

ABSTRACT

Title of Dissertation: THE NEURONOVEL: AMERICAN FICTION IN THE AGE OF THE BRAIN

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The last few decades have witnessed the growth of the “neuro-industry,” as neuroscientific discourse has thoroughly saturated public and academic culture. While many have eagerly embraced the latest findings about the brain, however, contemporary novelists have resisted the imperial march of neuroscience. My dissertation explores the varieties of novelists’ concerns. I argue that some fiction writers, such as Octavia Butler and Monique Truong, challenge neuroscience’s fundamental positivism—its claim that complex psychological processes can be objectively observed. Others, like Richard Powers, take issue with neuroscience’s over-simplification of narrative terms (i.e. “the brain is the ultimate storytelling machine”). Whereas many neuroscientists and cognitive philosophers describe narrative as a defense mechanism, which upholds the integrity of the self-image, Powers sees narrative as a bridge to more ethical engagement. From his perspective, narrative is *not* always self-serving; neither is it always a defect, a matter of bad faith. On the contrary, narrative is a means to make the world strange again.

My dissertation offers an important counterpoint to the rapidly-growing discipline of Cognitive Literary Studies (CLS). CLS primarily imports concepts from cognitive

science to enrich literary studies; for instance, it draws on scientific understandings of the mirror-neuron system to explain the cognitive processes at work during reading.

However, by illuminating how contemporary fiction complicates scientific claims, my dissertation reveals ways in which fiction and literary studies can, in turn, inform cognitive science.

THE NEURONOVEL: AMERICAN FICTION IN THE AGE OF THE BRAIN

by

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Introduction

The television station PBS recently aired *The Brain With David Eagleman*, a six-hour broadcast in which a renowned neuroscientist explores the fundamental questions of human existence. The series, which has been compared to Carl Sagan's *Cosmos*, responds to contemporary culture's increasing appetite for neuroscience. Dr. David Eagleman uses neuroscientific findings to answer existential questions about who we (humans) are and how we behave. For instance, Eagleman asks: "What is reality? Who are 'you'? How do you make decisions? Why does your brain need other people? Is technology poised to change what it means to be human?" Shortly after the series aired, Eagleman published a book, *The Brain: The Story of You* (2015), as a companion to the television program. The book, like the series, explores "what it means to be a biological creature" (1). Such an approach is hardly unique, given the recent explosion of the life sciences and the popularity of research programs like the Human Genome Project.¹ Neither is his interest in delineating the human subject new, since "human nature" has been at the center of scientific and philosophical discourse for much of the twentieth century, as various critics have observed.² Nonetheless, Eagleman's attitudes about neuroscience and its cultural relevance are worthy of scrutiny, since they reveal one of the core misunderstandings between scientists and "intellectuals" today.³

¹ The Human Genome Project was launched in 1990 and completed in 2003. It was an international scientific research endeavor to determine the sequence of chemical base pairs that comprise human DNA and to identify and map all the genes of human genome.

² See, for instance, Mark Greif's *The Age of the Crisis of Man*, which explores how the discourse of the crisis of the human subject has shaped art and intellectual life since before World War II.

³ I use the term "intellectuals" to refer to scholars outside the physical sciences. The term comes from C. P. Snow's famous "Two Cultures" lecture, which identified a split in the intellectual life of western society, with "literary intellectuals" at one pole and "physical scientists" at the other. The "gulf of

Problematically, Eagleman takes for granted that opponents resist neuroscience and its materialist frame of reference in a desperate attempt to protect the image of the human species. This is apparent in the way that he attempts to protect human integrity, while simultaneously reducing persons to neurons.

Eagleman begins the book by expressing the materialist notion of self that prevails in neuroscience: “Our thoughts and dreams, our memories and experiences all arise from this strange neural material. Who we are is found within its intricate firing patterns of electrochemical pulses” (5). By now, the public is used to such reductivist claims, having heard from popular scientists already that “you are your brain” (Francis Crick) and “you are your synapses” (Joseph LeDoux). Like the neuroscientists before him, Eagleman questions human agency, discounting the role of intention and free will. He claims, “Your actions, your beliefs and your biases are all driven by networks in your brain to which you have no conscious control” (70). Further, he, too, assumes that being (personhood) can be explained by analyzing the complex processes of the neural substrate. In fact, for Eagleman, being *is* neural activity. For instance, he claims that the self is only present when awake: “During the day, the conscious you emerges from integrated neural complexity. At night, when the interactions of your neurons change just a bit, you disappear. Your loved ones have to wait until the next morning, when your neurons . . . [resume] their complex rhythm. Only then do you return” (31). Curiously, however, at the same time that he denies agency, Eagleman insists on the singularity of each individual by virtue of the plastic brain. The neuroscientist eagerly relates the latest developments in neuroscience, which find that the human brain is born “unfinished,”

incomprehension” that Snow identified between the two still persists today, and, in fact, has in many respects widened, as I demonstrate.

adapting to personal experience and environment. Plasticity guarantees singularity.

Eagleman explains: “Each of us is on our own trajectory—steered by our genes and our experiences—and as a result every brain has a different internal life. Brains are as unique as snowflakes.” In other words, “you don’t have agency, but you are still special.”

To be clear, I do not challenge the seeming contradiction of this statement. (In fact, I think it resembles the cognitive philosophy of many of the authors whose work I will discuss.) Rather, I point to this passage because it suggests how Eagleman presupposes that skeptics of neuroscience sense a crisis of the human subject. This presumption becomes more clear in an interview about the series, in which Eagleman explains that science has a way of taking humans down a notch: “Indeed, falling from a privileged position at the center of things has been the trajectory of science” (“Q&A With David Eagleman”). Eagleman refers to the crisis of the human prompted by Galileo’s revelation that the Earth was not the center of the universe and by Darwin’s revelation that humans share a common ancestor with monkeys. Modern neuroscience presents a similar crisis, he argues, since it reveals that “we’re no longer at the center of ourselves . . . the conscious part of [oneself] simply doesn’t have access to the vast, sophisticated machinery running in one’s brain” (“Q&A With David Eagleman”). Here, Eagleman overlooks that modern neuroscience was not, in fact, the first to question man’s sovereignty over himself, but that is beside the point.⁴ Eagleman expresses a very common opinion among neuroscientists and cognitive philosophers, which is that skeptics simply cannot tolerate the ontological threat that neuroscience poses. The title of cognitive philosopher Patricia Churchland’s popular book—*Touching a Nerve: Our*

⁴ For instance, Freud claimed in 1917 that “the ego is not master in its own house” (*A Difficulty in the Path of Psycho-Analysis*).

Brains, Our Selves—conveys the same assumption. Likewise, Thomas Metzinger begins his book, *The Ego Tunnel: The Science of the Mind and the Myth of the Self*, by commenting on the “great fear of reductionism” (18) that pervades the humanities and the general public. Metzinger is not as delicate as Eagleman; in fact, he seems to delight in announcing on the first page that “there is no such thing as a *self*” (1).⁵ These cognitive philosophers are right to recognize that neuroscience threatens traditional notions of human agency, since it reduces selfhood to brainhood. However, they fail to realize that this is not the only reason that many skeptics resist the imperial march of neuroscience. For some, the problem with neuroscience is its fundamental positivism—its claim that complex psychological processes can be objectively observed. For others, the problem with neuroscience is its over-simplification of narrative terms. For novelists and literary scholars, for instance, the neuroscientific claim that “consciousness is fiction” merely begs the question. What is fiction, after all?

The purpose of this dissertation is to explore how contemporary fiction has intervened in current debates about the brain. Fiction is a rich source of study because fiction-writers have responded to a wide range of neuroscientific notions using a wide range of formal techniques. The novel is, after all, a “cognitive experiment”—it “engages, teases, and pushes to its tentative limits our mind-reading capacity” (Zunshine 4). Since novels can enact certain cognitive mechanisms, they are capable of challenging neuroscientific theories of mind in ways that other expository writing cannot.

⁵ Catherine Malabou criticizes Metzinger’s notion of the illusory self by pointing out that subjectivity cannot be “nonsubstantial and plastic at the same time.” Discussing Metzinger’s book, *Being No One*, Malabou writes, “We may be no one, but this impersonality is plastic, which means that this absence of subjectivity is paradoxically malleable, fashionable, so that each of us is no one in his or her own way” (“‘You Are (Not) Your Synapses’: Toward a Critical Neuroscience” 28). See also Slavoj Žižek’s critique of Metzinger in *The Parallax View*.

Furthermore, contemporary fiction has developed contemporaneously with neuroscience, and it shares certain philosophical concerns. Both postmodern fiction and neuroscience have grown out the psychedelic drug culture of the 1960s, and both emphasize confabulation and a decentered self.⁶ Thus, even while contemporary novelists may seem to resist neuroscientific discourse, the literary tradition in which they write is already intertwined with the brain sciences. Most importantly, I analyze fiction's response to neuroscience to demonstrate how the insights of novelists and literary scholars enrich neuroscientific concepts, particularly those that draw on narrative concepts. So, I show how cognitive science and literary studies can become more synergistic, rather than unilateral, with literary studies importing concepts from cognitive science.

I argue that contemporary fiction responds to neuroscientific discourse by affirming the importance of questions about human nature and consciousness; however, contrary to neuroscience, fiction abandons the hope for conclusive answers. I also argue that fiction is uniquely qualified to intervene in philosophical debates—for instance, about the nature of consciousness—because it is capable of reflecting a “robust reality” (*The View From Nowhere*) that is free of any specific form of human understanding. Fiction allows for subjective points of view, but it also aids objectivity. It allows us to step outside of ourselves and detach from familiar frames of reference. Fiction reminds us that there are “other minds” out there; and, as Thomas Nagel argues, the very notion of “other minds” helps us to conceive of ourselves as something more general, placing us in a “centerless” world (*The View From Nowhere* 19). By suggesting that reality is irreducible to any single element, fiction posits what David Chalmers calls “an innocent

⁶ See Stephen J. Burn's analysis of the co-development of neuroscience and postmodernism in a special issue of *Modern Fiction Studies*.

dualism”—a dualism that is wholly consistent with a scientific approach. This concept is crucial to understanding how contemporary works of fiction address the brain.

Chalmers is a cognitive philosopher who questions the utility of traditional scientific methods to explain the problem of consciousness. In a very influential essay in the *Journal of Consciousness Studies*, Chalmers argues that reductivism—which has succeeded in many other scientific domains—simply will not suffice to explain the “hard problem” of consciousness. “To explain experience, we need a new approach,” Chalmers argues. The explanatory methods of cognitive science and neuroscience do a good job of characterizing the *structure* and *function* of conscious experience, but they can not answer how or why conscious experience arises in the first place. We need “an extra ingredient”, according to Chalmers, and “there is no shortage of extra ingredients to be had.” Cognitive philosophers are frantically turning to chaos theory, nonlinear dynamics, nonalgorithmic processes, neurophysiology, and quantum mechanics to clarify the question of phenomenal experience. It is not difficult to understand why all of these “extra ingredients” are being proposed, according to Chalmers: “None of the old methods work, so the solution must lie with *something* new.” But problematically, these new methods suffer from the same problems as the old. Chalmers proposes that a theory of consciousness should take experience as fundamental. That is, a theory of consciousness should recognize experience as a basic feature of the world, alongside mass, charge, and space-time. Such a theory of consciousness is dualistic, to be sure, but it is “*an innocent version of dualism*, entirely compatible with the scientific view of the world” (20, emphasis mine). Chalmers elaborates on the elements a true theory of consciousness, noting that it will appeal to “nonempirical constraints such as simplicity, homogeneity,

and the like” and that it will more closely resemble a theory in physics than a theory in biology. Then Chalmers says something very curious: a theory of consciousness “will always retain an element of speculation that is not present in other scientific theories” (21), since intersubjective observation is impossible. Isn’t this what narrative does best—speculate? Perhaps certain philosophical problems call for fiction.

But Chalmers is not willing to concede science’s defeat. He takes care to distinguish himself from skeptics like Colin McGinn, who doubt that conscious experience will ever be explained by our limited minds, and from skeptics who argue that conscious experience exceeds the domain of scientific theory altogether. In other words, he still believes in the power of science to explain consciousness, just not with its current methodologies. If anything comes close to the “innocent dualism” or non-reductive science that Chalmers envisions, it is fiction. And this is precisely what each of the works in this dissertation suggests.

What is it, exactly, about fiction that is so advantageous? It is capable of inspiring ideas without prescribing content. As critics like Mark Greif emphasize, fiction pursues universal truths, just like science and philosophy; yet, it corrodes abstractions. It does so by exploring how “high philosophical obligations”—for instance, essentialist claims about human nature—enter into ordinary (“vernacular”) expression (319). By attending to the relationship between ideas and experience, fiction reveals that the division between objectivity and subjectivity (“universalism and difference”), which has divided political, moral, and intellectual life, is simply faulty. Greif references the famous debate between Noam Chomsky and Michel Foucault as emblematic of this division. Chomsky and his notion of “universal grammar” take the side of law and humanitarianism, while Foucault

takes the side of critique and the struggle for power. Both of these camps are “equally well intentioned” but limited, according to Greif. Problematically, they each insist that we must choose between “human rights or political liberation, law or critique, normativity or the struggle for power and representation” (316). In fact, we need not choose between the two poles, according to Greif. Neuro-fiction exemplifies Greif’s insight by combining divergent models of truth. It does not necessarily resist the anti-humanism of neuroscience—the reduction of subjects (persons) to objects (neurons)—as cognitive philosophers presume. Rather, neuro-fiction reveals the problem of distinguishing between subjects and objects in the first place. And it is precisely by revealing this problem that neuro-fiction most meaningfully contributes to current debates about the brain.

Literature After the Decade of the Brain

The last few decades have marked significant developments in the field of neuroscience. In the 1990s, which became known as the “Decade of the Brain,” increased funding for brain research led to new technologies and improved brain imaging devices, which have radically transformed the way that we think about human subjectivity. For instance, in 1990, a group of scientists developed the technology of fMRI (functional magnetic resonance imaging), which maps the functions of the brain. (Ordinary MRI simply maps the anatomical structure of the brain.) Technology like the fMRI has emboldened those cognitive scientists who want to empirically approach the study of the mind. Many philosophers of mind, including Eagleman, Churchill, and Metzinger, readily proclaim that neuroscience is posed to answer age-old philosophical problems,

such as the problem of consciousness. Perhaps this optimism prevails precisely because, in our modern day, the physical sciences have largely succeeded in explaining phenomena and processes previously thought to be outside their scope.⁷

It does not surprise that novelists have become increasingly interested in the developments in neuroscience and cognitive philosophy. However, literary critics who discuss the intersection of fiction and the sciences of mind have tended to focus either on the integration of neuroscientific concepts into fiction (evidenced by the rapidly growing genre of the “neuronovel”) or on cognitive-based approaches to the study of literature (represented by the burgeoning field of Cognitive Literary Studies).⁸ Few literary critics have focused on the novelists’ skepticism towards neuroscience and cognitive philosophy. Further, those that do address novelists’ skepticism have tended to stress novelists’ resistance to the materialist frame of reference that prevail in the discipline. Perhaps this partly explains why scientists and cognitive philosophers continue to misunderstand their critics.

In a widely-cited 2009 essay in the online pages of *n+1*, Marco Roth coined the term “neuronovel” to describe an emerging genre of fiction, which features characters with neurological disorders and incorporates the language of neuroscience. Roth laments this development, which he interprets as evidence that contemporary novelists have surrendered their domain (consciousness) to science. Roth bemoans the fact that neuronovelists like Ian McEwan, Jonathan Lethem, and Richard Powers incorporate so

⁷ For instance, Sir Isaac Newton has demonstrated that celestial and terrestrial phenomena are subject to the same gravitational and mechanical laws as earthly phenomena; and contemporary scientists have explained complex biological processes in terms of DNA, RNA, and molecular chemistry. No doubt, these huge successes have led many scientists to insist that consciousness and all its properties will eventually be reductively explained (Shear 5).

⁸ Cognitive literary critics, such as Alan Richardson, Lisa Zunshine, and Mary Crane, draw on recent scientific discoveries, such as the mirror neuron system, to explore the cognitive processes active during reading, like those that facilitate empathy.

much nonfictional information in their stories. The neuronovelist, Roth laments, openly acknowledges the “capacity of science to explain [the novelist] better than he can explain himself.” Gesa Stedman echoes Roth’s sentiments, complaining that contemporary neuronovels simply re-articulate the findings of brain research (123). Both of these critics grossly over-simplify novelists’ engagement with neuroscience.

Recently, *Modern Fiction Studies* published a special issue entitled *Neuroscience and Modern Fiction*, in which several critics more carefully examine the relationship between neuroscience and contemporary fiction. For instance, the guest editor of the special issue challenges Roth’s “shallow chronology,” pointing out that the neuronovel pre-dates Ian McEwan, whom Roth credits for launching the genre. To demonstrate that modern fiction has long been engaged with the brain sciences, Stephen J. Burn identifies the neuroscientific concepts that underwrite Don DeLillo’s 1976 novel, *Ratner’s Star*. Burn explains how the novel’s form models the left and right hemispheres of the brain, as discussed by Gerald Jonas in his 1974 *New Yorker* article, “Into the Brain.”⁹ Burn’s reading of this early work in DeLillo’s career is meant to caution critics not to rely on superficial markers like plot to identify works of neurofiction, since this may lead them to overlook (as Roth has) the many novelists who have engaged with neuroscientific discourse well before the twenty-first century. Burn is keen to stress that “neurorhetoric” has shaped literature in ways that are not always readily apparent, as DeLillo’s novel demonstrates.

Jason Tougaw also challenges Roth’s analysis. He argues that contemporary novelists engage in a far more complex dialogue with neuroscience than the one that Roth

⁹ This article, which DeLillo’s manuscript notes reference, summarizes the split-brain research conducted by Roger Sperry and Michael Gazzaniga in the 1960s.

caricatures.¹⁰ From his perspective, neuronovels provoke debates about determinism and reductionism and challenge the easy cause-and-effect relationships between biology and experience that neuroscience proffers (339-41). My dissertation builds on Tougaw's insights, analyzing novelists' varied objections to neuroscience. However, I emphasize the fact that contemporary novelists are not simply trying to restore the Cartesian subject, as cognitive philosophers so often assume. For instance, I explain how one *can*, in fact, oppose neuroscientific claims without maintaining the integrity of the non-physical subject, contrary to the claims of leading cognitive philosophers. Further, I argue that fiction needs to be taken more seriously for the insights that it offers to current debates. Neuroscience and cognitive philosophy import a lot of narrative concepts into debates about the brain; surely, novelists and literary critics have something to add to these discussions.

Outline of Chapters

Each of the following chapters explores how a literary text problematizes neuroscientific concepts, whether at a thematic or formal level. Often, I position literary texts alongside the popular science writings that influenced them in order to more clearly illuminate how contemporary novelists contribute to scientific debates. For instance, in the first chapter, I examine the influence of Oliver Sacks' neurological tales in *The Man Who Mistook His Wife for a Hat* (1985) on Octavia Butler's science fiction novel, *Parable of the Sower* (1993). I argue that Butler is especially drawn to Sacks' notion of

¹⁰ Tougaw also takes Roth to task for reducing all of neuroscience to a "singular philosophical point of view or mode of practice." Neuroscience is not, as Roth assumes, "a monolithic practice dominated by a reductionist and determinist materialism," as other critics have already noted (338).

neurological excess or “physiology gone wild”¹¹ because it challenges the classical (computational) model of mind that dominates neurology. The problem with the classical model, for Sacks and Butler alike, is that it fails to account for intuition, feeling, and relational judgment. In his collection, Sacks discusses how the boundaries of the self are fluid and how neurology is social as much as numerical. Butler does Sacks one better. Her story is about a girl with hyperempathy (the ability to share the pain and pleasure of others). Within this plot, Butler presents the undoing of the Cartesian subject *and* the body politic. For her, the brain’s extendedness implies the possibility to alter the environment and, in turn, transform the species. Her narrative demonstrates how it is possible to restore agency to the human species without resorting to the kind of humanism that cognitive philosophers are so eager to pin on their opponents.

In Chapter Two, I claim that fiction radically undermines neuroscientific notions of narrative by analyzing Richard Powers’ *The Echo Maker* (2006), which explores the scientific claim that the “brain is the ultimate storytelling machine.” In the process of narrating about a protagonist with a traumatic brain injury, Powers also tells the story of the displacement of Native Americans and the degradation of their environment. I argue that, whereas neuroscience describes narrative as a defense mechanism, which upholds the integrity of the self-image, Powers see narrative as a bridge to more ethical engagement. From his perspective, narrative is *not* always self-serving. Neither is it always a defect, a matter of bad faith. On the contrary, narrative is a means to make the world strange again. Powers’ own narrative combines holistic and empirical approaches

¹¹ Sacks uses these terms to describe neurological conditions like Tourette Syndrome and synesthesia, which are based on an “excess” of energies, rather than a lack or deficit.

to find a mode of storytelling that allows individuals to escape the “straight jacket” of the self.

Such an ethics of alterity distinguishes fiction from neuroscience, as the remaining chapters further demonstrate. In Chapter Three, I analyze Benjamin Kunkel’s novel, *Indecision* (2006) alongside Heidi Julavits’ *The Uses of Enchantment* (2006) to argue that neuroscience collaborates with postmodern philosophy in promoting an ethos of self-suspicion, rather than an ethos of honesty and trust. By emphasizing the neural coordinates of behavior and decision-making, neuroscience has shifted focus away from the meaning of ideas to the means by which they are produced, according to Kunkel. *Indecision* poses this question to readers: how can we possibly take anything seriously, after postmodernism and neuroscience have equipped us with a hermeneutics of suspicion? For Kunkel, the answer is psychoanalysis. After all, Freud was unafraid to interpret. For this reason, Freudian psychoanalysis might transform the contemporary literary intellectual climate, which has been defeated by the anti-foundationalism of postmodernism and neuroscience. (To more clearly illuminate Kunkel’s attitudes about neuroscience and psychoanalysis, I contrast his novel with Julavits’ novel, which *critiques* Freud and his methods of interpretation.) Importantly, Kunkel’s commitment to sincerity echoes Powers’ concerns about narrative. Powers insists that narrative is not entirely self-serving (subjective), since it assists us to move beyond our specific position in the world. Likewise, Kunkel suggests the utility of a purely subjective approach to reality, recognizing that it leads to solipsism.

While contemporary writers long for a return to “foundations,” however, they refute that the mind can be objectively observed. I make this case by analyzing Alison

Bechdel's graphic memoir, *Are You My Mother?* (2012), which draws on the psychoanalytic theories of D. W. Winnicott. Bechdel uses both psychoanalysis and comics as a means of rebellion—both forms allow her to dramatize her lesbianism, something her mother repeatedly disavows. Bechdel demonstrates the necessity of intersubjective processes to understand consciousness. She uses the graphic form to demonstrate how one's mental state is never entirely singular, since it always reflects the mental states of others. Comics have an "alchemical power," enabling the reader to project herself onto the page, just as the patient projects onto the analyst through the process of transference. By encouraging dialogic processes of reader-identification, comics provide an antidote to the positivism that prevails in neuroscientific discourse.

My final chapter argues that popular neuroscience reinforces post-racial politics, as represented by Monique Truong's 2010 novel, *Bitter in the Mouth*. Truong's novel, which features a character with synesthesia, is based on a PBS program about synesthesia hosted by world-renowned neurologist, V. S. Ramachandran. While Truong adopts some of the concepts from Ramachandran's work, she scrutinizes the "neurological subject" that increasingly informs contemporary concepts of personhood. That is, she questions the correlation between brainhood and selfhood. Truong critiques attempts to "neurologize" the self because, from her perspective, such reductionist programs correspond with neoliberal forms of racial erasure. Her heroine's Vietnamese identity as Lin Dao is replaced by the commonplace American name, Linda, as she grows up in a parochial Southern town. Truong suggests that neuroscientific programs advance the post-racial politics of the multiculturalist era by privileging neural processes and flattening race. Truong uses her protagonist's neurological condition (synesthesia) to

demonstrate how scientific discourse minimizes the legacies of oppression that shape individual's psychic trauma by denying that phenomenal experience is fundamental. Science tries to isolate the neural substrate of experience, rather than taking experience as indivisible. So, just like Butler, Powers, Kunkel, and Bechdel, Truong resists scientific attempts to reduce reality to an essential property (matter), without prioritizing a non-material reality. Further, I examine how Truong responds to contemporary neuroscientists' comparison of synesthesia to metaphorical processes. (Some neuroscientists claim that synesthesia, like metaphor, entails making connections where they do not exist.) Interestingly, Truong uses synesthesia to *undermine* the metaphorical processes upon which language, scientific discourse, and racial formations depend. Thus, she turns the neuroscientific notion of synesthesia as metaphor on its head.

Contemporary Fiction and Philosophical Debates

My study intervenes in existing literary scholarship by examining the ways in which contemporary fiction challenges popular scientific claims about the brain. But more importantly, I demonstrate how contemporary fiction and literary studies contribute to current philosophical debates about the human subject in the age of neuroscience. By and large, cognitive philosophers have excluded literary critics from these discussions, presuming that they want to protect the notion of a mysterious, non-physical soul (a “ghost in the machine”¹²). In fact, novelists and literary scholars take issue with the many conceptual flaws that underwrite neuroscientific claims—for instance, the misuse of narrative terms and the unwillingness to take phenomenal experience as fundamental.

¹² English philosopher Gilbert Ryle coined this term to describe the Cartesian notion of the mind, and cognitive philosophers often invoke it.

By complicating neuroscientific concerns, contemporary fiction suggests ways in which brain scientists and cognitive philosophers might alternatively approach philosophical quandaries like consciousness and the mind-body problem. Rather than fervently trying to close the gap between mind and body (or between epistemology and ontology) and to empirically “explain” consciousness,¹³ cognitive philosophers ought to recognize the power of narrative to describe such robust phenomena.¹⁴ Some critics may object by asking, what is the point of description if it does not retain the prospect of understanding? Why should we turn to fiction to approach philosophical problems, since, unlike neuroscience, it does not expect definitive answers? Such concerns resemble the age-old existentialist question: what is the point of living if we are going to die?

But, as one of the characters in Don DeLillo’s most recent novel asks, “What is the point of living if we *don’t* die at the end of it?” (*Zero K*, 40, emphasis mine). Here, this character suggests that life only has meaning if it is not final—if it is subject to change. Likewise, perhaps human consciousness is only a meaningful subject of study if there is no last word. The following chapters demonstrate, somewhat paradoxically, how contemporary fiction reaffirms neuroscientific questions by keeping them alive.

¹³ Here, I have in mind the title of Daniel Dennett’s bestseller, *Consciousness Explained*.

¹⁴ To be fair, some already do. Rebecca Newberger Goldstein, for instance, readily admits that certain philosophical problems can only be approached by narrative. In a recent article on consciousness and the narrative arts, Goldstein argues that philosophers are preoccupied with arguing about the metaphysical status of subjective experience, while novelists are at work relating it. Goldstein contends that “nature has properties that are just as remote from our direct experience as the exotic properties of theoretical physics. . . we can’t get at them through science because they’re [simply] not susceptible to mathematical translations” (“The Hard Problem” 48). Nonetheless, she explains, there are “experts who have developed another language for expressing and exploring properties of matter that remain out of the grasp of science. The language they have developed is the language of fiction . . . of poetry” (“The Hard Problem” 48).

Chapter 1: “Physiology Gone Wild”: Oliver Sacks’ Clinical Tales and Octavia Butler’s
Parable of the Sower

Today, disciplines within neuroscience acknowledge that the brain is not an isolated organ. Scientists—particularly those within the fields of social and affective neuroscience—stress that the brain is embedded in a certain social, physical, and technological environment. Because the brain is situated in a network of systems, its functions cannot be understood apart from those systems in which it is a part.¹⁵ But this position is still in the process of being articulated. Thus, Oliver Sacks was somewhat of an outlier when he elaborated on the brain’s sociality in his scientific writing in the 1980s. Sacks’ critique of classical neuroscience and its self-inside-the-body significantly influenced Octavia Butler’s science fiction, which is the focus of this chapter. I demonstrate how Sacks’ 1985 collection of neurological tales, *The Man Who Mistook His Wife For a Hat*, furnished Butler with an idiom with which to challenge both the dominant model of mind and the 1990s rhetoric of individualism.

Butler’s *Parable of the Sower* (1993) depicts a post-apocalyptic California, which has deteriorated due to global warming, increased class divisions, and the rise of anti-government, rightwing politicians. In Butler’s dystopia, multi-national corporations have unfettered control over the political sphere, rendering public officials too immobilized to redress the dire problems that communities face. *Sower* focuses on the particular struggles of a young black woman who lives in a neighborhood just outside Los Angeles. Lauren Olamina is a “sharer”—she shares others’ sensory experience. She inherited this neurological condition in utero from her birth mother, who abused prescription drugs.

¹⁵ The term “social neuroscience” was first used by John T. Cacioppo and Gary G. Berntson in *American Psychologist* in 1992, in an article exploring how the brain is affected by social interactions. However, “social neuroscience” and its affiliate discipline—“affective neuroscience”—are still considered to be in their infancy.

After a rampage by drug-addicted arsonists, Olamina's home is destroyed, and her family members killed. She travels north to Canada, forming alliances with other travelers along the way. She and her companions eventually settle in an open landscape that she names Acorn. Here, she intends to practice and convert more individuals to her religion, *Earthseed*. *Earthseed* has one basic tenet: God is Change.

Sower characterizes Butler's oeuvre insofar as it thematizes physical permutations. Butler's science fiction is full of symbiotic creatures, inspiring much criticism on the topic of the cyborg.¹⁶ Generally, critics argue that Butler valorizes varied forms of becoming—becoming-animal, becoming-woman, becoming-child—as modes that create new possibilities for political life. Some have even drawn on the philosophy of Gilles DeLeuze and Félix Guattari to demonstrate how, in Butler's fiction, inter-personal and inter-species relations depict the self as a heterogeneous “assemblage that is merely one possible version amongst multiple possibilities” (Lacey).¹⁷ However, Butler's critics have failed to acknowledge that, in contrast to her earlier novels, *Sower* specifically attributes the propensity for self-transformation to the brain. As I will show, she draws this notion of the permeable brain/self directly from Sacks' clinical tales.

In his collection, Sacks uses the terms “neurological excess” and “physiology gone wild” (89) to describe neurological disorders such as Tourette syndrome and synesthesia, which are characterized by a surplus, rather than a deficit. For Sacks, disorders of excess challenge the classical (computational) model of mind that has prevailed in neurology. They reveal that the mind is social, as well as numerical. Butler expands on this notion, demonstrating how her protagonist's extended brain dissolves the

¹⁶ In fact, Donna Haraway celebrates Butler in her famous essay, “A Cyborg Manifesto.”

¹⁷ See Alison Tara Walker, Ronald Bogue, and Lauren Lacey.

boundary between the self and the world. Importantly, the concept of neurological excess sheds light on the relationship between nature and culture, which has long divided Butler's critics. Recently, some critics have turned to Developmental Systems Theory (DST) to explain the relationship between the two in her science fiction.¹⁸ DST is a theoretical framework that emphasizes the combinatorial influence of genetic and epigenetic factors on an organism's development. While such "developmental" readings are fruitful, they do not account for the brain's role in the organism's development. I position Butler's novel alongside Sacks' neurological tales to more fully illuminate how the brain, in particular, allows organisms to intervene in their biological evolution. However, I emphasize that Butler takes Sacks' notions of "physiology gone wild" even further than the popular neurologist—whereas Sacks merely describes the excessive brain's undoing of the Cartesian subject, Butler describes how the excessive brain undoes the body politic. Finally, I discuss how Butler's re-description of neurological excess anticipates recent work in contemporary philosophy, which celebrates the "plastic brain" for the model of subjectivity that it posits. Thus, I will demonstrate how Butler offers in advance an answer to the question that Catherine Malabou poses in the title of her 2008 book, *What Should We Do With Our Brain?*.

Sacks' Influence

Butler mentions Sacks in several interviews about the book,¹⁹ though a close analysis of the novel readily reveals his influence. In *Sower*'s first few pages, readers learn about the protagonist's peculiar neurological condition. When Olamina sees

¹⁸ For instance, see Adam Johns, whose work I will discuss momentarily.

¹⁹ See interviews with Stephen Potts and Scott Rettburg.

someone stabbed in the stomach, she doubles over herself. Olamina resembles a character from Sacks' collection, a woman with Tourette syndrome who imitates passers-by. In the chapter "The Possessed," Sacks relates the strange behaviors of a woman he observed in downtown New York, where he practices "street neurology." (Sacks insists that many neurological disorders can only be fully comprehended in the world, rather than the exam room; thus, he frequently takes his practice to the streets.²⁰) At first, the woman appears to Sacks to be having a fit; but it soon becomes clear that, with each convulsion, she is "taking on" the expressions of those around her. Wanting to hide her involuntary imitations, the woman turns into an alley-way. Here, "she deliver[s] one vast pantomimic eurgitation, in which the engorged identifies of the last fifty people who had possessed her were spewed out" (*Hat* 123). Like this woman from Sacks' collection, Olamina tries to conceal her hyperempathy. She knows that it makes her vulnerable: "Sharing is a weakness, a shameful secret. A person who knows what I am can hurt me, betray me, disable me with little effort" (178). However, like the other patients that populate Sacks' collection, she is simultaneously *enabled* by her condition. Although her hyperempathy exposes her to others' pain, it also allows her to reshape the community in profound ways.²¹

Sacks intuitively understands that victimhood and agency are co-existing components of illness.²²

He often describes his patients' neurological disorder as both a "curse and a gift" (98).

²⁰ According to Sacks, street neurology has respectable antecedents; he cites James Parkinson and Charles Dickens, two "inveterate walkers of the streets of London" (*Hat* 121).

²¹ My analysis of the protagonist in *Parable of the Sower* reaffirms Diane Price Herndl's argument that the "invalid" often occupies a position of power and powerlessness at the same time. Although Herndl focuses exclusively on the invalid woman in the mid- to late-nineteenth century, her insights inform this chapter. I, too, investigate how invalidism "can be both redemptive and destructive, resistant and dominated, liberatory and oppressive" (5).

²² In fact, Sacks discusses the contradictory status of the neurological patient in his first book, *Migraine* (1970), published fifteen years prior to *Hat*. He describes how many migraine patients experience creative

Take, for instance, “Witty Ticcy Ray,” a young man with Tourette syndrome. On the one hand, Ray’s tics can be very inhibitive. They interfere with romantic relationships, and they prevent him from maintaining a steady job. On the other hand, Ray’s uncontrollable tics are advantageous for his musical abilities and other physical activities. Sacks describes how Tourette syndrome gives Ray a competitive edge in one of his favorite games, ping-pong: “he excel[s], partly in consequence of his abnormal quickness of reflex and reaction, but especially because of ‘improvisations’ ‘very sudden nervous, frivolous shots’ (in his own words), which were so unexpected and startling as to be virtually unanswerable” (97). When Ray begins treatment with the drug Haldol, which controls his involuntary movements, “he comes to feel, increasingly, that something is missing” (101). He finds that the medication dulls his musical abilities; without his tics, he has no “wild and creative surges” (101). He becomes slow and deliberate in both thought and action. Even his dreams seem to have lost their spark—he characterizes his dreams as ““straight wish-fulfillment . . . with none of the elaborations, the extravaganzas of Tourette’s”” (100). Alas, Ray decides that he will only take his medication on the weekdays, when he must report to work. “So now,” Sacks explains, “there are two Rays—on and off Haldol. There is the sober citizen, the calm deliberator, from Monday to Friday; and there is ‘witty ticcy Ray,’ frivolous, frenetic, inspired, at weekends” (101). Ray has many companions in Sacks’ collection. There is also a nun whose migraine auras induce divine visions, a woman with musical seizures, and a woman with temporal lobe seizures that “transport” her to her childhood in India. By illuminating the proto-creative

surges and increased energy immediately prior to an attack. He references the novelist George Eliot, who described in her diary that she felt “dangerously well” (28) before the onset of headache. This theme of “illness as wellness” persists in his writing until his death.

aspects of disease, Sacks suggests that neurological disorder can sometimes be profoundly enabling.

Butler shares Sacks' sense that neurological illness and wellness are not so easily distinguished. Olamina recognizes the ethical advantage of her condition: "If hyperempathy syndrome were a more common complaint, people couldn't do [violent] things. ... if everyone could feel everyone else's pain, who would torture? Who would cause anyone unnecessary pain? I've never thought of my problem as something that might do some good before, but the way things are, I think it would help" (115). She desires for more people to share her genetic mutation, which she calls her "biological conscience" (115), because she believes that this would benefit the species. However, it is not simply by blurring the boundary between deficit and ability that Butler utilizes Sacks. She also adopts the neurologist's critique of the computational model of mind, and this adoption radically transforms her science fiction.

Sacks begins his famous collection by explaining, "Neurology's favorite word is 'deficit'" (3). He laments that neurology and psychology have focused on disorders of lack, ignoring disorders of "excess." He offers Tourette syndrome and synesthesia as disorders of excess; the former is marked by an explosion of energy, and the latter by excessive connection. Sacks attributes this disparity to the emphasis on disorders of the left hemisphere, as well as to the classical or "computational" model of brain/mind that has dominated the field of neurology. The computational model, Sacks argues, only makes it possible to understand *inabilities* to function. It fails to adequately describe hyper-abilities. This is a shame, which his collection aims to redress. Like Sacks, Butler explores the notion of hyper-ability in order to challenge the computational model of

mind. For Butler, as well as for Sacks, the “excessive” brain is the precise site where new subjectivities and forms of relating can be forged. But while Sacks merely imagines the dissolution of the human subject, Butler imagines the dissolution of the human community. In doing so, she radically extends his critique of classical (computational) model of mind.

Many scientists and cognitive philosophers claim to dismiss Descartes and his dualist notions. (In fact, Descartes is the go-to boogeyman.²³) But as Sacks and Butler suggest, the Cartesian notion of an internal self very much endures in cognitive science. Classical neuroscience compares the brain’s function to a computer program that passively de-codes and processes information from the outside world. By portraying cognition as internalized, classical neuroscience invokes Descartes, for whom the mind is “in here” and the world is “out there.” Sacks challenges the computational model of mind that has long prevailed in neurology by describing disorders of excess. From his perspective, such manifestations of “physiology gone wild” reveal that the mind is more than an information-processor, and, thus, that it is inadequate to focus exclusively on the physiological aspects of the brain. The computational model fails to account for the patient’s personhood, which is always an essential part of the disease. It reduces individuals to mechanical processes, when, in fact, they are “heroes, victims, martyrs, warriors . . . [and] more” (ix). Sacks turns to classical fables to restore the patient’s biography, as well as biology. In his own words, clinical tales serve as a “parable” for neurology. They give vitality to the person, creating a “‘who’ as well as a ‘what,’ a real person, a patient, in relation to disease” (viii). While there is certainly a humanist bent to

²³ See Antonio Damasio’s book, *Descartes’ Error* or Daniel Dennett’s critique of “Cartesian Theater” in *Consciousness Explained*.

this passage, it is also decidedly anti-Cartesian, insofar as it denies the distinction between the mental (“in here”) and the environment (“out there”).

Butler elaborates on this critique in *Sower*. She uses hyperempathy to challenge the notion of a computational self—a self inside the body. Olamina’s neurological disorder reveals humans’ inherent potential for recombination. It perpetually disembodies her, uniting her with others. She is, in fact, constituted by others and held hostage to their pain. The following scene, in which Olamina is momentarily debilitated after shooting an attacker in self-defense, demonstrates this:

I heard shouting. The bald gang from the highway was almost on us—six, seven, eight people. I couldn’t do anything while I was dealing with the pain, but I saw them. Instants later when the man I had shot lost consciousness or died, I was free—and needed. (296)

Here, Olamina perceives her body as a corpse. She only feels integrated in her body when the other person whose pain debilitates her dies or loses consciousness. While scenes such as this one suggest a Cartesian subjectivity (a “self” separate from the body), Butler challenges Cartesianism by blurring the barrier between the internal subject and the external world. Olamina’s brain fuses her to external bodies. When her brain extends and externalizes her, she is sometimes confused about where her “self” ends and the environment begins. In one scene, Olamina notices she is bleeding, and she is unsure if the wound is originally hers. She reflects, “I was surprised. I tried to remember whether I’d been shot. Maybe I had just come down on a sharp piece of wood. I had no sense of my own body. I hurt, but I couldn’t have said where—or even whether the pain was mine or someone else’s” (297). She adds, “the pain was intense, yet defuse somehow. I felt...disembodied” (297). In this scene, belief comes from outside the body, and action

precedes perception. Olamina's body responds to the world before she registers someone or something in pain. Here, Butler challenges the notion that thinking is "behind" behavior, suggesting instead that thinking extends with behavior.

Andy Clark and David Chalmers stress this idea when they describe "epistemic action," a concept that dovetails with "neurological excess." Clark and Chalmers borrow the term from David Kirsh and Paul Maglio to describe actions that "alter the world so as to aid and augment cognitive processes such as recognition and search" ("The Extended Mind" 8). Examples of epistemic action include using scrap paper to work out a math problem, rearranging scrabble tiles to form certain words, or writing down an address to remember it. Epistemic action vividly depicts how humans act *with* the environment, rather than on it.²⁴ Epistemic action also depicts how engagement with the surrounding socio-technological matrix radically transforms cognitive processes. The brain perpetually merges the mind/self with the world, making humans "cyborgs with surgery, symbionts without sutures" (*Natural-born Cyborgs* 34). Although Clark and Chalmers describe the brain as "opportunistic," expertly exploiting "tools" in its surrounding matrix, they also describe the brain's incredible openness to difference. The brain is so innately flexible that it can be molded to complement external structures. This occurs with individual learning. Individuals' brains develop to correspond with the physical and computational artifacts in their environment. So, the brain is both *formable* and *formative*. The brain re-forms the environment, and the environment re-forms the brain in perpetual loops between brain, body, and environment. Because it is such an "unusually

²⁴ Clark and Chalmers' "epistemic action" is similar to Gregory Bateson's notion of "distributed cognition," which significantly informs the work of many media scholars today. For instance, Katie King and N. Katherine Hayles use Bateson's notion of "distributed cognition" to explain the manifold processes—both material and immaterial—in which knowledge is enacted and produced.

plastic” organ, the brain makes humans “natural-born cyborgs” (*Natural-born Cyborgs* 84). Clark suggests the political potential of the brain, explaining that the brain/mind’s extension to social and physical environments enables individuals to reconfigure their minds by reconfiguring their social physical environments.²⁵

Butler dramatizes this process. Olamina’s excessive brain demonstrates how individual and environment are co-constituted; in doing so, it suggests that individuals have the ability to influence the destiny of the species. Explaining Earthseed’s philosophy, Olamina declares, “Humans can rig the game in our own favor if we understand that God exists to be shaped, and will be shaped, with or without our intent” (22). By claiming that humans can “rig the game,” she claims that humans can actively influence their biological evolution. They can build alternative communities or, in developmental terms, construct new “niches.”²⁶ Earthseed’s followers practice communitarian ethics to transform the human race. They base their community on an ethics of care and mutual respect, hoping that such an environment will adapt its members and future generations. Earthseed proclaims, “All that you touch/You Change./All that you Change/Changes you” (3) and “We shape God./ In the end, we yield to God./We adapt and endure” (17). These verses emphasize the interdependence of organism and environment, as well as the inevitability of adaptation based on this interdependence. Earthseed followers also aim to evolve the species via extra-solar expansion. They recognize that humans are destroying the planet with warfare and rampant ecological destruction. If humans fulfill Earthseed’s destiny—“to take root

²⁵ See also Elizabeth Wilson and Sean Watson for optimistic analyses of the politics of the plastic brain.

²⁶ In Developmental Systems Theory, “niche construction” refers to the processes by which organisms alter their physical environments. I will more fully explain this theory momentarily.

among the stars” (77)— then they just might transform the human race. Olamina articulates this idea especially clearly in *Parable of the Talents* (1997):

Humans can do something no other animal species has ever had the option to do. We can choose: We can go on building and destroying until we either destroy ourselves or destroy the ability of our world to sustain us. Or we can make something more of ourselves. We can grow up. We can leave the nest. We can fulfill the Destiny, make homes for ourselves among the stars, and become some combination of what we want to become and whatever our new environments challenge us to become. Our new worlds will remake us as we remake them. (358)

By describing how humans can become “some combination of what we want to become,” Butler suggests that human intention cannot guarantee a certain destiny for the race; it can only guarantee change (322).

Olamina struggles to accept this notion—that intention only assures adaptation. She preaches “God is change,” comparing God to the second law of thermodynamics, without fully realizing what this means for the belief system that she cherishes. She assumes that Earthseed will grow and attract more follows, but that its basic philosophies will endure. She discusses this vision with Bankole, a man she meets on her journey and eventually marries. When he observes that Earthseed’s future followers will interpret the religion differently and reshape it, she is in denial: “Not around me they won’t!” Bankole responds, “With you or without you, they will. All religions change... After all, if ‘God is Change,’ surely Earthseed can change, and if it lasts, it will” (262). This conversation profoundly unsettles Olamina. Bankole forces her to acknowledge that the intention most sacred to her—Earthseed—will transform beyond her control. She cannot maintain control over the ideas that she releases into the world. The same idea applies to biological

adaptations. We cannot guarantee future versions of our biological selves. We can only guarantee change: “Our new worlds will remake us as we remake them” (*Talents* 358).

By emphasizing how beings and worlds are “remade” together, Butler refuses to recognize nature and culture as distinct spheres of influence. This same refusal, in fact, formed the basis for “romantic science”—the genre of clinical writing that Sacks favors. Sacks’ clinical tales continue the legacy of Soviet neuropsychologist A. R. Luria. In the 1920s, Luria’s romantic science challenged the long-held notion that physical and experiential reality were separate. Luria perceived that the medical profession was inhibited by Cartesian boundaries, ignoring the connection between the philosophical and the physiological aspects of personhood. Perceiving a continuity between mind and body, Luria united neurology and psychology into one discipline (“neuropsychology”). As his biographer notes, “Luria was a man capable of synthesizing knowledge and of finding common problems in domains that seem very different to others” (Homskaya xiii). He combined Marxist methodology with traditional (physiological) approaches to brain-behavior relationships. Along with L. S. Vgotsky, Luria instituted the “cultural-historical theory” of Soviet psychology, which transformed psychology by treating cognition—not as a simple event of the psyche—but as an intricate and dynamic functioning between physiology and historical processes that involves language, sign systems, and other tools. Luria’s romantic science, which I will discuss more fully in the next chapter, constituted the first attempt to apply a historical approach to the study of the human psyche.²⁷ His work significantly influenced Sacks and Butler, by extension. In the tradition of romantic science, Butler suggests that individuals are agential and co-dependent; they can shape

²⁷ See Evgenia D. Homskaya’s biography of Luria for a fuller analysis of his contributions to the field of psychology.

reality, but they are also shaped by it. This circular logic is expressed by the following Earthseed verse:

Self is.
Self is body and bodily
perception. Self is thought, memory,
belief. Self creates. Self destroys. Self
learns, discovers, becomes. Self
shapes. Self adapts. Self invents its
own reasons for being. To shape
God, shape Self. (235)

Paradoxically, one of the self's "reasons for being" is to transform its being. Further, as the verse states, the self is both material and historical: "Self is body and bodily/perception. Self is thought, memory, belief" (235). Butler reduces being to matter, but, at the same time, acknowledges that matter is shaped by individual experience (memories, beliefs). Indeed, the protagonist's brain is not hardened at birth; rather, it transforms over time. In one of her first diary entries, Olamina claims that her neurological condition is permanent. She laments, "my neurotransmitters are scrambled, and they are going to stay scrambled" (12). Yet, her brain *does* adapt, as she develops ways to minimize her symptoms. She tricks her brain into responding alternatively to scenarios that trigger pain. As she ages, she becomes more resilient. Olamina reflects, "I can take a lot of pain without falling apart. I've learned to do that" (11). Here, Butler demonstrates how individual experience shapes her at a biological level.

This notion of the permeable brain is important because it sheds further light on the nature/culture relation, which has long divided Butler's critics. Some of her critics argue that Butler privileges nature, understanding human behavior in terms of biological

functions honed by natural selection.²⁸ Hoda M. Zaki, for instance, severely criticizes Butler for naturalizing gender differences, rather than questioning gender as a historical convention. Other critics read Butler as a social constructionist.²⁹ Donna Haraway, for example, praises Butler for demonstrating how human identities are fluid and indeterminate. However, Butler is neither “essentialist” nor “constructionist,” since she incorporates biological theory into her understanding of human nature *without* endorsing genetic determinism, just like Luria and Sacks did. In an interview about the book, she acknowledges that genes significantly influence human behavior and that we need to take this fact seriously. In fact, she references Sacks’ collection to observe that “sometimes a small change in the brain, for instance—just a few cells—can completely alter the way a person or animal behaves” (Interview with Stephen Potts). However, like Sacks, she refuses to accept the reductivism of standard evolutionary theory. She elaborates, “I do think we need to accept that our behavior is controlled to some extent by biological forces . . . but I don’t accept what I would call classical sociobiology. Sometimes we can work around our programming if we understand it” (Potts). This apparent conflict between biology and utopian thinking is one of the most central concerns in Butler’s fiction. According to Adam Johns, one of the most fundamental questions in Butler’s work is: “How can we make a better world if we are determined by our genes?” (406). Johns answers this question by drawing on the genetist critique offered by Richard

²⁸ See Zaki and Laurie.

²⁹ See Miller, Haraway, and Peppers.

Lewontin, an evolutionary biologist associated with DST. While his “developmental” reading is useful, it overlooks the crucial role of the brain.

Developmental systems theorists, such as Lewontin, Susan Oyama, and Paul Griffiths and Russell Gray, posit that while both DNA and non-DNA influence traits’ development, these factors cannot be isolated from each other. In other words, there is no blue-print or program (genes) that epigenetic resources (environment) either facilitate or repress. DST challenges conventional evolutionary theories, which focus exclusively on the genetic level in analyses of the evolution of traits. Conventional evolutionary theories fail to appreciate that traits result from the organism’s interaction with a wide range of developmental resources (Griffiths and Stotz 33).³⁰ DST is sometimes referred to as “cultural biology,” since it unites Marxism and Darwinism. Marx famously proposed that human nature (or consciousness) changes according to the material conditions of social life.³¹ For Marx, a revolution of the ensemble of social relations would produce a revolution in human nature. However, despite his fundamental belief in human malleability, Marx still distinguished between natural (biological) history and social (human) history. This is evidenced by Marx’s conflicting attitudes toward Charles Darwin, whose work he followed closely. While he believed *Origin of the Species* provided a “natural-scientific basis for the class struggle in human history” (Letter to Ferdinand Lassalle), Marx insisted that the implications of Darwinian theory be confined to anatomy and physiology. He refused Darwin’s notions of an unending struggle for

³⁰ Such theories also fail to appreciate that groups can select, as well. Groups select by determining the social practices that will reliably produce a certain trait. John Proveti offers the example of self-sacrificing behaviors. Standard evolutionary models explain fitness-sacrificing activities as an individual passing one’s “altruistic part” (401), but this overlooks that groups target social practices.

³¹ He writes, “...the human essence is no abstraction inherent in each single individual. In its reality it is the ensemble of the social relations” (“Theses on Feuerbach” VI).

existence and “survival of the fittest.” Rather than attributing human antagonism to biology, as Darwin did, he attributed human antagonism to the specific economic and social arrangements of capitalism (Singer 26-7). Contra Marx, DST acknowledges nature and culture as interdependent spheres of influence.

Johns astutely recognizes a similarity between Lewontin’s framework and Butler’s biological philosophy. He argues that for Lewontin, as well as for Butler, “just because we cannot understand ourselves without reference to our genes, does not mean that changing our environment is either useless or hopeless, *especially* if we understand and acknowledge the interaction between the two” (409). Much to the contrary, attempts to shape the world can be substantial, particularly when those attempts are grounded in a “genetic” understanding of the world. The *Parable* novels demonstrate how a biological-material understanding of the world is actually quite compatible with utopian thought. Organisms are shaped by genes, which are, in turn, shaped by environment. Thus, to change biology, individuals have to change the environment: “[a] fully biological nature... is not an eternally fixed one, but an eternally malleable one” (410). Herein lies possibility for the future. If communitarian values cannot be adopted by culture, perhaps they can be integrated via natural selection (404).

Adams does not state that Butler was familiar with DST specifically, although her interviews suggest that perhaps she was. While she uses the idiom of the “program” to describe human behavior, Butler insists, as do developmental theorists, that there are no innate features or “genes for” certain behaviors. She asserts, “to whatever degree human behavior is genetically determined, it often isn’t determined *specifically*; in other words, no one is programmed to do such and such” (Interview with Larry McCaffery and Jim

McMenamin). Here, Butler reiterates the arguments made by Paul E. Griffiths and Karola Stotz, who argue that traits develop through a “cascade” of resources, both genetic and epigenetic (36).

Importantly, Adams’ “developmental” reading of the *Parable* novels emphasizes Butler’s belief that humans are biosocial creatures—the products of co-evolutionary process involving biology and culture. However, by focusing on the genetic level, Adams suggests that biological adaptations are delayed until the offspring or a future generation. Butler’s depictions of neurological excess suggest that individuals continuously transform—at a biological level—*within* the life course. This is why Sacks’ influence matters: Butler demonstrates how the brain accelerates biological adaptations, opening the material body to the world. The brain adapts the body faster than genetic mutations.

Adams overlooks that *Sower* also depicts *cognitive* niche constructions, which plainly demonstrate the extended-ness of the brain. Cognitive niche constructions are environmental interventions that embodied agents make to alter cognitive experiences. The concept of cognitive niche construction is firmly established in the cognitive sciences. For instance, cognitive scientists often cite language as a cognitive niche, since language assists individuals to process and engage with the surrounding world (*Supersizing the Mind* 1). (This notion of language is anti-postmodern, since it recognizes language as an adaptation to the environment, rather than something opposed to or apart from reality.) *Sower* depicts written language as a form of cognitive niche construction. Writing externalizes thought, transforming cognition in the process. Olamina is an avid note-taker. One of her survival strategies is to exploit every available piece of reading material that she can get her hands on—encyclopedias, biographies, works of fiction—

and record her thoughts, which help her to “remember better” (89) information that might one day save her life. The most overt example of cognitive niche construction is Olamina’s diary. Diary-writing is not simply expressive; it is also reflexive. Olamina frequently acknowledges the reflexive dimension of writing: “Sometimes I write to keep from going crazy” (52). She also explains, “[s]ometimes writing about a thing makes it easier to stand” (113). Writing provides stability because it clarifies her beliefs. This is one of the primary functions of diary fiction, according to H. Porter Abbott. The diary “is a reflexive text—not simply in the sense of a self-reflecting or self-conscious text, but in the sense that the text exerts an effective influence on its writer” (38). Abbott explains that the diary, simply by rendering events, can either move its writer to insight or “maintain him in blindness” (38). In either case, the text influences the course of events. It plays an active role in the story. This is certainly the case with Olamina’s diary, since the text profoundly shapes her thought processes. In one of her first entries, Olamina writes “I need to write about what I believe.” But she confesses that her beliefs are not already formed inside her head. She has to use other tools to realize her beliefs: “It took me a lot of time to understand it, then a lot more time with a dictionary and a thesaurus to say it just right—just the way it has to be” (24). These passages recall the cognizing subject that Clark and Chalmers describe—the individual using scrap paper to work out a math problem, rearranging Scrabble tiles, or jotting down an address. They emphasize how cognition draws on surrounding objects, extending thought beyond the “skin-bag” (Clark’s term).

Butler uses various techniques to reinforce how the diary externalizes cognition. For instance, she uses rhetorical questions. Olamina uses her journal to inquire, especially

when she is grappling with the “big questions”—“Is there a God? If there is, does he (she? it?) care about us” (15)? She tentatively answers her own questions—“Maybe God is a big kid, playing with his toys” (16)—before asking further ones: “But what if all this is wrong? What if God is something else altogether” (16)? Such rhetorical questions foreground how the diary extends the mind to the page in an ongoing feedback loop. Butler also depicts the protagonist’s cognitive glitches to show how cognition unfolds *outside* the head. Olamina frequently revises her initial thoughts upon recording them on the page. For instance, she relates a neighbor’s death: “Mrs. Sims shot herself today—or rather, she shot herself a few days ago, and Cory and Dad found her today” (21). In another scene, she writes about her father’s severity towards her: “Dad thinks I need more humility. I think my particular biological humility—or humiliation—is more than enough” (14). In another scene, she speculates about God and whether or not God protects the down-trodden: “How will God—my father’s God—behave toward us when we’re poor” (15)? These glitches illuminate the immediacy of cognition. Olamina’s thoughts are events, not mere representations. The diary provides a useful format for emphasizing the event-like dimension of cognition. Abbott explains that the immediacy in diary fiction does not correspond with the events described. (This is because the diarist cannot write amidst the action, only after the fact.) The immediacy in diary fiction is the “*writing itself*”; the event in progress . . . is the writing itself” (29). In the case of Butler’s diary fiction, though, writing does not occur *after* thought; writing *is* thought. The “event” in Olamina’s journals, then, is cognition. By formally modeling Olamina’s extended cognition and showing how the mind is always reassembling, *Sower* challenges notions of a stable and autonomous self.

Contemporary Philosophy and the “Plastic Brain”

As I have discussed, Butler celebrates the excessive brain, since it assists individuals to form alternative communities and to build new worlds. However, Butler also embraces the excessive brain because it radically challenges neoliberal vocabularies of personhood. The excessive brain undermines Reagan-era rhetoric of individualism by portraying a heterogeneous self. In this regard, Butler anticipates Malabou’s recent arguments about the revolutionary potential of the “plastic brain.”

Sower scrutinizes the political climate that favors such notions of an autonomous brain. Corporations control nearly all aspects of political life, as a result of a shrunken federal government and deregulated markets. Privatization creates for such a powerless state that even basic public agencies (schools, police departments, fire departments) no longer serve the community. Individuals have to rely on their own ingenuity to survive. This setting clearly critiques the political vision of the rightwing establishment under the Reagan administration, which debilitated public offices in the name of free markets. (This setting also forewarns about the danger of fascist politicians who promise to build walls and “make America great again.”³²) Olamina’s hometown of Robledo is a gated community secured by private police. The neighborhood watch group, which Olamina’s father manages, has one primary task: protect the cul-de-sac from poorer passersby. Several critics have drawn comparisons between this setting and Mike Davis’ “Fortress L.A.”³³ In *City of Quartz*, Davis describes the reorganization of the city after the powerful elite have destroyed accessible public space. Davis explains how middle to

³² See Gerry Canavan’s discussion of the novel as a cautionary tale on *Wired*.

³³ For example, see Madhu Dubey and Peter Stillman.

upper class communities increased demands for spatial and social separation from the urban poor, prompting city organizers to recolonize downtown spaces with architectural ramparts and walled enclosures. Davis also depicts how affluent suburban neighborhoods became more fortified by erecting barricades and contracting with local police forces to patrol. Like Davis, Butler explores how the architectural environment is used to reinforce class divisions. Robledo once epitomized the sort of L.A. suburban neighborhoods that Davis describes, though now it is no longer secure from outsiders. Since residents can no longer afford to pay police to patrol the streets or respond to crimes, the streets now abound with “squatters, winos, junkies, homeless people in general” (*Sower* 9). Everyone lives in fear of being robbed by a neighbor. Butler’s dystopian setting conveys the fate for the minoritized poor under Reagan. Individualism, the core philosophy of the rightwing fundamentalists in power, does not enable poorer individuals to better themselves or their communities. Rather, it divides communities and causes discord by teaching citizens to only look out for themselves. In Robledo, individuals act violently even against friends and community members. Olamina’s brother, Keith, joins a gang that ransacks the neighborhood. Keith demonstrates how the spirit of individualism enables callousness to one’s fellow community members. Drug lords, pimps, and slave masters also pervade the neighborhood, treating individuals (typically minority women) as disposable. Butler suggests the danger of political visions that champion profit and individualism above all else.

Olamina’s “excessive” brain threatens individualism, since it binds her to others. Furthermore, her hyperempathy risks the integrity of the nuclear family. The Olaminos survive by barricading themselves inside their walled community and patrolling the

neighborhood with firearms. They rely on her to keep her condition a secret. Olamina reflects, “I can do okay as long as other people don’t know about me. Inside our neighborhood walls I do fine” (12). But when outsiders learn of her condition, her family is endangered. Olamina recalls that her brother once feigned an injury in public to trigger her symptoms. Her father became enraged with his son for “putting ‘family business’ into the street” (12). Olamina’s father, a Baptist minister and defendant of the nuclear family, is especially intolerant of her condition. He urges Olamina, “you can beat this thing. You don’t have to give into it” (11). Here, Olamina’s father reiterates one of the patriarchal attitudes of modern medicine: that nervous illness is a matter of choice. Beginning in the 1880s, many clinicians believed that “if the patient decided to be well, she could be” (Herndl 119). Olamina’s father, like many physicians who treated “hysterical women,” intuitively felt that nervous illness is socially transgressive. Indeed, Olamina’s hyperempathy becomes a powerful form of resistance, since it reveals the myth of the autonomous individual. Butler emphasizes that the brain does not enclose the self; rather, the brain guarantees the self’s endless adaptation. If we appreciate the brain’s capacity to transform the self and the world, Butler suggests, then notions of a private, autonomous individual become truly untenable.

Importantly, Butler suggests that brain is a site of resistance against rightwing fundamentalism, not just a site of control. Thus, her novel offers a more optimistic reading of the brain than many of the cyberpunk novels written around the same time.

Take, for instance, Neal Stephenson’s 1992 novel, *Snow Crash*.³⁴ The story is about Hiro

³⁴ Stephenson’s novel is also based on a popular scientific text—Julian Jaynes’ *The Origin of Consciousness in the Breakdown of the Bicameral Mind*, published in 1976. In this book, Jaynes proposed that “meta-consciousness” or self-awareness was a relatively recent adaptation for humans. He argued that, prior to 1000 BC, humans operated according to automatic, non-conscious cognitive activity. Their minds

Protagonist, a biracial Pizza delivery guy and freelance hacker—“the Deliverator”—who alternates between the real world and “Metaverse,” a virtual reality in which he is a swordfighter and warrior prince. The plot revolves around Hiro’s efforts to resist “Snow Crash,” a virus threatening “infocalypse”—a total system malfunction. The man responsible for the epidemic is L. Bob Rife, leader of the Church of Happyology. (This character parodies the religious figures L. Ron Rubbard and Pat Robertson, among others.) Stephenson’s inspiration for the term came from a software failure mode on the early Apple Macintosh computer: “When the computer crashed and wrote gibberish into the bitmap, the result was something that looked vaguely like static on a broken television set—a ‘snow crash’” (“In the Beginning”). Within the novel, the virus infects the brain of a user—a live handler, plugged in with goggles—when his avatar is exposed to the viral computer code. There is also a biological version (“street drug”) of Snow Crash in the real world. When an individual abuses this substance, his virtual self is, in turn, infected. So, just as in Butler’s novel, the brain opens a portal between the domains of natural and artificial.³⁵ However, Butler’s novel more clearly demonstrates the promise of the brain-as-interface between the biological and the simulated. As I have demonstrated, she shows how Olamina’s condition threatens the idea of autonomous personhood. In doing so, *Parable of the Sower* suggests that neural and social models are interdependent and, further, that to imagine the excessive brain is both transgressive and necessary.

were “bicameral,” meaning that left and right hemispheres were totally segregated. When habit was not adequate to handle new stimuli and stressors, the dominant left hemisphere was tempered by auditory verbal hallucinations from the normally “silent” right hemisphere. Such hallucinations presented as the voice of a god, and they were promptly obeyed. Jaynes explains, “to hear was to obey,” since neurological command and action were one. However, selection pressures caused consciousness or (linguistic meta-cognition) to develop between 1800 and 1000 BC (Porush 99).

³⁵ See David Porush for a fuller analysis of this theme.

In this regard, Butler anticipates the arguments that Malabou makes in her 2008 book, *What Should We Do With Our Brain?* Malabou, a student of Jacques Derrida, explores the implications of neuroscience for moral and political philosophy. She distinguishes between flexibility (the brain's ability to be formed) and plasticity (the brain's ability to form, as well as to be formed). Malabou associates scientific concepts of the "flexible" or formable brain with neoliberal discourse of the "flexible" worker; she proposes plasticity to counter this dominant rhetoric of flexibility. From her perspective, coming to terms with the brain's plasticity will allow individuals to challenge the models of capitalism that prevail today. Malabou explains that while neuroscientists use the term "plastic" to describe the brain, they continue to discuss the brain as if it were "inside" the head. (In other words, by "plastic," they mean "flexible.") Malabou calls upon neuroscientists to take seriously their claims that the brain is plastic, since doing so will allow them to finally let go of the ideological cliché of the brain as an internal processor. This, in turn, will lead contemporary individuals to recognize their capacity to *act* upon the world, not just to tolerate action.

Malabou claims that plasticity negotiates between "determinism and freedom" (30), a claim that sounds a lot like an Earthseed verse. She also describes intention in terms very similar to Butler's. For instance, she discusses how intentional action's "biological function" in the central nervous system is to transition from homeostasis to self-generation. Drawing on the work of neuroscientists Antonio Damasio and Marc Jeannerod, Malabou explains that the nervous system expends considerable energy to maintain a state of "homeostasis" (Damasio's term). Such self-regulation requires the nervous system to respond to events from the outside that affect it. So, preservation is

creative; the system generates new properties for the sake of constancy.³⁶ Malabou emphasizes that intentional movement is simply an interaction between organism and environment, which makes possible the subject's own representation of the real. Here, her explanation begins to falter, according to critics. Malabou claims that the biological processes of intentional agency produce a rupture between the neuronal (the brain) and the mental (the mind) and that this rupture makes freedom possible (56). Critics simply do not buy Malabou's "explosion" as explanation. Discussing how Malabou even tries to mine an association between the words "plasticity" and "plastique" (a moldable mixture of nitroglycerine and nitrocellulose), Pete Mandik writes:

I must confess that I find a bit hard to swallow the suggestion that neuroscientific discourse is infected by a poetic association between "brain plasticity" and "plastic explosives." The "plastic" in "brain plasticity" doesn't mean "explosive." Not even the "plastic" in "plastic explosive" means "explosive." It's the "explosive" in "plastic explosive" that means "explosive."

For Mandik, the connection between brains and bombs is problematic because no neuroscientist describes the brain in these terms. Ruth Leys more clearly articulates the holes in the argument: "the very problem which is at the center of the mind/brain debate, namely, the nature of intentionality, is now being offered as the solution." In other words, according to Leys, Malabou is proposing that intentional agency simply *is* the biological process that is capable of creating the freedom-ensuing rupture ("On Catherine Malabou's *What Should We Do with Our Brain?*").

For these critics, Malabou is too vague in her description of the transition from the neuronal to the mental. Readers are expected to accept that, since neuronal tissue is

³⁶ Since the term describes a process of dynamic response to maintain internal stability, Steven Rose argues that "homeostasis" is the one of the most "misleading terms in the biology's student's lexicon" (61). Rose offers the term "homodynamics" to more aptly describe an organism's ability to preserve itself by adapting its physiology.

discontinuous, the brain creates at the same time that it destroys. (There is a break between neurons, and nervous information crosses this void with each synapse.) Indeed, Malabou does not exactly solve the mind/body problem, as she herself readily admits. Nonetheless, she keenly recognizes that the brain is plural, contradictory, and always becoming—and further, that the brain connects individuals to each other. This notion is reinforced by her use of the first-person plural (“we”) in the title and throughout the book. By talking collectively about “our brain,” Malabou substantiates her claim that neither the brain nor the individual is isolated. While she sees her work as an extension of Gilles DeLeuze’s cognitive philosophy, it is clear that Malabou also continues the tradition of romantic science. Importantly, Luria, Sacks, Malabou, DeLeuze, and Butler all intuit that the brain is emancipatory, since it allows for “individual experience [to open] up, in the program itself, a dimension usually taken to be the very antithesis of the notion of a program: the historical dimension” (56). For each of these thinkers, the brain guarantees possibility, and that is its promise. Such an ethics of the brain is radically different from neuroscientific notions, which often emphasize the brain’s defensive tendencies. I will explore this distinction more fully in the chapters that follow.

Butler’s *Parable of the Sower* introduces a number of philosophical concerns about neuroscience. The narrative is prophetic not just for its insights about the future of the capitalist state, but for its insights about the full range of philosophical quandaries that neuroscience poses today. Butler asks important questions about the brain’s role in the construction of a heterogeneous self and body politic, as well as about the relationship between ontology and epistemology. These questions will continue to haunt fiction-writers in the twenty-first century, who write during an era in which neuroscience has

migrated out of the laboratory to occupy a prominent place in public life.

Chapter 2: “The Brain Is the Ultimate Storytelling Machine”: The Role of Narrative in Richard Powers’ *The Echo Maker*

In his ninth novel, *The Echo Maker* (2006), Richard Powers explores the “tangled networks” of human consciousness—the vast, dynamic, and continuously revised processes that conjoin to fabricate the self. In short, the novel reflects on the scientific notion that the “brain is the ultimate storytelling machine.” In the author’s own words, it explores how “our neurons tell ourselves into being” (“Interview With Richard Powers”). The novel’s premise is as follows: a 27-year old meatpacker, Mark Schluter, veers his truck off a Nebraskan country road, crashing into a ditch on the banks of the Platte River. He wakes up from a coma to find a stranger caring for him. This stranger is actually his sister, Karin, but Mark is convinced that she is an imposter. Doctors diagnose with him Capgras syndrome, a delusional disorder caused by a lesion in the brain.³⁷ Mark refuses to trust his sister, instead relying on the famous neurologist and best-selling author, Dr. Gerald Weber, who examines him. Dr. Weber, who resembles the real-life Dr. Oliver Sacks,³⁸ also suffers from an existential crisis: critics have begun to accuse him of exploiting his patients to achieve celebrity. This neurological story is offset by an environmental subplot, which involves a fight between land developers and conservationists over the Buffalo County Crane Refuge, where sandhill cranes (echo makers) perennially migrate. Powers uses both his protagonist’s neurological condition

³⁷ Capgras syndrome was first described by the two French psychiatrists Joseph Capgras and Jean Reboul-Lachaux, whose patient reported that her husband and children had been replaced by look-alikes. This patient was convinced that the imposters were plotting against her to steal her property. Capgras and Reboul-Lachaux believed that the disorder was purely psychiatric. They noted it as a symptom of hysteria. But in the 1980s, experts began to realize the neuroanatomical basis of the condition: a brain lesion, resulting from injury or trauma (Matuszak and Parra).

³⁸ Joseph Tabbi notes that the character also resembles neural Darwinist Gerald Edelman (they share a first name and a book title) and Daniel Dennett (225). Charles Harris attributes Weber’s character to Luria, Sacks, Edelman, Dennett, V.S. Ramachandran, Antonio Damasio, Michael S. Gazzaniga, Todd E. Feinburg, Paul Broks, and Joseph LeDoux (253).

and the doctor's professional quandary to pose questions about the epistemological, ontological, and ethical role of narrative. Powers asks: What *is* the relationship of stories to the self? What is the narrative impulse? Is it the basis of self-identification or the basis for empathic relations with others (both human and non-human)? How does narrative collaborate with other systems of knowledge production?

The Echo Maker examines the interdependence of “fact and fiction, induction and intuition, essay and narrative” (Interview with Alec Michod) to stress the need for a system of knowledge-making that combines measurement and story. Narrative is not a virtue in itself, Powers suggests. Stories need to be grounded by the “real” world if they are to lead to empathy and understanding. To convey this idea, Powers writes his neurological tale in the vein of “romantic science,” wavering between concrete description and abstract reflection. As I discussed in the previous chapter, this genre was named by A. R. Luria, a Soviet neuropsychologist who was dissatisfied with the classical approach that dominated psychological writing.³⁹ Luria sought to combine two methods—one experimental and generalizing, the other descriptive and particularizing. Powers, who read Luria and Sacks, among others, prior to writing the novel, also suggests that stories need both singularizing details and universal laws. *The Echo Maker* cautions that an emphasis on literal details leads to under-reading, while an emphasis on symbolic laws leads to over-reading. Both extremes inhibit knowledge, as well as empathy. Stories also need to combine thinking and feeling, as Powers' novel does. By

³⁹ Luria's inspiration for the term “romantic science” came from German scholar Max Verworn, who suggested that early twentieth century scientists could be divided into two different categories on the basis of their philosophical orientation to science. There were, according to Verworn, “classical scholars” and “romantic scholars” (*Making of Mind* 174). The latter were so named because of their commitment to Romanticism, a movement that critiqued Enlightenment philosophers' emphasis on rational thought and deductive reasoning.

reading *The Echo Maker* in the tradition of romantic science, I show how Powers (following Luria and Sacks) treats narrative as an epistemological mode. Further, I show how he, too, combines narrative with other systems of knowing to challenge the scientific notion that story tends to be self-serving.

Empiricism, Holism, and Luria's "Romantic Science"

Powers's oeuvre reflects a sustained interest in scientific discourse. *The Gold Bug Variations* (1991) explores genetics, *Galatea 2.2* (1995) explores artificial intelligence, and *Plowing the Dark* (2000) explores virtual reality. *The Echo Maker* continues this legacy, exploring something truly revolutionary in science: the shift towards a "a new kind of holism." In an interview about the book, Powers discusses this epistemological transformation:

Something truly interesting is happening in many basic sciences, a real revolution in human knowing. For a long time—centuries—empiricism has tried to understand the whole in terms of its isolated parts, and then to write out precise and simple rules about the controlled behavior of those parts in isolation. In recent decades, with the explosion of the life sciences and with a new appreciation in physics and chemistry of emergent and complex systems, a new kind of holism has emerged. Researchers, coming up against the limits of old-style reductionism while studying large, dynamic systems, have found that the whole can sometimes best be understood in terms of the whole. New attempts to describe richly interacting real-world phenomena have turned increasingly to complex models and simulations as valid scientific tools. ("Interview with Richard Powers")

An example of this paradigm shift is the cognitive sciences' recent adoption of an evolutionary perspective. Antonio Damasio, whom Powers cites in the same interview, analyzes the emergence of the notion of an "integrated organism" in cognitive science. Damasio explains that cognitive scientists have historically tended to treat the brain as

separate from the body, failing to see it as part of a complex living system. But in recent years, evolutionary thinking has significantly impacted cognitive science, leading to new perspectives about the brain and its role in homeostatic regulation (the preservation of homeostasis). Today, neuroscientists explain cognitive behaviors in terms of their regulatory function. For instance, they describe consciousness as a process of perpetually revised drafts, which scramble to preserve a notion of an integrated “self.” The character of Dr. Weber vocalizes this perspective in the novel. He explains, “Consciousness works by telling a story. When that story breaks, consciousness rewrites it. Each revised draft claims to be the original” (185). Here, Weber echoes the “Multiple Drafts” theory of cognition that Daniel Dennett outlines in *Consciousness Explained*. Rather than treat cognition as an isolated behavior, Dennett treats cognition as a mechanism of a larger process, which involves the organism’s fight to survive. (We may be witnessing a similar shift towards “holism” in literary studies, as scholars turn to Darwinian theory and “distant reading” practices to revitalize what some critics perceive to be a defunct discipline.⁴⁰)

In the interview, Powers celebrates that holistic approaches have begun to pervade contemporary science. Discussing science’s new methodology, he exclaims, “that’s the way fiction has known things for a long time: through complex, connected models. Through massive simulation” (“Interview With Richard Powers”). He also praises narrative for fulfilling a deep need in our culture for a “kind of knowing that nonfiction can’t easily reach.” A character in the novel expresses this exact idea. Karin observes that scientists “can’t get into all the implications [of their research] because the implications

⁴⁰ See Patricia Cohen’s *New York Times* article, “The Next Big Thing in English: Knowing They Know That You Know” for an analysis of literary scholars’ recent adoption of scientific methodologies.

don't come out of well-formed questions and they're not all answerable by reductive, empirical programs" (407). Karin echoes Powers, "[t]here are places that empiricism simply can't get to" (407). However, the novel complicates this position, suggesting that Powers does not want to discard outmoded, empirical methods entirely. *The Echo Maker* tries to achieve a balance between empiricism and holism, implying that knowledge and ethics crucially need both.

Powers primarily represents empiricism and holism through the characters of Mark, his neurologist Dr. Hayes, and the neurologist and best-selling author, Dr. Weber. Mark and Dr. Hayes are empirical "under-readers." They fail to make connections where they exist. Because a lesion in his brain short-circuits the pathway between the regions responsible for thinking and feeling, Mark is unable to recognize his kin. He simply cannot identify his sister or the objects that occupy his world—his neighborhood, his house, his dog. Mark is disconnected from his history (literally, *his story*). Powers emphasizes this point at the end of the narrative, when Mark realizes that he is the author of a mysterious note left in his hospital room: "I am no One/But tonight on North Line Road/GOD led me to you/so You could Live/and bring back someone else" (10). In his paranoid, delusional state, Mark thinks the letter is addressed to him.⁴¹ He loses ownership of his own narrative, consequently needing Dr. Weber, the master storyteller, to assemble the pieces of his life into a coherent whole. Dr. Hayes, similarly, under-reads. He approaches Mark's condition empirically, seeking the cause of his patient's delusions in terms of specific physiological aspects of the brain, which has been damaged by traumatic injury. Dr. Hayes relies on technical, statistical methods, promoted by new

⁴¹ Mark's paranoia is the obverse of his Capgras, as numerous critics have mentioned (Houser and Herman and Vervaeck). Paranoia entails making connections that do not exist; whereas Capgras entails failing to see connections.

brain imaging technologies like the PET, CAT and MRI. He deforms Mark's dense, diversified narrative of his illness into "pure" science. This character demonstrates humans' reductive tendency—he validates Powers' claim that "something about us is in love with *whittling down*" ("A Conversation With Richard Powers").⁴²⁴³ Frustrated with Dr. Hayes' purely clinical approach to her brother's treatment, Karin contacts the renowned neurologist-author Dr. Weber, who believes that narrative is crucial to understanding patients. He knows that "you [can't] grasp any individual brain without addressing private history, circumstance, personality—the whole person, beyond the sum of mechanical modules and localized deficits" (227). This passage clearly invokes Sacks, who once wrote, "To restore the human subject at the center—the suffering, afflicted, fighting human subject—we must deepen a case history to a narrative or tale; only then do we have a 'who' as well as a 'what,' a real person, a patient, in relation to disease" (*The Man Who Mistook His Wife For a Hat* viii). Just like the real-life Sacks, Weber devotes himself to "telling the story of people whose stories don't get told" (225).⁴⁴

This character appears to have good intentions, but he, too, fails to help Mark. His "narrative impulse" (232) is simply too strong. Weber abandons Mark once he gets all the details he needs for his next book. Only later does he realize how completely he has failed his patient: "months of unnecessary suffering . . . Because he'd never considered

⁴² Dr. Hayes' empirical approach represents a relatively recent revolution in contemporary medicine—one that Luria describes. Luria argues that, in recent years, "observation of patients and evaluation of syndromes have begun to give way to dozens of laboratory analyses which are then combined by mathematical techniques as a means of diagnosis and as a plan of treatment. Physicians who are great observers and great thinkers have gradually disappeared" (176).

⁴³ Dr. Hayes' character parallels the doctor figures in a number of other neuronovels, such as Joshua Ferris' *The Unnamed*. In Ferris' novel, Dr. Regis tries to find physical causes for his patient's strange condition (he walks compulsively). When he is unable to identify the condition on laboratory exams, he concludes "there is no reason to believe the disease has a defined physical cause, or . . . exists at all" (41). See also McEwan's *Saturday*.

⁴⁴ When asked in an interview how he wanted to be remembered after his death, Sacks answered that he wanted to be remembered for "bearing witness" (*On the Move*).

Mark anything but a good story” (311). Powers repeatedly demonstrates how narrative can obstruct empathy. In one scene, Weber recalls an old patient, Neil, who had lost the ability to see the left side of objects. Weber was very drawn to this man, that is, until he began to write about him: “He had no idea what became of the man. Some other neglect wiped him out, reduced him to story” (125). Weber’s critics accuse him of exploiting his patients, just as Sacks was also accused. Disability theorist Tom Shakespeare once labeled Sacks “the man who mistook his patients for a literary career,”⁴⁵ a detail to which Powers’ novel alludes. One particularly unforgiving critic writes of Weber’s book, “He dealt in generalities with no particulars, facts with no understanding, cases with no individual feeling” (222). Weber is lured by the sheer force of narrative. Evidently, so is Powers. The author claims that he wrote the entire novel with voice recognition software, wanting “the freedom to be completely disembodied . . . to feel as if [he’s] in a pure compositional state” (“Interview With Richard Powers”). The problem is that “pure compositional” form is empty without living, breathing people. Weber comes to realize what Powers surely knows: stories depend on material subjects. When he finally begins to realize his own blindness, Weber resolves to embrace a more empirical approach. He vows to “get back to pure science” (223). With “solid research” (189), he can return to clinical description, away from silly anecdotes. But the answer is not for Dr. Weber to become like Dr. Hayes. Instead, Powers suggests that empathy and understanding are best achieved by a balance between observation and emotional response.

This is demonstrated when Dr. Weber returns to Nebraska, now vowing to let Mark tell his *own* story: “He would never again leave himself open to charges of failed compassion. He would let Mark write the book. What did it feel like to be Mark Shluter?”

⁴⁵ Shakespeare riffs on Sacks’ collection, *The Man Who Mistook His Wife for a Hat*.

(300-1). On this trip, Weber overcompensates for previous blunders. He over-empathizes, especially when he meets Mark's nurse, Barbara. Weber is so mesmerized with this woman that he tries to become one with her: "One heartbeat, and he's strange to his body" (428). He "does not want her to see him as anything but what he well and truly is: hollow and graceless, stripped of authority. Borderless, same as anyone" (428). The two go dancing, and Weber experiences the sensation of disembodiment. In this very strange scene, Weber effaces himself. Here, Powers suggests that over-empathizing is just as problematic as under-empathizing, since, once again, Weber grossly misreads another person. Weber thinks Barbara is an "angel," but she later reveals that she was responsible for Mark's car accident—she wandered into the road to commit suicide, and he swerved to avoid hitting her. Powers juxtaposes Weber's over-reading and under-reading to stress the need for both thinking and feeling. With his patients, Weber refused to *feel*; he did not want to become personally involved in their stories. With Barbara, Weber *only* feels.⁴⁶

The Echo Maker's form moves between thinking and feeling.⁴⁷ The narrative alternates between factual description and poetic musings. Each of the five chapters is titled after a line from the mysterious note. Within each chapter, the narration perpetually wavers between the "voice of reason" and the "voice of verse," or "the discursive and the lyrical" (Houser). Heather Houser explains that Powers alternates between these two modes to induce a sense of wonder in the reader. Wonder, she argues, is the affective

⁴⁶ Mark's Capgras syndrome also reinforces the idea that thinking and feeling need to harmonize. He is tormented when his emotional responses to his sister do not correspond with his perception of her.

⁴⁷ Powers' formal structure is heavily indebted to Damasio, who argues that emotion underpins cognition. Damasio theorizes that our brains link the empirical and the emotional, since representations of objects (knowledge) correspond with representations of the soma (feelings). In his 1994 book, *Descartes' Error*, Damasio introduced the "somatic marker hypothesis," which posits that rational decision-making is conditioned by somatic emotional responses that can actually be observed. His next book, *The Feeling of What Happens*, analyzes how perceiving subjects come to have "a sense of self in the act of knowing" (9). In short, Damasio argues that "there is no consciousness that is not self-consciousness" (20) and that consciousness connects knowing and feeling.

state most conducive to ethics, and it depends upon a constant movement between the familiar and the strange. Houser's reading illuminates Powers' attempts to merge thinking and feeling and to create a kind of "estranging kinship" between the text and the reader. However, she does not discuss Powers' debt to romantic science, which transformed clinical discourse precisely by embracing wonder. Powers invokes Luria, Sacks, and other writers, even though he sometimes skewers their ideas. This illustrates that his feelings about narrative are conflicted: on the one hand, narrative allows us to escape the "straight jacket" of the self and inhabit another's story; on the other hand, narrative sometimes leads to alienation from others—or, worse, exploitation of them. We cannot assume that narrative is always a positive force.

The Echo Maker begins with an epigraph from Luria's biography—"To find the soul, it is necessary to lose it." This sentence forecasts one of the novel's most important themes: understanding depends upon estrangement. In order for an individual to truly empathize with another, she has to appreciate his strangeness. The environmentalist character—Karin's boyfriend, Daniel—recognizes the ethical power of wonder. Humans are destroying the cranes' habitat, he explains, but wonder might awaken environmental consciousness: "We need something to wake the sleepwalkers . . . to make the world strange again" (339). Weber also appreciates the potential of wonder. He muses that self-understanding is only possible when one recognizes the stranger at the helm in the mind. Weber perceives that we are all disconnected from our "subcortical selves." Powers uses neuroscience—not to lay bare the self, as Marco Roth and Gesa Stedman contend—but to make it strange. Just like Luria and Sacks, he combines a narrative of clinical disorder

with a narrative of wonder, creating a path between wonder and rationality, which the reader is invited to explore.⁴⁸

Luria and Sacks challenged the traditional case study by dwelling on the mysterious. In fact, Sacks explicitly acknowledges this aspect of his writing. In the introduction to his most famous collection of case studies, *Awakenings*, Sacks identifies his aim: “to convey the wonder of the clinical experience” (xxxix) through narrative. He ignores the grounds for scientific explanation—what is known—and, instead, focuses on the *unknown*. Like Luria, Sacks suggests that clinical description need not be devoid of enchantment. Luria was the first to break the mold. He described his clinical writing as “romantic science,” since it sought to unite classical science, which follows a reductive approach, with Romantic scholarship. According to Luria, classical scientists examine events in terms of constituent parts, and then formulate an abstract law based on those discrete elements. Romantic scholars, on the other hand, forego “step-by-step analysis,” often “let[ting] artistic preferences and intuitions take over” (175). Luria argued for “romantics in science” who “want neither to split living reality into its elementary components nor to represent the wealth of life's concrete events as abstract models that lose the properties of the phenomena themselves” (175). The romantic scientist’s goal is “to preserve the wealth of living reality, and [to] aspire to a science that retains this richness” (*Making of Mind* 174). Luria wrote two case histories under the rubric of romantic science—*The Mind of a Mnemonist*, which recounts the experiences of a man with extraordinary memory, and *The Man With a Shattered World*, which recounts the experiences of a young soldier who suffered from a traumatic wound to the brain. These two case studies are distinct in many respects. For instance, the first describes a

⁴⁸ See Leonard Cassuto for an analysis of the combination of wonder and rationality in Sacks’ work.

neurological “excess” or ability, the second a deficit. *Mnemonist* privileges the clinician’s perspective, while *Shattered* is composed of the patient’s own words. But both case histories are marked by a kind of “doubleness”—they combine the clinical and the biographical, the empirical and the holistic, the deductive and the inductive, the analytical and the empathetic.⁴⁹

Luria combined these approaches because he wanted his clinical writing to both *explain* and *understand*. Luria’s writings imitated more orthodox case studies,⁵⁰ insofar as they recorded a certain diagnostic problem as well as the course of treatment. But they also created a picture of the whole person—not just the illness.⁵¹ That “whole person,” for Luria, was a composite of biochemical and socio-historical processes.⁵² Luria refracted the patient’s rich vitality with various literary techniques. For instance, he used dialogue, narrative thematics (the theme of war pervades his second case study), and retrospection. (The orthodox case study is typically *prospective*, organizing events in logical sequence of causation (Howarth).) He also developed other characters to more fully recreate the patient’s world. It does not surprise that Luria deeply admired Sigmund Freud, though his approach was distinct from Freud’s—in his case studies, Luria preserved the neurological and etiological aspects of disease much more than Freud did.

Luria challenged the received ideas of the medical profession about the mind/body split. Perceiving a continuity between mind and body, Luria united neurology

⁴⁹ In Luria’s own words, the case histories combine “nomothetic and ideographic approaches to psychology” (*Making of Mind* 175).

⁵⁰ The case study method is attributed to French mining engineer and sociologist Frederic Le Play, though Freud is often credited for popularizing the method. Case studies typically analyze, in narrative form, the particular “case” of a person, group, situation or other phenomenon. They demand a solid amount of “field work” (Kuipers 117).

⁵¹ In his autobiography, Luria identifies Walter Pater’s *Imaginary Portraits* as a model for his case studies.

⁵² Luria was deeply influenced by Marxist thought, as Jenell Johnson discusses.

and psychology into one discipline.⁵³ Far from being rewarded for such efforts, however, the Soviet scientific establishment criticized him. Ivan Pavlov, for instance, upbraided Luria for adopting Freud's holistic approach and failing to approach human behavior from "low-level units." In 1932, Luria shared a paper with Pavlov, *The Nature of Human Conflicts*, which summarized two of his earlier monographs on the Freud. The day after receiving the paper, Pavlov stormed into Luria's office and tore the manuscript in half. Pavlov's criticisms led to an official Soviet condemnation of Luria's work, and Luria was prohibited from teaching, researching, and publishing any ideas with a psychoanalytic bent (Homs kaya 34).

Sacks was not a political pariah, but he, too, was severely scrutinized. The clinical community saw him as a mere popularizer after he published his second collection of case studies, *Awakenings*, in 1973. Inspired by Luria, Sacks combined etiology with phenomenological experience, showing that medical writing could indeed be fabulous.⁵⁴ *Awakenings* recounts the neurologist's work in the 1960s and 70s with a sanitarium of elderly patients who were paralyzed by encephalitis, resulting from the 1918 influenza epidemic. Sacks treated these patients with a dopamine replacement therapy (L-DOPA), which restored them to a wondrous vitality. Sacks recalls that his patients were "caught up with the emotion [and] excitement" experiencing "something akin to enchantment, even awe" (xxiv), and his writing style tries to convey this fervor. The book is comprised of twenty individual case studies, each told in clinical parts: first, a biographical sketch of the patient, then an illustration of the diseased patient before and after the L-DOPA trial.

⁵³ Luria collaborated with Lev Semyonovich Vygotsky to found this discipline.

⁵⁴ Luria was not Sacks' only significant influence. Sacks also admired the "clinical fiction" of Henry Head and Weir Mitchell. He discusses these two writers, as well as Luria, in his own illness narrative, *A Leg to Stand On*.

Within each sketch, Sacks brings the patient to life with fanciful descriptions and metaphors. For instance, he writes of his patient Mrs. Y, “When [she] is merrily ticking, she gives the impression of a clockshop gone mad, with innumerable clocks all ticking and chiming in their own time and tune” (108).

Sacks’ metaphorical writing undermines clinical writing from within. As Leonard Cassuto notes, “such wild juxtapositions with the non-human steer the clinical narrative trajectory toward territory colonized by P.T. Barnum” (329). Cassuto explains that Sacks’ writing deliberately combines aspects of the “freak show” with aspects of the medical theater in order to challenge these “two arenas of human objectification” (326). Cassuto observes that the layout of Sacks’ collections parallels the architecture of the traditional freak show—both consist of individual displays of pathology, which are intended to enthrall the audience. Sacks invites the reader to join him in reflecting on the strange mysteries of human consciousness, just as Barnum’s hucksters lured customers inside tents by touting the show. When a customer was coaxed inside, he would encounter odd people seated on raised platforms. He would “move down the line from one freak to the next, watching short performances, listening to monologues, [and] buying pamphlets” (328). Sacks encourages the reader to dwell on the “fabulous strangeness” of his patients. Ironically, he creates a freak show *within* the confines of western science, the very discipline credited for ending the freak show. As Cassuto explains, medical discourse “[killed] off the freak show by rendering its fantastic displays in prosaic terms as medical anomalies” (326). (However, medicine also objectified disabled persons by reducing them to their defects.) Cassuto argues, “[b]y creating freaks within a clinical setting that is supposed to discourage that possibility, Sacks is writing narratives of wonder at a time

when wonder is hard to come by” (329). He tries to restore strangeness to clinical experience to capture human beings in all their richness. This is a risky project that has not always succeeded, in the eyes of many other critics.⁵⁵

Powers embeds the controversial reception of Sacks within his novel, as Weber is gradually ostracized by the professional community. At first, Weber’s clinical tales bring him much notoriety and praise. His first books become instant bestsellers, and he tours to meet his many eager fans. But the “standing room only crowds” (228) eventually dwindle, and the tide begins to turn against him. The press suggests that his personalized case histories “violate professional ethics” (228). At a reading in Berkeley, an attendee asks if his patients always give full approval. “Of course,” he responds. But when the questioner presses him, pointing out that his patients’ deficits might impede them from fully understanding their approval, Weber begins to feel uncomfortable. “This is starting to feel like a feeding frenzy” (228), he laughs nervously. He continues with his book tour, but the attacks escalate. In Sydney, he is humiliated by a question referring to a scathing review in *Harper’s*, which claimed that “he’d missed his true calling, that Gerald Weber was, deep down, a fabulist” (232).

Powers even compares Weber to a circus advertiser, which suggests his familiarity with Sacks’ critics. When he goes on a television show, Weber is asked about the “strangest cases” he has ever witnessed. He suspects that the show’s host is trying to humiliate him: “a freak show, unrolling in front of millions of breakfasters. Just like the reviews accused” (233). The criticism prompts an existential crisis in Weber, forcing him to reconsider his craft. On the one hand, he knows that story is essential to healing: “Story was the storm at the cortex’s core. And there was no better way to get at that

⁵⁵ See, for instance, Shakespeare’s review of *An Anthropologist on Mars*.

fictional truth than through the haunted neurological parables of [Paul] Broca or Luria—stories of how even shattered brains might narrate disaster back into livable sense” (414).⁵⁶ On the other hand, he senses that his stories reduce people “to circus acts and Gothic freak shows” (414). Weber’s dilemma underscores the janus-face of narrative. Narrative enables us to move outside of ourselves, inhabiting the stories of others. But narrative is also a defense mechanism, making sense of the world to protect the integrity of consciousness. Sometimes, the narratives we construct distort the lived realities of others. Neuroscience instructs that the self is improvisatory—consciousness is always scrambling to get its story straight. As Weber explains, “the job of consciousness is to make sure that all of the distributed modules of the brain seem integrated. That we always seem familiar to ourselves” (391). The neurologist tells his seminar of graduate students: “We think of ourselves as a unified, sovereign nation. [But] neurology suggests that we are a blind head of state, barricaded in the presidential suite, listening only to handpicked advisers as the country reels through ad hoc mobilizations” (363). In passages like these, Powers demonstrates how neuroscience makes individuals vulnerable, since it forces them to give up the self-narratives to which they cling. And vulnerability can lead to empathy. As Powers explains to Jill Owens, “It’s that vulnerability, that giving up of narrative that allows you to be more fluidly part of the narratives that go beyond you.” Thus, where neuroscience sees narrative as a defensive mechanism, which protects the integrity of consciousness, Powers also sees narrative as a means to connect with others.

⁵⁶ Paul Broca (1824-1880) was a French physician, surgeon, anatomist, and anthropologist, best known for his research on a region of the frontal lobe (Broca's area), subsequently named after him. Like Luria, Broca studied patients suffering from aphasia. His work revealed that patients with this condition had lesions in the left frontal cortex (LaPointe).

The real promise of neuroscience is not that it will explain the mysteries of human consciousness. Rather, Powers suggests, neuroscience promises to restore mystery to the universe. Weber realizes this. The doctor perpetually contemplates the vast and complex mysteries of the human brain. Somehow, this “bundle of neurons” enables consciousness, a feat that will always escape explanation: “long after his science delivered a comprehensive theory of self, no one would be a single step closer to knowing what it mean to be another” (365). Here, Dr. Weber stumbles upon what cognitive scientists call the “hard problem” of consciousness. David Chalmers first introduced the term to distinguish the problem of experience—the subjective aspect of consciousness—from the “easy problems” of consciousness, which can be explained with the standard methods of cognitive science.⁵⁷ In this scene, Powers suggests that brain research is humbling precisely because it reveals the limits of empirical description, as well as the constructedness of our cherished self-narratives.

Yet, even while Powers acknowledges that consciousness actively narrates, he does not perceive this neuroscientific fact as signaling a crisis of knowability. Knowing our brains spin tales does not mean that we can never access a reality beyond ourselves. In fact, such skepticism, only guarantees disengagement. Powers explains:

The idea that narrative necessarily informs any interpretation of the facts seems to relegate the facts to some non-circulating, unreachable place and to leave us stuck inside our own private construction. (The ironic thing, and this is the kind of knowledge that fiction excels at, is that a person’s response to this crisis—whether skeptical, cynical, wistful, delighted, or reactionary—probably depends more on personal temperament than on

⁵⁷ “Easy problems,” according to Chalmers, can be “explained in terms of computational or neural mechanisms. The hard problems are those that seem to resist those methods” (“Facing Up to the Problem of Consciousness” 9). For Chalmers, the “hard problem” of consciousness requires a theory of consciousness that takes experience to be fundamental. In other words, consciousness should be regarded as a basic feature of the world, alongside mass, charge, and space-time (19).

any deployment of the “facts” in the matter. (“A Conversation With Richard Powers”)

Powers insists that we need to appreciate the “two-way traffic of comprehension” (“A Conversation With Richard Powers”). There is a feedback loop between perception and narrative, and neither is arbitrary. Powers further claims that this “interdependence of narrative and measurement [is not] the demise of empiricism or meaning.” Rather, it is “a call to reconstitute meaning as a two-way product, one that involves both data and its narrative collaborator” (“A Conversation With Richard Powers”).

The Echo Maker expounds on this idea, demonstrating how data works in tandem with the narrative impulse to expand the horizon of consciousness. Together, data and narrative create a sense of wonder, which allows the individual to see beyond her own world. Just as Weber is perpetually awed by scientific descriptions of the human brain, Karin, too, responds affectively to information. Karin gets a job at the crane refuge, where she reads reports about the destruction of local habitats. Strangely, science stirs new feelings in her: “Crushed by data, her senses come weirdly alive” (407). The reports enhance her sensory experiences—she becomes hungrier, sees more vivid colors, and smells new aromas. She is reminded of one of the brain-damaged patients about whom she read in one of Dr. Weber’s books—“the woman with fronto-temporal dementia who suddenly started producing the most sumptuous paintings” (407). Karin realizes the ethical bent of empirical science—it forces the individual to move past herself: “The least dose of life science, a few figures in a table, and she begins to see: people desperate for solidity, must kill anything that exceeds them. Anything bigger or more linked, or, in its bleak enduring, a little more free. No one can bear how large the *outside* is” (407).

The idea that science helps the individual to identify her inherent biases and aggressive tendencies is not new. Many scientists have promoted the discipline by arguing that it cultivates more ethical and humanitarian attitudes. Richard Dawkins, for instance, argues that facts and reasoning help us to better understand others and reduce suffering in the world. Powers shares this position, but he further suggests that science's real ethical valence is its capacity to enchant. For Powers, science is "about cultivating a perpetual condition of wonder in the face of something that forever grows one step richer and subtler than our latest theory about it. It is about reverence, not mastery" ("A Conversation with Richard Powers").

Powers folds empirical data into a narrative enchantment, just as Luria and Sacks did. Critics challenged Luria and Sacks for their holistic approaches and for embracing wonder. In a reverse fashion, literary critics have condemned Powers for embracing empiricism. As discussed in the introduction, Roth and Stedman complain that the neuronovelist incorporates so much science, simply re-articulating the findings of brain research. Joseph Tabbi also criticizes Powers for his approach. Tabbi argues that "Powers' oft-stated ambition to combine 'head and heart' diminishes, rather than develops narrative's capacities" (226). By incorporating so much information from other fields, Tabbi claims, Powers does a disservice to fiction and to constructivist approaches. Tabbi is perplexed by Powers' empiricism: "Powers surely knows that, even if the material world is real and exists apart from what we might think or saw about it, still we can only know this world through constructions of language—that is to say, fictions" (227). By subordinating ontology to epistemology, Tabbi is guilty of what many contemporary philosophers indignantly call "correlationism." Quintin Meillassoux, one

of the founders of the Speculative Realist movement, defines correlationism as “the idea according to which we only ever have access to the correlation between thinking and being, and never to either term considered apart from the other” (5).⁵⁸ Meillassoux traces this critical tradition to Immanuel Kant, who denied the possibility of accessing things-in-themselves (what John Locke called “primary qualities”), claiming it is only possible to access things as they exist for the perceiving subject (“secondary qualities”). Tabbi expresses Kant’s dogmatic tradition by suggesting that the world is “meaningful only as given-to-a-living (or thinking)-being” (15). In doing so, he promotes the “dualistic thinking” that Powers and contemporary philosophers are trying so hard to dismantle.

To challenge correlationism, Meillassoux offers the scientific concept of “ancestrality”—a world prior to the human species. By imagining an ancestral world, scientists affirm the possibility of imagining a reality anterior to thought. In *The Echo Maker*, the cranes evoke longing for such an ancestral reality. These “feathered dinosaurs [are] a last great reminder of life before the self” (277). In Native mythology, these birds are called “Echo Makers” because they “echo” a time when “animals and humans still shared the same language” (181). The narrator, like Meillassoux’s subject, longs for a world without thought—a world “in-itself.” The novel’s form, which I will now discuss, also unwittingly responds to Meillassoux’s call for contemporary thinkers to join scientists in trying to access things-in-themselves.⁵⁹

⁵⁸ Meillassoux and other founders (Ray Brassier, Iain Hamilton, and Graham Harman) aspire to a post-Kantian philosophy that overcomes correlationist thinking (i.e. Deconstruction) and returns to questions of being. See *The Speculative Turn* for a range of essays that call for a renewed realism.

⁵⁹ To assist modern philosophers out of the “correlationist two-step” (5), Meillassoux revives Descartes’ thesis that primary qualities can be formulated in mathematical terms.

The Echo Maker's Doubled Form

The Echo Maker combines empirical description and phenomenological observation using a narrative technique that the author calls “close, limited third-person focalization” (“Richard Powers’ Narrative Impulse”). This “doubled” form moves between the perspectives of different characters—primarily Mark, Karin, and Weber—while still maintaining a third-person voice. This narrative style, which the author calls a “hybridized inside/outside voice,” is neither stream-of-consciousness nor traditional third-person narration (“Richard Powers’ Narrative Impulse”). The narrator’s voice adapts according to whichever character happens to be the focalizer at that moment. For instance, when the story is focalized through Mark, the narrator imitates this character’s crude and sarcastic tone. At one point, the narrator even assumes the birds’ eye view—the perspective of the sandhill cranes. A young bird sees his father shot at the start of hunting season: “His father is hit. He sees his parent sprayed across the nearby earth. Birds scream into the shattered air, brain stems pumping panic” (277). In this passage, the narrator is trying to answer the question that Dr. Weber asks himself later in novel: “What does it feel like to be a bird?” (424). This question invokes Thomas Nagel’s famous essay, “What Is It Like To Be a Bat?” in which the author refutes reductionism by arguing that phenomenal experience (consciousness) cannot be represented objectively. Powers’ narrative mode suggests that while we may never fully inhabit the consciousness of another, we can—and should—try to empathize, nonetheless.

When we attempt to empathize with others, as the narrator does (and as Dr. Weber does not), we experience the world anew. Powers suggests that true scientific observation views events from as many perspectives as possible. For instance, he

demonstrates how the protagonist's Capgras condition can be examined from different vantage points (empirical, holistic) and experienced differently by characters. When the narrative voice aligns with Karin, the reader realizes how vastly Mark distorts reality. But when the narrative aligns with Mark, the reader senses that his paranoid delusions are, perhaps, not so far off-base. At one point Mark relates, "I don't know who I've been feeling like, lately, but, man, it would be good to be off this ride" (393). This comment suggests that Mark is, in fact, very in tune with his situation—he fully understands that he is not in the driver's seat. His life story is being written by others, primarily Dr. Weber.

By refracting the inner and outer worlds that comprise an individual character, Powers also illuminates how the inner world of illness and the outer world of culture and history interact. Luria used a similar technique in his second case study, *Shattered*. The clinician assumes an editorial, rather than an authorial, role. This narrative consists of the patient's own diary writings, with little commentary from Luria. However, Luria does intervene to place the patient in a larger universe—specifically, in the context of war. He uses the metaphors of battle—for instance, he refers to his patient's disease as "his fight"—to reconstruct the patient's world.⁶⁰ Like Luria, Powers backdrops the main story (Mark's accident and rehabilitation) with thematics to emphasize the multifarious levels that shape an individual's reality. In *The Echo Maker*, there are two subplots, one environmental and the other sociopolitical. The first subplot involves the conflict between the preservationists and the land developers over the crane refuge. This plot is enhanced by the narrator's lyrical descriptions of the sandhill cranes, which preface each chapter. The second subplot involves the Iraq war—Mark's buddies coax him to enlist in the army to avenge the attackers of the World Trade Center. Both of these backdrops place the

⁶⁰ See Hawkins for a fuller reading of the language of battle in Luria's case study.

characters in larger networks, showing the manifold global processes in which their lives participate. For Powers, ecological catastrophe and the post-9/11 world shape individual consciousness just as much as the firing neurons in the brain, and “no level of human existence means anything without all the others” (“Making the Rounds”).⁶¹

Powers also links the bird plot and the brain plot to reinforce the interconnectedness of living systems. He reveals that the cranes have an alien intelligence—a deep-seated, primal knowledge of place—that parallels human memory. The narrator reflects on the birds’ uncanny migratory patterns, made possible by instinct: “[The cranes] head for the tundra, peat bogs, and muskegs, a remembered origin . . . There must be symbols in the birds’ heads, something that says *again*” (98). Their flights “retrace a route laid down centuries before their parents showed it to them” (4). The human brain, too, has an awesome capacity for memory, as well as an ability to make familiar what is strange.⁶² In fact, humans are probably “the only creatures who can have memories of things that never happened” (101). Powers suggests that human consciousness is both a blessing and a curse—an idea that Daniel also articulates: “conscious and godlike, [humans are] nature’s one shot at knowing and preserving itself. Instead, the one aware animal in creation [has] torched the place” (57). Again, Powers applies the findings of neuroscience to ethical action. From his perspective, scientific knowledge is most useful when it reveals how humans are capable of caring for others.

⁶¹ Powers exemplifies Stephen J. Burn’s claim that contemporary novelists attempt to merge scientific and philosophical accounts of personhood. Burn argues that first-generation syndrome novels (for instance, John Barthes’ *Once Upon a Time*) incorporate neuroscience to answer questions that postmodernism cannot, whereas second-generation syndrome novels (for instance, Nicole Kraus’ *Man Walks Into a Room* and Jonathan Ferris’ *The Unnamed*) intermingle the registers of science and spirituality.

⁶² Mark’s Capgras syndrome inverts the normally function brain—it makes the familiar strange.

Another link between the bird plot and the brain plot is this: Mark's accident occurs at the start of bird season, just as the cranes begin to arrive in Nebraska. Mark dismisses this as "just coincidence" (256), but, by now, the reader knows better. Powers connects the storylines even further by describing Mark with an avian idiom. When Karin arrives at her brother's hospital room, she sees her brother "in a nest of cables and monitors." Her brother is wearing "a flimsy robin's-egg gown," and "his fingers feathered at her, frantic" (4) for her grasp. By seamlessly interweaving the environmental and the neurological tales, Powers illuminates how the different dimensions of an individual's reality interact. Much like Luria, Powers recreates his characters' phenomenological universe by positioning conscious experience within various systems—both neurological and socio-historical—and by effacing his authorial presence.

Sacks, however, took a different approach. Sacks wrote himself into his patients' stories, another move that Powers' novel questions. Fearing that his earlier collections (*Migraine*, *Awakenings*, and *The Man Who Mistook His Wife for a Hat*) created a spectacle of patients, Sacks decided to acknowledge his own eccentricities. In *The Anthropologist on Mars*, for instance, the narrator becomes a character—the bizarre, quirky doctor. As Cassuto explains, Sacks tries to "create a collaborative space, a community of freaks that eventually comes to include himself" (330). He knew that the medical gaze objectified patients, and he wanted to transform that gaze into "a mutual look, a meeting of two worlds" (332). His efforts culminated in *A Leg to Stand On*, in which the doctor is the subject of the case study. This book recounts Sacks' recovery from a leg injury, when he experienced illness from the perspective of a pitied and

disabled patient. At the end of his life, Sacks revealed that he was gay.⁶³ This revelation further sheds light on his efforts to characterize himself as disenfranchised, as well as his commitment to bear witness to his patients.

Powers likens Weber to Sacks by describing his character's quirky habits—for instance, he wears tacky shirts—and his quirky appearance: “he was a cross between Charles Darwin and Santa Claus” (101). Weber has the odd habit of calling his wife, “Woman” (and she calls him “Man”). Weber, like Sacks, also claims to suffer from prosopagnosia, or face blindness. In Powers' narrative, however, the disorder is metaphorical, as well as literal. Weber's inability to recognize familiar faces—for instance, his students and colleagues—symbolizes his inability to empathize. Because he is in “narrative overdrive,”⁶⁴ Weber utterly fails to understand reality from his patients' perspectives. Weber, in fact, resembles a character from Sacks' *The Man Who Mistook His Wife For a Hat*. In this collection, the neurologist describes a patient, William, with a “great gift for confabulation” (114). He is endlessly verbose, frantically constructing tales to create meaning from events. But, as Sacks explains, “William's great gift is also his damnation—if only he could be *quiet*, one feels, for an instant; if only he could stop the ceaseless chatter and jabber . . . reality might seep in; something genuine, something deep, something true, something felt could enter his soul” (114). Like Sacks' patient, Weber loses “some ultimate capacity for feeling” (114). This is somewhat ironic, since Weber embraces contemporary Theory of Mind, which posits that individuals can discern the intents, desires, and beliefs of others, even when these contrast with their own mental

⁶³ Sacks officially “came out” in his memoir, *On the Move*, which was published on the day that he learned he had terminal cancer.

⁶⁴ Herman and Vervaeck use this term to describe Weber's mode.

states. Weber understands how mind-reading works—the mirror neuron system causes the self to “bleed out” (383)—yet, he cannot empathize with others.

Powers dramatizes Weber’s failings, as well as the controversy surrounding Sacks, to problematize narrative representation. Powers asks, can narrative bring us closer to others or does narrative primarily allow the self to project onto the world? Do narratives of wonder capture the richness of psychic life or do they reduce individuals to freak shows? Are stories the only means to cultivate wonder or can facts also stir the senses to enchantment? The novel’s form suggests that narrative is crucial to empathy and knowledge, but it needs to be balanced by empiricism.

To model the feedback loop between perception and storytelling, Powers writes prospectively and retrospectively.⁶⁵ This also links Powers’ novel to romantic science. In their case studies, Luria and Sacks ordered diagnostic events in logical sequences of causation, but then they filled in the gaps with narratives. They recorded subsequent reflects, which transposed the prospective bent of clinical notes. Luria stresses that it is imperative to combine “step-by-step reasoning” with artistic intuitions, lest one take over the other (175). Powers recreates this double temporality in his own narrative, at times switching between present and past tense. However, in his novel, present tense corresponds with lyrical, imaginative voice, while past tense corresponds with more straightforward description. The opening scene exemplifies this. The narrator begins with an illustration of the birds: “Cranes keep landing as night falls. Ribbons of them roll

⁶⁵ In this regard, *The Echo Maker* resembles DeLillo’s early novel, *Ratner’s Star*, which is structured to model the split-brain. The novel’s first half invokes the left hemisphere, associated with reasoning, calculation, and ordering; the novel’s second half invokes the right hemisphere, associated with creativity and intuition (Burn). DeLillo claims to have drawn the novel’s structure from the headings “Adventures” and “Reflections” in Lewis Carroll’s *Alice’s Adventures in Wonderland* and *Through the Looking Glass* (“Interview with Tom LeClair”). Incidentally, Carroll significantly Luria as well (*The Making of Mind*).

down, slack against the sky. They float in from all compass points, in kettles of a dozen, dropping with the dusk” (3). The present tense—used to reinforce the birds’ perennial migratory patterns—shifts to past tense, as the narrator begins to recount the main story. The narrator describes Karin’s panicked drive to her hometown, after learning of her brother’s accident: “she drove in a trance . . . the backroads were impossible. . . . Her hands, stiff and blue, clawed the wheel” (4-5). In this scene, the present tense dramatizes the immediacy of perception, while the past tense reflects the retrospective bent of story. The movement between past and present tense recurs throughout the novel, demonstrating the “two-way traffic of comprehension.” Meaning involves perceived reality as well as its narrative collaborator. One of the characters from *Gold Bug* borrows a line from Wallace Stevens to express this very idea: “Life consists of propositions about life.” When we reflect through narrative, we revise our representations of the world. We, thus, need narrative to *perceive*, in the first place.

By suggesting that story is essential to experience, Powers concurs with cognitive scientists like Dennett, for whom human experience *is* narrative. “We are all virtuoso novelists,” according to Dennett. “We try to make all of our material cohere into a single good story. And that story is our autobiography. The chief fictional character . . . of that autobiography is one’s self” (“Why Everyone is a Novelist”). Powers accepts what Galen Strawson calls “the psychological narrativity thesis”—the idea that “human beings see or live or experience their lives as a narrative or story of some sort” (428). He also accepts the “revision thesis” clearly articulated by Dennett—the idea that narrativity involves some tendency toward revision (Strawson 444). In an interview about the book, Powers explains, “after the Patriot Act and the detainee bill, after Gitmo and Abu Ghraib, our

stories—public and private—keep scrambling to keep America whole, continuous, and coherent, to *place* it” (“Interview with Richard Powers”). Here, Powers suggests that the narrative impulse is self-serving. But, contrary to Dennett, he does not accept that narrativity is *always* self-serving.⁶⁶ In Dennett’s schema, narrative spins fiction to protect the integrity of the self. Narrative is, thus, always charged with some moral emotion, such as pride, self-love, conceit, shame, or guilt. Individuals only ever revise in their own favor, according to Dennett: “we always try to put [on] the best ‘faces’ we can” (“Why Everyone is a Novelist”). Powers counters this schema by suggesting that narrative can also be deployed in detriment to the ego. In the same interview, he insists that reality is *not always* recognizable and that sometimes we need to be bewildered. Stories—whether in the neural cortex or on the page—are most powerful when they reconstitute us. He confesses, “when I read a particularly moving and achieved work of fiction, I feel myself succumbing to all kinds of contagious rearrangement. Only inhabiting another’s story can deliver us from certainty” (“Interview with Richard Powers”). Here, Powers insists that fiction can also enable us to wonder, to register what is unfamiliar, and “to see [ourselves] in others.” Ultimately, then, Powers’ notion of narrative is very distinct from that of Dennett and others. For Powers, narrative does not always imply some inauthenticity. Rather, it is a means to “make the world strange again” (339). Narrative reveals that alienation and identification go hand-in-hand. And so, while story may be essential to form-finding; story is also *opposed* to form-finding. This, if anything, constitutes the relationship between narrative and “the good life.” Narrative is not an

⁶⁶ Strawson argues the same point in “Against Narrativity” (444).

ethical model for living, as many novelists and philosophers proclaim.⁶⁷ But narrative can lend itself towards ethics, especially when it allows us to escape the “straight-jacket” of the self.

⁶⁷ Strawson observes the popularity of “the ethical Narrativity thesis,” which implies that experiencing one’s life as a narrative is essential to true or full personhood (428). He criticizes Oliver Sacks, Charles Taylor, and Paul Ricoeur, among others, for claiming that story is a requirement of human agency.

Chapter 3: New Sincerity and the Legacy of Psychoanalysis: Benjamin Kunkel's *Indecision* (2005) and Heidi Julavits' *The Uses of Enchantment* (2006)

As the previous two chapters have demonstrated, contemporary novelists yearn for divergent forms of truth. They desire both “Truth” with a capital T and the more local truths of experience. In this regard, the contemporary writer’s dilemma resembles that of Sigmund Freud—another “boogeyman” within the scientific community. Freud was trained as a neuropathologist, and he was somewhat concerned that his case studies read like short stories, “[lacking] the serious stamp of science” (“Case Study of Fraulein Elisabeth von R”). At the same time, Freud realized that narrative was the form most appropriate to convey the singularity of a patient’s experience. He perceived “an intimate connection between the story of a patient’s sufferings and the symptoms of his illness” (“Case Study”). Ironically, while his patients were trying not to remember, Freud was “trying not to write short stories” (*Side Effects* 45). Perhaps Freud’s dilemma explains why psychoanalysis remains an important point of reference for so many writers today, who are grappling with the legacies of both postmodernism and neuroscience.

Psychoanalysis has significantly influenced recent novels by a number of writers, such as Siri Hustved, Salley Vickers, Daniel Menaker, Dave Eggers, and Teju Cole,⁶⁸ as well as popular television shows like HBO’s *In Treatment* and *The Sopranos*. In fact, *The Sopranos* depicts analytic sessions in nearly every episode. Wendy Davis credits the show for reviving psychoanalysis from decades on life support: “[T]hanks to Tony Soprano . . . the ‘talking cure’ is sexy again.” Davis argues that the series channels “a

⁶⁸ Hustvedt’s *The Sorrows of an American* (2008) and Vickers’ *The Other Side of You* (2003) are narrated by a psychiatrist. The protagonists of Menaker’s *The Treatment* (1998) and Teju Cole’s *Open City* (2011) are also psychiatrists. Eggers’ novel *Wild Things* (2009), an adaptation of Maurice Sendak’s picture book, *Where the Wild Things Are* (1963), blatantly invokes Freud—it is about a boy whose adolescent fantasies are cathartic.

deep craving in our culture for this particular brand of truth-telling.” She attributes this craving to the failure of the “Prozac culture” and its “yes-you-can psychology and fix-me-now solutions.”

These works of fiction and film suggest that, despite neuroscience’s efforts, Freud simply will not go away. He may have fallen out of favor in clinical circles.⁶⁹ (In 1996, *Psychological Science* declared, “[T]here is literally nothing to be said, scientifically or therapeutically, to the advantage of the entire Freudian system or any of its component dogmas.” (“The Verdict on Freud.”) But his legacy endures. Freud’s influence is especially apparent in the language we use to describe psychological phenomena. As George Dvorsky notes, “[r]arely does a day go by where we don’t find ourselves uttering a term drawn from his work: Mommy and daddy issues. Arrested development. Death wishes. Freudian slips. Phallic symbols. Anal retentiveness. Defense mechanisms. Cathartic release.” One genre, in particular, that features a lot of Freud is “New Sincerity” fiction. This genre encompasses post-postmodern narratives that abandon the ironic forms used by the “black humorists” (e.g. Thomas Pynchon, William S. Burroughs, William Gaddis, and Don DeLillo, among others) to return to the “single-entendre principles” advocated by David Foster Wallace in his now-famous “E Unibus Pluram” essay.⁷⁰ In this essay, Wallace argued that irony and cynicism had become unproductive. He asserted that the idealistic assumptions behind early postmodern irony—that “etiology and diagnosis pointed toward cure, that a revelation of

⁶⁹ He has also fallen out of favor in literary culture. In 1999, Frederick Crews published a collection of writings by eighteen of Freud’s critics, which aimed to reveal Freud as a fraud who exploited his patients for his own personal gain. More recently, literary critics have turned against Freud for promoting “depth hermeneutics”—an interpretive paradigm that likens reading to the process of digging for hidden clues and buried truths. See Felski and Best and Marcus.

⁷⁰ For more on this movement of fiction, see Adam Kelly and Lee Konstantinou.

imprisonment led to freedom” (66-7)—had, by now, proven false.⁷¹ Critical knowledge, Wallace claimed, was not liberating; the dismantling of grand narratives, prompted by poststructuralism, had provided little ground for meaningful action. Wallace attributed irony’s failure to its reappropriation by the mass media. Television had successfully hijacked the techniques of the literary avant-garde, responding to viewing audiences’ growing suspicion of the reality depicted on the screen. A number of writers have responded to Wallace’s call, seeking to replace irony with sincerity, which they link to social change. Significantly, some have drawn specifically on psychoanalysis to do so. Benjamin Kunkel and Heidi Julavits each incorporate psychoanalysis into their fiction to promote an ethos of trust, rather than a postmodern ethos of suspicion.

While Kunkel and Julavits both use psychoanalysis, however, they do not agree on Freud’s legacy. Kunkel sees the analytic session as a liberal contract; Julavits sees it as a scene of power.⁷² Of course, this conflict about Freudian psychoanalysis is not new.⁷³ But it is important for understanding today’s literary culture and its relationship to both postmodernism and neuroscience. In this chapter, I argue that the disagreement between Kunkel and Julavits about Freud signals conflicting sensibilities about the role of sincerity and suspicion in intellectual life. These very sensibilities can be seen in the pages of leading literary outlets, like *n+1* and *The Believer*. These two journals, founded by Kunkel (*n+1*) and Julavits (*The Believer*) among others, both combine politics and

⁷¹ As Cornel Bonca observes, Wallace and his contemporaries are reacting to a particular picture of postmodernism and metafiction, one generated by university creative writing departments. Bonca explains that Wallace, Rick Moody, and other “New White Guys” were “[s]chooled in the late ‘70s and ‘80s . . . [when] narrative deconstruction and paranoid irony [were] the rage.”

⁷² As I will discuss, Julavits only embraces psychoanalysis for its literary insights.

⁷³ Many literary and cultural critics have tended to fall within these two camps. Michel Foucault and his protégé, Judith Butler, as well as anti-psychiatry movement leaders Gilles Deleuze and Félix Guattari, have read Freudian psychoanalysis an extension of repressive society. Others, such as Juliette Mitchell and Jacqueline Rose, have argued that Freud is essential to emancipatory movements (feminism, in particular). The same divide exists within the profession of psychiatry.

cultural commentary in a dual-platform (print and web). Both favor lengthy and digressive discourse, rather than the more succinct forms of the digital age. (Editor Mark Greif characterizes *n+1* as “a long print archive in an era of the short sound bite.”) More importantly, both shun the cynicism of the 1990s and aspire towards an ethos of sincerity.⁷⁴ However, they disagree about what it means to be sincere. The battle over psychoanalysis, thus, proves crucial to understanding the challenges that literary culture faces today, after both postmodernism and neuroscience have declared the death of the subject. Most agree that irony is outmoded, but what does a post-ironic ethos look like? What *does* it mean to be serious? What is the best way to take something (or someone) seriously?

As I will demonstrate, both Kunkel and Julavits answer such questions by way of psychoanalysis. For Kunkel, Freudian psychoanalysis is critical, since it promotes openness. Freud’s fundamental rule—free association—prevents individuals from assuming the ironic stance that both postmodernism and neuroscience encourage. Furthermore, Kunkel embraces Freud because he was not afraid to interpret with authority. Kunkel rejects D. W. Winnicott and such postmodern successors as the British analyst Adam Phillips, who model their clinical practice after a form of play. The “wishy-washy” analyst helps no one, Kunkel insists. Julavits, on the other hand, admires analysts like Phillips, who claims to read psychoanalysis as poetry. Phillips’ therapeutic approach frees psychoanalysis from authoritarianism, affording patients the chance to construct their own narratives. Importantly, Kunkel and Julavits’ feud about the legacy of psychoanalysis represents a larger feud among progressives today about how we should read and relate to others.

⁷⁴ In the words of Keith Gessen, one of *n+1*’s founders, “It is time to say what you mean” (“End-notes”).

Affirming Freud: Benjamin Kunkel's *Indecision*

Indecision is a comical coming-of-age story about a 28-year-old upper-middle class slacker. Dwight B. Wilmerding is an over-educated under-achiever. He holds a mind-numbing job offering technology support at the pharmaceutical giant, Pfizer. Most of his time is spent getting high with his slacker roommates (some former prep school classmates) and moving from one casual “romantico-sexual” (132) relationship to the next. Dwight suffers from chronic indecision—an inability to make even the most trivial decisions. For instance, he cannot choose between nutella and pesto as toppings for his morning bagel; thus, he uses both. He cannot even choose between paper and plastic, and, so, he relies on coin tosses to help him with such routine decisions. There are numerous literary antecedents for Dwight’s character. T. S. Eliot’s Prufrock—and Hamlet, before him—were both indecisive. Dwight also invokes the narrator in Wallace’s *Infinite Jest*, who is fickle about attending Alcoholics Anonymous meetings. Wallace’s narrator is too smart for AA, but he knows he is an addict; he doesn’t believe in this Higher Power stuff, but what choice does he have if he doesn’t want to die? Critics have even compared *Indecision*’s narrator to *Catcher in the Rye*’s narrator. In fact, Michiku Kakutani wrote her review of the book in the voice of Holden Caulfield. The first line of Kakutani’s review reads, “If you really want to hear what I think about this guy Dwight Wilmerding, the first thing I should tell you is that he kind of reminds me of me.”

One of Dwight’s roommates, a medical school student named Dan, diagnoses his condition as “Abulia” and offers him the chance to try an experimental drug, Abulinix, designed to encourage decisiveness. Dan explains that Abulia is simply a mental

imbalance attributable to protracted civil conflict in the medial forebrain bundle. He assures Dwight that indecision is, in fact, a very common complaint among “ostensibly normal people”—that is, “among the sort of people that have doctors to complain to” (33). Dwight is delighted to finally understand his condition and also to have the panacea in his hand: “the diagnoses and the cure all at once!” (32). When he loses his job at Pfizer (he is “pfired”), Dwight seizes on this new opportunity to make life-changing decisions. He travels to Ecuador to meet Natasha, a long lost love from prep school, hoping she’ll join him at their upcoming class reunion. When Natasha suddenly disappears after his arrival, he winds up exploring the jungles of the Amazon with her friend, Brigid, a beautiful Belgian who schools him about global politics and the exploitative workings of neoliberalism. At the novel’s end, Dwight declares himself a democratic socialist and commits himself to the fight against neoliberalism. He fervently scribbles “serve justice” on the to-do list in his notebook.

Indecision satirizes millennial culture, depicting the cluelessness of privileged mid-20-somethings in the United States. But despite its comical tone, the novel conveys a sense of earnestness about social change. Most critics agree that *Indecision* is primarily about the difficult movement from self-awareness to “the reconstruction of belief that comes after it” (Agger). According to Adam Kelly, Dwight’s pathology (his indecision) depicts the precise historical conundrum that Wallace’s essay identifies—the problem of a diagnosis that never leads to a cure. Kelly argues that the protagonist represents the “good” postmodern subject who knows himself. Dwight is constantly scrutinizing his “Dwightness.” For instance, he analyzes his preference for Brooks Brothers shirts, his quirky sayings, and his habits with women. Yet, Dwight is also painfully aware that he is

a cliché. When his girlfriend, Vaneetha tells him that his life is “not even a fresh cliché,” Dwight concedes: “I knew she was right. It wasn’t very unusual for me to lie awake at night feeling like a scrap of sociology blown into its designated corner of the world” (26). He further admits that “knowing the clichés are clichés doesn’t help you to escape them. You still have to go on experiencing your experience as if no one else has ever done it” (26). Postmodern irony has failed Dwight, since it has not alleviated the problem of self-understanding. He still desires to find meaning in life. But how does an individual move from self-awareness to belief? For Kunkel, psychoanalysis is part of the answer. *Indecision* demonstrates how both postmodernism and neuroscience celebrate the death of the subject; furthermore, the novel demonstrates how psychoanalysis challenges these discourses by renewing faith in the individual’s ability to posit ideas.

Kunkel first connects the brain sciences to postmodern aesthetics in a crucial scene in which Dwight and his father discuss the brain (“the new frontier” (78) and the impact of the pharmaceutical industry on contemporary notions of selfhood. Dwight has arranged an outing with his father, hoping to ask him for a loan to finance his trip to Ecuador. Father and son go golfing together, and chitchat about Dwight’s job at Pfizer turns into one of their typical “zeitgeisty conversations.” Dwight’s father expresses his certainty that pharmaceuticals will revolutionize the way that we understand ourselves:

[W]e’re chemistry. That’s what we are. We just have to wait for this realization to trickle all the way down. Food, exercise, sexual intercourse, warmth—all these things function like drugs. They modify your mood and perspective. That’s how it’s always been. Mark my words, this distinction between natural and artificial, when this is your brain but then it’s your brain on drugs—that will frankly come to be seen as so much twentieth-century superstition. It’s a last hangover [. . .] from the old religious concept of the ‘soul.’ (79)

This passage, typical of the neuroscientific jargon integrated into more conventional neuronovels like Ian McEwan's *Enduring Love* (1997) or *Saturday* (2005), Jonathan Franzen's *The Corrections* (2001), or Richard Powers' *The Echo Maker* (2006), expresses the materialist position that prevails in scientific discourse today. Materialist philosophers, such as Daniel Dennett, Stephen Pinker, and Thomas Metzingers, reduce subjectivity to neural processes. Like Dwight's father, they dismiss "folk psychology" and traditional notions of the soul, the self, and free will. They also express optimism about the revolutionary potential of the brain sciences, believing that consciousness will soon be "explained."⁷⁵ In the vein of such materialist philosophy, Dwight's father insists that "we're chemistry" (78). In doing so, he declares that our subjectivity is not really our own. Further, by claiming that natural and artificial will soon be indistinguishable, he articulates the anti-essentialism of poststructuralist philosophy, which focuses on exposing the artificiality or constructed-ness of ideologies.⁷⁶

To further reinforce the connection between postmodern and scientific discourse, Kunkel illuminates the anti-foundationalist vocabularies that they share. Elaborating on his materialist philosophy, Dwight's father explains that "to think of the person without thinking of chemistry is like thinking of a house without architecture. There's no house that's simply a house you go home to, then you add or remove the design. The design *is* the house" (80). His statement invokes the eliminative materialism of cognitive philosophers like Dennett and Paul and Patricia Churchland. Eliminative materialists (in contrast to "reductive materialists") argue that certain mental states—beliefs and desires, for instance—that most people take for granted, simply do not exist, since no neural basis

⁷⁵ The title of Dennett's 1991 bestseller, *Consciousness Explained*, expresses this optimism.

⁷⁶ Michel Foucault's *Archaeology of Knowledge* is emblematic of this epistemology.

can account for these states. Such a notion bears a conspicuous resemblance to the anti-foundationalist theories of Michel Foucault, for whom knowledge (“discourse”) is merely the product of a vast and intricate network of institutional relationships, which are characterized by ruptures, rather than by cohesive themes. The phrase “the design *is* the house” is, thus, emblematic of both cognitive and philosophical discourses of the postwar period, which deny an agential self.

Dwight is immediately suspicious of the discourses that his father channels. He admits to himself that “disbelief in a person’s innate character ha[s] a serious intellectual pedigree going at least back to Scottish philosopher David Hume” (80). But he also knows his parents have always encouraged him to be “true to [himself]—a phrase actually used—and [seem] to have an idea of what this kind of fidelity should entail” (80). So, he is kind of disturbed that his father is “wiping the human face off the mirror as casually as a smudge” (80). Dwight is frustrated because his father’s opinions exacerbate his particular situation. If volition does not exist and all behavior has a neurobiological component, then action is impossible. Suddenly, Dwight recognizes the problem with Ablunix: it “would force [him] to decide that [his] entire personality boiled down to neurochemistry, and [he] only flattered [him]self in believing [he] possessed a free will in need of regular exercise.” (85). If free will is a myth, he asks himself, “why would I do anything at all? Once you decide you’re only an animal, how do you keep from becoming a vegetable?” (85). *Indecision* poses this question to readers: how can we possibly take anything seriously, after we have shifted attention entirely from the meaning of ideas to the means by which they are produced? That is, how can we return to questions that once compelled us—for instance, “What does it mean to be human? What is free will”—now

that we are trained to uncover the biases and the “secret grammar” of these concepts? By equipping us with a hermeneutics of suspicion, postmodernism has ultimately deprived us of any capacity to believe in ideas. This is precisely the argument that Arthur Krystal makes in a recent piece for *The Chronicle for Higher Education*, originally titled “Neuroscience is Ruining the Humanities.”⁷⁷ Krystal blames the current crisis of humanities disciplines on the academy’s eagerness to embrace critical theory. Krystal writes, “when literature professors began to apply critical theory to the teaching of books they were, in effect, committing suicide by theory.” He explains that the indirect accomplishment of postmodernist thinkers was to open the humanities to the sciences and to neuroscience, in particular. Krystal writes: “By exposing the ideological codes in language, by revealing the secret grammar of architectural narrative and poetic symmetries, and by identifying the biases that frame ‘disinterested’ judgment, postmodern theorists . . . mirrored the latest developments in neurology, psychology, and evolutionary biology.” Krystal continues: “To put it in the most basic terms: Our preferences, behaviors, tropes, and thoughts—the very stuff of consciousness—are byproducts of the brain’s activity. And once we map the electrochemical impulses that shoot between our neurons, we should be able to understand—well, everything.” Thanks to postmodernism, Krystal complains, every discipline is becoming a “neurodiscipline.” Krystal thus joins a long line of neoconservatives in blaming critical theory for every ill imaginable. Kunkel would agree with Krystal’s wariness about neuroscience’s growing cultural authority. (The scene with Dwight’s father demonstrates this.) Yet, rather than despair about the intellectual climate, as Krystal does, Kunkel speculates about ways to integrate questions of nature and questions of production. He asks readers to consider

⁷⁷ The title was later changed to “The Shrinking World of Ideas.”

whether psychoanalysis—a method that combines objective and subjective truth models—might restore our faith in ideas and inspire us to live more earnestly.

Kunkel illuminates analysis' dialogism in a very comical scene in which the young, millennial protagonist visits his sister for psychotherapy. Dwight has been meaning to see a shrink for some time, but he has no health insurance and receives only a minimal salary from Pfizer. His sister Alice offers to help, noting that, while she has no training in psychology, she has read widely in psychoanalysis. Dwight is initially reluctant, but he agrees because, after all, his sister already knows all about his dysfunctional childhood. When he visits her apartment for the first session, he lays down on her bed, and a cigar-smoking Alice explains her method: "I'm not going to ask you leading questions. You'll need to come up with our topics. In that way the ultimate cure, not that I expect you to believe in any such thing—but in that way the 'cure,' such as it is, will resemble the process" (138). By stressing that talking is both the means and the end, Alice distinguishes psychoanalysis from the neurobiological models of mind upon which pharmaceutical culture relies. Therapy creates an intersubjective reality between the patient and the analyst, whereas neurobiology reduces mental states to physiological evidence, totally depriving subjects of agency. While the analysis scene is laced with humor, Dwight's engagement with his sister leads to real insights about himself. For instance, he realizes that he is "event-proof"—he is immune to major events, whether public or personal. In short, therapy reveals to Dwight that he has been oblivious to others and to the world around him.

Further, in the analysis scene, Kunkel demonstrates how Freudian therapy is based on honesty and openness, rather than cynicism. When Dwight visits his sister for

therapy, Alice initiates a discussion about their parents, which turns into a discussion of the bands they mutually enjoy, then to a discussion about the Cold War. This conversation initially resembles the free association approach that Freud used. Freud directed the patient to self-observe without reflecting: “Act as though, for instance, you were a traveler sitting next to the window of a railway carriage and describing to someone inside the carriage the changing views which you see outside” (*On the Beginning of Treatment*). He advised patients to report all internal observations without censoring or excluding material believed to be disagreeable, indiscreet, unimportant, nonsensical, or irrelevant (“Two Encyclopedia Articles”). Honesty is the fundamental rule. At first, Dwight freely associates in the manner that Freud proposed. But then something happens. Dwight becomes aware of the conventions of the conversation, and his associations become contrived. Alice directs him to think about the Cold War, and he deliberately attempts to perform the technique: “Free association alert! I just got one. Cold War equals mom and dad’s marriage. Rival superpowers, mutually assured destruction, clashing policies...What do you think?” When the chain of associations leads nowhere, Dwight tries to snap his fingers to move more quickly (presumably, before the conscious mind redirects his thoughts): “Cold War mom and dad day after golden pond olympic gold Nostradamus HBO red dawn U2...” When the associations still do not come, he finally admits, “Fuck! It’s not working. In fact when I do mom-and-dad all I really picture is mom. I don’t even get dad so much. Damn. It was working so well” (141). This last comment comically illuminates Dwight’s extreme sensitivity to conventions—he conjures an image of his mother, since he presumes that the Oedipal conflict underwrites the unconscious. If Dwight were Freud’s patient, the analyst would

be suspicious. Freud interpreted coherence as a defense mechanism. From his perspective, rhetorical skill is a red flag—it suggests that the patient is making sense of self-observations (“Two Encyclopedia Articles”). In this scene, Kunkel critiques self-conscious performance, since it hinders meaningful dialogue.

Importantly, then, Kunkel distinguishes between Freudian analysis and postmodern reappropriations of the sort that Phillips uses. He demonstrates that, while some self-reflection is necessary for dialogue, *too much* self-consciousness actually inhibits empathy and understanding. When Alice begins to reflect about their parents’ divorce, she begins to cry. Dwight is inclined to comfort her, but his hyper-awareness kicks in: “I nearly got up to hug her, before the patient-client relationship reasserted itself and I resumed my reclining position” (142). At various moments throughout the session, Dwight recalls the conventions of the analyst/patient scenario, and, in each of these instances, his knowledge of conventions obstructs communication. For instance, he is unable to answer Alice when she inquires about his sarcastic tone: “[D]id I sound sarcastic or did she just hear it that way? Already I could feel the psychoanalytic situation sucking me into the whole mirror mirrors mirror problem, the bad infinity thing” (142). Dwight’s meta-reflection is always unproductive. He clings to irony, because he thinks it protects him. But, in fact, it is to blame for his alienation from others, as Brigid later observes.

Kunkel dramatizes the relationship between irony and alienation by positioning the reader as a skeptic outside the narrative. As much as the reader wants to take this scene seriously, Kunkel remains satirical. His comical portrayal of both characters—Alice is smoking a cigar, Dwight is acting like a doofus, as usual—undermines a sincere

interpretation. The reader's doubts linger beyond this scene, as she also questions the sincerity of Dwight's commitment to "serve justice." Dwight is resolute in his declaration, but, then again, he is prone to grand gestures that do not turn out to be so transformative after all. As numerous critics have noted, Dwight experiences a number of truth-revealing moments, none of which manage to substantially change him.⁷⁸ Even *he* admits that he is impervious to the events of his life: "waking up is a very common if not always fully complete experience" (145). The novel fails to resolve the reader's uncertainty about Dwight, as it ends quite inconclusively. Dwight asks for Brigid's hand in marriage, and she responds, "I'd like to. But not now. Maybe not ever. Really I don't know" (241). Brigid's indecision in the final scene imitates that of the reader, who simply does not know what to make of the story. This is because *Indecision* presents sincerity without taking pains to avoid charges of insincerity (Kelly).

By failing to relieve the reader's doubts about Dwight, the novel suggests that it is not enough to believe in the essential goodness of others; sincerity depends upon a more meaningful and rigorous program of ideas—coupled with action. Indeed, this message jives with Kunkel's magazine's insistence that you cannot "have a movement without a program" ("Politico-psychopathology"). Kunkel fails to resolve the reader's incredulity not to cast doubt on Dwight or the analytic process, but to dramatize the problem of belief for its own sake. "Mere belief" will not cure the contemporary disease of cynicism, *Indecision* suggests. Kunkel emphasizes this point in an essay in *The Believer*, published a year prior to *Indecision*. In "The End of Escapism," Kunkel attacks post-Freudians like Phillips for refusing to interpret patients' symptoms. Kunkel explains that Phillips takes after Foucault in criticizing Freud's authoritarianism. Foucault argued that

⁷⁸ See Agger and Kelly.

psychoanalysis created, rather than discovered, the discourse of human sexuality; likewise, Phillips sees the Freudian analyst as a tyrant, who imposes his own reality on the patient, rather than being a collaborator in a mutual process of discovery. Fearing that therapy becomes an exercise of idolatry—the very thing that psychoanalysis is supposed to protect the patient *against*—Phillips models his own clinical practice after that of Winnicott. Kunkel explains that Winnicott, like the poststructuralists that followed him, “made a great virtue of playfulness” (10).⁷⁹ In Winnicottian tradition, both patient and analyst creatively experiment together. Phillips shares Winnicott’s belief that psychoanalytic therapy should not deprive a person of her self-surprising mystery. He thus urges his patients to embrace curiosity, rather than self-knowledge. This is a shame, from Kunkel’s point of view. Kunkel finds Phillips’ experimental method morally problematic because he believes it leads to a “deficit of mutuality” (16). In celebration of endless play and unknowing, he asserts, Phillips’ postmodern psychoanalysis deprives both analyst and patient of “the satisfaction—the moral thrill—of understanding someone or being understood” (16). By refraining from interpretation, Phillips, in fact, robs his patients of a meaningful exchange between them, according to Kunkel.

Kunkel describes the anti-foundational skepticism of Phillips and Foucault as a “distinctly contemporary attitude” that we need to overcome. He celebrates Freud for the very reason that he might help to restore our sense of faith in our own interpretations, which postmodern culture and neuroscience have destroyed. After all, trust is the foundation for the analytic exchange. (The patient voluntarily submits to the authority of

⁷⁹ To be fair, Freud also extolled the virtues of play, comparing it to literary activity. He described how the artist successfully translates private fantasies into a form of public art, just like the child explores forbidden pleasures in play (“Creative Writers and Daydreaming”). But, in Freudian tradition, play is not the foundation for therapeutic practice.

the analyst, and this voluntary submission distinguished Freud's clinical practice from that of his precursors.⁸⁰) Kunkel responds to Phillips' concern that psychoanalysis becomes a practice of idolatry by arguing that, while there may be some "frowning, note-taking tyrants" in the consulting room, patients *need* an analyst willing to speak with some authority if they are to find healing. Rather than "boost his own vagueness," the analyst should assist the patient to discover his true motives. Yes, this means that the analyst wields some control over the patient and that the patient has no choice but to risk vulnerability. The patient fears the therapist's discoveries like he fears death. But these discoveries also promise to save the patient, since they simultaneously reveal to him something "blissful"— life, or possibility (99). Interpretation may not be entirely democratic, but we cannot afford to ignore the insights that it offers, Kunkel suggests. Without interpretation, we cannot understand our strongest attachments. From Kunkel's perspective, Freudian analysis is invaluable because it prioritizes self-knowledge over civility.

Post-Freudian Psychoanalysis: *The Uses of Enchantment*

Published the same year as *Indecision*, Julavits' *The Uses of Enchantment* also invokes psychoanalysis to construct an ethos of sincerity. However, whereas Kunkel portrays psychoanalysis as a mode of sincerity, which fosters honesty and openness, Julavits portrays psychoanalysis as mode of *insincerity*, which fosters self-mythologizing. She demonstrates how psychoanalysis enables hyper-awareness, which impairs

⁸⁰ In the nineteenth century, many hysterical women were forced to undergo hypnosis or suggestive therapy. Freud disapproved of these coercive therapies, and so he based his therapy off the model of a liberal contract. In Freudian therapy, the analyst and analysand enter into a dual relationship, collaborating to interpret the symptoms. The patient primarily does the talking, whereas she is silent in hypnosis.

communication with others. *The Uses of Enchantment* narrates the story of Mary Veal, a victim (or perhaps a false accuser?) of sexual misconduct. At the age of sixteen, Mary disappears from her small New England town. Prior to this, she has long been fascinated by the case studies of abducted girls. After school one day, she steps into a strange man's car, which she has observed idling on the roadside for some time. She leaves her field hockey stick in the gutter so that a teammate will notice her missing. The narrative moves between three distinct vantage points: adult Mary in the present, as she tries to piece together what happened to her on that traumatic day long ago; Mary in the past, as a naïve "Lolita" who is all too willing to accept a ride from an older man; and Dr. Beaton Hammer, the therapist who treated Mary in the aftermath of the event.⁸¹ Dr. Hammer is an obvious caricature of Freud; he distorts Mary's story to meet his theory of repressed sexual desire, just as Freud distorted his patient Dora's story to meet his own theory of repression.⁸² The psychiatrist exploits the case of Mary's abduction to write a book outlining his theory of "hyper radiance." According to this theory, young girls from repressed cultures feel compelled to magnify themselves as the victims of spells and devilry at the very moment that they enter puberty. Dr. Hammer first begins to suspect Mary, when she autoerotically fiddles with her compact case in his office. (This behavior is, of course, reminiscent of Dora's fiddling with her crucifix.)

Julavits takes pains to portray how the analytic scene allows both patients and analysts to create elaborate fantasies, which ultimately isolate them. In therapy, a bratty

⁸¹ Julavits claims to have modeled the tripartite narrative after Tim O'Brien's *In the Lake of the Woods*.

⁸² The author claims that this character was also inspired by Jeffrey Masson, the psychoanalyst that Janet Malcolm portrays in her book, *In the Freud Archives*. Both Freud and Masson portray a kind of "blinding egotism," according to Julavits (Interview with Robert Birnbaum). Masson became a professional outcast when he accused Freud of abandoning his seduction theory upon realizing that it would obstruct the practice of psychoanalysis.

and provocative Mary struts around the doctor's office, defying him at every turn. She tries to unsettle Dr. Hammer with questions like, "Is it hot in here? I'm really burning up" (99). She sassily performs the role of victimized woman, rather than confessing to any real indiscretions. In fact, Mary borrows details from the confession of another abducted girl, whose story she encountered as an intern at a mental health board. Like many other heroines (Emma Bovary, for instance), she is overly influenced by her reading. She wants her life to imitate the romantic lives of characters that she encounters in stories. Mary even wears her hair in two braids, resembling "to an uncanny degree, one of the much-circulated photos of the missing [girl]" (203). Dr. Hammer exposes her for fabricating such details, since he treated the patient in question. But he, too, uses their sessions to self-mythologize. He imposes his own version of events onto Mary's narrative, which he turns into a best-selling book. Dr. Hammer justifies the discrepancy between his and Mary's interpretation of events by explaining that patients are like perjurers, and psychiatrists, the "prosecutors cross-examining witness[es] of dubious integrity" (200). In other words, he believes that his job is to extract a narrative from an unwilling patient for the sake of truth. Of course, the reader can see that Dr. Hammer, like Freud, is manipulating his patient's story, while presenting himself as a totally objective narrator. By invoking the Dora case, which is often cited by anti-Freudian feminist critics as an example of the imbalance of power in the analytic setting, Julavits illustrates how therapy facilitates individual delusions on both sides of the couch.

However, if the reader is tempted to read Julavits' parody of Dora's case as a feminist critique, she should think again. Julavits also parodies the overzealous feminist—one of Dr. Hammer's colleagues is desperate to indict him as a fraud, and the

author does not spare this character either. Roz Biedelman tries to take Dr. Hammer to court for failing to take seriously what she perceives to be a real abduction. This opportunistic character demonstrates how the politics of victimology can be just as blinding as other ideological agendas. In a very comical scene, Julavits dramatizes how Roz, too, manipulates Mary's story. Three months have passed since Dr. Hammer published his book. Roz visits the Veal's home, accompanied by a colleague, who also happens to be a battered woman. (Roz leads an "encounter group" for women who are the victims of domestic abuse.) Roz pressures Mary's mother to welcome her inside, after which she eagerly breaks the news: "Dr. Hammer has behaved...*ignobly* toward your daughter" (61). When Mrs. Veal does not react, Roz elaborates, relating that Dr. Hammer counseled Mary in his underwear. (In fact, he was wearing ski pants, but "regardless . . . it is unacceptable to counsel a patient in anything less than professional work attire" (62). The comedy continues to unfold, as Roz speaks for (instead of) Mary and her colleague. First, she explains why she brought her colleague with her in the first place: "Elizabeth and I agreed that Mary would be comfortably able to tell us the truth if she knew the stress Elizabeth has lived under . . . Elizabeth was abused from all corners. Professionally. Domestically. Much as Mary was abused from all corners" (62). She has decided *for Mary* what is comfortable, while also presupposing that Mary is, in fact, the victim of abuse. In case the reader misses the irony, Julavits hits her over the head with it. Roz continues, "Also like Mary, Elizabeth has spent a lifetime being told by men what to think. Exactly what you hate most, am I right, Mary? Being told what to think? Like Elizabeth, you've never been able to take charge of telling your own story" (62). The irony, of course, is that *Roz* is telling Mary what to think and taking charge of her story.

Importantly, this scene illuminates the problem of reading *over* others' stories. Like Powers in *The Echo Maker*, Julavits cautions that the narrative impulse can be dangerous. But in contrast to Powers, she attributes this "the dangerous desire . . . to create a [single] story" to therapy culture (Talks at Google).

For Julavits, therapy is not dialogic. To the contrary, it creates "a very hermetic experience now . . . we all walk around with our own kind of story bubble" (Interview with Robert Birnbaum). She explains how therapy *inhibits* communication with others precisely by allowing us to live in the "bubbles" of our self-delusions. Thanks to our therapy-saturated culture, "we have become our own kind of therapists, so we can get away with [manipulating a story]. James Frey got away with it" (Interview with Robert Birnbaum). The infamous James Frey fabricated events in his memoir *A Million Little Pieces* (2003). The incident made national news, and Oprah confronted the writer on live television. The controversy serves Julavits' point that individuals today tend to self-narrate with little regard for actual truth.⁸³ By insisting on the need for actual truth, Julavits articulates an anti-postmodern and anti-neuroscientific notion of truth. Postmodernism and neuroscience deny the presence of a shared external reality to which all individuals are subject; they treat reality as one fiction among many. Julavits evidently disagrees with this notion of subjective realities. She faults Frey for "manipulating his story," which suggests that he, like all writers, is bound to some external truth—what actually happened, rather than what he imagines to have happened. Why, then, does Julavits favor a postmodern form of analysis? Why does she want analysis to resemble a form of play, rather than a form of interrogation?

⁸³ The novel's title also emphasizes the connection between psychoanalysis and story; it is based on Bruno Bettelheim's book on Freud and fairy tales. Whereas Bettelheim uses psychoanalysis as an interpretive lens for understanding fairy tales, Julavits sees analysis and myth as coextensive.

In the very same interview in which she lambasts Frey and his myth-making, Julavits insists that, despite Freud's limitations, psychoanalysis has a place in our contemporary culture. She celebrates Freud for his literary, rather than his scientific, insights. Further, she praises Phillips precisely because he strips psychoanalysis of the veneer of objectivity. "The problem with psychoanalysis," Julavits explains, "is that it became a science—it was trying to play ball with the other sciences." Julavits continues, "Adam Phillips is so fantastic, because he . . . [classifies Freud] as he should have been classified from the beginning . . . as a literary figure, not a scientist" (Interview with Robert Birnbaum). The author's preference for the playful Phillips over the authoritarian Freud may not surprise, considering the ethos of *The Believer*. From the start, the magazine has embraced a quirky style. The author's preference for a postmodern psychoanalysis is also not surprising, given the many ambiguities of the novel. *The Uses of Enchantment's* narrative structure celebrates open-endedness, leaving the question of Mary's abduction/jaunt unresolved. In fact, the novel ends without ever clarifying what really happened that day in 1985. The chapters that describe the events of that year are slyly titled "What Might Have Happened." This makes for a very frustrating reading experience. One Amazon reviewer writes, "I just wish that it had all added up to... something more. Anything more, really." This reviewer echoes the sentiments expressed by Kunkel in his essay critiquing Phillips and his playful therapy. Kunkel claims that patients desire therapists willing to exercise their authority and interpret the patient's symptoms; likewise, this Amazon reviewer suggests that readers desire authors willing to exercise their *authority* and construct meaning—or, at the very least, to put enough pieces of the puzzle in place for the reader to so. But Julavits refuses to resolve the novel's

central mystery. Her characterization of Mary also remains ambiguous—readers are not sure how to relate to this character.

In some ways, however, Julavits' preference for the skeptical and authority-fearing Phillips does surprise. After all, she claims to believe in *belief* (the title of the magazine suggests this). Such an ethos of trust is clearly elaborated by Julavits in an often-cited manifesto in the magazine's inaugural issue. In "Rejoice! Believe! Be Strong and Read Hard!" Julavits calls for a new book culture that avoids "snarkiness." She defines snark as the "scornful, knowing tone" so often employed by critics. In short, she attacks "snarky" reviewers, who jump to criticize any sort of literary ambition. Julavits references the critic James Wood, known for ranting against Zadie Smith and the "hysterical realism" of her novels. After analyzing Wood's snide treatment of Smith, Julavits concludes, "if you try to be overly ambitious, and you fail, you will get the heck spanked out of you. You will be mocked . . . Ambition is not the sort of thing that [critics] are terribly partial to. Ambition is irksome" ("Rejoice!"). Julavits regrets that books are not criticized, instead, for "*failing* to be more ambitious, for playing it safe" ("Rejoice!"; emphasis mine). She admits that reviewer snarkiness is likely a reaction to eager publishers, who put a positive spin on all novels, including the mediocre ones. But she insists that snarkiness, in the end, cultivates mediocrity too. It does so by discouraging writers from daring to experiment. Although Julavits' manifesto calls for a new ethos in literary culture, one that is willing to "give the authors the benefit of the doubt," she herself is unwilling to trust the good intentions of others—at least, others who are not novelists.

So, while Kunkel demands intellectual rigor but relies on good faith, Julavits demands good faith only to refuse her own call. The authors' conflicted positions suggest the difficulty of sustaining an ethos of sincerity in today's intellectual climate. Both Kunkel and Julavits express a yearning for candor without satisfactorily modeling this ethos in their various literary endeavors. Kunkel's sincerity is motivated by a real hunger for some objective truth—a longing for something more than fiction. But he valorizes “truth” somewhat defiantly; and he can not escape the fact that sincerity depends, to some extent, on individual faith. Julavits' sincerity is also motivated by a real hunger for goodness and society, which she finds absent in our culture. Yet, she must realize that goodness depends, to some extent, on something more than fiction. Ultimately, Kunkel and Julavits' disagreement about Freud's legacy is critical because it sheds further light on the role of analysis in our contemporary culture. It also reveals two distinct sensibilities about the way we ought to live and about the kinds of persons we should strive to be.

Rigor vs. Style: The Feud Between *n+1* and *The Believer*

If Kunkel and Julavits agree about any points, they are as follows: 1) literary culture is in bad shape; and 2) sincerity is the answer. But, upon closer inspection, it becomes clear that Kunkel and Julavits (and their comrades at *n+1* and *The Believer*) offer very distinct diagnoses and solutions. For Kunkel and his cohort, the problem with literary culture is an *unwillingness to interpret*—the result of postmodernism and

neuroscience's recursive emphases.⁸⁴ In other words, the problem is largely methodological. Kunkel recuperates psychoanalysis because it rigorously pursues truth without applying scare quotes. For Julavits and her cohort, the problem with literary culture is mean readers. In other words, the problem is characterological. She embraces psychoanalysis because it is quirky and experimental. Her yearning for a more playful form of psychoanalysis—a form of therapy that is disinterested in scientific claims—bespeaks *The Believer's* fundamental claim that belief *is* the antidote to the contemporary disease of cynicism. *The Believer's* inaugural issue features Julavits' manifesto against "snarkiness" in literary culture, which she claims rewards mediocrity by taking down writers that dare to be ambitious. In short, Julavits' preference for post-Freudian therapy can be attributed to her conviction that believing in goodness is, in fact, a meaningful gesture in itself.

Julavits' call for good faith is noble, particularly since the neuro-rhetoric that prevails today promotes a culture of doubt. But Kunkel's position is ultimately more persuasive. It is imperative to have compelling ideas, not just belief for its own sake. "Mere belief is hostile to the whole idea of thinking," Kunkel writes in *n+1's* inaugural issue. In this first issue, *n+1* accuses *The Believer's* founders of wearing credulity as a "badge of intellect," labeling Dave Eggers and his co-founders ("Eggersards") as "sentimental, "regressive," and "childish" ("A Regressive Avant Garde"). *N+1's* editors write, "Transcendence [does] not figure in [Eggersard] thought. Intellect [does] not interest them, but kids [do]. Childhood is still their leitmotif" ("A Regressive Avant-Garde"). Here, the editors reiterate the futility of playfulness and good intention as the

⁸⁴ Mark Greif's most recent book, entitled *Against Everything*, reiterates the importance of critique. The title of the essay collection sounds misanthropic, but, in fact, the book is very optimistic. For Greif, social change depends upon a willingness to first *interpret* the world as it is.

primary criteria for action. As I have demonstrated, *Indecision* cleverly dramatizes this very idea by prompting readers to question Dwight's humanitarian commitments.

For *n+1*'s editors, a critical spirit is actually a component of sincerity. In other words, they *believe in doubt*. So much so, in fact, that they arduously defend critical theory, which many academics and cultural critics have begun to scrutinize. For instance, in a 2012 issue, Nicholas Dames argues against the popular notion that theory is “dead,” insisting, instead, that theory is essential to intellectual life. According to Dames, “The big mistake right now would be to fail to keep faith with what theory once meant to us.”

Dames writes:

You hear a great collective sigh of relief from people who don't have to read ‘that stuff’ anymore—the ones who never read it in the first place. But who will insult these people now, expose their life as self-deception, their media as obstacles to truth, their conventional wisdom as ideology? It will be unbearable to live with such people if they aren't regularly insulted. (“The Theory Generation”)

Here, Dames assumes a very adversarial tone while insisting that critical theory is powerful precisely because it humbles people—not the critics who deploy it, but those everyday folks who need to be “regularly insulted” (whoever they may be). His attitude is elitist, to be sure. But critical theory does not have to be adversarial. As Dames suggests, rehabilitating the methods of critical theory means renewing fervor for truth over the literary. This is because critical theory stresses the *rigor* of thought, rather than the *style* of thought.⁸⁵ Dames and Roth, like the rest of *n+1*'s founders, think that literary culture and critical thought belong together.

This is because they recognize the extent to which thought is crippled without critique. Recently, many critics have argued against “critique” and depth hermeneutics in

⁸⁵ Of course, *n+1* undoubtedly embraces a certain mood, as well as a method. Francis Mulhern argues that *n+1* “not only *has* a character but arguably *is* one” (88).

the name of “surface reading.” The term “surface reading” was coined in a very influential special issue of *Representations*, in which editors Stephen Best and Sharon Marcus invite scholars to discuss styles of reading that are not “symptomatic”— that do not presume that the most significant truths are veiled or invisible.⁸⁶ Many critics have responded to this call for alternative reading and interpretive methods, including Rita Felski. In *The Limits of Critique*, Felski argues that critique is merely one style of reading among many and that “‘criticality’ [should not be] hailed as the sole metric of literary value” (16). She laments that literary scholars so often defend their field by touting that literature promotes “critical thinking” (4). “Why is critique so frequently feted as the most serious and scrupulous form of thought?” Felski asks, and “what intellectual and imaginative alternatives does it overshadow?” (5). Felski, like Best and Marcus before her, observes that meaning does not always require arduous effort. Meaning does not have to be “wrested” from the text; it can be gleaned (31). Felski explains, “Academics thrive in the rarified field of metacommentary, honing their ability to complicate and to problematize, to turn statements about the world into statements about the forms of discourse in which they are made” (15). Problematically, such hypercritical styles of analysis only equip scholars to question meanings, values, and norms; they do not equip scholars to explain the *importance* of meanings, values, and norms.

Felski makes a strong case for non-critical reading, but there is a dangerous circularity to her argument—the non-critical reader is paranoid about being paranoid. She is so afraid of her own authority that she is unwilling to cry foul when the time comes.

This is precisely the problem with the intellectual situation today, as *n+I*'s founders

⁸⁶ This is largely due to the enormous influence of literary critics like Fredric Jameson. In *The Political Unconscious* (1981), Jameson describes criticism as a process of revealing hidden ideologies and master codes.

suggest. Felski pokes fun at alarmist arguments in favor of critique, such as the following: “Without critique, serious thought is in danger” (the sky is falling! the sky is falling!). But it is not so preposterous to claim that serious thought is on life support without critique. President Trump’s popularity has illuminated this fact. Since he secured the presidential nomination, the Left has divided into two camps. One camp is eager to “call out” the racism, sexism, and homophobia of Trump supporters; the other urges a more conciliatory approach to the other side. It does not surprise that Adam Phillips is in the latter camp. When asked in an interview shortly before the election if he would call Trump a vulgarian, Phillips turns the critical gaze back on himself: “I wouldn’t, because it doesn’t tell us enough. The worst thing about Trump is that he elicits in people who don’t like him a version of being Trump. We become more contemptuous and prejudicial. Trump calls up the Trump in people that don’t like him” (*The New Review*).⁸⁷ Is he serious? The worst thing about Trump is the flaws in his opponents?

Understandably, many liberals have lost patience with their peacemaking colleagues, accusing them of resignation and political quietism. The following Facebook post conveys this frustration: “We can’t pretend that this is a regular election with a regular outcome. That the stakes aren’t as high as they are. Is performing ‘civility’ and ‘rationality’ and ‘practicality’ more important to you than rejecting Trump and all he stands for? Why is that?” (Allor). This user is essentially arguing that, without permission to critique, we tacitly endorse the status quo. *N+I*’s online pages have voiced the same argument. In a special issue on the election, Mark Greif urges progressives not to fall for the rhetoric of civility: “the task for ‘good people’ is non-cooperation” (“No President”).

⁸⁷ In the same interview, Phillips calmly claims that “kindness and conversation” are the antidote to worldly injustice.

Greif explains that the usual forms of symbolic resistance (journalism, for instance) simply will not suffice. “The ordinary and unromantic and vilified forms of disobedience may be what we will depend upon,” Greif writes. By this, he means “Refusal of participation, at all levels. Not showing up. Leaving key government jobs. Staying in those jobs to slow down or stall illegitimate actions.” Here, Greif reiterates the argument that *n+1* has made all along—civility is all well and good, but it is secondary to truth and justice. Given the choice between “getting along” with our adversaries and standing up for principles, we should choose the latter. Similarly, Nikil Saval questions the primacy of empathy. In fact, he berates progressives for attempting to make sense of Trump’s victory in demographic terms. Saval asks: “What is the point . . . if, faced with this utter catastrophe, the most pressing issue is to foment false understandings of why some small bit of demographic slime oozed its way over to add itself to this bucket of shit that is going to be dumped on our heads for the next four years” (“What Are We Trying To Figure Out?”). For Saval, as well as Greif, it is foolish to distract attention from the real crisis: A Trump presidency.

Perhaps Trump’s election will reinvigorate critique. For many Americans, the sky actually is falling. They are frightened for their lives, and they cannot afford to be diplomatic. They have to cry out against injustice, and doing so will not foreclose all possibility of engagement. Kunkel’s novel so cleverly dramatizes that suspicion is not *a priori* bad. Readers can—and should—question Dwight’s declarations, but they do not have scorn him. Moreover, suspicion of suspicion (fearing one’s own authority) should certainly not inhibit us from staking claims in the name of the truth (no scare quotes). In fact, suspicion is positive and productive when it distinguishes between justice and

injustice. As Greif asserts, “there is something to be done in asking citizens not to cooperate. There is something to be done in communicating a vision of what the Republic can and cannot allow” (“No President”).

By reading Trump’s election as beneficial for critique and for *n+I*’s particular vision of sincerity, I challenge the emerging notion that Trump’s presidency signals the end of sincerity. Citing the dire political situation, numerous literary and cultural critics have recently proclaimed that “sincerity is dead.” Aaron Colton, for instance, suggests that sincerity can no longer serve as the supreme virtue because Trump, “having sniffed out the cultural obsession with sincerity, . . . has transposed it ingeniously to populist fear mongering.” According to him, Trump painfully reminds us that “sincerity carries no moral guarantee. Sometimes the real thing is more hideous than the façade.” For Christian Lorentzen, sincerity is dead (or near-dead) because Trump’s divisive rhetoric and policies will utterly prevent novelists from writing with hope and authenticity. Lorentzen predicts a resurgence of dystopian narratives, while Jonathan Coe, writing for *The Guardian*, makes a case for satire. (Coe reasons that “we need humour [now] more than ever.”) These critics are keen to suspect that Trump’s election will initiate a sea change in literary and cultural moods. But they are wrong to declare that sincerity has run its course. This is because sincerity is more than a spirit of hope, civility, and authenticity. As *n+I* instructs, to be sincere is to take truth seriously. Sincerity does not depend on civil discourse; rather, it depends upon individuals’ willingness to *thoughtfully* engage ideas. So, while the tone and genre of the novel will likely transform in the immediate years to come, the ethos of sincerity—a real hunger for some objective truth amidst the many fictions—will prevail.

Chapter 4: Comics and Theory of Mind: Alison Bechdel's *Are You My Mother?*

On a thematic level, Alison Bechdel's graphic memoir *Are You My Mother?* bears a striking resemblance to *Indecision*, since it depicts a protagonist who earnestly desires self-knowledge, but who is crippled by self-criticism and by the reality that "we are haunted by others" (Kunkel, "The End of Escapism"). Cartoon Alison, like Dwight, worries about being clichéd and "trite" (45). Bechdel, like Kunkel, advocates psychoanalysis as a means to provide relief from self-doubt and anxiety. Alison regularly attends therapy, and she supplements these sessions by studying the writings of British analyst D.W. Winnicott. Winnicott is best known for object-relations theory, founded by his mentor Melanie Klein. Winnicott focused on the mother/infant relationship, which he associated with the analyst/patient dynamic. Bechdel integrates Winnicott's writings into the story to emphasize that selves (or subjects) crucially depend on others (or objects). This theme characterizes Alison's relationship with her mother, which is the memoir's ostensible focus.

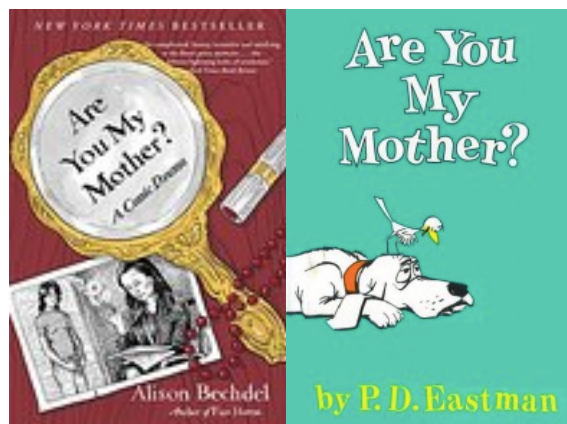


Figure 1: Bechdel's graphic memoir and P.D. Eastman's children's book

Are You My Mother? is named after P. D. Eastman's picture book (see Figure 1) about a little yellow bird that hatches while his mother is away from the nest. The bird

wanders around asking the title question to other animals and objects (a steamboat, an airplane, and a steam shovel). Finally, the steam shovel returns him to the nest, where his mother momentarily returns with a worm. As critics have noted, both the original story and its namesake hinge “on the primal human struggle with interdependency and the psychic distress it inevitably breeds” (Parille). Bechdel, of course, attributes this theme to Winnicott, who identified communicative versus non-communicative impulses as the primary source of psychic tension in the infant’s life. For Winnicott, the main psychological conflict was not life or death (*eros* or *thantos*), as Freud said, but whether “to play or to hide” (“Playing and Reality”).

Are You My Mother? expounds on this theme, focusing on Bechdel’s relationship with her mother. (*Fun Home*, Bechdel’s first memoir, published in 2006, focused on her relationship with her father.) In *Are You My Mother?*, Alison relentlessly struggles to narrate her *own* story, but she cannot escape the reality that she is composed by her mother (and also that her mother is composed by her). Winnicott’s object-relations theory thus illuminates the difficulty of life-writing, suggesting that memoir is doomed from the get-go. But Alison, who happens to be writing a memoir (*Fun Home*), persists in treating her mind as an object. Confessing, “What I want is to be my own analyst” (41), she examines her life through the lens of psychoanalytic theory to render her “true self” intelligible. She searches for meaningful patterns in her psychic and daily life, interpreting scenes for the reader and explaining the significance of nearly every thought and event.

In contrast to *Indecision*, however, *Are You My Mother?* completely rejects free association and confessional methods of narration. The narrative is methodical and

controlled. Bechdel uses detailed notes and captions to make explicit connections between scenes and their hidden meanings. She reproduces excerpts from Winnicott, Virginia Woolf, Adrienne Rich, and Alice Miller, and these writings inform her theoretical analysis of her own life. Bechdel combines autobiography and analysis, which leads one critic to observe that *Are You My Mother?* seems less like a memoir and more like a “material graphic archive,” which “treats life as a kind of research project” (Parille).⁸⁸ *Are You My Mother?*’s resemblance to a critical text distinguishes it from other graphic memoirs (Bechdel’s *Fun Home*, Art Spiegelman’s *Maus*, and Marjane Satrapi’s *Persopolis*, for example). Bechdel’s disciplined approach is somewhat curious, given the memoir’s obvious investment in Winnicott. Winnicott is known for his playful, open-ended methods of analysis. (He challenged the longstanding tradition of Freudian overinterpretation.) Nearly every aspect of Bechdel’s composition is calculated as well, from the annotated scenes to the images themselves. Bechdel poses for photographs, which she then uses to create ink wash drawings of herself. Even her font is deliberate—she uses one fabricated by her own handwriting.

Bechdel’s detailed composition, combined with her analytical method of narration, suggests a kind of “reaction formation,” a concept that Alison learns about in therapy. A reaction formation is a defense mechanism in which anxiety-producing emotions are conquered by the directly opposing tendency. In this case, the memoirist’s analytical tendencies—her habit of assigning importance to every little detail and event—reflect her determination to give form to the formlessness of existence.⁸⁹ However,

⁸⁸ For more detailed analyses of the “archive” in *Are You My Mother?*, see Lisa Dietrich and Heather Love’s reviews of the memoir.

⁸⁹ This is an example of Bechdel’s exceptional ability to transform convoluted theoretical concepts into “mundane affair” (Konstantinou). Lee Konstantinou discusses this skill in his review of the memoir.

Bechdel's narrative mode does more than model defense mechanisms. It also demonstrates how self-analysis fosters connection with others. By interpreting her life and her relationship with her mother, Alison creates new possibilities for living and relating. Acting as both patient and analyst, she creates a space "between the subjective and the objective" (61) where meaning and communication with others is possible.

Are You My Mother? examines the reciprocity that exists between analysts and patients (mothers and infants, authors and readers)—that almost-magical, transitional space that psychoanalysis, like art, nurtures. The memoir also capitalizes on the ability of the graphic form to create such transitional spaces, as well as the graphic form's popularity as a mass medium. It is worth considering how and why Bechdel uses comics to popularize psychoanalysis, which, of course, proposes very different models of subjectivity than those promoted today by popular neuroscience. Even though her memoir does not heavily draw on the discourse of neuroscience, Bechdel makes an important contribution to the fiction emerging in response to the "Age of the Brain." *Are You My Mother?* responds to neuro-culture by insisting that self-knowledge is a noble pursuit. Furthermore, the memoir challenges the fundamental positivism⁹⁰ of contemporary neuroscience by denying that complex psychological processes can be objectively observed. Bechdel demonstrates the necessity of inter-subjective processes—namely, transference—to understand mental life. She uses the graphic form to show how the individual psyche always implicates the mental states of another, just as, in analysis, the patient always reflects the psychic activity of the analyst. Comics facilitate reader-identification. They allow the reader to project herself onto the page, transforming into

⁹⁰ As a scientific philosophy, positivism views science as a purely objective enterprise. It regards the scientist as an independent observer of the subject being investigated.

another person with a kind of “alchemical power” (81). Since only comics can create this kind of “alchemy”⁹¹ between the page and the reader, perhaps, Bechdel’s memoir suggests, only comics can provide an antidote to the positivism of neurobiological discourse that prevails today.

“Why Can’t My Life and Work Be the Same Thing?”

Are You My Mother? is centrally concerned with the problem of self-representation. The memoir foregrounds its own difficult creation right from the start. It begins with a reference to Bechdel’s first graphic memoir, *Fun Home*, which was published in 2006 to much critical acclaim. An opening scene in *Are You My Mother?* depicts Alison brainstorming about ways to tell her mother that she is writing a memoir (what will become *Fun Home*) about her closeted father’s possible suicide. Bruce Bechdel was hit by a bread truck shortly after he confessed to being gay and after Alison’s mother, Helen, asked for a divorce. Given the timing of the event, Alison wonders if her father purposely stepped in front of the truck. She suspects that her father could no longer bear to live with Helen, after finding a highlighted passage from Albert Camus’ first novel, *A Happy Death*, which her father had been reading when he died. The passage describes a hero who meets an unhappy end: “He discovered the cruel paradox by which we always deceive ourselves twice about the people we love—first to their advantage, then to their disadvantage.” Bechdel describes this passage as “a fitting epitaph for [her] parent’s marriage” (*Fun Home* 28). She realizes that both of her parents were living a lie by pretending her father was not gay.

⁹¹ While Bechdel uses the term to describe the process of transference, comics theorist Scott McCloud has used the term to describe the transactional relation between the page and the reader.

Alison claims to begin with the story of *Fun Home* because her present memoir lacks a clear origin—“the real problem with this memoir about my mother is that it has no beginning” (6). It also has no end: “Another difficulty is the fact that the story of my mother and me is unfolding even as I write it” (10). Even though she recognizes the precarious position of the memoirist—“you can’t live and write at the same time” (7)—Bechdel becomes an observer of her life (see Figure 2).



Figure 2: Cartoon Alison driving

This task is not without its troubles. Throughout, Bechdel depicts how compulsive self-analysis debilitates Alison, preventing her from forming meaningful relationships with others, especially her mother. Alison is so preoccupied with documenting the story of her and Helen that she cannot communicate with her. One scene vividly depicts this dynamic:

Alison is pictured at her desk, as she converses with her mother on the phone. Busily transcribing the conversation on her computer for use in her memoir, she admits, “I’m trying so hard to get down what she’s saying that I’m not really listening properly” (12).

But at the same time, Bechdel suggests that self-examination is necessary in order to connect with others. In an interview about the book, Bechdel argues that self-awareness can sometimes lead to empathy, rather than disengagement. She admits that the memoir is “extremely intimate and self-absorbed”; but she adds that, “by looking inward deeply I’m trying to get outside myself and connect with other people” (“Drawn From Life”). Cartoon Alison interprets a similar idea from Winnicott, who argues that the infant must first destroy (objectify) the mother if she is ever to achieve a healthy relationship with her. Winnicott advises that the child must transition from *relating* to an object to *using* an object. He offers a clinical analogy to explain the difference: “Two babies are feeding at the breast; one is feeding on the self in the form of projections, and the other is feeding on (using) milk from a woman's breast” (“The Use of An Object”). The healthy infant has transitioned from relating to usage. If the child does not learn to use the mother, then she becomes “compliant”—a false self. The compliant child repudiates her own needs to fulfill the mother’s.⁹² Alison was a compliant child. She ignored her own needs to earn her parents’ favor and attention. As an adult, she becomes compliant in therapy. She tries to become the ideal patient, incessantly worrying about her therapist’s feelings—“What [would Jocelyn] think” (100)? Reading Winnicott, Alison realizes that objectification of the mother is psychically necessary. She interprets

⁹² This is the theme of Alice Miller’s *The Drama of the Gifted Child*, which also informs Alison’s self-analysis. Miller draws on Winnicott to formulate her idea of the gifted child. The gifted child is more intelligent and emotionally sensitive than other children; she is so aware of the parents’ feelings she neglects her own. Miller cautions that the gifted child fails to mature and develop, since she is preoccupied being the “perfect” child for the parents.

Winnicott's theory to mean that "hate is a part of love" (175). This helps her to better understand the tension between her and her mother, which creates the possibility for communication between them. Alison understands that her memoir—just like her lesbianism—will hurt Helen. She doesn't want to hurt her mother, "yet [she does] not seem to have a choice" (154). She has to transform her family members into objects (narrative objects) to connect with them. This process is not painless. In fact, after she suffers a series of perhaps not-so-random injuries to the eyes,⁹³ Alison compares herself to Oedipus gouging out his own eyes: "It only occurs to me now, as I'm writing this book about my mother, that perhaps I had scratched my cornea to punish myself for 'seeing' the truth about my family'" (65). Here, Bechdel blames herself for being perceptive, which is one of the memoir's important themes.

As a plot device, Alison's guilt is instructive. In his analysis of the relationship between fiction and psychotherapy, J. M. Coetzee argues that there is something inherently anti-postmodern about narratives—particularly Greek myths like Oedipus—that portray characters coming to terms with their own guilt. Such narratives "teach a lesson . . . that we cannot escape our past, that we are not free to reinvent ourselves" (33). Coetzee's point is that such narratives insist on the presence of an external reality to which the individual is subject. He suggests that the goal of most therapy today is to help the patient reconcile with this external reality. By helping the patient to develop tolerance for vulnerable feelings, rather than allowing him to transform anxieties into more comfortable narratives, therapy today assumes the existence of a shared external reality (*The Good Story: Exchanges on Truth, Fiction, and Psychotherapy*).

⁹³ First, she walks head-on into a wooden plank. Then, she catches a sharp twig between the eyes.

This notion of a shared external reality distinguishes psychotherapy from neuroscience. Neuroscientific paradigms describe consciousness as “fiction” that the mind spins to protect the integrity of the self. As neuroscientist Eric Kandel puts it, “the brain is a creativity machine that seeks out coherent patterns in an often confusing welter of environmental and bodily signals” (350). Daniel Dennett makes a similar argument in his “Multiple Drafts” model, which argues that consciousness, like written drafts, is perpetually revised, there being “no reality of conscious experience independent of the effects of various vehicles of content on subsequent action (and hence, of course, on memory)” (132). Neuroscience first derived this notion of “confabulation” from the split-brain research of the 1960s. In a study conducted by Roger Sperry and Michael Gazzaniga, patients with epilepsy underwent a surgery that disconnected the corpus callosum, the fibrous tissue that connects the two hemispheres of the brain. The split revealed that the left side of the brain—the seemingly “rational” and calculating side—was also an expert tale-teller. This side of the brain made up plausible but wrong stories to explain behaviors provoked by the right side. Sperry and Gazzaniga concluded, “[i]t is the left hemisphere that engages in the human tendency to find order in chaos, that *tries to fit everything into a story* and put it into a context.” The left side hypothesizes “about the structure of the world *even in the face of evidence that no pattern exists*” (emphasis mine, “Who’s In Charge?” 125).

While this idea of confabulation may, indeed, have derived from the specific research on split-brain patients, there is no denying that it strongly resembles the post-structuralist philosophy that dominated the humanities in the following decades. As Stephen J. Burn notes, both neuroscience and postmodernism are marked by a “recursive

curve.” The brain can only be comprehended by using itself, and this “seems [like] a cognitive analogue to the textual concerns of postmodernism, from the poststructural extreme of Derrida’s claim that ‘there is nothing outside the text’ (1976, 158), to the metafictionist’s efforts to deploy a tiered system of narratives to interrogate narrative itself” (36). By emphasizing “constructed-ness,” both neuroscience and postmodernism emphasize a dispersed self.

In Bechdel’s memoir, as in Kunkel’s novel, psychoanalysis offers a powerful counterpoint to these paradigms. While psychoanalysis also emphasizes consciousness’ editorial processes, it posits that analysis can reverse the drafts to access some primordial intelligibility. Analysis “reverses the drafts” by interpreting the workings of the unconscious.⁹⁴ Bechdel demonstrates this by showing how self-reflection leads to revelation, not simply endless questioning. Alison’s painstaking analysis reveals truths about herself, and this, in turn, repairs her relationships with others. In this way, her “meta-book” (Helen’s term) distinguishes itself from more conventional postmodern forms, as well as from neuroscientific models of mind. Many postmodern narratives use metafiction to emphasize the recursive processes of writing and subject-formation. They depict scenes of writing to flaunt the artificiality of art and to evoke the reader’s incredulity. A famous example of this is John Barth’s “Lost in the Funhouse” (1968). By emphasizing the text’s fabrication, Barth’s text articulates a neuroscientific worldview (albeit unintentionally), which likens consciousness to fabulation. Alison cannot re-write

⁹⁴ Thus, Bechdel challenges forms of Lacanian psychoanalysis, which deny the accessibility of underlying truth. Slavoj Žižek, for instance, argues in *The Sublime Object of Ideology* that meaning, identity, and ideology exceed critical distance. According to Žižek, the function of ideology is not to persuade the individual to adopt a certain belief, but rather to fabricate an entire social reality without which that ideology would not exist.

her story, but neither can she avoid writing it. *She is bound to the truth of the past*, and this compels her to seek meaning.

In fact, her lesbianism helps her to do this. Alison credits her lesbianism for saving her from being “compliant to the core” (188). By transgressing sexual norms, she is able to free her mind from Helen (and others’) judgment. Bechdel writes, “[i]f it weren’t for the unconventionality of my desires, my mind might never have been forced to reckon with my body” (156). In other words, if she had never desired otherwise, she may never have thought or imagined otherwise. On the page, this quotation overlays an image of a letter that Alison received from Helen after coming out to her in college. The letter reads, “Couldn’t you just get on with your work? You are young, you have talent, you have a mind. The rest, whatever it is, can wait.” The letter is signed, “Love, Moth” (156). Helen’s efforts to stifle—or at least delay—Alison’s lesbianism backfire, since her words, in fact, inspire Alison to write the memoir that will expose all the family secrets. The irony here is that Helen gives Alison permission to destroy her.

By using Helen as an object for her art, Alison is actually able to form a better relationship with her. Alison explains that writing her present memoir (*Are You My Mother?*) enables her to stop obsessing about her mother, just as Virginia Woolf was able to stop obsessing about her mother after drafting *To the Lighthouse*. Bechdel reproduces a page from Woolf’s diary, in which the author describes walking through Tavistock Square when the idea for *To the Lighthouse* suddenly came to her. Having finished the novel, Woolf reflected, “I no longer hear her voice; I do not see her.” Similarly, Bechdel claims that *Are You My Mother?* helped her to silence her mother’s critical voice. She explains that writing allows her to “talk over” the inner voices that prevent her from

being more assertive (Terzian).⁹⁵ For Bechdel, self-reflection is reparative because it resembles the analytic process. By transforming wounds into aesthetic objects—stories—Bechdel’s graphic memoir creates a space where author and reader can meet.

Bechdel explicitly depicts this process in a series of sketches, which portray Alison excitedly telling her mother that she is going to publish her first book. Helen is unimpressed: “You mean your lesbian cartoons?” (227) After the conversation ends, readers see Alison crying at her desk. A few pages later, readers see the same image, but with a Canon camera in the foreground. The camera sounds, “beep beep beep,” documenting Alison’s agony for use in the graphic memoir that the reader now holds in her hands (see Figure 3).



Figure 3: Cartoon Alison photographs herself

⁹⁵ When she emphasizes memoir’s ability to exorcise the internal critic, Bechdel also invokes Jeanette Winterson’s memoir, *Why Be Happy When You Could Be Normal?* (2012), which reflects on the author’s troubled relationship with her own severely critical mother. Winterson’s memoir, published just a few months before Bechdel’s, is titled after the question that the author’s adoptive mother asked in response to her daughter’s confession that she was a lesbian. Both Bechdel’s and Winterson’s memoirs contemplate the interrelated experiences of coming out and mother-daughter conflict. Each is about “wanting to relate to women differently,” as Bechdel puts it. Both memoirs also explore how self-reflection (the kind that the memoirist performs) can repair relations with others.

It is precisely this object—the narrative—that allows Alison to repair communication with her mother. The memoir thus functions as a kind of “transitional object”—Winnicott’s term for the special possession or toy that infants use to wean themselves their mothers. In a section entitled “Transitional Objects,” Alison explains that the transitional object is “not ‘me,’ but not ‘not-me’ either” (56). Alison transforms her life and her relationship with her mother into an object (a written record) to break free from Helen. She “destroys” Helen with the memoir, she tells readers, but her mother “has survived [her] destruction” (285). Bechdel draws this line from Winnicott, who imagines the infant’s address to the mother: “‘Hullo object!’ ‘I destroyed you.’ ‘I love you.’ ‘You have value for me because of your survival of my destruction of you’ (“The Use of an Object”). Winnicott explains that the object, once placed outside the subject’s control, “develops its own autonomy and life, and (if it survives) contributes in to the subject, according to its own properties” (“The Use of an Object”). In other words, the object exists for herself, no longer as an extension of the subject.⁹⁶

By writing *Are You My Mother?*, Alison frees both herself and her mother and makes it possible for them to meet as equals. The final scene of Bechdel’s memoir suggests the possibility of healthier relations between Alison and Helen. Bechdel depicts a young Alison playing the “crippled child” game with Helen. In this game, Alison pretends her legs do not work, telling her mother that she needs leg braces and special shoes. Helen indulges her daughter, pretending to lace the special shoes. Alison narrates

⁹⁶This theme invokes Michael Fried’s famous essay, “Art and Objecthood,” which distinguishes between the two terms. According to Fried, the work of art creates relationships between its object parts and does not depend upon a perceiving subject, whereas objecthood crucially depends upon the relationship between the object and the beholder. Fried’s makes the distinction to critique the “literalist sensibility” of Minimalist artists like Robert Morris and Donald Judd, whom he believes to be too “theatrical” –too focused on the beholder’s experience (3).

in the caption boxes, “I don’t remember the particulars of our play. I’m inventing this dialogue wholesale . . . I can only speculate that there was a charge, an exchange, a mutual cathexis going on . . . She could see my invisible wounds because they were hers too” (287). Alison has learned an important lesson from her mother, who is also an artist: how to transform her pain into art.

This scene also illuminates that Alison has adjusted her notion of “truth”—she understands now that narrative truth, like the inter-subjective truth between persons, has its own internal logic. Rather than trying to recapture an event as it really happened, she aims to recreate its feeling. This is what therapy has trained her to do. In therapy, it is difficult to distinguish between the “real” event (a past occurrence) and the event that takes place between the patient and the therapist. In fact, therapy requires a form of transference, in which the patient unconsciously redirects feelings from one person in her life onto the therapist. Alison projects her desire for Helen’s affection onto her therapist, Joceyln, and this process of transference leads to new insights about herself—specifically, that she prioritizes others at the expense of her own emotional well-being. Realizing the “alchemical power” of transference, Alison applies the therapeutic situation to writing. She commits herself to the internal consistency of the narrative, rather than to the factual accuracy of events. She declares, “the story must be served” (284), suggesting that narrative prevails as a model of truth. This sounds postmodern, but, in contrast to a postmodern schema, Bechdel’s narrative truth is the product of reverse interpretation. Bechdel’s story depends on her ability to backtrack, converting unconscious desires back into recognizable thought.

Memoir as Un-interpretation

By demonstrating how memoir allows her to hush critical inner voices, Bechdel suggests that analysis's real power is its ability to *undo* interpretation. Memoir-writing saves Alison, since this form of self-reflection enables her to recognize and silence the "inner critic" that estranges her from others. Such an idea is clearly expressed by a series of frames in which Alison describes how Freud has influenced her to look for patterns in mundane events. Alison recalls the time that she walked into a wooden board shortly after reading Freud's *Psychopathology of Everyday Life*. The plank catches her right between the eyes, causing a bruise that impairs her vision. When she goes to take her herbal supplements, she reads the label, "Brighten the Eyes," as "Between the Eyes." On the same page, she describes a pimple between the eyebrows that had been swelling for a few days. Taken together, the bruise, the bottle label, and the pimple prompt her to reflect on the "third eye" in Indian medicine, which is used to look in, rather than out. She concludes, "perhaps my unconscious was telling me to pay more attention to my unconscious" (49). The paradox here is obvious: interpretation is both the problem and the solution. As analyst, she deciphers a message from a pattern of events. The message, though, is that she needs to stop her psyche from its busywork as critic. Bechdel expands on this idea by using visual images to depict how the mind is always in the process of editing. On the next page, readers see cartoon Alison typing at her keyboard. A supplemental, "close up" image reveals her finger on the delete key. The caption box reads, "I was plagued [in the past], as now, with a tendency to edit my thoughts before they even took shape" (49). Here, Bechdel suggests analysis' redemptive potential. By critically examining her life, Alison realizes that her mind, in fact, acts as the most

reductive critic. Her mind protects her from the psychic distress caused by the ego's dependence on other objects. In doing so, the mind inhibits her relations with others. The very next frame portrays this psychic dynamic. The frame depicts an image of a diary page with scribbled lines over the writing. This caption box reads, "[The tendency to edit thoughts] has been a problem for me all my life. During my childhood phases of OCD, I obscured my own diary entries with repetitive markings" (49). Alison adds that such markings were intended to "ward off evil" from the people about whom she was writing, including herself—"By far the most heavily obliterated word is 'I'" (49). The diary page reveals to Alison the workings of the ego, which endlessly "edits" to protect itself from threat. The act of writing, then, serves as a form of critical analysis, since it reveals the ego's antics.

Here, Bechdel demonstrates how analysis recovers intelligibility. Contrary to popular belief, the unconscious that Freud describes is not a mysterious, unknowable place. Rather, it is quite knowable. The unconscious consists of normal thoughts, which have simply been transformed by the laws that govern it. Freud referred to this process of transformation as the "the primary process" (*The Interpretation of Dreams* 168). This misunderstanding about Freud's notion of the unconscious has caused feminists to disdain Freud when, according to some critics, they should embrace him.⁹⁷ Freud's

⁹⁷ See, for instance, Juliette Mitchell and Jacqueline Rose. Mitchell shocked feminists in 1974 when she argued that Freud was essential, rather than hostile, to feminism. According to Mitchell, anti-Freudian feminists have rejected Freud wholesale because of his notion of penis envy, but they ignore the mechanisms of unconscious life. Such critics have replaced the laws of the primary process ("the laws that govern the workings of the unconscious") with the laws of the secondary process ("conscious decisions and perceptions"). In so doing, they have totally missed Freud's point. Rose has also criticized feminists for rejecting psychoanalytic theory. While she acknowledges that the discourse has its blind spots, Rose insists that psychoanalysis offers a radical argument to feminist politics: the notion that human subjectivity is conflicted and that 'identity' and 'wholeness' are mere fantasies. Rose analyzes how feminists have

concept of the unconscious does not suppose some “natural” or essential desire. Rather, it emphasizes the power of inherited social and cultural laws. Thus, as Juliette Mitchell persuasively argued back in 1974, “[u]nderstanding the laws of the unconscious [. . .] amounts to a start in understanding how ideology functions, how we acquire and live the ideas and laws within which we must exist” (403). Bechdel shares Mitchell’s belief that psychoanalysis reveals—rather than enforces—normative modes of living. Analysis prompts Alison to realize the ways in which she conforms to others’ demands. By showing how analysis reveals to Alison that she is a compliant or “false self,” Bechdel shows how psychoanalysis serves the LGBT community and all members of society who are pressured to conform to a norm—heterosexual or otherwise.

In this regard, Bechdel challenges prominent queer theorists like Judith Butler, whom Alison is often depicted reading. In *Gender Trouble*, Butler denies the subversive possibility of psychoanalytic doctrine. She argues that while psychoanalysis takes bisexuality and homosexuality to be “primary libidinal dispositions,” psychoanalytic literature, in fact, *produces* these dispositions. For Butler, bisexuality and homosexuality are discursive constructions of psychoanalysis; as such, they have no “pre-cultural status.” Butler analyzes Freud’s discussion of the incest taboo to demonstrate psychoanalysis’ productive function: “the bisexuality that is said to be ‘outside the Symbolic’ and that serves as the locus of subversion is, in fact, a construction of the terms of that constitutive discourse, the construction of an ‘outside’ that is nevertheless fully ‘inside.’ (77).⁹⁸

attempted to deny the precarity of human subjectivity, positing an archaic feminine sexuality that is just as dangerous as patriarchal notions of the female other.

⁹⁸ While many queer theorists share Butler’s position that homosexual desire does not exist prior to the Law, some have, nonetheless, attempted to apply psychoanalytic concepts towards queer activism. Lee

Contra Butler, analysis *is* liberating in Bechdel's memoir. When she analyzes herself, Alison recognizes her true feelings and desires, and this, in turn, allows her to connect with others. Dwight Garner, one of Bechdel's harshest critics, totally overlooks this point. In his review of *Are You My Mother?* Garner (who raved about *Fun Home*) complains that Bechdel's second memoir is too "self-absorbed" and that the frequent therapy sessions and dream sequences get in the way of any "real narrative." Garner fails to appreciate how Bechdel integrates psychoanalysis at the level of form and content to illuminate psychoanalysis' communitarian value. For Bechdel, as well as for Kunkel, analysis allows both patient and analyst (reader and author) to escape loneliness by coming face to face with each other.

Bechdel masterfully depicts this idea in one of the memoir's final scenes. Alison stands between two mirrors, gazing into one, in which she sees infinite reflections of herself. (Bechdel has just presented Winnicott's essay on the mirror-role.) One of the caption boxes reads, "In one way, what I saw in those mirrors was the self trapped inside the self, forever." Below, another caption box reads, "But in another way, the self in the mirror was opening out, in an infinite unfurling" (244-5). While this scene ostensibly serves as a visual representation of Winnicott's relational self, it also juxtaposes neuroscientific and psychoanalytic models. Neuroscience sees a defensive self, which struggles against the external environment; psychoanalysis sees a transactional self, which is radically open to the desires of another. Since analysis inevitably transforms the identities of both its participants, the analytic scene is necessarily queer and deconstructive. As Eric Laurent notes, "A psychoanalytic session is the place in which

Edelman, for instance, explores the radical politics of the death drive, arguing for queerness to reject the logic of "reproductive futurism" and embrace negativity.

the most stable identifications by which a subject is attached can come undone.” This is true not only for the patient, but also the analyst, who is compelled to identify with the multiple roles that the analysand projects at her. Because both patient and analyst “mirror back” the other’s desire, identity is never fixed.

In her own memoir about her experiences in therapy, Eve Kosofsky Sedgwick also explores the intersubjective possibilities within the analytic setting. Sedgwick’s memoir relates the therapy sessions she attended following her breast cancer diagnosis. The narrative imitates the form of the extended, double-voiced *haibun*,⁹⁹ mixing her therapist’s clinical notes with her own reflections and poetic verses. Like Bechdel, Sedgwick reproduces a lot of conversations between her and her therapist, in order to illuminate therapy’s dialogism. By demonstrating the intersubjectivity of psychic processes, both memoirists challenge the positivism of contemporary neuroscientific writers. They deny that mental activity can be objectively observed. Popular science writers like Dennett, Stephen Pinker, Thomas Metzinger, Francis Crick, and Paul and Patricia Churchland posit that all of the nervous system’s operations can be explained in terms of the brain’s material properties. Bechdel suggests the influence of materialist philosophy in one scene in which she depicts Alison pondering the relationship between her “self” and her body. Alison lays in bed, wondering, “how much of me is me?” (140). She imagines herself as an amputee, standing with the help of a crutch (see Figure 4). Without one leg, she still recognizes herself. This is conveyed on the page with a speech bubble that expresses the word “me.” In the next panel, she proceeds with the thought

⁹⁹ Haibun is a seventeenth-century Japanese literary form, which combines prose and haiku. Haibun is a popular form for travel narratives.

experiment. This time standing without a leg and without an arm, Alison again expresses, “me.” Then, she is depicted without any limbs in a wheel chair as she reflects, “still me.”



Figure 4: Cartoon Alison as an amputee

A final image shows Alison’s severed head, connected to an oxygen tank, fluid drip, and some sort of machine that bears the words “life support.” Again, she recognizes herself: “me.” The frame below returns to the real-life Alison laying in bed, who concludes, “I’m in my brain” (141).

Genie Giaimo reads scenes such as this one as evidence that Bechdel’s memoir, while seeming to endorse psychoanalysis, in fact, endorses recent neuroscientific theories, which “better account for the events of the text—and the impulse to tell life narrative—than psychoanalysis” (35). Giaimo claims that Bechdel “demonstrates the unraveling of psychoanalytic methods” and that she articulates cognitive theories, such as pattern making and theory of mind, “whether she knows it or not” (54). Contrary to Giaimo, I read this scene as a crucial juxtaposition of neuroscientific and psychoanalytic models of mind. In this scene, Bechdel juxtaposes the depictions in the frames with reprinted content from Winnicott, in particular, a discussion in which Winnicott cautions

against the “intellectualizing” of the self. Bechdel reproduces pages from Winnicott’s essay, “Mind and its Relation,” which describes how “erratic mothering” can lead to unhealthy intellectualization.¹⁰⁰ The Winnicott passages serve to reinforce the notion of the “false self” that Bechdel works so hard to develop, since they explain how the child is prompted to compensate for the abusive mother. However, the passages also serve to contrast the psychoanalytic self with the materialist self that is represented pictorially. The psychoanalytic self is transactional, responding to the needs and desires of others. The materialist self is isolated: “I’m in my brain.” Bechdel suggests the flaw of such materialist thinking in her depiction of Alison on life support. To survive, Alison (represented by her head) has to maintain a connection with other contraptions. (She is nourished by an oxygen tank and fluid drip.) Here, Bechdel utterly refutes the notion that a person can be reduced to her own material parts. This scene also shed further light on the “Cripple Game” with her mother.

While more recent neuroscientific theory has attempted to account for the influence of environmental and interpersonal experience, giving rise sub-disciplines like “affective neuroscience” and “social neuroscience,” it continues to define selfhood in material or functional terms. The individual’s sociality, for instance, is explained as a natural or programmed trait. As Peter Lawler disparagingly summarizes, “we are gregarious like the chimps are gregarious; everything about us can be explained through evolutionary biology.” Even empathy is explained in terms of the ways in which it

¹⁰⁰ Winnicott writes of the mental function reactive to erratic mothering: “we see that there can develop an opposition between the mind and the psyche-soma, since in reaction to this abnormal environmental state the thinking of the individual begins to take over and organize the caring for the psyche-soma, whereas in health it is the function of the environment to do this” (“The Mind and its relation” 246). Here, Winnicott explains the “pathological” way in which the mind usurps the environment’s function of regulating the healthy relation of psyche and soma. The mind intellectualizes—“mental functioning *becomes a thing in itself*, practically replacing the good mother and making her unnecessary” (“The Mind and Its Relation 246-7).

benefits survival: “From an evolutionary point of view, empathy is a useful skill: by gaining a better grasp of what someone is feeling, it gives a better prediction about what they’ll do next” (Eagleman 143). Bechdel challenges such philosophy by denying that complex psychological processes can be objectively explained. She insists on the necessity of inter-subjective processes—namely, transference—to understand mental life. She demonstrates how one’s mental state always implicates another, just as, in the analytic situation, “the psychic activity of the analyst is [always] possessed by the subject being studied” (Georgieff 208). Bechdel engages psychoanalytic discourse precisely because it recognizes the transactional nature of subjectivity, not because it deals with “trauma,” as Giamo suggests. Giamo claims that Bechdel’s “evocation of psychoanalysis is an obvious gesture towards the field’s focus on telling life narrative as a means to heal past trauma” (51). Giamo contends that “[l]ess accounted for are the new trends in psychology and brain studies that *she more successfully engages with in the memoir*” (emphasis mine, 51). Giamo attempts to rescue the memoir from its “[failure] to produce meaning” by drawing attention to the neuroscientific analogues to Winnicott’s theories. After all, neuroscience promises concrete data, not vague intuitions.¹⁰¹ Problematically, this reading completely overlooks the anti-positivist stance that Bechdel takes. Bechdel realizes that the mind cannot be objectified and, further, that neuroscience—even “affective” or “social” neuroscience—is trying to do just this.

In contrast to neuroscience, psychoanalysis recognizes that psychic states cannot be subjected to the same methods of investigation as the natural world. Even though Freud claimed the status of an observational science, his methods entailed a radically

¹⁰¹ Giamo explains: “[t]he research in neuroscience can point towards the appreciable influence of environment on the neural networks of the brain, whereas psychoanalysis offers less in the way of data and replication than it does in speculation and symbolic reference” (50).

subjective approach. Fundamentally, psychoanalysis and contemporary cognitive science differ, not in their objects of study (the mind versus the brain), but in their approach. In analysis, the “subject of study cannot be reduced to the mind of the patient; rather, it becomes a co-construction that produces a new psychological object or ‘third psychological reality’” composed of the interaction between both analyst and patient (Georgieff 208).

Bechdel’s memoir brilliantly enacts a “third psychological reality” by creating an intersubjective space between the page and the reader. *Are You My Mother?* delivers a contained and ordered narrative to readers, and yet, the story is constructed around “big gaping absences” (Terzian). Bechdel leaves crucial questions unanswered. For instance, she never deals directly with the effect of her father’s possible suicide. Numerous scenes depict Alison in therapy, as her therapist probes about Bruce’s death. In each of these scenes, Alison refuses to engage. The subject is too painful. For the same reason, Alison never asks her mother about the impact of the event on her own life. These details are left for the reader to ponder, though we can surmise that Bruce could no longer bear to live falsely with his wife. Further, while Bechdel’s self-analysis appears exhaustive—she takes pains to explain each thought and action, accounting for every coincidence—there are often disjunctions between words and pictures,¹⁰² which also require the reader to intervene. For instance, Alison’s defensive posture during therapy (she is hunched over with her head down) does not always correspond with her confident responses to Jocelyn’s questions. In these scenes, Bechdel puts the reader in the position of analyst. It is the reader that is burdened with interpretation, having to find connections and decipher

¹⁰² McCloud terms this kind of word/picture relation (where words and pictures take separate paths without converging) the “parallel combination” (154).

patterns that escape Alison's attention. Perhaps graphic forms cannot avoid psychoanalytic readings, since they tend to push the space on the page, constructing different narratives at once. Comics allow for a high level of detail, and the disjunction between pictures and worlds illuminates the contrast between private and public life, as well as between past memories and present insights.

Bechdel's depictions of Alison's therapy sessions are especially representative of comics' ability to tell stories in the spaces between—between words and pictures, between caption boxes, dialogue bubbles, and sketched activity.¹⁰³ For instance, one frame depicts Jocelyn explaining to Alison that her work makes her anti-social—“being attached to your work . . . that cuts you off from the world.” This same frame depicts Alison arising from the couch as she responds, “Wait, I gotta write this down!” (152). Here, Bechdel combines speech and images to create dramatic irony for the reader. In another therapy scene, she uses speech and images in opposition (see Figure 5). Alison interprets her motivation for memoir-writing, suggesting to Jocelyn, “I wonder if writing the book is a way of directing my aggression out instead of in?” (164). But this scene is framed so that the reader's attention is “directed in”—Alison and her therapist are only visible through two windows of the room.

¹⁰³ *Fun Home* also tells a story in the “gaps,” as Hillary Chute discusses in *Graphic Women*. Chute argues that Bechdel creates various dialectics—for instance, between the verbal and the visual, between presence and absence, between life and death—to achieve “an analytic texture, an emotional, experiential accuracy” that more conventional narrative methods cannot so easily achieve (191).

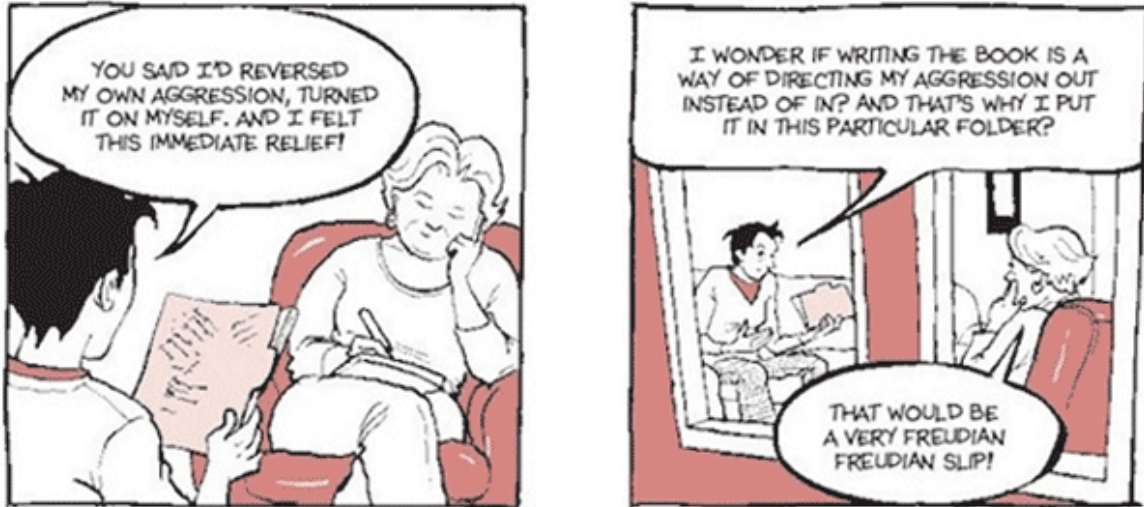


Figure 5: Cartoon Alison in a therapy session

Here, Bechdel uses speech and imagery to contrast external and internal perspective (looking out and looking in). She does so to illuminate the seemingly paradoxical processes of self-analysis. When she externalizes her feelings (when she publishes the memoir), Alison gains access to her internal life.

Rebecca Chaplan examines the relationship between analysis and graphic form, demonstrating how Freud, in fact, drew on the prototype for the graphic novel. Chaplan explains that in *The Interpretation of Dreams*, Freud attributed his process for representing logical relations in dream to ancient paintings, which depicted small labels hanging from subjects' mouths. These labels contained written characters that narrated the speech that the artist desired to represent, but could not represent pictorially. Freud was drawn to these paintings because the speech and words could be arranged without regard for linear sequence. In cartoon panels, as well, "speech and words . . . are not limited by the linear sequencing of prose: by choosing how words are placed on the page, the author can add layers of perspective and commentary. There are opportunities for

emphasis, contradiction, and irony that are harder to achieve in a conventional literary narrative” (Chaplan 345-6).

By skillfully combining visual and textual details to achieve multiple levels of meaning, Bechdel demonstrates how comics can combine simple elements in complex ways. The reader’s job, like that of the analyst, is to make connections and decipher patterns for the sake of meaning. The reader’s job is not to cynically question the truth of the story, nor to simply accept the fragments for their pluralistic truth value, but to sort through the divergent stories for some meaning that connects her with the writer. This violates the intentional fallacy, since the reader tries to identify the writer’s intents and desires. But this is precisely what Bechdel asks readers to do. In contrast to other cartoonists, Bechdel prevents readers from projecting themselves onto the page, demanding instead that they see *her*. Bechdel rejects “cartoon” style imagery, in favor of more realistic images of characters. Her methods differ from those of comics theorist Scott McCloud, who argues that simpler styles better allow for viewer identification. (McCloud claims that he himself draws in a simpler style to connect with readers.) McCloud explains, “We humans are a self-centered race. We see ourselves in everything” (32-3). The more generic the image on the page, the easier this task is. Bechdel, however, takes great pains to reproduce her signature look on the page—“preternaturally slim, dressed in head-to-toe black topped off by her signature, horn-rimmed Elvis Costellos” (Karpel)—and she supplements these visual images with much textual detail in the form of explanatory notes in the caption boxes and in the frames themselves. Where McCloud simplifies, she complicates the processes of reader identification. On the one hand, Bechdel asks the reader to reflect her pain and desire, as the good analyst does for the

patient.¹⁰⁴ By reflecting the patient's feelings, the analyst registers and reaffirms the patient's story. So while Bechdel serves as her own analyst, she also invites the reader to play this role. On the other hand, she asks readers to become like patients, whose feelings are "mirrored back" by the narrative itself. Bechdel creates a space of mutual recognition, where both author and reader can meet as equals. By positioning the reader as both an analyst and a patient, Bechdel confounds the processes of reader-identification.

In doing so, she challenges popular notions of theory of mind, which the comics form reproduces. In short, theory of mind posits that humans can attribute mental states to other entities. The conventions of comics endorse Theory of Mind, since readers literally *read the minds* of characters on the page. McCloud's theory of comics form further builds on this idea, as he discusses how comics enact basic cognitive processes. McCloud explains that humans cannot help but attribute minds to objects, even non-human objects. For instance, when a reader sees two dots above a line, she involuntarily sees a face and, so, attributes mental states to this image. Thus, an image ("icon") of an electrical outlet can trigger the processes of mind-reading. The reader "gives life" to the images on the page, creating and recreating them with each sequential frame (59). But for Bechdel, mind-reading is a lot more complex than both McCloud and traditional comics-form suggest. The object on the page *really is* its own object, not just an extension of the perceiving subject. Again, Bechdel takes pains to recreate herself and all her quirks, rather than a universal image. But at the same time, the Alison-on-the-page depends upon the reader to "mirror back" her feelings and desires. Like the transitional objects that Winnicott describes, then, the comics form is "not 'me,' but not 'not-me' either" (56). In

¹⁰⁴ In "Playing, Creative Activity, and the Search for the Self," Winnicott explains that the analyst's job is to act as a mirror for the patient.

the remainder of this chapter, I will discuss how Bechdel creates such a transitional space to communicate with the reader in ways that popular discourse disavows. Ultimately, it is by affording the reader a meaningful role in a process of co-interpretation that Bechdel's memoir most powerfully challenges popular science today.

Comics and Popular Science

Bechdel desires to popularize psychoanalysis, as Winnicott did, because she believes in its therapeutic value. Winnicott made psychological theory accessible to people by using plain language (Phillips). Bechdel, however, uses cartoons to promote psychoanalysis. Cartoons, as McCloud notes, "have historically held an advantage in breaking in world popular culture" (42). Bechdel knows this well, as her own syndicated comic strip *Dykes to Watch Out For* (1983-2008) helped to introduce lesbians to the reading public long before there were lesbian daytime television hosts or shows like *The L Word*.¹⁰⁵ Interestingly, however, Bechdel's memoir is not alone in its attempt to introduce psychoanalytic theory to the public through graphic form. Icon Books recently released a series of "graphic guides" to psychoanalysis and its major figures.¹⁰⁶ In the same vein, author Richard Appigananesi and illustrator Oscar Zarate have collaborated to produce the Graphic Freud Series, which features works like *Wolf Man* and *Hysteria*, based on Freud's famous case studies of his patients Sergei Pankejeff and Elisabeth Von R. These works represent a new trend in literary culture: using graphic art to adapt

¹⁰⁵ In her introduction to an anthology of the comic strip, Bechdel reflects, "We had no 'L Word.' We had no lesbian daytime TV hosts. We had no openly lesbian daughters of the creepy vice president. We had 'Personal Best,' and we liked it" (*The Essential Dykes to Watch Out For*). Critics, including Garner, credit Bechdel's comic strip for introducing LGBT activism to a new generation.

¹⁰⁶ See *Introducing Psychoanalysis: A Graphic Guide* (2011) written by Ivan Ward and illustrated by Oscar Zarate, *Introducing Melanie Klein: A Graphic Guide* (2011), written by Robert Hinshelwood and Susan Robinson, and *Introducing Lacan: A Graphic Guide* (2010), written by Darian Leader and illustrated by Judy Groves.

traditional works of theory and literature.¹⁰⁷ Although Bechdel's memoir reflects this larger trend in literary culture (it uses comic form to popularize certain philosophical discourse), *Are You My Mother?* distinguishes itself from these other texts by trying to interpret psychoanalysis in a less formative way. Rather than merely disclosing psychoanalysis—and the psychoanalytic self—to the reader, Bechdel creates a psychoanalytic exchange between the text and the reader in which the reader plays no small part.

Bechdel's memoir allows the reader to transfer herself onto the page, making her visible to herself. Bechdel's reader cannot help but recognize the psychic conflicts—for instance, the ego's interdependency—with which she, too, struggles. This is why so many readers like Garner have reacted so negatively to *Are You My Mother?*, according to Heather Love. Bechdel's "act of risky psychic exposure" provokes a mimetic response in readers, who identify with the strained mother-child relationship (Love).¹⁰⁸ Love argues, "[t]he volatility that characterizes a lot of writing about motherhood can be traced to the difficulty of stably seeing one's mother as a separate person. And if writing about mothers is difficult, presumably reading about them is too." Bechdel's book strikes a nerve, forcing the reader to come to terms with the reality that she, too, is constituted by others.

The memoir does not project Alison's mental state onto the reader, so much as facilitate the reader's identification with the same psychic conflicts. For instance, the

¹⁰⁷ In addition to foundational psychoanalytic theories, Marxist theory, Deconstruction, and Cultural Studies are now presented in comic form. Sample titles include "Introducing Derrida: A Graphic Guide" and "Introducing Cultural Studies: A Graphic Guide."

¹⁰⁸ When asked herself about Garner's negative review, Bechdel answered that "well-adjusted" people were not likely to identify with the memoir, adding that, "fortunately, not many people are well-adjusted" (Karpel).

memoir invites readers to acknowledge their childlike vulnerabilities, such as feelings of rejection. One scene depicts Alison's distress when her mother shows preference for her sons. Helen is more affectionate with Alison's brothers, kissing them good night while refusing to kiss her daughter. (Seven years is too old for this, according to Helen.)

Bechdel relates, "it was almost as if she'd slapped me." What reader cannot relate to this experience of being rejected by a parent or loved one? The memoir allows the reader to transfer her own needs and desires onto the page, seeing herself, as well as Alison. By using the comic form to facilitate the reader's recognition, rather than to simply translate obscure discourse, Bechdel's memoir acts as a "good mother" (and a good analyst) to the reader. The good mother does not interfere with the infant's creative development, just as the good analyst does not interfere with the patient's development by disclosing the hidden meanings behind the patient's behavior. Rather, she allows the infant to project her needs and desires onto her in a process of transference. In doing so, the infant learns to recognize herself as separate being.

It is precisely by mothering the reader in this way that Bechdel's graphic memoir challenges the influence of popular science texts that prevail in the age of the brain. Such works seek to demystify the self, reducing the self (and the reader) to biological processes. The title of Dennett's bestseller, *Consciousness Explained*, is illustrative of this. These texts have significantly informed the ways in which contemporary readers understand themselves, as evidenced by Alison's own reflection, "I'm in my brain." Importantly, Bechdel does not *just* challenge the positivism of materialist philosophy, she challenges the means by which popular science writers communicate with the public. She is keenly aware of the influence of popular texts, and she wants to be more than a mere

popularizer. Miller's text, *The Drama of the Gifted Child*, incidentally, provides an example of how a bestseller can exert a profound influence on the ways in which a reader imagines herself. The book informs Alison's understanding of herself and her relationship to her mother, as it did for many of its readers when it was published in 1979. The irony of the Miller's text is that it produced many "gifted child"—that is, readers who identified as the gifted, sensitive child described by Miller. If everyone is a gifted child, who among us remains average? Garrison Keillor memorably exposed this paradox on his weekly radio show from the fictional town of Lake Wobegone, Minnesota, where "all the children are above average" (*A Prairie Home Companion*). The irony of the gifted child is not lost on Bechdel, who depicts Alison finding Miller's book at a bookstore alongside other bestselling titles like Melody Beattie's *Codependent No More* and Anne Wilson Schaef's *When Society Becomes An Addict*. Standing in the aisles of the bookstore, Alison is engrossed by the book. When she purchases it, she learns that "apparently, it was some kind of sacred text" (53). The cashier has already been transformed by Miller's book, telling Alison, "kiss life as you know it goodbye." Bechdel's subtitle—"a comic drama"—riffs on Miller's title (*The Drama of the Gifted Child*), while also punning on the two meanings of comic/comics.

So, while Bechdel clearly accepts Miller's theories (and Winnicott's, for that matter), she does not necessarily accept the means in which Miller, Winnicott, or scientific writers today communicate with the public. This is apparent in her choice of the graphic form. The cartoon page allows her to rival the "bad mothering" of popular discourse (including neuro-cultural discourse) by facilitating interpretation in a non-formative way. Bechdel's graphic memoir challenges neuro-cultural discourse not simply

by reviving out-of-fashion psychoanalytic theories, but by creating a space for readers to recognize themselves (and Bechdel) without “pathological” intellectualization. Put more simply: *Are You My Mother?* enables the reader’s identification without directing it. Like a good mother/analyst, it invites the reader to transfer desire, making it (desire) visible. By enabling this “alchemical” process of transference, the memoir radically challenges the formative influence of popular scientific discourse.

Chapter Five: Neuroscience and Post-racial Politics in Monique Truong's *Bitter in the Mouth*

Like many of the authors already discussed, Monique Truong writes in an era in which brain-centered approaches to the mind/self pervade scientific and popular culture. Neurological idioms explaining selfhood have exceeded the laboratory and are widely circulated by the popular press and social media. In our daily lives, we are bombarded with studies about the brain and with descriptions of neuroscientific findings' applications to everyday life in fields as wide-ranging as education policy, psychology, personal health, relationships, and professional management. The "neuro-industry" pressures contemporary subjects to understand themselves as neurological beings,¹⁰⁹ and Truong, like many other novelists today, resists such attempts to "neurologize" the self. However, she suggests that such reductivist programs correspond with neoliberal forms of racial erasure. Truong implies that, by privileging neural processes—whether at the cellular, synaptic, or functional level—neuroscientific programs cooperate with post-racial politics in the multiculturalist era, which obscure global racist exploitation.

Bitter in the Mouth (2010) tells yet another story of a protagonist who is blessed/afflicted with a strange neurological disorder. Linda Hammerick, a South Vietnamese girl growing up in the American South, has auditory-gustatory synesthesia: she tastes words. The word-taste pairings are random; in other words, pleasant words do not necessarily trigger pleasant tastes. However, the word-taste pairings are consistent; the same words trigger the same tastes over the course of her life. Truong attributes her inspiration for this character to a television program on synesthesia, which featured the

¹⁰⁹ Suparna Choudhury and Jan Slaby use the term to characterize the efforts of both scientific professionals and their media cheerleaders, who tirelessly promote brain-based approaches to selfhood.

research of world-renowned neuroscientist V. S. Ramachandran.¹¹⁰ While *Bitter* does provide some basic background about synesthesia, the novel avoids delving too deeply into science. According to one reviewer, “Truong is wise not to let ‘Bitter in the Mouth’ become an Oliver Sacks-like exploration of a neurological rarity” (Hoffman). While it is true that Truong’s is not a conventional “neuronovel,” the brain and brain sciences are crucial to the narrative. *Bitter* critically interrogates the brain sciences—specifically, the ways in which popular neuroscience and social life interact. In particular, she scrutinizes the “neurological subject” that increasingly informs contemporary concepts of personhood.

Bitter is set in the small town of Boiling Springs, North Carolina. Linda’s life is marked by her difference. She is singled out both by her peculiar neurological affliction and by her appearance (she is the only Asian in the town). Readers are introduced to Linda’s neurological disorder in the novel’s opening pages, though they do not learn of her Asian heritage until the novel’s second half. At the end of Part One, Linda discloses her birth name—Linh-dao—and, in Part Two, the facts of her transnational adoption. She reveals that her birth mother and father perished in a fire and that her adopted father (her mother’s American former lover) appeared to adopt her. As a narrative strategy, the delayed revelation foregrounds the elimination of race—but not racism—in an era of post-identity politics. Linda fully understands the dynamics of multiculturalist politics. She explains that the white members of her Southern town “vowed to make themselves color-blind on my behalf. That didn’t happen. What did happen was that I became a blind spot in their otherwise 20-20 field of vision” (170). The white community’s “act of

¹¹⁰ The program was based on Ramachandran’s experimental research, which later became the basis for a chapter on synesthesia in his bestselling book, *The Tell-Tale Brain: A Neuroscientist’s Quest for What Makes Us Human* (2011).

selective blindness,” Linda realizes, is meant to protect its members from coming to terms with United States’ history of imperialist aggression:

They knew that if they saw my face they would fixate on my eyes, which some would claim were almond-shaped and others would describe as mere slits. If they saw my hair, they would marvel at how straight and shiny it was or that it was limp and the color of tar. . . . If they saw my unformed breasts, the twigs that were my arms and legs, the hands and feet small enough to fit inside their mouths, how many of the men would remember the young female bodies they brought by the half hour while rearing their country’s uniform in the Philippines, Thailand, South Korea, or South Vietnam? (171)

This passage clearly emphasizes how official anti-racist agendas fail to protect racialized subjects. Rather, they merely conceal the legacies of violence against those subjects.

Truong critiques multiculturalist discourse, which insists that Western subjects are living in age in which race and other identity markers no longer matter. For Truong, multiculturalism hinders thinking about race precisely because race crucially matters to capitalist processes.¹¹¹ By agreeing not to “see” Linda, the members of the town obscure their country’s imperial role in Vietnam, where the U.S. military perpetuated a legacy of colonial intervention. These townsfolk obscure the deaths of three million Vietnamese, including 65,000 civilians, at the hands of the U.S. troops (Rummel). In addition to revealing how “color-blindness” serves the conservative White community, Truong also questions the actual possibility of color-blindness. The residents of Boiling Springs vow *not* to see her race when they look at her; but in fact, they *only* see her race.

¹¹¹ Jodi Melamed argues the same point in her critique of the “post-racial” era. Melamed explains that race facilitates neoliberalism since it “organiz[es] the hyperextraction of surplus value from racialized bodies and naturaliz[es] a system of a capital accumulation that grossly favors the global North over the global South. Yet multiculturalism portrays neoliberal policy as the key to a postracist world of freedom and opportunity” (1).

Truong's critics have analyzed how the author critiques the color-blindness of the multiculturalist political moment, while, at the same time, attempting to imagine race outside registers of visibility.¹¹² These critics point out that the dominant sensory experience in the novel is taste, not sight, and that through this trope, Truong challenges the primacy of visibility in constructions of race. They, thus, read the novel's withholding of the facts of Linda's transnational adoption as the author's clever attempt to foreground the acts of erasure that normative modes of representation perform. Denise Cruz, for instance, explains: "Truong initially presents Linda as an outcast because she has synesthesia . . . But halfway through the book, Truong allows her readers to 'finally see' the heretofore racially unmarked Linda" (717). While this reading illuminates Truong's skillful use of form to problematize racial constructions, it presents Linda's synesthesia *merely* as a narrative ruse. Linda's synesthesia is not simply a narrative ruse, nor is it simply a metaphor for the richness of sensory experience. Linda's condition demonstrates how neuroscientific discourse perpetuates multiculturalist legacies by flattening race and minimizing the legacies of oppression that shape individuals' psychic trauma.

For Truong, neuro-centered approaches to subjectivity are a neoliberal ideal, since they annihilate difference. *Bitter* associates the "neuro-mania" that prevails in scientific and public life with neoliberal imperatives to obscure the exploitation of bodies marked by difference. By emphasizing the neural coordinates of diseases, both science and popular culture reduce large-scale racism to individual pathologies. Linda's pain (she calls the word-taste pairings "wounds") invokes a legacy of trauma inflicted on racialized bodies, but some characters refuse to acknowledge synesthesia as anything other than a brain-based disorder. The narrative counters such racial erasure by embracing an ethics of

¹¹² See Dykema, Simal-González, and Cruz.

alterity—an ethics based on responsibility to and for strangeness.¹¹³ Linda feels a duty to confront “the unknown terrors of life” and the mysteries of her body. She feels a duty to acknowledge her precarious status as a hyphenated American with no community in which to fully belong. Truong provokes readers to register strangeness with various formal devices, such as narrating passages that combine words with tastes. In these passages, she compels readers to disregard meaning and use language non-communicatively, as her protagonist does. This ethical register of responsibility-for-otherness radically challenges neoliberal notions of responsibility, which are based on an ethics of self-reliance. Thus, Truong uses form to challenge neoliberal rhetoric of personal responsibility for one’s self—rather, one’s brain, in the neuro-age.

Neuronal Subjectivity and Post-racial Politics

Linda claims that what she wants to know about herself, she sees on television. Growing up in the rural South, she has learned to suspect books—particularly history books—of “subjective framing, with places, people, facts left out” (68). In a crucial scene towards the narrative’s end, Linda recounts the time she saw herself, “or rather [her] doppelganger” (217) on television. The year is 1995. She is practicing law in New York City, where she lives with her fiancé, Leo. She turns on the television to encounter a British man who suffers from the same rare form of synesthesia (auditory-gustatory). As

¹¹³ This ethical framework was first proposed by Emmanuel Levinas. For Levinas, responsibility is the determinative structure of subjectivity. That is, one’s ethical relation to the other—rather than his ontological relation to that other—is primary. The Other is that which is unknowable and cannot be made into an object of the self, contrary to traditional metaphysics. The Other appears to the subject as a Face, and the subject becomes responsible—“response-able”—to that Face, which silently implores. Jacques Derrida elaborated on Levinas’ ethics of alterity in his writing on hospitality. Derrida explains that hospitality is saying “yes” prior to identification.

the man explains what it feels like to taste words, Linda, captivated, kneels in front of the screen. She retrospectively narrates:

What I was experiencing at that moment wasn't an out-of-body experience. It was an in-another-body experience. Everything but this man and me faded into darkness. He and I were at the two ends of a brightly lit tunnel. We were point and point B. The tunnel was the most direct, straight-line route between the two points. I had never experienced recognition in this pure, undiluted form. It was a mirroring. It was a fact. It was a cord pulled taut between us. Most of all, it was no longer a secret. (217)

In this scene, the man confers legitimacy on Linda's strange condition, and she experiences a sense of kinship with him based on their mutual pathology.¹¹⁴ It turns out that the man, Mr. Roland, is one of a handful of synesthetes being interviewed for a PBS special program. Linda notices that "his pool of experiential flavors, in other words his actual food intake, was very British and that he didn't venture far from home for his gastronomical needs" (218). As her diet is primarily based on processed and canned foods (the typical American fare in the 1970s and onward), she does not share the same word-taste pairings. What she does share with this man (and the other synesthetes) is a radically alternative epistemological relation to reality. Their cerebral apparatus equip them to experience the world in very strange ways. Linda fully accepts the "strange but true" (226) reality of his (and her) condition, as well as the bond that they share: "It was a fact" (217). But the program's hosts do not. The main interviewer continually interrupts her subject, trying to explain his sensations in scientific terms. This causes Linda, who is desperately trying to concentrate on his intimate world, to scream at the television set.

¹¹⁴ Linda tends to connect with other outsiders to society, especially her gay uncle Baby Harper. As a young child, Linda intuits that neither of their bodies conform to societal ideals, and this shared difference endears the two characters to each other. Linda also forms a special friendship with her pen pal, Kelly, who becomes a "pariah" after her teenage pregnancy.

The synesthete's interview swiftly segues "to an MRI scan of [his] brain, followed by a series of tables and graphs that documented the blood flow to different areas of his brain as he was experiences a 'state of synesthesia'" (218). Linda notes that the "voiceover, a deep male voice more smug than authoritative, defined synesthesia as a neurological condition that caused the involuntary mixing of the senses" (218). She is appalled by the language that the voiceover uses to translate the synesthete's complex sensory experiences into scientific terminology. These feelings are exacerbated when she reads a transcript of the program that is delivered, upon request, in the mail. "The transcript began with the scientific theories on the causes of synesthesia... the theories, the scans, the tables, and the graphs made me feel like a lab rat. Or worse, a person with an incurable disease" (225).

This scene illuminates how contemporary subjects are pressured to think about themselves in neurobiological terms. Those like Linda and Mr. Roland, who refuse to understand themselves purely as neuronal subjects, are stigmatized. This scene also emphasizes how Linda's difference—her unique sensory experience of the world—is pathologized. She is made to feel ashamed of her cerebral defect, just as she is made to feel ashamed of her racialized body—her "unformed breasts, the twigs that [are] her arms and legs, the [small] hands and feet" (171). Truong connects Linda's shame about her neurological illness to her shame about failing as an Asian woman in a white society. But importantly, her objective is not simply to draw an analogy between mental illness and racial difference, but to show how an emphasis on the neurological correlates of mental illness effectively erodes race.

As the PBS scene stresses, neurologically-based approaches to difference and disorder ignore the lived experiences of subjects. The PBS program is narrated by experts that attempt to identify on the MRI scans sites for particular brain behaviors. These experts completely dismiss the synesthetes' testimonies regarding their experiences. To Linda's irritation, the interviewer fails to register what the synesthetes report about their unusual sensory experiences, turning instead to scientific data about the condition. One of the featured synesthetes—a flutist from Hamburg who experiences flavors as shapes and textures—recorded her sensations in diary. But the experts doubt her compendium. According to the transcript that Linda reads, Mrs. Ostorp's "case would always remain a question mark because she never agreed to a cerebral blood-flow test, which would have documented the changes in her brain metabolism during a state of synesthesia" (225). In other words, Linda explains, "there was no proof of Mrs. Ostorp's world except for her words, which couldn't be relied upon. Insufficient. Unreliable. Refutable" (225). Linda resents that the synesthetes' personal testimony is subordinated to the "objective" accounting of the MRI. She grudgingly remarks, "the next time someone tells me the sky is blue or the soup is too salty or the upholstery is nubby or the music is too loud, I'll ask for a cerebral blood-flow test and the resulting tables and graphs. Otherwise, I'll shrug my shoulders and say, 'Prove it.'" (225).

This scene emphasizes the contradictory mechanisms involved in the production of contemporary forms of subjectivity. There is, on the one hand, an unprecedented movement to embody the self—to reduce one's selfhood to material form (the brain)—and, on the other hand, a movement to dis-embody subjects and dis-embed them from history. Today, it is common to explain selfhood in terms of brainhood, as do

neuroscientists like Joseph LeDoux (“you are your brain”) and Francis Crick (“you are your synapses”). Such expressions encourage contemporary subjects to conceive of themselves as embodied, neurological beings. Brain scientists, like those analyzing Mr. Roland’s MRI scans, pinpoint certain genes, regions, or sites of the brain to explain human emotions and behaviors. Problematically, this “neuromolecularize gaze”¹¹⁵ obscures environmental factors—especially the dynamics of power—that influence one’s psychological and somatic experiences. Biomedical explanations too often reconfigure social problems as purely somatic ones—specifically, neurochemical problems that require experts to manage. These biomedical explanations fail to acknowledge that the embodied brain is also, necessarily, an embedded brain. As Dimitris Papadopoulos explains, “The embodiment of brain matter means that mental functions are not formal procedures; cognition is not independent of its implementation; mind and experience is always instantiated in concrete material structures: in a body . . . in an environment . . . in a social context . . . or in cultural-political constellations. From the perspective of embodiment there is no such thing as the brain as a fully separate organ” (8). The neurosciences have only recently begun to acknowledge that the brain is part of a complex living organism.¹¹⁶

Papadopoulos proposes the term “brain-body” to denote the brain, since the brain only operates in relation to other functions and systems of the body. In *Bitter*, Truong

¹¹⁵ Rose and Abi-Rached use this term to denote the reductive approaches to the nervous system which emerged in the late twentieth century. For Rose and Abi-Rached, life sciences’ ‘molecular gaze’ evidences that contemporary biopolitics has incorporated “risk thinking.” The isolation of discrete body parts makes it possible to intervene and prevent physical maladies before they develop. In this age of preventive medicine, individuals are responsible for maintaining their own health and avoiding diseases. Neoliberalism demands healthy bodies both to ensure a productive work force and to control the economic burden that ill bodies incur.

¹¹⁶ Antonio Damasio discusses cognitive science’s recent adoption of a more holistic, evolutionary perspective in *The Feeling of What Happens*.

links the brain to the tongue to suggest the brain's embeddedness in a material body. Like Lauren Olamina, who often feels pain before registering who or what triggers her wounds, Linda often experiences tastes before registering the word that triggered the taste. This implies that Truong similarly understands cognition as a somatic process that exceeds the boundaries of the skull. The somatic process of cognition exceeds the skin, as well, since it cannot be extracted from social processes. Linda's synesthesia highlights that experience "gets under the skin." She cannot protect her body and its biological processes from the outside world. Her synesthetic archive is formed by the tastes that she encounters and the words that she hears. Readers also learn that the bitter taste in her mouth, for which she never recovers the corresponding word, invokes some word that she heard before she left her biological family. This suggests that certain historical legacies structure her experience of the world. Linda's bodily sensations and their meanings cannot possibly be explained by reference to the brain alone; they depend greatly on her individual history and on her situated-ness in a certain social environment. So, even while the novel centralizes neurological disorder, *Bitter* ultimately suggests the impossibility of a disease being based exclusively in the brain.

Brain-based approaches persist, Truong suggests, because they deny subjects the means to access their individual histories, which form their memories and experiences. Linda's bodily trauma is intimately connected to her failure as an Asian subject in a white family and community. Her trauma is also connected to the trauma endured by women in South Vietnam at the hands of U.S. military troops. However, the narrator-protagonist mistakenly reads her bodily trauma as a symptom of her neurological condition. She complains about the impossibility of overcoming her brain, "a willful, dictatorial

processor . . . [that] unless diverted or chemically manipulated . . . prevails over the tongue, that lesser subservient organ” (155). Here, Linda rationalizes: “my brain made me do it.” Problematically, this brain-based approach reduces psychological activity to material processes, while simultaneously effacing the material body by denying its embeddedness in history. Such a paradoxical gesture is evident in Ramachandran’s discussion of synesthesia. The neurologist acknowledges the brain’s historical dimension—he claims that it is “impossible to understand how the brain works without also understanding how it evolved” (xiv). Evolutionary perspectives take into account the socio-material processes in which the brain is embedded. But Ramachandran simultaneously dis-embeds the brain from socio-material processes in order to study it. He notes that it is “somewhat tricky (to put it mildly) to study the perception of other people. Science traffics in objective evidence, so any ‘observations’ we make about people’s sensory experience are necessarily indirect or secondhand” (84). Ramachandran tries to overcome this epistemological hurdle—often referred to as the problem of “qualia”—by basing his research on “direct tests.” Direct tests are tests “that psychologists employ to determine whether an effect is truly perceptual (or only conceptual).” An example of such a “direct test” is “popout.” With popout, a subject is shown a grid of characters or shapes to see if any particular image emerges or “pops out.” According to Ramachandran, some synesthetes are able to quickly detect hidden images, since they perceive certain characters in another way. (They see numbers as colors, for instance.) Discussing the results of his experiments with popout tests, Ramachandran boasts that he and his researchers have provided “clear, unambiguous proof . . . that synesthesia [is] indeed a real sensory phenomenon” (91). He adds, “our displays [can] not

only be used to distinguish fakes from genuine synesthetes, but also to ferret out closet synesthetes, people who might have the ability but not realize it or not be willing to admit it” (91).

Truong is less interested in authenticating her protagonist’s synesthetic experience than in using synesthesia to challenge the metaphorical processes that language, scientific discourse, and racial formations enact. *Bitter* explores how the brain sciences and medico-scientific discourse simultaneously render the material body invisible and hyper-visible, a contradictory movement that naturalizes racial erasure. The body’s presence-absence in scientific and post-racial culture depends on the primacy of visibility. Brain imaging devices, which provide the basis for the neuro-discourse that prevails today, and racial formation both privilege observable physical data and rely on inferences to produce visual truths about who we are and, more importantly, who we should become. That is, both neuroscientific and multiculturalist discourse demand that contemporary subjects embody a particular self-image, which, because it is based on appearance, has been stripped of history.

Looking vs. Being

Bitter questions the primacy of visibility in constructions of racial and neuronal subjectivities. Linda fully understands that “looking” Asian is not the same as “being” Asian: “I was often asked by complete strangers what it was like to grow up being Asian in the South. You mean what was it like to grow up *looking* Asian in the South, I would say back to them with the southern accent that revealed to them the particulars of my biography” (169). And, as the PBS show so vividly depicts, brain scans woefully fail to

capture the robustness of psychic life, which far exceeds the brain. Linda's discomfort with the scientific representations—"the theories, the scans, the tables, and the graphs" (225) is prompted both by feeling "like a lab rat" and by the fact that she is being asked to embody an image of herself as a biological, rather than a historical, subject.

The biological subject represented on an fMRI scan is inevitably de-historicized. Brain imaging technologies can reproduce neuronal activities, but, as neurobiologist Steven Rose explains, "the interpretation of the firing pattern of any particular neuron is very much dependent on its history" (63), which scans cannot reproduce. In other words, brain scans might be able picture synaptic activity, but they cannot explain how or why certain synaptic connections developed. Further, brain scans are far removed from the material conditions of life. Rose and Abi-Rached point out that analyses of brain scans require a "real space" that is all too often absent—subjects are scanned in an imaging suite (not in routine social contexts) and the images that scanners produce are typically analyzed without regard for the "conditions of possibility" that made that act of visualization possible. Rose and Abi-Rached compare contemporary brain imaging devices (CT, PET, MRI, and fMRI) to past technologies of visualization, such as sixteenth century paintings of "mad" subjects and mid-eighteenth century associations of madness with certain physiognomies (skull shapes and facial characteristics). Both past and present "acts of seeing," Rose and Abi-Rached contend, produce new kinds of subjects, even as they claim merely to observe. Further, many brain imaging devices rely on a series of inferences for their interpretation. The fMRI, for instance, involves a complex process in which the data for a particular subject is grafted onto the standardized magnetic resonance atlases of a typical brain. An interpreter then makes sense of the

computer-generated animation by inferring “from the brain’s chemistry to neural activity, from neural activity to mental events, from the experimental laboratory setting to the world outside, and so on” (Väliaho). Despite their dependence on inferences, experts persist in their attempts to give visibility to phenomena that clearly exceed the realm of visibility.

Recently, the neuroscientific community’s efforts to establish correlations between certain brain activities and certain cognitive experiences were widely challenged. In 2008, nearly a year before the publication of Truong’s novel, there was the “Voodoo Correlations” incident. This event, which was widely reported by the popular press, substantiated concerns about the reliability of brain imaging devices. “Voodoo Correlations” refers to the original title¹¹⁷ of a paper published by MIT graduate student Edward Vul and his colleagues, which identified rampant instances of “faulty statistics” in studies published in *Social Neuroscience*. (This journal had received widespread coverage in the mainstream press, which Vul et. al.’s report begins by noting.) Specifically, Vul and his colleagues questioned the implausibly high correlations between individual measures of personality or emotionality and blood oxygenation level development (BOLD) activity that were observed in certain fMRI studies published in the journal. (Functional MRI scans generate images by combining magnetic qualities of atoms with advanced computer programs that process the data; since fMRI technology so heavily relies on computer programs and statistical material, analyses of data can be called into question, as was the case here.) The “Voodoo Correlations” report significantly impacted the scientific community, since it accused brain researchers of

¹¹⁷ By editorial request, the paper “Voodoo Correlations in Social Neuroscience” was retitled, “Puzzlingly high correlations in fMRI studies of emotion, personality, and social cognition.”

overstating results to explain the neural substrates of emotion, personality, and social cognition. But the report also emphasized the media's role in sensationalizing scientific findings. In an interview about the paper, Vul explains that reporters tend to "write up conclusions in slightly grander terms than the scientists used originally [without realizing] that scientists themselves have often oversold the implications of their findings a bit. You put these things together and you can end up with really overblown coverage" (Interview with Jonah Lehrer). While Vul and his colleagues' declared aim is to improve research methods, their report inspires further questions about the ubiquity of brain-based research in contemporary culture. Why *is* the media so eager to circulate neuroscientific accounts of subjectivity? What drives the imperative for neurological understandings of personhood? Why are individuals being compelled—and *why are they willing*—to reimagine themselves as primarily neurological beings?

Truong asks similar questions and poses some answers. As I have already discussed, she suggests that neuronal subjectivities reinforce the post-racial subjectivities upon which multiculturalist discourse insists. *Bitter* depicts how a neuro-centered approach to Linda's synesthesia essentially renders her a subject without a race. But why is Linda drawn to neurological explanations of experience? Why is she, at times, willing to embrace a neurobiological interpretation of herself? Truong suggests that the appeal of neurobiological narratives is that they secure the self ontologically. When Linda, knowing better, attributes her word-taste sensations to her "dictatorial brain" or when she explains certain impulses in terms of her brain's "hardwiring" (93), it is because she is not fully willing to engage the unknown traumas of her past and of her severed

connection to South Vietnam and her birth family. Neurobiology absolves her of a painful history of racial oppression.

As an adolescent, Linda is drawn to the stories she encounters in the guidebook *North Carolina Parade*—“there is something reassuring about having the history and people of your world reduced to 209 pages and a handful of drawings” (52). This particular guidebook, which contains easy-to-read stories about North Carolina history, is provided by her father, who hopes to “foster a sense of securing and belonging” (52). But the gesture backfires. In the book, Linda encounters a story about an orphan—Little Virginia Dare—who is abandoned in the lost colony of Roanoke. This character profoundly affects Linda, who is also an orphan. The story, intended to anchor her to North Carolina and its people, only reminds her that she has no attachment to this land. Linda also attempts to repair the broken connection to her origins by establishing a meaningful relationship with her adoptive mother, DeAnne. But DeAnne repudiates Linda because Linda looks nothing like her. DeAnne’s resentment, as well as her grandmother’s disfavor, prompts Linda to realize the correlation between affection and physical likeness:

I now know that it is no coincidence that the word ‘favor’ is used to denote a physical resemblance. I favor you (your eyes, your chin). You favor me (with love and attention). Favor is a reciprocity-based on a biological imperative; it is a primal vanity that has saved the lives of some babies and doomed others. (133)

Here, Linda describes family as a contractual relation. Truong thematizes contracts to link language, scientific discourse, and racial formations—all rely on metaphorical processes—and to oppose these forms with an ethics of singularity. In law school, Linda intuits a distinction between reciprocity (a form of correspondence) and responsibility (a

form of asymmetry). Linda fixates on the Reasonable Man, the hypothetically prudent person used as a legal standard to determine if a person has acted with negligence. The Reasonable Man has a *duty* to society to exercise care, skill, and judgment in contact. But this duty is a pretense, Linda quickly learns. His rights trump his responsibilities. The Reasonable Man always “packs heat,” which is immediately available should he be provoked to commit a crime of passion. This leads her to conclude that the Reasonable Man would not make “an ideal husband” (28).

Linda’s suspicion about the Reasonable Man standard—that it protects individual rights, rather than enumerating one’s responsibilities toward the care of another—departs from the critical consensus of criminal law scholars. Needless to say, many feminist criminal law scholars object to the standard, deeming it to promote majoritarian norms at the expense of minoritized defendants. This argument has stirred debate in the criminal law academy about the virtues of an “objective or subjective standard.” Victoria Nourse summarizes: “Traditionally, the inquiry has taken the form of a question of the ‘identity’ of the reasonable person: whether we should conclude, for example, that the reasonable person should include characteristics of age (the reasonable young man) or sex (the reasonable woman) or culture (the reasonable Asian woman)” (35).¹¹⁸ Even a lay person can appreciate the difficulty of applying the concept of the “reasonable man,” since this figure is not an average person. Truong has likely encountered this debate, having graduated from Columbia Law School. However, she modifies the issue in question. She

¹¹⁸ Nourse’s larger argument, which is beyond my scope here, is that this focus on the identity characteristics of the “reasonable” person has obscured more important considerations. Scholars “have made an analytic mistake in believing that the reasonable man is a person” rather than an “institutional heuristic” (34). As an institutional heuristic, it is apparent that the standard is necessarily hybrid—both objective and subjective. As such, it both “releases” and “restrains” majoritarian norms. Nourse claims that, given the “current anthropomorphized form of the doctrine” (38), scholars have failed to recognize the real value of the heuristic.

redirects focus from the merits of an objective vs. subjective standard toward a consideration of rights vs. responsibilities. Problematically, the Reasonable Man standard does not formulate an ethics of care, despite the language of duty. Linda rejects the Reasonable Man standard, finding that it really serves to protect individual liberties—specifically, the right to bear arms and commit crimes of passion under duress. As I will discuss in the next section, she formulates her own understanding of responsibility, which does not hinge on individual rights or well-being. For Linda, responsibility begins where reciprocity ends.

While Linda's notion of responsibility departs from the Reasonable Man standard used in criminal law, it *does* resemble the Reasonable Man standard commonly invoked by tort law. In tort law, reasonability raises the problem of foreseeability. The Reasonable Man standard is used to determine what the reasonable person would "foresee" with regard to other persons affected by their action. For instance, a reasonable person is expected to foresee that driving without his glasses—when he is severely nearsighted—could seriously harm others on the road. But negligence is really about the *unforeseeable*, and tort law, in fact, reflects this. As Desmond Manderson explains, "Negligence is precisely about the unexpected, the careless, or the thoughtless. It is a judgment passed on our responses when 'response-ability' suddenly approaches to us: at a busy intersection, on a quiet road, on a train platform. In that moment, we find that *we are already responsible* for the welfare of others" (115, emphasis mine). Drawing on Emmanuel Levinas' notion of "proximity," Manderson explains that it is impossible to foresee responsibility because "it calls to me with an 'immediacy,' 'a sensibility,' and a

‘vulnerability.’ Responsibility comes to me and not the other way around” (115).¹¹⁹

Truong builds on this notion that we can only ever experience responsibility as a surprise. In so doing, she radically challenges neoliberal concepts of responsibility, which are based on self-reliance.

Responsibility in the Age of the Brain

Linda’s difference prevents her from establishing reciprocal relationships with others and with the past, and this is precisely the ethical valence of her synesthetic condition. Since the traces of the past wound her psychically and physically, she tries to suppress her history. It is dangerous to look back. As she herself puts it, “Lot’s wife [is] Exhibit A of the consequences of clinging to a catastrophic past” (164-5). This is true for her, as well as for her father, who never speaks of her biological mother. Linda tries to suppress the past by stifling her brain—that “willful, dictatorial processor” that must be “diverted or chemically manipulated” (155). In high school, she learns that alcohol and cigarettes help to curb the “incomings” (her word for synesthesia overload) and that sex overrides them entirely. She also learns to avoid watching television in the presence of others, since televised personalities rarely pause or take a breath between words, which causes “nonstop incomings” (153) for Linda.

At first, Linda attempts to control her brain because she desires to belong in her family and in the community. She thinks her mental health is her personal responsibility. This is certainly the attitude her father adopts. Thomas Hammerick is a “reasonable man,” who believes in self-reliance (164). He never pursued mental health care for her

¹¹⁹ Manderson quotes Levinas—“consciousness is always late for the rendezvous with the neighbor”—to stress that ethics is primordial: “we already find ourselves in a relationship before we can ever think about it” (115).

during her adolescent years because he was partial to the prescription “heal thyself” (164). Here, Truong suggests how civic responsibility becomes attached to neural maintenance; a good citizen takes care of her brain. (One of the characters in Jonathan Franzen’s novel *The Corrections* suggest something similar when he says that “the very definition of ‘mental health’ is the ability to participate in the consumer economy” (36).¹²⁰) Linda has to ensure her mental health so that she can fulfill certain social roles, such as the good daughter and wife. At various times growing up, Linda tries to explain her synesthesia to her mother, but DeAnne cuts her off: “Linda, please don’t talk like a crazy person” (107). Rather, as Linda narrates the exchange, “Lindamint, pleaselemonjuice don’t talkcornchips like a crazyheavycream persongarlic powder” (107). Linda has to stifle her brain to earn her mother’s favor. Her fiancé, Leo, also pressures her to guarantee her mental well-being as a condition of their relationship. The psychiatrist coaxes her to take medication to calm the anxiety that she experiences. He assumes that prescriptions will put an end to their “nights of sleep interrupted by [her] mumbled cries of ‘Fire!’” (177). He also hopes these psycho-pharmaceuticals will help with the awkwardness that she exhibits in front of his family members at Thanksgiving dinners (177).¹²¹ Linda’s interactions with her mother and her fiancé stress that mental well-being is compulsory and, further, that mental well-being requires her to suppress her Vietnamese body.

Truong associates brain modification with forms of racial erasure. She also explores how neuroscientific discourse, especially as represented by the popular media,

¹²⁰ A number of contemporary novels explore the relationship between mental health and civic activity. See, in addition to Franzen’s novel, Jonathan Coe’s *The Terrible Privacy of Maxwell Sim* (2010), Benjamin Kunkel’s *Indecision* (2005), and Tom McCarthy’s *Remainder* (2005).

¹²¹ Leo also requires her to quit smoking and undergo a full physical examination before they publicly announce their engagement. When she complies with his demand, she learns that she has ovarian cancer.

creates new categories of personhood. Linda is compelled to become the psychologically healthy subject that DeAnne and Leo desire. Both of these characters pressure Linda to behave more normally, just as the interviewer on the PBS special attempts to persuade her subjects that their condition can be “channeled” into more socially appropriate activities, like art. Truong’s emphasis on the reflexivity of scientific research recalls the work of Rose and Abi-Rached, Pasi Väliäho, and Martin Hartmann.¹²² All of these theorists draw on Michel Foucault’s writings to describe brain science and brain imaging technologies as “acts of seeing” that invoke specific practices and techniques that often coerce the subject being seen. Such visual acts designate “those who have the authority to see: doctors, neurologists, researchers, psychopharmacologists, geneticists, and now, of course, the imagers,” and those subjects who are seen, “whose sense of themselves may well be transformed as a result of the images of their brains with which they are presented” (Rose and Abi-Rached 55). These critics distinguish between neuroscience’s “official promises to penetrate to the ultimate level of human function—the ‘first nature—of the central nervous system” and its actual, “probably unwittingly, [participation] in the construction of a powerful ‘second nature’ (Choudhury and Slaby 9). For Truong, as well, neuro-discourses create “second nature” citizen-subjects who understand themselves as neuronal beings capable of adapting their brain-bodies to fulfill certain subject positions. These citizen-subjects have been de-historicized and de-racialized, since neoliberalism crucially depends on a post-identity politics.

¹²² See also Ian Hacking, who considers how medical diagnoses inform patients’ self-understanding. Hacking’s concept of “biolooping” is often invoked by sociologists of neuroscience to describe the effects of diagnoses on the biological processes that relate to the diagnosed condition.

Clearly, Truong's suspicion of neural plasticity contrasts with Octavia Butler's more optimistic reading of the cyborg brain. While Butler, anticipating Malabou, associates plasticity with an emancipatory politics, Truong reads plasticity as a sign of neoliberalism. She joins critics like Victoria Pitts-Taylor, who argues that neoliberal discourse deploys notions of plasticity to enforce concepts of self-care, personal responsibility, and constant flexibility in the name of productivity.¹²³ Rose and Abi-Rached also express concern about the biopolitics of plasticity—the ways in which “plasticity” serves certain logics of control. They argue that the plastic brain subjects individuals to further regulation—specifically, intervention at the neural level (52). They are critical of texts such as Norman Doidge's best-selling book, *The Brain That Changes Itself* (2007), which celebrates the rejuvenative potential of the brain. Doidge recounts case studies of individuals whose brains adapted to compensate for the disabilities caused by neurological disorder. For Rose and Abi-Rached, as well as other critics, books such as Doidge's demonstrate how individuals today are expected to assume responsibility for their mental health. Individuals are pressured to maintain neural fitness (to practice “neurobics”¹²⁴), as healthy brains ensure a productive work force and minimize the economic burden placed on the state.

Truong counters neoliberal notions of responsibility, based on responsibility for one's brain, with her own notions of responsibility, based on singularity and difference. She suggests that one embraces her singularity by engaging past traumas. Reflecting on

¹²³ Martin Hartmann also explores the connections between descriptions of brain organization and prescriptions for the ideal employee today.

¹²⁴ Neurobics are mental exercises that individuals perform to enhance the brain. The term “neurobics” was popularized by Lawrence Katz and Manning Rubin in their book, *Keep Your Brain Alive* (1999), which describes mental workouts that slow the aging of the brain and also stimulate the growth of new dendrites and neurons. For instance, Katz and Rubin suggest that one brush her teeth with the non-dominant hand, claiming this will form new synaptic connections.

her first trip back to her birth country, taken before she began writing *Bitter*, Truong shares: “I am still lost somewhere in between Vietnam and the U.S. The physical journey was completed long ago, but the emotional one is ongoing... In the end, I hold myself accountable for not claiming the places, real and flawed, where I am from” (“Vietnam: Into Thin Air”). *Bitter* explores this theme of ongoing accountability, developing an ethics of alterity that radically challenges notions of self-maintenance and bodily erasure. Linda’s synesthetic condition poorly equips her for certain subject positions, positioning her as an outsider of the family and the community. But her synesthesia does equip her to embrace strangeness—the strangeness of her body and the strangeness of words. Because of her synesthesia, Linda realizes how faulty metaphors are. There is a lack of correspondence between meaning and representation, between her subjective experiences and the racial constructions designate her. Yet, she also discovers the possibility for pleasure in these disjunctions: “I had to disregard the meanings of words if I wanted to enjoy what the words could offer me” (75). Linda compares the initial experience of forfeiting metaphor to drowning: “Letting go of meaning was a difficult step for me to take, like loosening my fingers from the side of a swimming pool for the very first time. The world suddenly became vast and fluid. Anything could happen to me as I drifted toward the deep end of the pool” (75). Without language, she is not secured ontologically.

It is not a coincidence that Truong uses synesthesia to explore metaphorical process. Historically, the phenomenon of synesthesia has been dismissed by skeptics as metaphorical activity. Ramachandran explains that skeptics have refused to acknowledge synesthesia as a concrete sensory process, hypothesizing either that synesthetes are just

remembering childhood associations¹²⁵ or that they are using “vague tangential speech or metaphors” (79). Many doubters claim, for example, that synesthetes “speak of C-major being red or chicken tasting pointy, just as [one] would speak of a ‘loud’ shirt or a ‘sharp’ cheddar cheese” (79). These skeptics reason, “Our ordinary language is replete with synesthetic metaphors—hot babe, flat taste, tastefully dressed—so maybe synesthetes are just especially gifted in this regard” (79). Problematically, Ramachandran argues, this explanation illustrates one of the “classic pitfalls in science—trying to explain one mystery (synesthesia) in terms of another (metaphor).” Scientists do not have a clue how metaphors are represented in the brain. Ramachandran proposes turning the problem on its head: “I suggest that synesthesia is a concrete sensory process whose neural basis we can uncover, and that the explanation might in turn provide clues for solving the deeper question of how metaphors are represented in the brain and how we evolved the capacity to entertain them in the first place” (79). He theorizes that synesthesia is neural cross-wiring. Synesthesia occurs when a genetic mutation causes abnormal connections to develop between adjacent regions of the brain, which are usually segregated. Due to this faulty wiring, the synesthete’s brain makes arbitrary links between perceptual entities (such as colors, sounds, and numbers) that seem to be unrelated. Metaphor also involves “making [links] between seemingly unrelated conceptual realms” (104). Perhaps this explains the prevalence of synesthesia among artists and creative types.¹²⁶ People have

¹²⁵ For instance, a skeptic might suggest that a synesthete claiming to see red when visualizing the number three might, in fact, be remembering childhood play with refrigerating magnets, in which the number three was the color red. Ramachandran challenges this hypothesis, since it does not explain why only some people retain vivid sensory memories.

¹²⁶ According to a TED Talk by Ramachandran, “Synesthesia is eight times more common among artists, poets, novelists, and other creative people than in the general population” (“Three Clues to Understanding Your Brain”). Some noteworthy synesthetes include Vincent Van Gogh, Vladimir Nabokov, Jackson Pollock, and Wassily Kandinsky. However, Oliver Sacks challenges Ramachandran’s association of synesthesia and metaphor, as well as his claim that there is something creative or pro-creative about the

tended to assume that gifted writers, poets, and graphic artists identify as synesthetic because they have a gift for metaphor. But Ramachandran argues that the higher incidence of synesthesia in creative persons has to do with the architecture of their brains: “[i]nstead of saying ‘Synesthesia is more common among artists because they are being metaphorical,’ we should say, ‘They are better at metaphors because they are synesthetes’” (105). By learning more about synesthesia, Ramachandran insists, we might better understand some of the high-level thought processes of which only human beings are capable.¹²⁷

Truong adapts Ramachandran’s line of inquiry, just like she adapts the legal concept of the Reasonable Man. Rather than analyzing the relationship *between* synesthesia and metaphor to better understand the latter, she uses synesthesia to *critique* metaphor and to reveal the impossibility of forging certain connections. Linda is incapable of relating her synesthesia to others because language fails. She simply cannot communicate the singularity of her experiences. She realizes that even if she were to locate the word that corresponds with the bitter taste in her mouth, this would not resolve her loneliness:

[S]uch a match, even if identified, would only allow me the illusion of community and you the illusion of understanding. I could claim, for example, that my first memory was the taste of an unripe banana, and many in the world would nod their heads, familiar with this unpleasantness. But we haven’t all tasted the same unripe fruit. In order to feel not so alone in the world, we blur the lines of our subjective

condition. Sacks explains that synesthesia is “fixed,” “automatic,” “rigid,” and “inflexible,” whereas metaphor is “rich and creative . . . something which is developed as a result of experience, and which may reflect one’s culture. [It’s] not a raw neurological coupling” (Interview with Fred Child). Sacks suggests that synesthesia—the fusion of the senses—is normal and universal in infants and that one in twenty or so retain this tendency. He is not convinced that the condition is more prevalent among creative types.

¹²⁷ Neurologists often make claims about the utility of abnormal neurological conditions, which help to shed light on the workings of the *normal* human brain. Sacks, for instance, attributes his career-long interest in neurological disorders to his yearning to explain the mysteries of human consciousness.

memories, and we say to one another, 'I know exactly what you mean!'
(14)

Even the very term for her condition betrays the disparity between meaning and representation. In a parallel scene at the novel's end, Linda reflects on the scientific name for her condition. She notes "from the Greek *syn*, meaning 'together,' and *aisthesis*, meaning 'perception,' the word 'synesthesia' was . . . the key to a mystery" (255). While she is "happy to have the key," she finds that it fails to capture the uniqueness of her relationship to the world: "I felt that the word couldn't possible hold enough within it the entire body of my experiences. Perhaps it was also my discomfort with the easy language of labels and names. Was I not proof that they were often inaccurate, insufficient, or incapable of full disclosure" (255)? As an adult, Linda resists the urge to objectively "know" herself, instead indulging the strange pleasures that words stir in her body. Truong enacts such an ethics of alterity at the level of form, using devices that deny the reader the comfort of empathy. *Bitter*'s textual strategies illuminate that understanding always implies unknowability; to understand is to lack the authority of absolute knowledge.

"Unreliable" Reading

Comparing the narrative techniques between this and her previous novel, Truong says that "*The Book of Salt* was about an unreliable narrator; *Bitter in the Mouth* is about the unreliable reader" (Silverblatt). She explains that the first part of *Bitter* is an invitation to fill in the blanks. By this, Truong means that the reader can choose whether or not to acknowledge the racialized body. Linda's Asian-ness is an "open secret" (117) in the narrative, as well as in her town. Like Boo Radley in Harper Lee's *To Kill a*

Mockingbird, she is “not hidden away but in plain sight” (171). Indeed, there are numerous clues that suggest Linda’s heritage, such as the physical descriptions that she offers. Her eyes are “the shape of hickory nuts,” and her hair color “that of a river at a nighttime” (33-34). Her hairdresser suggests a “China chop” hair cut (105). Her adoptive grandmother Iris’ nickname for her is “little canary” (148). There are even some clues to suggest that she is adopted, as Simal-González points out. For instance, the subtitle for the first part of the book, “Secrecy and Disclosure,” invokes the title of a well-known book about adoption: E. Wayne Carp’s *Family Matters: Secrecy and Disclosure in the History of Adoption* (Simal-González 12).

Truong’s claim that *Bitter*’s readers are “unreliable” suggests the author’s sense that most first-time readers fail to pick up on these clues, and, thus, fail see that which is in plain sight. Readers only register the basic facts that the narrator calculatedly chooses to divulge. This occurs despite the author’s demonstration on the opening pages that facts can be dishonest—that they can be “true” and still conceal the truth. Linda begins her story with a series of brief and simple “facts” about herself: “My name is Linda Hammerick. I grew up in Boiling Springs, North Carolina. My parents were Thomas and DeAnne. My best friend was named Kelly. I was my father’s tomboy. I was my mother’s baton twirler. I was my high school’s valedictorian. I went far away for college and law school. I live now in New York City. I miss my great-uncle Harper” (4). Linda reflects, “So factual and flat, these statements will land in between us like playing cards on a table” (4). Then she immediately emphasizes just how easily facts can be misconstrued:

But once these cards have been thrown down, there are bound be
distorting overlaps, the head of the Queen of Spades on the body of the
King of Clubs, the Joker’s bowed legs beneath a field of hearts: I grew up
in (Thomas and Kelly). My parents were (valedictorian and baton-twirler).

My friend was named (Harper). I was my father's (New York City). I was my mother's (college and law school). I was my high school's (tomboy). I went far away for (Thomas and DeAnne). I live now in (Boiling Springs). I miss (Linda Hammerick). The only way to sort out the truth is to pick up the cards again, slowly, examining each one. (5)

By stressing how easily facts can conceal the truth, Linda cautions readers not to rely too heavily on observable data (such as what appears on an fMRI scan). True stories, she later tells readers, are to be found “in the missing details” (53). She learned this lesson from her great-Uncle Harper, the family's photographer and archivist, who teaches her to question the official histories that archives provide. His absence from the family photo albums prompts Linda to realize the centrality of what goes undocumented.

As a textual strategy, Truong's revelatory withholdings—her “open secrets”—perform various functions. First, they call attention to the presence-absence of the racialized body, as various critics have noted.¹²⁸ They also undermine the authority of facts and, thus, shatter the reader's “illusion[s] of understanding” (14). It is this function—the denial of empathic readings—that I explore more fully. When Linda finally reveals her real name (Linh-dao) at the end of Part One, she startles the reader, who can only just now “see” that which was there all along. She purposely catches readers off guard to dramatize the ethics of reading race and of encountering the singularity of another. The reader is prompted to acknowledge the limits of visibility, as a privileged realm of knowledge, and come to terms with radical unknowability. The reader finally “sees” Linh-dao only when she realizes the impossibility of recognition, or of fully knowing another. It is precisely because there is no artifice of understanding between Linda and her pen pal, Kelly, that the two are able to form such a special bond: “The tiny miracle of our friendship was the question—What does that mean?—that was never

¹²⁸ See Cruz and Simal-González.

asked” (21). Kelly is the only person to whom Linda confesses about her synesthesia, and she never doubts the strange sensations that her friend reports. When Linda tells Kelly that her name tastes like canned peaches, Kelly simply inquires, “Packed in heavy syrup or its own juice?” (21).

Truong provokes readers to embrace strangeness, as Kelly does, when she relays dialogue with the word-taste pairings that her character encounters. Such passages create for a very awkward reading experience. Take, for instance, the scene in which Linda attempts to tell her mother about her synesthesia: “Mom*chocolatemilk*, you*cannedgreenbeans* know*grapejelly* what*grahamcracker* tastes like a *walnuthamsteaksugar-cured*? God*walnut* tastes like a *walnuthamsteaksugar-cured*. The word*licorice* God*walnut*, I mean*raisin*, and the word*licorice* tastes—“ (107). Here, DeAnne silences Linda, not willing to “handle crazy” (107). Readers, though, are encouraged to embrace “crazy” and accept that reciprocal forms of communication fail. Readers are encouraged to “disregard the meaning of the words” (74) and embrace the strange feelings that language, used non-communicatively, can stir. To register difference, rather than to reach for stable correlations between meaning and representation, is to begin to come to terms with the radical alterity of others. To register difference is also to affirm the body as a site of authority and knowledge. At one point, Truong abruptly turns to second person narrative to prompt readers to realize the body’s epistemological potential:

[L]et me ask you this question. How old were you when you first touched yourself for the sake of pleasure? Your body and its attendant parts were always there, were they not? But we all have to learn how to use what we were born with for something other than the functional and the obvious. All of our bodies hold within them secret chambers and cells. (75)

By matter-of-factly questioning the reader about childhood explorations of the body, Truong emphasizes the transformative potential of sensory experience. Touching, “a sense not explored or celebrated in [Linda’s] family” (89), prompts forms of knowledge that destabilize metaphor, the privileged mode of representation. Touch disrupts the correspondence between form and function, opening oneself to what is unfamiliar (“secret chambers and cells” (75)). Truong’s use of second person establishes such an asymmetrical relation, obligating the reader with the demand for a response. Since such direct addresses to the reader are infrequent, passages like the one above are especially provocative.

All of these narrative devices—the delayed revelation, the performance of synesthesia for the reader, and the use of second person—construct crucial scenes in which the reader is made to feel singled out. By positioning the reader as “response-able” to the text, Truong enacts an ethics that is radically different from neoliberal ethics of self-reliance. She demands that readers embrace unknowability, even though this is ontologically threatening. She obliges individuals to resist concrete understandings of selfhood, such as those provided by neuroscience. Though the prevalent ideology of brainhood is alluring, with its promises to explain human nature, this ideology too conveniently serves the interests of multiculturalist discourse, which seeks to flatten difference and obscure the memories and experiences through which a subject is formed.

Epilogue: Don DeLillo and the Neuronovel's Evolution

In the previous chapters, I have analyzed how contemporary fiction enriches current debates about the brain. I have suggested that the novelists in my study neither endorse nor refute neuroscience altogether, but instead complicate its questions and concerns. Since its inception, neuroscience has appealed to novelists and philosophers—particularly those writing under the influence of the postmodern tradition. This is, in part, because neuroscience is willing to ask questions about human nature that postmodern discourse is not willing to ask. (For instance, “what does it mean to be human?”) It is also because neuroscience offers insight into the incredible phenomenon of the brain, which many novelists and philosophers recognize as emancipatory. However, while the novelists in this study eagerly embrace the questions that neuroscience poses, they are not always comfortable with the answers that neuroscience and cognitive philosophers provide. Neither are they comfortable with attempts to answer those questions definitively. In other words, novelists do not want philosophy to “go away.” This, if anything, constitutes the anxiety that novelists have about “neuro-culture”—they fear that many scientists and cognitive philosophers are trying to dismiss age-old questions about who we (humans) are and how we behave. Contrary to the assumptions of many cognitive philosophers, these critics of neuroscience are not merely trying to protect the image of the human subject; they are trying to protect the *study* of the human subject and the full range of concerns that matter to art and philosophy, such as the nature of consciousness, knowledge, reason, language, and ethics.

Novelist-philosopher Rebecca Newberger Goldstein dramatizes this scenario in the final chapter of her book *Plato at the Googleplex: Why Philosophy Won't Go Away*.

Goldstein conducts a playful thought experiment, involving the Greek philosopher Plato as he prepares to enter “the magnet”—i.e., to undergo MRI scans. Before his brain is imaged, the philosopher converses with a neuroscientist and his research assistant. The scientist patronizes Plato, commenting on how philosophers “used to have authority over a lot of questions, because none of the answers were remotely within sight” (407). In the absence of technology to generate real data about human beings, the neuroscientist explains, the “default was to go to the person who could talk up a storm” (407). Of course, Goldstein uses Plato to pose challenges to the empirical tradition. At one point, for instance, the philosopher observes that the neuroscientist tends to confuse the *causes* of certain phenomena and the *conditions without which* those phenomena could not be a cause. To make his point, Plato recalls Socrates, who spent his last hours in a prison cell. If Socrates were to be asked why he was sitting in jail, he certainly would not answer with something like the following: “my body is composed of bones and sinews, and the bones are rigid and separated at the joints, but the sinews are capable of contraction and relaxation and form an envelope for the bones with the help of the flesh and skin, the latter holding them all together...” (414). Plato’s point is that neuroscientists can not possibly explain human actions simply by identifying biological processes. To understand why humans behave the way they do, it is necessary to understand “the context of value and meaning in which his behavior is embedded” (416). And this is the work of philosophy, he concludes.

Goldstein’s fictional scenario illuminates the intrinsic worth of philosophy, as well as the limits of science’s explanatory power. In doing so, it reiterates the concerns posed by the authors in this study. But are Goldstein and these authors putting knowledge

of the human subject on a pedestal that is always out of reach? And what is the effect of so much self-reflection? Does it lead to a glut of discourse on the human subject, which is too abstract to be meaningful?¹²⁹ I explore these questions by examining the recent fiction of Don DeLillo, a writer who has engaged with scientific discourse for over four decades. In his early novels, DeLillo turns to neuroscience because it offers concrete explanations for human behavior. However, in his recent fiction, DeLillo presents questions, rather than answers. In fact, *Zero K* (2016) re-poses a number of questions raised in previous novels, in order to demonstrate the *persistence* of certain mysteries about nature and reality. Further, DeLillo explores the nascent field of cryonics to suggest that, in this day and age, technology has far outstripped our understanding of death and consciousness. By setting his narrative in the not-so-distant future, DeLillo suggests that long-standing existential concerns are, by no means, dissipating. Yet, his treatment of such concerns is both too familiar and too oblique, for many critics.¹³⁰ *Zero K* thus suggests a particular difficulty for writers today: how exactly to explore “the big questions” without simply rehashing old critiques or resorting to abstractions.

The Role of Neuroscience in DeLillo’s Early Career

Perhaps the novel that most overtly engages with cognitive processes is *White Noise* (1985), DeLillo’s postmodern satire of the hyper-mediated, consumer culture of America. The main character, Jack Gladney, is a professor of Hitler’s studies at a small Midwestern college known as The-College-on-the-Hill. His family and others are forced

¹²⁹ Mark Greif argues that such are the problems with “Crisis of Man” discourse. He laments that, over the course of twentieth-century, debates about the human subject’s constitution have crowded out other important concerns. Greif begs scholars who are tempted to examine *who we fundamentally are* to “just stop” (328).

¹³⁰ See Meghan Daum, David Sexton, and Michael J. Sanders.

to evacuate the town following a chemical spill. A subplot involves Gladney's wife, who takes a pharmaceutical drug (Dylar) that is promised to relieve her fear of death. This subplot allows DeLillo to explore the relationship between consumer materialism and the scientific materialism often embraced by psychopharmacology ("you are your brain"). DeLillo suggests that both forms of materialism perpetuate delusions by suggesting that we can avoid negative feelings. (Needless to say, Dylar does not alleviate this character's fear of death, just as Abulinix does not alleviate Dwight Wilmerding's indecision.)

While *White Noise* obviously engages with the brain sciences at the level of plot, it also engages with the brain sciences at the level of form. Stephen J. Burn explains how Paul MacLean's theories about humans' reptilian brain account for the fight-or-flight aspects of *White Noise*. DeLillo first portrays Jack Gladney fleeing the infamous "airborne toxic event", then he portrays Gladney taking on his adversary, Willie Mink. Contemporary neural models provide a "generative grid" for the architecture of DeLillo's narratives, according to Burn. Burn also explains how the two halves of *Ratner's Star* (1972) are designed to replicate the left and right hemispheres of the brain, as presented by Roger Sperry and Michael Gazzaniga in their studies on patients with a severed corpus callosum (the band of nerve fibers that joins the two halves). By placing characters within a formal narrative structure that is based on neuroscientific theory, DeLillo reminds readers that "their own experiences take place within biological constraints: that is, the boundaries of their cerebral hardware" (40). Burn does not discuss *Libra* in meaningful detail, although this narrative is also indebted to cognitive science. *Libra* focuses on Lee Harvey Oswald, speculating about the personal and cultural forces that drive plots—both narrative and criminal—deathward. DeLillo claims that the novel was inspired by a news

story about a mass murderer, Charles Whitman, who shot forty-nine people, killing sixteen, before being fatally wounded by police (“The Art of Fiction”). An autopsy later revealed a brain tumor possibly pressing against the amygdala region of the brain, which is believed to affect fight-or-flight responses. Some medical experts testified that Whitman’s diseased brain may have played a role in his actions. DeLillo uses the story to pose questions about the brain and free will.

Of course, as Burn stresses, DeLillo does not endorse the findings of neuroscience whole-heartedly. For instance, *Ratner’s Star* reveals the limits of scientific explanations by alluding to Thomas Nagel’s well-known critique of reductionism in the essay, “What Is It Like To Be a Bat?”, which was published two years prior. One of the characters in the novel undertakes some bat research and claims to understand “bat consciousness”; however, “the substance of his research—collecting bat droppings—suggests DeLillo’s skeptical attitude toward the physical basis of [his] theorizing, and materialist approaches to the mind in general” (Burn 39). By and large, though, DeLillo is attracted to cognitive science and evolutionary theory because they approach their subjects at the species-level, a perspective that has always interested him.

This fervor for scientific explanations loses its force in the generation of fiction-writers that follow DeLillo. According to Burn, this is because post-postmodern novelists (Nicole Kraus, Rivka Galchen, Mark Haddon, and Jonathan Lethem, for instance) are less interested in using neuroscience to explicate human behavior than in using neurological disorder to reformulate the complex reality of the modern world. Burn explains how these authors use their characters’ disordered minds to make “the familiar strange” in order to ask questions about the fundamental conditions of modernity. In other words, Burn

suggests, post-postmodern writers simply have different priorities; they do not want to explain human behavior, but rather to describe experience by drawing on divergent truth systems. To demonstrate the dialogism of more contemporary works of fiction, Burn analyzes how such novels often intermingle the language of neuroscience and the language of the soul (45-47).¹³¹

Here, I more fully explore the impetus for this transition by returning to DeLillo. In many ways, DeLillo's most recent novel is representative of the dialogism that Burn identifies in post-postmodern fiction—*Zero K* is “a site of divided energies” (47), mixing scientific and spiritual registers. However, as critics have noted, the novel's “ethereal” concerns far outweigh its scientific investigations.¹³² For instance, readers never learn exactly how the cryonic process works or how it was created. The novel is very abstract; most of the chapters consist of characters' philosophical musings, and DeLillo's “static style takes over almost completely” (Sexton). Perhaps this is because DeLillo senses that, in the last few decades, scientific and religious fanatics have started to dismiss the philosophical questions that have fascinated and puzzled him over the course of his literary career.¹³³ But if the novel urges for a re-sacralization of human concerns, it also dramatizes the problem of excessive self-reflection. By portraying how “inwardness” can lead to obscurity and egotism, *Zero K* suggests how easy it is for the artist-philosopher to get in his own way.

¹³¹ An example of this trend is Joshua Ferris' *The Unnamed*.

¹³² See Nathaniel Rich, for instance.

¹³³ DeLillo satirically characterizes cryonics as a “faith-based technology.” This phrase suggests how, in a world of terror and war, both science and religion have increasingly turned to technology for solutions to humanity's crises (Kakutani).

Zero K and the Neuronovel in the Age of Trump

DeLillo's latest novel is set in a remote region of Russia, where the future-esque "Convergence" compound is located. The narrator, Jeff Lockhart, travels to this compound at the behest of his billionaire father, Ross, who is bankrolling the project and who wants to bid his second wife farewell, as she surrenders her body to cryonic preservation. Artis Martineau is deteriorating from multiple sclerosis, so she places her faith in some yet-to-be-created technology that will eventually restore her "self" to living flesh by using cellular regeneration and nanotechnology. The narrator is understandably weary about the whole venture. When his father announces his plans to "go with her"—to surrender his healthy body to preservation in a special unit called Zero K—Jeff blows a fuse. The ensuing mayhem between father and son becomes fertile ground for DeLillo to explore a range of familiar concerns about the purpose of life, death, and art. It does not surprise that DeLillo conveys his skepticism about the value of cryonic technology; he suggests that "literal immortality" deprives human life of meaning. For DeLillo, this is the problem with science—it tries to answer definitively questions about human experience. Artis, an archaeologist, "[knows] the rigors of science . . . She [has] observed, identified, investigated and explained many levels of human development" (47). Yet, she yearns for "new perception of the world . . . the world as it really is . . . a deeper and truer reality" (47). DeLillo, too, yearns for some deeper meaning than that which science proffers. Thus, he asks a familiar question, which has been posed by cognitive philosophers, as well as by Jack Gladney in *White Noise*, and the caterpillar in Lewis Carroll's *Alice in Wonderland*: "who are you?"

In one scene, the narrator of *Zero K* walks down a labyrinth in the facility, where footage of natural disasters plays on screens outside the rooms. He stumbles upon one of the facility's workers, who demands to know his identity. Twice, the man asks, "Who are you?" (139). In his own moments of soul-searching and thinking about death, Jack Gladney asks, "Who decides these things? What is out there? Who are you?" Gladney, in turn, is merely echoing the caterpillar from Carroll's narrative, which has profoundly influenced DeLillo.¹³⁴ Readers are sure to notice parallels between the maze-like hallways in *Zero K*, the supermarket aisles in *White Noise*, and the eerie portals that Alice encounters in Carroll's story.¹³⁵ Such scenes encourage the reader to wander into a trance-like state, much like that of the narrator. Even during moments of important action, Jeff's head is in the clouds. For instance, at the moment of Artis' death, which he is witnessing from an observation window, Jeff marvels, "what constitute[s] the end. When does the person become the body?" (139). The cryonic process introduces a lot of philosophical quandaries: "Does literal immortality compress our enduring art forms and cultural wonders into nothingness? What will poets write about? What happens to history? What happens to money? What happens to God?" In passages like these, DeLillo echoes one of the messages in *White Noise*: that the prospect of death (finality), paradoxically, gives meaning and possibility to life. Death is a mystery; if we circumvent it, then living becomes meaningless.

Zero K insists that the full reality of human nature and death will always exceed human understanding. Furthermore, the novel satirizes the know-it-all philosophers who profess to understand "who we are." There are monk-like figures and priestesses who

¹³⁴ DeLillo claims to have modeled the two halves of *Ratner's Star* after *Alice in Wonderland* and *Through the Looking Glass*. See Mark Osteen for an in-depth analysis of Carroll's influence on DeLillo.

¹³⁵ See Kakutani's review of the book.

roam the hallways, “pledging to an inwardness, a deep probing focus on who and where we are” (237). At the Convergence compound, there is no Wi-Fi; there is just space and quiet. While the characters in *White Noise* visit the supermarket to be distracted from the reality of their mortality, characters in *Zero K* visit the compound to find out “who they are . . . [n]ot through consultation with others but through self-examination, self-revelation” (124). The Convergence personnel sound a lot like DeLillo, making statements like the following: “Catastrophe is our bedtime story . . . Catastrophe is built into the early brain” (66). As the narrator notes, such “wishful poetry” sounds attractive, but it does not apply to “real people, real fear” (66). In other words, it is too abstract to be meaningful. DeLillo satirizes the vacuity of such abstractions in a scene in which the narrator listens to one of the Convergence architects explain the project. The narrator is totally bewildered by the man’s vague musings, until he removes a handkerchief from his pocket to blow his nose. “This made me feel better,” the narrator reflects. The gesture signals “[r]eal life, body functions” (129). Here, DeLillo comically suggests the emptiness of the ethereal musings for which he is known. Indeed, the narrator only seems to become more confused the more time he spends at the compound. He wonders, “[Are] these people deranged or [are] they in the forefront of a new consciousness?” (120). He is especially confused when he stumbles into a room where Artis lies bed. “Come with us,” he thinks he hears her whisper (117). The narrator is not sure if this utterance is meant in jest or not.

Zero K further suggests that ineffability sometimes hides sinister plots, another notion that distinguishes this novel from his earlier fiction. In novels like *Ratner’s Star*, *Libra*, and *Underworld*, DeLillo suggests that babble is sacred and that language

“assumes a magical and anti-authoritarian power only to the degree that it has nothing to say” (McCann and Szalay). In *Zero K*, however, such mystical language is associated, somewhat paradoxically, with plotting and calculation. The Convergence personnel speak in strange Orwellian bureaucratese to conceal their more ominous activities. The billionaire also deals in the indiscernible. DeLillo portrays how this character uses abstractions to encourage his own and others’ fantasies, similar to the real-life billionaire upon whom his character may be based.¹³⁶ Ross does everything in excess. As the narrator explains, his desire for immortality is the inevitable consequence of his “outsized life.” After all, “too much engenders too much” (142). Critics have made similar observations about President Trump: “he knows he’s over the top, but that’s where he likes to live” (Danner). The president, too, is prone to nonsense: “his gargantuan narcissism makes him so mesmerizing to watch . . . [although] much of what he says has no *content* behind it.” Problematically, both Ross and Trump encourage fantasies, rather than facts. When *Zero K*’s narrator confesses his disbelief about technology that outwits death, Ross tells his son, “You have to get beyond your experience . . . Beyond your limitations” (35). In other words, he needs to “think big.” This is certainly Trump’s philosophy. In one of his books, the President writes, “I play to people’s fantasies . . . People may not always think big themselves, but they can still get very excited by those who do. That’s why a little hyperbole never hurts. People want to believe that something is the biggest and the greatest and the most spectacular” (*The Art of the Deal*). According

¹³⁶ DeLillo has not indicated that this character—or the billionaire protagonist in his 2003 novel, *Cosmopolis*—is based on Trump. But the parallels suggest DeLillo’s prophetic prowess; even if Trump had not existed, he might have been invented by DeLillo.

to Trump, such “truthful hyperbole [is] an innocent form of exaggeration.”¹³⁷ His presidential campaign slogan—“Make America great again”—conveys this faith in grandiosity. But DeLillo suggests that hyperbole isolates individuals by encouraging self-delusion. When Ross talks, he becomes “impervious to [the] names and faces” around him (42). In fact, “he [does] not talk so much as narrate, . . . and there [is] usually someone willing to be the random body that he [tells] his stories to” (42). His tendency toward abstraction ultimately distances him from others, including his son. The narrator reveals that Ross was an absent father. He spent too much time standing before a mirror, rehearsing the speeches that he would so often deliver to other financial executives. The narrator resents his father precisely because this man abandoned his family for a life that included ten- to twelve-hour work days, “rushing to airports, preparing for conferences” (14). Ross’ character portrays how fantasies of greatness devastate relationships by distracting individuals from the present.

Some critics have accused DeLillo of cultivating his own fantasies of greatness. Like Ross, the novelist speaks in superlatives. He tends to view his characters through the scope of a “long lens” and to illustrate how “everything is connected.” As Robert Chodat observes, the “anonymous corners of human experience”—traditionally, the purview of fiction, do not seem to matter to DeLillo: “[o]nly when a text attempts to trace the ‘deep mind’ or ‘inner nature’ of [things]. . . does it begin to raise itself out of irrelevance” (219). James Wood also attacks DeLillo for favoring abstractions at the expense of ordinary observations. In his review of *Cosmopolis*, Wood writes, “DeLillo

¹³⁷ Trump’s tolerance for “innocent forms of exaggeration” has become increasingly evident since his election. Journalists and media outlets continually fact-check his claims, for instance—his unsubstantiated claim that he won the popular vote and his claim that his inauguration was better-attended than Barack Obama’s. (His advisor, Kellyanne Conway, became another target when she defended Trump’s use of “alternative facts” (Fandos).

does not sound like anyone else, but often he does not sound like a human being either” (216). These critiques highlight an important aspect of DeLillo’s fiction, which is its extra-personal scope. Why *do* big undercurrents and forces appeal to DeLillo? And why do his novels so often resemble religious texts? Chodat suggests that DeLillo’s prophetic tone reveals the author’s somewhat arrogant desire to speak for—rather than with—his subjects (the public). *Zero K*’s critics echo the notion that the author is self-interested by discussing the novel’s self-referential aspects. For instance, Sam Jordison claims that the novel is “about the artist’s contest with infinity.” Meghan Daum is more damning; she accuses DeLillo of cultivating his own kind of trademark. “Nearly half a century into DeLillo’s career,” Daum writes, “his signature brand of phlegmatic paranoia—his obsession with the lulling effects of corporate branding, the real and metaphorical toxic clouds that hang over every scene—is turning the writing itself into a brand.”

But perhaps the religious tones and the self-referential aspects of *Zero K* suggest the author’s prescience, rather than his arrogance. Undoubtedly, the novel re-articulates many of the author’s long-standing concerns: the convergence between capitalism and terrorism (*Mao II*, *Falling Man*); the mind-numbing glut of consumer culture (*Mao II*, *White Noise*); the destructive influence of powerful leaders (*Mao II*); the sinister, secretive workings of systems (*Underworld*, *Libra*); and the conflict between official stories and “counter-narratives” (*Falling Man*). Perhaps these parallels do not evidence the author’s ego so much they reveal how DeLillo has always had a finger on the pulse of America’s nervous system—its paranoia, its fear of its borders being penetrated, its “us vs. them” mentality. *Zero K* demonstrates how fiction can be truly visionary, *provided* that it is not guided by “mass delusion, by superstition and arrogance and self-deception”

(50). Fiction is most powerful when it avoids “vainglorious ideas” and, instead, recognizes the complexity of the philosophical questions that many fanatics like the cryogeneticists race to dismiss. DeLillo does not explore the “big questions” simply to assert his own grand ideas and secure a place in the literary canon; he pursues these questions to better understand the biological and cultural forces that drive human behavior in a world that is wrought by fear, greed, conflict, and terror. Rather than question the author’s motives, critics should pay more attention to the insights that DeLillo’s fiction offers. After all, *Zero K* imagines a world controlled by rich, powerful, and absurdly delusional individuals, and it suggests how willingly people adopt the fantasies of such leaders. The novel cautions that delusions of grandeur (i.e., “making America great again”) deter individuals from the here and now. In doing so, they distract individuals from the pain and suffering of others. So, while DeLillo does not fully or definitively explain “who we are,” he pursues the question because he grasps the stakes of ignoring it. For DeLillo, the question is ethically imperative because it forces us to acknowledge the human tendencies that we most want to ignore.

Self-reflection also forces us to acknowledge that we are bound to others. And by demonstrating this notion, *Zero K* also houses the ghosts of many of the authors in this study. Shortly before her death, Artis realizes that cryonics cannot possibly preserve her real “self” because the self is not “solitude in extremis” (67). She contemplates the word “alone”: “Middle English. *All one*. . . . Everything you are, without others, without friends or strangers or lovers . . . But are you anyone without others” (67)? Artis’s reflections reiterate what Sacks and Butler intuited in the 1980s and 90s, when neuroscience was beginning to migrate to the public sphere—that we are both

mechanical and relational beings. The “brain *is* a machine and a computer . . . But our mental processes, which constitute our being and life, are . . . personal, as well [as abstract and mechanical]—and, as such, involve not just classifying and categorizing, but continual judging and feeling also” (*The Man Who Mistook His Wife for a Hat* 20).

The authors in this study dramatize the brain’s sociality by depicting characters whose brains interact with the environment in truly bizarre ways. Some characters experience others’ physical pain (*Parable of the Sower*), some cannot recognize those they most love (*The Echo Maker*); others taste words (*Bitter in the Mouth*). In varied forms, these authors portray an ethics of the brain that is radically different from the visions of neuroscientists and cognitive philosophers. They portray individuals as “internally plural,” who “have within them the full range of behavioral possibilities” (Smith). Zadie Smith makes this exact point when reflecting on progressives’ feelings of despair after Trump’s election, although she does not attribute humans’ plurality to the brain. Smith writes: “[Individuals] are like complex musical scores from which certain melodies can be teased out and others ignored or suppressed, depending, at least in part, on who is doing the conducting.” In the world today, and especially in America, “the conductors standing in front of this human orchestra have only the meanest and most banal melodies in mind. . .” We urgently need to tease out a better melody: “Those of us who remember, too, a finer music must try now to play it, and encourage others, if we can, to sing along” (Smith). The authors in this study agree. They, too, do not see human beings as inherently “good” or “bad.” However, they suggest that humans are like “complex musical scores” by *virtue of their brains*. They acknowledge the brain’s defensive mechanisms and its tendency to “spin fiction” to preserve the ego; but they also

emphasize how the brain *undoes* the self by dissolving the boundaries between the individual and the external world.

Butler, drawing on Sacks, was one of the first neuronovelists to intuit the brain's transformative potential. (She is as much a visionary as DeLillo.) Butler does not idealize human beings—even the hyperempathic heroine in *Parable of the Sower* is flawed. Neither does she entirely vilify human beings—readers sympathize with violent characters like Keith, who is merely trying to survive, and Olamina's father, who does have his family's interests in mind. It does not surprise that, when asked about creating “good” and “bad” fictional characters, the author matter-of-factly claims: “I write about people... People doing the kinds of things that people do” (Interview with Juan Williams). From her perspective, it is futile to deny certain aspects of human nature, such as individuals' survivalist instincts. Rather, “what we have to do is work with [biology] and to work against people who see it as a good reason to let the poor be poor, that kind of thing—the social Darwinism” (“Radio Imagination”). Butler's point is not that we should refrain from judgment against acts of injustice and evil. Her point is this: we should ask, rather than avoid, questions about “who we are.” If we meaningfully consider the reality that we are biological creatures, then we begin to realize the “talents we have . . . and [how to] make the best of them” (Interview with Juan Williams). Butler articulates a vision of humanity that many contemporary novelists have subsequently echoed. Furthermore, she uses her fiction as a space to imagine how science—particularly brain science—provides a rich framework for novelists to imagine alternative ways of living in the world.

Since the publication of *Parable of the Sower* and DeLillo's early works, many more novelists have turned to "neuro-fiction" to pose questions about our human constitution and about our possibility to live "the good life." These questions will become increasingly imperative in the twenty-first century, given the increased social and political divisions between people in the world today. No doubt, many scientists and cognitive philosophers will approach these questions by continuing to draw on the findings of neuroscience. In fact, neuroscientific explanations of the current political situation *already* abound. Take, for instance, R. Douglas Field's claim that President Trump won because he triggers anger, fear, and aggression in the limbic system.¹³⁸ The public has an insatiable appetite for such brain-centered explanations, which are likely to expand neuroscience's cultural capital in the next few decades.¹³⁹ On this campus, educators and administrators are launching major research programs such as the Brain and Behavior Initiative (BBI), which will use cutting-edge biomedical technologies to better understand and predict behaviors produced by the human brain. To succeed at this mission, the initiative needs to add to its inquiries such creative voices as those in this study.¹⁴⁰ The novelists in this study dramatize the multi-faceted ways in which the brain interacts with a robust world. They vividly explore how the brain both *influences* and *is influenced* by socio-material structures, such as race, gender, and class. Moreover, they demonstrate how literary, philosophical, and scientific traditions can be combined to address the pressing intellectual concerns of twenty-first century.

¹³⁸ See also Bobby Azarian for another example.

¹³⁹ See Alva Noë and Nikolas Rose and Joelle M. Abi-Rached for further analysis of the public's appetite for neuro-explanations.

¹⁴⁰ To be fair, the directors of this initiative have vowed to emphasize "diversity of expertise—from computer scientists to psychologists to performance artists" ("About BBI"). Time will tell if they honor this promise and meaningfully include experts outside the sciences.

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