003). Molecular Analysis of the Evolutionary Significance of Ultraviolet Vision in Vertebrates. *Proceedings of the National Academy of Sciences of the United States of America*, 100(14), 8308–8313.
- Sibley, F. (1965). Aesthetic and Nonaesthetic. *The Philosophical Review*, 74(2), 135–159.
- Sibley, F. (1974). The Inaugural Address: Particularity, Art and Evaluation. *Proceedings of the Aristotelian Society, Supplementary Volumes*, 48, 1–21.
- Sibley, F. (2001). *Approach to Aesthetics: Collected Papers on Philosophical Aesthetics*: Oxford England : Clarendon Press ; New York : Oxford University Press, 2001.
- Simmons, W. K., Ramjee, V., Beauchamp, M. S., McRae, K., Martin, A., & Barsalou, L. W. (2007). A Common Neural Substrate for Perceiving and Knowing about Color. *Neuropsychologia*, 45(12), 2802–2810.
- Simon, M. A. (1969). When is a Resemblance a Family Resemblance? *Mind*, 78(311), 408–416.
- Simons, D. J., & Rensink, R. A. (2005). Change Blindness: Past, Present, and Future. *Trends in Cognitive Sciences*, 9(1), 16–20.
- Small, D. M., Voss, J., Mak, Y. E., Simmons, K. B., Parrish, T., & Gitelman, D. (2004). Experience Dependent Neural Integration of Taste and Smell in the Human Brain. *Journal of Neurophysiology*, 92(3), 1892–1903.

- Smith, B. H. (1979). Fixed Marks and Variable Constancies: A Parable of Literary Value. *Poetics Today*, 1(1/2), 7–22.
- Smith, B. H. (1988). *Contingencies of Value: Alternative Perspectives for Critical Theory*: Cambridge, Mass. : Harvard University Press, 1988.
- Smith, B. H. (2009). *Natural Reflections: Human Cognition at the Nexus of Science and Religion*. New Haven: Yale University Press.
- Smith, B. H., & Amrine, F. (1996). The Hermeneutic Circle. *PMLA*, 111(3), 465–467.
- Smith, J. D. (2009). The Study of Animal Metacognition. *Trends in Cognitive Sciences*, 13(9), 389–396.
- Smith, J. E. (1964). Radical Empiricism. *Proceedings of the Aristotelian Society*, 65, 205–218.
- Smith, P. J. (1998). M.O.A.I. “What Should That Alphabetical Position Portend?” An Answer to the Metamorphic Malvolio. *Renaissance Quarterly*, 51(4), 1199–1224.
- Solms, M. (2004). Freud Returns. *Scientific American*, 290(5), 82–88.
- Solomon, R. C. (1977). The Logic of Emotion. *Noûs*, 11(1), 41–49.
- Solomon, R. C. (1984). Emotions and Choice. In C. Calhoun & R. C. Solomon (Eds.), *What Is an Emotion?: Classic Readings in Philosophical Psychology* (pp. 305–326). New York: Oxford University Press.
- Solomon, R. C. (1995). Some Notes on Emotion, “East and West”. *Philosophy East and West*, 45(2), 171–202.
- Solomon, R. C. (2000). *What Nietzsche Really Said*: New York : Schocken Books, c2000.
- Solomon, R. C. (2002). Nietzsche on Fatalism and “Free Will”. *Journal of Nietzsche Studies*(23), 63–87.
- Solomon, R. C. (2003). *Not Passion’s Slave: Emotions and Choice*. New York: Oxford University Press.
- Solomon, R. C. (2004). *Thinking about Feeling: Contemporary Philosophers on Emotions*. New York: Oxford University Press.
- Solomon, R. C. (2006). Emotions in Continental Philosophy. *Philosophy Compass*, 1(5), 413–431.
- Solomon, R. C. (2008). The Philosophy of Emotions. In M. Lewis, J. M. Haviland-Jones & L. F. Barrett (Eds.), *Handbook of Emotions* (3rd ed., pp. 3–15). New York: Guilford Press.
- Solomon, R. C., & Higgins, K. M. (2000). *What Nietzsche Really Said* (K. M. Higgins, Trans. 1st ed. ed.). New York: New York : Schocken Books, c2000.
- Solomons, J. (2008). Film Weekly on There Will Be Blood and the Baftas. from http://blogs.guardian.co.uk/film/2008/02/film_weekly_tackles_giant_perf.html.printerfriendly
- Soon, C. S., Brass, M., Heinze, H. J., & Haynes, J. D. (2008). Unconscious Determinants of Free Decisions in the Human Brain. *Nature Neuroscience*, 11(5), 543–545.
- Sperber, D., & Wilson, D. (1995). *Relevance: Communication and Cognition* (2nd ed.). Oxford [Oxfordshire]: Blackwell.
- Sperber, D., & Wilson, D. (2005). Pragmatics. In F. Jackson & M. Smith (Eds.), *The Oxford Handbook of Contemporary Philosophy* (pp. 468–502). New York: Oxford University Press.
- Stearns, P. N. (2008). History of Emotions: Issues of Change and Impact. In M. Lewis, J. M. Haviland-Jones & L. F. Barrett (Eds.), *Handbook of Emotions* (3rd ed., pp. xvi, 720 p.). New York: Guilford Press.
- Stecker, R. (2005). *Aesthetics and the Philosophy of Art: An Introduction*: Lanham, Md.: Rowman & Littlefield Publishers, 2005.

- Stecker, R. (2005). Value in Art. In J. Levinson (Ed.), *The Oxford handbook of Aesthetics*: 'Oxford University Press'.
- Stephen, P. (2005). Transcendence. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (2nd ed., pp. 1009 p.). Oxford; New York: Oxford University Press.
- Stolnitz, J. (1961). On the Origins of "Aesthetic Disinterestedness". *The Journal of Aesthetics and Art Criticism*, 20(2), 131–143.
- Stone, T., & Davies, M. (1995). *Mental Simulation: Evaluations and Applications*. Oxford, UK ; Cambridge, Mass., USA: Blackwell.
- Storbeck, J., & Clore, G. L. (2007). On the Interdependence of Cognition and Emotion. *Cognition & Emotion*, 21(6), 1212–1237.
- Strain, W. M., Snow, C. P. T. t. c., the scientific, r., & Leavis, F. R. T. c. T. s. o. C. P. S. *Writers and Readers: Some Observations on an Aspect of the Snow-Leavis Controversy and their Possible Significance for the Public Library Service*. (Thesis (MA) _ University of Strathclyde, 1973.).
- Svoboda, E., McKinnon, M. C., & Levine, B. (2006). The Functional Neuroanatomy of Autobiographical Memory: A Meta-Analysis. *Neuropsychologia*, 44(12), 2189–2208.
- Szolesanyi, J. (2004). Forty Years in Capsaicin Research for Sensory Pharmacology and Physiology. *Neuropeptides*, 38(6), 377–384.
- Talarico, J. M., LaBar, K. S., & Rubin, D. C. (2004). Emotional Intensity Predicts Autobiographical Memory Experience. *Memory & Cognition*, 32(7), 1118–1132.
- Tallis, R. (1989). A Cure for Theorrhea. *Critical Review: A Journal of Politics and Society*, 3(1), 7–39.
- Tallis, R. (1995). *Not Saussure: A Critique of Post-Saussurean Literary Theory* (2nd ed.). Basingstoke: Macmillan.
- Tallis, R. (2004). *Why the Mind is Not a Computer: A Pocket Lexicon of Neuromythology*. Exeter, UK ; Charlottesville, VA :: Exeter, UK ; Charlottesville, VA : Imprint Academic, 2004.
- Tamietto, M., & de Gelder, B. (2010). Neural Bases of the Non-conscious Perception of Emotional Signals. *Nat Rev Neurosci*, 11(10), 697–709.
- Tasker, J. W. o. F. R. L., Leavis, F. R. D. c. E. d. C. V. D., & Snow, C. P. T. t. c. a. A. s. l. e. (1972). *The Richmond Lecture, its purpose and achievement*: Swansea: Brynmill Publishing Co.
- Taylor, M. (2001). *Shakespeare Criticism in the Twentieth Century*: Oxford ; New York : Oxford University Press, 2001.
- Thau, M. (2004). What Is Disjunctivism? *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 120(1/3), 193–253.
- Thewissen, J. G. M., Williams, E. M., Roe, L. J., & Hussain, S. T. (2001). Skeletons of Terrestrial Cetaceans and the Relationship of Whales to Artiodactyls. *Nature*, 413(6853), 277–281.
- Thompson, E. (2008). Representationalism and the Phenomenology of Mental Imagery. *Synthese*, 160(3), 397–415.
- Tolman, A. H. (1914). Is Shakespeare Aristocratic? *PMLA*, 29(3), 277–298.
- Tolstoy, L. (2000). *What is Art?* (A. Maude, Trans.). London: Replica Books.
- Tooby, J., & Cosmides, L. (2008). The Evolutionary Psychology of the Emotions and Their Relationship to Internal Regulatory Variables. In M. Lewis, J. M. Haviland-Jones & L. F. Barrett (Eds.), *Handbook of Emotions* (3rd ed., pp. 114–137). New York: The Guilford Press.
- Tracey, I., & Mantyh, P. W. (2007). The Cerebral Signature for Pain Perception and Its Modulation. *Neuron*, 55(3), 377–391.
- Tupper, F., Jr. (1912). The Shakspearean Mob. *PMLA*, 27(4), 486–523.

- Tye, M. (1995). "Belief" *A Companion to the Philosophy of Mind* (pp. 140–146). Malden, Mass., USA: Blackell Publishers.
- Ulrici, H. (2004). Rottenness of Popular Rule; The Pure Embodiment of the Aristocratic Principle. In D. George (Ed.), *Coriolanus* (pp. 120–122; 187–191). New York: Thoemmes Continuum.
- Vaish, A., Grossmann, T., & Woodward, A. (2008). Not All Emotions are Created Equal: The Negativity Bias in Social-Emotional Development. *Psychological Bulletin*, 134(3), 383–403.
- van Peer, W. (1996). Canon Formation: Ideology or Aesthetic Quality? *The British Journal of Aesthetics*, 36(2), 97–108.
- Vargha-Khadem, F., Gadian, D. G., Copp, A., & Mishkin, M. (2005). FOXP2 and the Neuroanatomy of Speech and Language. *Nature Reviews Neuroscience*, 6(2), 131–138.
- Vendler, Z. (1972). *Res Cogitans: an Essay in Rational Psychology*. London: Cornell University Press.
- Vermeule, B. (2009). *Why Do We Care about Literary Characters?* US: Johns Hopkins University Press.
- Vickers, B. (1976). *Shakespeare: Coriolanus*. London: E Arnold.
- Vogt, B. A. (2005). Pain and Emotion Interactions in Subregions of the Cingulate Gyrus. *Nature Reviews Neuroscience*, 6(7), 533–544.
- von Mettenheim, C. (1999). The Problem of Objectivity in Law and Ethics. In I. C. Jarvie, S. Pralong & I. ebrary (Eds.), *Popper's Open Society After Fifty Years: The Continuing Relevance of Karl Popper* (pp. 111–127): London ; New York : Routledge, 1999.
- Vuilleumier, P. (2005). How Brains Beware: Neural Mechanisms of Emotional Attention. *Trends in Cognitive Sciences*, 9(12), 585–594.
- Vuilleumier, P., & Huang, Y. M. (2009). Emotional Attention: Uncovering the Mechanisms of Affective Biases in Perception. *Current Directions in Psychological Science*, 18(3), 148–152.
- Waith, E. M. (1962). *The Herculean Hero in Marlowe, Chapman, Shakespeare and Dryden*: London : Chatto & Windus, 1962.
- Walton, K. (1997). Spelunking, Simulation, and Slime. In M. Hjort & S. Laver (Eds.), *Emotion and the Arts* (pp. 37–49). New York: Oxford University Press.
- Walton, K. L. (1970). Categories of Art. *The Philosophical Review*, 79(3), 334–367.
- Walton, K. L. (1990). *Mimesis As Make-Believe: On the Foundations of the Representational Arts*: Harvard University Press.
- Walton, K. L. (2008). *Marvelous Images: On Values and the Arts*. Oxford ; New York: Oxford University Press.
- Wang, F., Zhu, J., Zhu, H., Zhang, Q., Lin, Z. M., & Hu, H. L. (2011). Bidirectional Control of Social Hierarchy by Synaptic Efficacy in Medial Prefrontal Cortex. *Science*, 334(6056), 693–697.
- Wang, H., & Woolf, C. J. (2005). Pain TRPs. *Neuron*, 46(1), 9–12.
- Weaver, I. C. G., Cervoni, N., Champagne, F. A., D'Alessio, A. C., Sharma, S., Seckl, Jr., . . . Meaney, M. J. (2004). Epigenetic Programming by Maternal Behavior. *Nature Neuroscience*, 7(8), 847–854.
- Weiner, J. (1995). Realism bei Frege: Reply to Burge. *Synthese*, 102(3), 363–382.
- Weiskopf, D. A. (2008). The Origins of Concepts. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 140(3), 359–384.
- Weiskopf, D. A. (2009). The Plurality of Concepts. *Synthese*, 169(1), 145–173.

- Wells, R. H. (2000). 'Manhood and Chevalrie' Coriolanus, Prince Henry, and the Chivalric Revival. *The Review of English Studies*, 51(203), 395–422.
- Wells, R. H. (2005). *Shakespeare's Humanism*. Cambridge: Cambridge University Press.
- Whyte, M. (2008). The Uses and Abuses of Nietzsche in the Third Reich: Alfred Baeumler's 'Heroic Realism'. *Journal of Contemporary History*, 43(2), 171–194.
- Williams, G., & Shakespeare, W. C. (1987). *Coriolanus by William Shakespeare*. Basingstoke: Macmillan Education.
- Williamson, C. (2005). Proposition. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (2nd ed., pp. 1009 p.). Oxford; New York: Oxford University Press.
- Williamson, T. (2004). Past the Linguistic Turn? In B. Leiter (Ed.), *The Future for Philosophy* (pp. 106-128). Oxford: Clarendon Press.
- Wilson-Mendenhall, C. D., Barrett, L. F., Simmons, W. K., & Barsalou, L. W. (2011). Grounding Emotion in Situated Conceptualization. *Neuropsychologia*, 49(5), 1105–1127.
- Wimsatt, J., W. K., & Beardsley, M. C. (1949). The Affective Fallacy. *The Sewanee Review*, 57(1), 31–55.
- Wimsatt, W. K. (1958). *The Verbal Icon: Studies in the Meaning of Poetry*. New York: Noonday Press.
- Wimsatt, W. K., Jr, & Beardsley, M. C. (1946). The Intentional Fallacy. *The Sewanee Review*, 54(3), 468–488.
- Wimsatt, W. K., Jr, & Beardsley, M. C. (1949). The Affective Fallacy. *The Sewanee Review*, 57(1), 31–55.
- Wittgenstein, L. (1960). *Preliminary Studies for the 'Philosophical investigations', Generally Known as the Blue and Brown books* (2nd ed.). New York: Harper Torchbooks.
- Wittgenstein, L. (1997). *Philosophical Investigations: The German Text, with a Revised English Translation* (G. E. M. Anscombe, Trans. 2nd ed.). Malden, Mass.: Blackwell.
- Wollheim, R. (1980). *Art and its Objects: With Six Supplementary Essays* (2nd ed.). New York: Cambridge University Press.
- Wolff, P., & Holmes, K. J. (2011). Linguistic Relativity. *Wiley Interdisciplinary Reviews-Cognitive Science*, 2(3), 253–265.
- Wollheim, R. (1984). *The Thread of Life*: Harvard University Press.
- Wollheim, R. (1991). The Cabinet of Dr. Lacan. *Topoi*, 10(2), 163–174.
- Wollheim, R. (1998). On Pictorial Representation. *The Journal of Aesthetics and Art Criticism*, 56(3), 217–226.
- Wollheim, R. (1999). *On the Emotions*. Glasgow: Bell & Bain Ltd.
- Wright, K. (2004). The Master's Mistakes. *Discover*, 25(9), 50–53.
- Yeh, W. C., & Barsalou, L. W. (2006). The Situated Nature of Concepts. *American Journal of Psychology*, 119(3), 349–384.
- Zajonc, R. B. (1984). On the Primacy of Affect. *American Psychologist*, 39(2), 117–123.
- Zamboni, G., Gozzi, M., Krueger, F., Duhamel, J. R., Sirigu, A., & Grafman, J. (2009). Individualism, Conservatism, and Radicalism As Criteria for Processing Political Beliefs: A Parametric fMRI Study. *Social Neuroscience*, 4(5), 367–383.
- Zeki, S. (1993). *A Vision of the Brain*. Oxford Blackwell Scientific Publications.
- Zinck, A., & Newen, A. (2008). Classifying Emotion: A Developmental Account. *Synthese*, 161(1), 1–25.
- Zunshine, L. (2002). Rhetoric, Cognition, and Ideology in A. L. Barbauld's "Hymns in Prose for Children" (1781). *Poetics Today*, 23(1), 123–139.
- Zwaan, R. A., & Madden, C. J. (2005). Embodied Sentence Comprehension. In D. Pecher & R. A. Zwaan (Eds.), *Grounding Cognition: The Role of Perception and Action in Memory, Language, and Thinking* (pp. 224–245). New York: Cambridge University Press.

Zwaan, R. A., & Radvansky, G. A. (1998). Situation Models in Language Comprehension and Memory. *Psychological Bulletin*, *123*(2), 162–185.