Affect in Epistemology:
Relationality and Feminist Agency in Critical Discourse, Neuroscience,
and Novels by Bambara, Morrison, and Silko

by

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The contribution that follows is greatly indebted to the groundbreaking work of Toni Cade Bambara, Barbara Christian, and Eve Kosofsky Sedgwick – brilliant, visionary women whom cancer took from us far too soon. Their work has such instructive and inspirational force still, so much potential still to unpack, so much theoretical and cultural work still to do. In the hope of in some small way carrying forward their legacy, this dissertation is dedicated to them.

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ABSTRACT

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Chair: Michael Awkward

How do emotional and social experiences influence the knowledge we produce about our world? Here I investigate this question in two contexts: the individual mind, as represented in literature, and recent critical practices in the humanities. I combine readings of Toni Cade Bambara's *The Salt Eaters*, Toni Morrison's *Sula* and *Beloved*, and Leslie Marmon Silko's *Ceremony* with contemporary neuroscience to explore the roles of gender and community in trauma and healing, with particular attention to the way emotion shapes perception, cognition, and memory. I lay the theoretical groundwork for this study with a sustained analysis of recent shifts away from poststructuralist accounts of the subject, as they are taking shape across contemporary critical theory and current public and academic receptions of neuroscience. At its heart, my project forges new paths for interdisciplinary exchange in order to shed light on the more underattended features of human knowledge, while foregrounding issues of gender, agency, and relationality.

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In the first half of the dissertation, I analyze trauma studies in the 1990s, and interdisciplinary engagements with neuroscience in the past decade, two movements whose vogue has been as substantial as it is surprising. That an era generally held to be poststructuralist, antibiological, and postmodern – that is, that conceives identity as fluid, shifting, and socially constructed – should be so fascinated by accounts of the subject that involve, of all things, permanence, indelibility, or biology, is intriguing. In these chapters, I work to contextualize these fields historically, culturally, and theoretically, and to compare their symbolic investments, with particular attention to the role of affect in their intellectual reception. In the second half of the dissertation, I explore how accounts of the mind and the brain might be thought together, focusing on the role of gender and of community in traumatic memory and healing through the lens of the core novels in dialogue with contemporary neuroscience. In advancing innovative frameworks for combining science and the humanities, my goal is not only to deepen our understanding of knowledge production, but also to expand our repertoire of methods of pursuing knowledge.

INTRODUCTION

Relationality and Affect in Epistemology

This dissertation seeks to demonstrate the productive intellectual intersections among literature, neuroscience, and the study of knowledge production, via both interdisciplinary historical and intellectual analysis and a lengthy case study on the healing of traumatic memory. Specifically, it examines the roles of gender and relationality[1] in the epistemological dynamics that attend both trauma and healing in novels by Toni Cade Bambara, Toni Morrison, and Leslie Marmon Silko. I bring together these literatures and their critical traditions, especially those of Black feminist criticism and the recent proliferation of scholarly discourse on trauma studies, with current research in neuroscience, broadening the conversation concerning social and affective influences on perception, cognition, and memory. I lay the theoretical groundwork for this study with a sustained analysis of recent shifts away from poststructuralist accounts of the subject, as they are taking shape across contemporary critical theory and current public and academic receptions of neuroscience. As I will argue, innovative revisions of the way agency is conceptualized, particularly with regard to relationality, turn out to be key to feminist critiques of postmodernist subjectivity, to contemporary popular concerns about the brain, and to the complex theories of the mind in social context offered by Bambara, Morrison, and Silko.

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[1] With the term "relationality" I am referring to the set of dynamics through which an individual engages interpersonal relationships and the social world, broadly conceived. This term can encompass an individual's sense of connectedness with specific others or with a community, the degree to which their beliefs, behaviors, and identity are socially influenced, and the set of affects and beliefs that attend these interfaces between the self and others.

Before these discursive analyses, however, I want to focus on the common concerns and collaborative potential that I see among neuroscience, trauma theory, and novels dealing with trauma. In recent years, trauma theorists in the humanities have been puzzling over the singular intransigence of traumatic memory, while neuroscientists have been establishing the plasticity of the brain and its neural networks. Like human beings, neurons develop long-term relationships with one another over time, which are modified by experiences and social conditions, and are subject to change with disuse or the introduction of new associations – a dynamic, consonant with models for healing posed by the novelists I study, that may well suggest new pathways for thinking through and addressing traumatic memory. Due to the shared questions among disciplines about how consciousness, emotion, and memory operate, I want to put these fields (literature, feminist theory, trauma studies, and neuroscience) explicitly in contact with one another, not simply to use one to explain or to provide material for another, but rather to see what new knowledge, both in form and in substance, they can create together.[2]

This sense of curiosity has inspired me to investigate, on the one hand, whether relevant neuroscience research might help me to develop a framework with which to better understand literary portrayals of trauma, memory, and healing, and to better develop humanist theories of these same. On the other hand, philosophers and psychologists alike have those in their ranks who object to "reductionism," or understanding the mind as the brain, arguing that knowledge of the structure and function of a given brain component does not provide access to a crucial piece

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[2] It bears emphasizing here that I don't want to simply throw one discipline at another; I don't intend to simply claim that neuroscience "explains" traumatic memory, or, as Jonah Lehrer and Suzanne Nabantian seem to do in their recent books, *Proust Was A Neuroscientist* and *Memory in Literature: From Rousseau to Neuroscience*, respectively, simply show how certain novels provide neuroscience with exemplary symptoms to analyze. Rather, what I'm after is the way each discipline can re-cast, challenge, and amplify the other, and, more specifically, the new, fuller conceptions of traumatic memory and its healing that can come out of putting the different disciplines that engage them into dialogue.

of knowledge: what it feels like when this component operates.[3] By enlisting the input of

contemporary contributors to literature and psychoanalytic theory, connoisseurs of subjective

experience par excellence, we can better understand, both structurally and qualitatively, what

trauma and healing look and feel like as well as how they operate – fields of knowledge which

may build on one another. As Patrick Colm Hogan observes, "Literature and the arts raise issues

about cognition that are not raised in the experimental research. They pose potential problems.

They suggest counterexamples. Ultimately, they allow the possibility of more encompassing,

more illuminating, and more valid theories of the human mind" (6). I believe that when multiple

disciplines and modes of knowledge seek to understand a phenomenon together, they will all

understand it better. The aim of my interdisciplinary approach is to yield a fuller understanding

of how perception, cognition, and memory are produced in social and affective contexts, and,

thereby, how psychological healing is possible, thus moving the stymied field of trauma studies in

new and useful directions, and broadening the range of knowledge available to the project of

literary criticism.

What is intriguing about the popularity of trauma studies in the nineties and of brain

studies in the past decade is that the focus of both fields on permanent, unifying, and/or

corporeal aspects of identity would appear to diverge markedly from postmodernist

conceptualizations of subject in which the social (local, historically specific, and always shifting)

reigns supreme in the formation and regulation of identities. Instead, these new fields concern

themselves with, respectively, the intransigence and indelibility of memory (and of impacts on

"the body," which in poststructuralism is promptly transformed into a text), and the ineluctability

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[3] See philosopher Thomas Nagel's much-discussed essay, "What Is It Like to Be a Bat?"

– and boundedness[4] – of a brain structure and endocrinology that we imagine as acting in relatively systematic, predictable, universal, and yet possibly modifiable ways. The theoretical implications of this apparent anachronism are probed further in Section One of the dissertation; moreover, these engagements with the ways in which subjectivity may be bounded by memory, including bodily memory, or, indeed, by the brain – by the materiality of the mind, the materiality of subjectivity – bring us squarely into a well-worn territory of concern to feminist theory.

The materiality (imagined primarily as intractability and limitation) of the body has generally been received as a problematic for feminist theorists, discouraging many from considering it in terms beyond its discursive construction and social regulation. This aversion is analogous in many ways to the distaste of much of theory, more generally, for engaging with the brain or body per se – in fact, the first axiom listed by Eve Kosofsky Sedgwick and Adam Frank under "a few things theory knows today" is that "[t]he distance of any account [of human beings or cultures] from a biological basis is assumed to correlate near precisely with its potential for doing justice to difference (individual, historical, and cross-cultural), to contingency, to performative force, and to the possibility of change" (93). With regard to each of these four concerns, brain sciences have a ways to go yet, to be sure, but they are surprisingly amenable and, in fact, hold great potential for productive input toward these ends, as feminist and other progressive neuroscientists would readily argue. What is of interest, then, is the manner and extent of, and impetus for, theory's *belief* in the inability of biological-based realms of knowledge-making to address these matters in any useful way. In fact, I am tempted to follow Judith Butler's

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[4] By this, I mean the boundedness of the brain system itself, and how we get interested in those bounds (e.g. our investments in what we are or are not "hardwired" to do (one of many such computer-related metaphors to be found in contemporary discussions of the brain), or other limitations via the brain).

critique of the sex/gender distinction[5] by asking in what ways theory's dualistic, non-material

conceptualizations of identity, or of the mind, compel a corollary belief in a "natural,"

prediscursive brain which must be deferred – although in this case my chief interest is in what the

specific content of such projections might be. For example, which among our current

assumptions about the "natural" particularly dissuade us from believing that it can be compatible

with contingency or change? If it is possible that we have set up a string of binary oppositions in

which the brain, the body, and the sciences are held to be fatally universalizing and intractable as

opposed to the flexibility and specificity offered by the mind, identity, and the humanities, how

might exploration of exactly what we have chosen to jettison by ascribing it to the former set of

categories help to illuminate our own investments? How might such an exploration, even, open

up new topics, realms of knowledge, and epistemologies for the humanist project?

   If the materiality of subjectivity has often been a problem for feminist theory, it has

nevertheless enjoyed a resurgence of critical investment in recent years. This project joins a larger

conversation not only with materialist and psychoanalytic feminists, and feminist philosophers

of the body such as Judith Butler and Elizabeth Grosz, but also with much of queer theory, which,

according to Robyn Wiegman, has been concerned with how to "begin to think about the body as

something more than inert material on which the social has its overdetermined and coercive way

without restaging essentialist understandings of corporeality and psychic interiority" (894). My

wager is that the ways it is possible to think about the brain and about traumatic memory have

relationships to both corporeality and psychic interiority that are much more complex than one

might assume, an argument I develop throughout the dissertation. A key tactic in avoiding these

essentialist poles while seeking a theory of embodied subjectivity that includes the brain is

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[5] See *Bodies That Matter* 1-6.

breaking down the sorts of binaries mentioned just above – questioning, for example, the notion

that the conscious mind, the brain, and the social subject cannot be thought together. My

dissertation works toward this end both through the historical and theoretical analysis of the rise

of brain studies and the particular ranges of meaning non-scientists tend to ascribe to "the brain",

and through analysis of traumatic memory and healing that considers both the brain and

conscious experience, findings from neuroscientists and novelists. In this way, I engage

longstanding concerns surrounding both the body as a topic, and the sciences as an interlocutor,

often imagined as alien to and incompatible with progressive humanist projects.[6]

One particular choice of mine deserves to be addressed: Why the novel? Why, in setting

up a dialogue between neuroscience and literature, would I be so invested in the novel as a

particularly apt genre for this conversation, as opposed to nonfiction or autobiography, for

example? In my view, the novel produces what can be called a theory of subjectivity, and/or a

theory of its subject matter (e.g., memory or community), in a manner and to an extent most

suitable for dialogue with ideas from other disciplines. Since the novel, as fiction, is not

delineated by the narrative or experience of a particular individual, there is more pressure, as well

as greater opportunity, for the author to create a larger-scale symbolic system in which to

illustrate her or his understanding, his or her theory, of the matter at hand. In addition, since the

actions, feelings, memories, decisions, and processes undergone by the characters in a novel are

understood to be fictional and thus not already claimed, so to speak, by another person, the

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[6] In the social sciences, on the other hand, feminists have been engaging science and the body more extensively, particularly in the field of feminist science studies. In this work science is more often critiqued as a social and cultural practice than it is approached as a possible source of collaboration. Although my aims and methodologies, as a humanist, are in many ways distinct from those of my colleagues in the social sciences, my work benefits from the insights of scholars such as Anne Fausto-Sterling, Rebecca Jordan-Young, Annemarie Mol, and Nelly Oudshoorn, whose critical analyses of medical and scientific practices have guided my thinking about gender, neuroscience, and culture.

reader may be more prone to identify with and, to some extent, to adopt, these as his or her own. Among literary works representing characters dealing with and healing from trauma, then, novels are of particular use and interest to me as self-conscious models for readers and as coherent theoretical systems that may dialogue with other theories of trauma.

Since the focus of my dissertation involves the problems of postmodernism, as well as recent deviations from it, the literary period I draw from coincides with its inception in the mid-1970s, and the decade that followed. My emphasis is on novels written during the mid- to late seventies, after the close of the Civil Rights movement, the rise of the Black Power movement, and the advent of postmodernism – a time when the nation and its constituent communities were being re-imagined, and national history and identity recast. The novelists I study were thinking in innovative ways about the lives of words and symbols, about how to represent human experience in ways that cast as wide a net as possible to incorporate diverse types of knowledge. The core novels I engage, Bambara's *The Salt Eaters*, Morrison's *Sula*, and Silko's *Ceremony*, offer the most sophisticated and complex representations of gender, trauma, relationality, and the mind that I have encountered. Each novel is dedicated to demonstrating theories of trauma and healing on both individual and community levels, as well as probing the relationship between the two, and they are all unified in their focus on questions of affect and the social in the production of knowledge.

Let me pause for a moment to address a couple of arguments that this dissertation will *not* pursue. It has been suggested to me that I should articulate explicitly the fact that I take for granted that the women novelists of color I study offer valuable theories of subjective experience, *despite* their racial, gendered, and sociohistorical particularity. While this question probably arises less in studies that pair neuroscience with Proust or Shakespeare, it is self-evident to me not

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only that these novelists' work provides insights as pressing, incisive, and ultimately useful as their white male counterparts, but also that *no one* has a perspective that is universal and unaffected by race, gender, sexuality, nationality, and other social identities (whether privileged or not). Therefore, it cannot be said that the choice to attend to the work of women of color is somehow an *alternative* to a *more* universal or generalizable reading that would have been available. If anything, the infusion of Bourdieuian theory found in this dissertation would support the argument that it is those who least benefit from hegemonic privilege who are best poised to detect and critique dominant narratives, and to counter them with observations that are more true to life. Still, the reader will find that I resist relying on a sociohistorical explanation of what these novelists do and why – perhaps because my involvement with critical neuroscience studies has sensitized me to the ways in which a massive macronarrative, such as neuroscience or sociology or history, *can* at times overpower (in somewhat deterministic ways) an analysis of individual and situational complexity. My own contribution, in any case, will be to focus on these theories themselves as they shed light on the workings of the mind in the context of trauma, healing, and community.

In this introduction, I will set the scene by exploring what traumatic memory is, how thinking through neuroscience and novels together can further illuminate its nature, and how it might be addressed in innovative ways through the involvement of the community. In the proliferation of trauma theory discourse over the past two decades, divergent conceptualizations of traumatic memory[7] have been proposed: some maintain that it can be resolved through acts of

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[7] The term "traumatic memory" is often used to mean two distinct things: a.) the specific memory of a traumatic event, and b.) the intense episodes of involuntary recall of the event (i.e., flashbacks), as well as the broader experience of living with the memory of trauma, with preoccupation with it, and with the constant, unpredictable vulnerability

narrative, while others conceive of it as a more radical disruption of life, one which can be reigned in, but never really tamed, by acknowledgement, narration, or other therapies. Here, I will first pursue the ontology of traumatic memory, briefly surveying key theories of its nature, extending these through my own theory of traumatic memory, and thinking through its relationship with phobia and abjection. Next, I will carry out a focused study of select characteristics of this phenomenon through the dual lenses of Toni Cade Bambara's *The Salt Eaters* and neuroscientific correlates of Bambara's observations. From there, I will explore in greater depth how to reconcile or think through two dominant and seemingly conflicting notions in trauma theory: that traumatic memory must be articulated in order to heal and not to fester, particularly where the facts of historical injustices have been repressed from dominant narratives, and on the other hand that traumatic memory may threaten, stagnate, or even cripple both trauma victims and their descendants, and furthermore may revolve around historical realities too significant to be put to rest. I will argue that Bambara's rich novel offers a productive approach to healing that can help to resolve some of the most pressing psychological and ethical quandaries currently troubling trauma theory. Finally, I will provide a brief road map of the chapters to come, as I build an argument for the relational and affective nature of knowledge production on both individual and discursive levels.

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to flashbacks or other similarly distressing experiences. In this dissertation, I will use articles (such as "a" or "the") when referring to meaning A, and will use no articles when referring to meaning B.

Understanding Traumatic Memory

Reviewing recent discourse on this topic, one main point upon which most theorists agree is that trauma causes the psyche of the subject to "get stuck" at the point of the trauma, resulting in paralysis, fixation, and an inability to incorporate the traumatic event into narrative. As Kai Erikson explains,

> [T]rauma has the quality of converting that one sharp stab […] into an enduring state of mind. A chronicler of passing events may report that the episode itself lasted no more than an instant – a gunshot, say – but the traumatized mind holds on to that moment, preventing it from slipping back into its proper chronological place in the past, and relives it over and over again in the compulsive musings of the day and the seething dreams of night. The moment becomes a season, the event becomes a condition. (185)

The force of the event (small in volume, we might say, but large in mass), and the consequent force of its memory, its impact upon the subject, distort the subject's consciousness of time, awareness of the present.

As I see it, traumatic memory is a mindset fundamentally at odds with its immediate surroundings: whether through love, fear, guilt, or grief, its reality is "otherwise" – fixed on and formed by places, people, and experiences no longer immediately present. Of course, this is the case to some extent for most people, but trauma captures the mind and emotions in a much more radical way than does everyday experience and memory. Traumatic memory can be conceptualized as a vortex or funnel, such as might be formed if a heavy object, such as a stone, were dropped onto a flat yet flexible plane, such as an outstretched net:
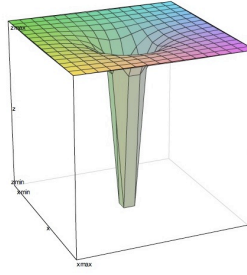
If, in this model, the flexible plane represents one's consciousness, or perception of reality, and the stone, the troubling memory itself, then the state of traumatic memory, or the traumatized mind, is the funnel created by this extraordinary weight. The result of this is the experience, demonstrated in the novels I read in this dissertation and discussed in more depth below, in which even distantly or obliquely related sights, sounds, statements overheard, etc., remind one of the haunting thought or memory, seem to pull the mind ineluctably back to that space.

A traumatic memory, to explore a related physics metaphor, can become the black hole from which one's train of thought cannot escape; its very magnetism reorganizes the structure of one's mind, emotions, and perceptions, defining radically what is and isn't important, what does and does not have meaning. Dori Laub and Nadine Fresco take up the figure of the black hole to describe the silence and horror surrounding genocide for children of Holocaust survivors (Laub 64-65); here, they employ the popular conception of the term, as a void or a sort of Bermuda Triangle. While this sense of the term works well when applied to that which is not spoken of, as in the context to which they refer, the literal, physical definition is equally fascinating as a model for the way consciousness is bent inward by the force of a traumatic memory.

A black hole, which is not in fact a hole but a supermassive object, prevents light (as well as other particles) from escaping it not by simply serving as a magnet for them, but because its gravity is so strong that it actually bends space-time back in toward itself. At the heart of each

black hole is a singularity: a point of infinite density, infinitesimal volume, infinite gravity, and

infinite warping of space-time, where the laws of physics as we know them break down.[8] In the

vicinity of the singularity, the escape velocity exceeds the speed of light, and all the possible paths

a light ray could take to travel away from the singularity are bent to such an extent that they end

up pointing back toward it. This means that a particle could conceivably be traveling away from

the singularity in a "straight" line, with great force, yet find itself continually returning to it, since

the space-time in which it is traveling is itself always bending back toward the black hole.[9] Thus,

the thoughts, sensations, feelings, and memories that cross the consciousness of the traumatized

subject are drawn back to the traumatic memory involuntarily, uncannily, not because of their

own independent import, but because of the way in which the subject's consciousness itself has

been bent to accommodate the singular weight of the trauma.

Inside the event horizon of the black hole, with all possible paths of the trapped light

particles "bouncing" off the boundary of the event horizon and bending back inward, one would

find not only an extraordinary concentration of mass compressed to a tiny point, but also,

presumably, a chaotic jumble of ricocheting light. This space provides an apt model for the way

in which, when trapped in a flashback (or a phobic episode, as I'll discuss shortly), the mind feels,

while stuck in unbearable proximity to the massive terror itself, assaulted by the intense,

ricocheting images, sounds, sensations, and fear impulses that have been ensnared by the trauma.

Bambara describes it this way: "[t]he pictures would follow her, haunt her. Be vivid and sharp in a

vacuum. To haunt her. Pictures, sounds and bounce were everywhere, no matter what you did

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[8] Houston A. Baker has employed these aspects of literal black holes in a different context: his compelling, sustained theory involving a reading of *Black Boy* and the concentration of desire, Black invisibility in a white world, and the "black (w)hole" (144-173).

[9] Among the many physicists who have discussed the phenomena I summarize here, one example is Stephen Hawking, e.g. in *A Brief History of Time* 81-113.

or where you went. Sound broke glass. Light could cut through even steel. There was no

escaping the calling [...]. No escape" (19). Trauma imposes itself as the one thing that *must* be

engaged and focused on, the one thing that radically and absolutely defines reality and unreality,

meaning and meaninglessness for the subject's perspective on the world.

Traumatic memory, both mysterious and compelling, forcing the subject's attention

(whether cognitive or emotional, conscious or otherwise) while remaining beyond the subject's

control, could be well described as "a burden both repellent and repelled, a deep well of memory

that is unapproachable and intimate" (6), and "a land of oblivion that is constantly remembered"

(8), as Kristeva portrays the abject in her compelling book, *Powers of Horror.* The exorbitant

emotional weight and power of the trauma cause the subject to feel expelled from time as well as

from the normal world. This alienation from one's own experience often continues into the

future: "Janet proposed that traumatized individuals become 'attached' (Freud would use the

term 'fixated') to the trauma: unable to make sense out of the source of their terror, they develop

difficulties in assimilating subsequent experiences as well" (Van der Kolk and Van der Hart 164).

But I would argue that the problems which traumatized subjects experience arise not simply from

not being able to make sense of their trauma, but, more essentially, by being compelled and

owned by it, as Kristeva indicates. Cathy Caruth elaborates on a similar point: "The pathology

consists […] solely in the *structure of its experience* or reception: the event is not assimilated or

experienced fully at the time, but only belatedly, in its repeated *possession* of the one who

experiences it. To be traumatized is precisely to be possessed by an image or event" (4-5,

emphasis original) By employing the concept of belatedness, Caruth invokes the "otherwise"

sense of time associated with trauma, in an example distinct from but compatible with my black

hole model of the bending of consciousness.

To linger upon this point briefly, trauma's warping of the experience of time through its

possession of the subject demonstrates its nature as radical, tyrannical, and isolating. As

Dominick LaCapra argues, also taking up belatedness, "[t]rauma is a disruptive experience that

disarticulates the self and creates holes in existence; it has belated effects that are controlled only

with difficulty and perhaps never fully mastered" (41). Trauma claims limitless dominion over

the psyche of the subject. As Van der Kolk and Van der Hart maintain, "As the trauma is fixed at

a certain moment in a person's life, people live out their existences in two different stages of the

life cycle, the traumatic past, and the bleached present" (177). This desperate vacillation between

the private world of terror and the public world of what feels like senseless irrelevance or

inaccessible comfort can be experienced either in a depressive or an agitated state; Kristeva's

account seems to suggest the latter: "Essentially different from 'uncanniness,' more violent, too,

abjection is elaborated through a failure to recognize its kin; nothing is familiar, not even the

shadow of a memory" (5). In either case, the traumatized subject's experience of the "bleached

present" involves a sense that the present reality itself is somehow tenuous: the weight, terror, and

felt immediacy of the traumatic memory are so compelling as to seem to drain any unrelated

entities, such as one's surroundings, of import, force, even presence. In other words, as I'll

elaborate in Chapters One and Three, the traumatized subject, particularly during a flashback or

phobic episode, feels him- or herself to be so vividly "there" in the traumatic memory (or phobia),

possessed by it, that the actual surroundings seem to be "not there."[10] Objects lose their solidity,

and time runs backward, as the abject "draws me toward the place where meaning collapses"

(Kristeva 2).

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[10] See also Caruth's point that trauma involves "the inability to fully witness the event as it occurs, or the ability to
witness the *event* fully only at the cost of witnessing oneself. […] The force of this experience would appear to arise
precisely, in other words, in the collapse of its understanding" (7).

Traumatic Memory and Phobic Abjection

Phobia is not commonly discussed in trauma studies; what, precisely, is its relation to trauma and abjection? Summarily, the relationship among these three phenomena, as I see it, is that abjection is the common state induced by both the phobic reaction and the resurgence of a traumatic memory. Janet has said that traumatic memory constitutes a phobic object for the traumatized (661), and Kristeva maintains that the abject is "the object of the phobic" (6). I find phobia, with its attendant abjection, to be a useful model for understanding the complex, haunted, and deeply ambivalent relationship of the traumatized to traumatic memory. To nuance our understanding of the relationship between phobia and traumatic memory, however – and to return to the theme of time – I argue that both involve temporal incursions: phobia involves the invasion of the present by a horrific and greatly feared (possible) future, while traumatic memory involves the invasion of the present by a horrific and greatly feared past. Most phobias, in my view, even if they seem rooted in a present trigger, are more specifically focused on a possible future event (e.g., that spider might bite me; I might fall from this height; this crowd might trample me), the very fearsomeness of which so overwhelms the phobic subject that it seems to superimpose this possible future event onto the present consciousness. Abjection, then, is the state of failed and floundering subject boundaries, the state of the "smeared present," one might say, to which other temporalities cling and cannot readily be removed.

Given the temporal disparity between the feared future of phobia and the horrific past of traumatic memory, the extensive similarities between the dynamic through which they terrorize the subject is fascinating, but not entirely surprising given that physicists, from Albert Einstein to

David Z. Albert[11], have not been able to agree about conventional notions of linear,

unidirectional time. In *Time and Chance*, Albert addresses via quantum mechanics the problem

of thermodynamic time asymmetry, or the time-directedness that many physical processes

appear to have. For example, this would include our perception that we can know the past but

not the future, or that actions in the present affect the future but not the past – neither of which

are explained by Newtonian mechanics (9). Albert largely sees this problem as a flaw in prior

accounts in physics; and yet Einstein famously claimed that "the distinction between past,

present, and future is only a stubbornly persistent illusion" (archive number 7-245). Whatever

the case, most physicists today would agree that the fabric of space-time itself is bent, warped, by

the gravity of massive objects – this phenomenon finds its most extreme instantiation in the

black hole, as discussed above, but it also applies to any massive object, and astrophysicists widely

note that space-time seems to "dip" a little bit toward massive bodies, creating small "wells"

around them. On this model, then, it follows naturally that psychologically "massive bodies,"

such as traumatic memories and phobias, when approached or encountered, would alter the

subjective experience of time for the individual.

Phobia and traumatic memory have a great deal more in common, I argue, even though

they are not usually considered by either psychiatry or neuroscience to be closely related. A

phobic episode, or period of panic and terror at being confronted by the phobic object, feels very

similar to what I understand a trauma flashback to be, in at least the following respects:

1. the onset is always unsought;
2. the onset is usually triggered by a somewhat obliquely related stimulus (e.g., an alarm
    clock instead of an air raid siren; the view from a height instead of the experience of
    falling);

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[11] David Z. Albert, a theoretical physicist, is Frederick E. Woodbridge Professor of Philosophy and Director of the M.A. Program in The Philosophical Foundations of Physics at Columbia University.

3. one thus feels desperately afraid and utterly possessed by a memory or prospect which is not immediately present, or which is evoked only indirectly, or by a stimulus of a much lesser intensity than the feared object, whose presence feels all too vivid and immediate nevertheless;
4. one realizes that one is alone in one's consciousness, and terror, of the feared object, which serves not to make it seem any less real, but rather to make one feel that one has been singled out by the terror, almost anthropomorphizing it;
5. the present time and place seems to fade, almost as though drained of sound and color, as it yields utterly to the terror of the feared object;[12]
6. the physiological response feels similar;
7. and one feels quite helpless to bring the episode to an end.

During such an episode, the overwhelming experience is that of abjection. Hence, a closer look at abjection can help to elucidate the natures of both traumatic memory and phobia. Kristeva describes the experience of abjection as "a vortex of summons and repulsion" (1). Adding to its profoundly paradoxical and contradictory nature, "what is abject, […] the jettisoned object, is radically excluded" (2), and yet it is "something rejected from which one does not part, from which one does not protect oneself as from an object" (4). One does not protect oneself, that is, because one is so utterly dominated by abjection, which disintegrates subject boundaries on first contact. Whenever one is confronted with a phobic object, one immediately feels no longer stable and solid enough as a distinct subject to reject (or accept) that horror. One abjects it.

> A massive and sudden emergence of uncanniness, now harries me as radically separate, loathsome. Not me. Not that. But not nothing, either. A "something" that I do not recognize as a thing. A weight of meaninglessness, about which there is nothing insignificant, and which crushes me. On the edge of non-existence and hallucination, of a reality that, if I acknowledge it, annihilates me. (Kristeva 2)

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[12] Something akin to this drained, faded, and muted present can be found in *Ceremony* when Tayo, newly released from the hospital, has something like a panic attack and passes out at the train station: "he was sweating, and sounds were becoming outlines again, vague and hollow in his ears, and he knew he was going to become invisible right there. It was too late to ask for help, and he waited to die the way smoke dies, […] fading until it exists no more" (16-7).

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In these lines on abjection, we can recognize the characteristics of phobia and traumatic memory, as outlined above: its "massive and sudden emergence," always unsought; the "weight" that "crushes" the subject, as a black hole; the "meaninglessness, about which there is nothing insignificant," which makes the subject feel alienated from reality and singled out, stalked, by the feared object at the same time; the "otherwise" reality which threatens no less gravely for all that its objective reality is controvertible. Abjection is the specter of negative relationality, of relationship with a voracious cipher that not only isolates but lays siege to the subject. It exceeds relationality in that it utterly commandeers the subject, and yet it forms relationality's opposite in that it denies any subject boundaries upon which relation could be based, and it sets up an immediately unstable intersubjective dynamic (i.e., a vortex) by seeking to cancel out the subject.

A Focused Study:
Neuroscience and the Novel on the Phenomenology of Traumatic Memory

Like phobic abjection, traumatic memory ineluctably both compels and repels the subject, derailing one from normal life and alienating one from the rest of society because of its radical nature. The domination of one's perception of and engagement with the world, not only by trauma but also by related forces such as fears, memory, emotions, pain, grief, hope, and so forth, is illustrated by the perspectival rather than objective narrative Bambara employs throughout *The Salt Eaters*. Published in 1980, this brilliant novel has been neglected due to its complexity as much as it has been acclaimed for its genius. In addition to its rapidly shifting narrative voice and temporal space (moving both across time and place and between the real-life events of the characters and those that take place only in their imaginations), the novel also

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casually interweaves knowledge from and references to a dizzyingly broad range of fields. As

Gloria T. Hull explains in her essay on the book,

> [w]ith its universal scope, it demands our intelligent participation in disciplines and discourses other than our narrowly-conceived own – ancient and modern history, world literature, anthropology, mythology, music, astronomy, physics, biology, mathematics, medicine, political theory, chemistry, philosophy, engineering, and so on. (130)

Certainly, Bambara's own interdisciplinary thinking[13] is an inspiration to this dissertation – she

demonstrates that even vastly varied realms of knowledge are interrelated, and that relevant

concepts among these can and must be brought together.[14]

The Salt Eaters centers around Velma Henry, a woman who has just attempted suicide,

and Minnie Ransom, a spiritual healer, who is working to help her. The two women sit on stools

in an infirmary, surrounded by friends and others from the community, who are praying,

singing, and silently supporting the healing. This part of the plot, which anchors the novel, takes

only a few hours of linear time; the narrative often shifts to follow other characters – both central

people in Velma's life, such as Obie, her husband, Sophie Heywood, her godmother, and Palma,

her twin sister; and other characters less central to Velma but, as Bambara implicitly asserts,

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[13] In addition to the many different disciplines invoked in her novel, Bambara focuses particularly on integrating spiritual and physical healers with political activists. She explained, just before the book came out, its origins and aims: "I gave myself an assignment based on an observation: there is a split between the spiritual, psychic, and political forces in my community. Not since the maroon experience of Toussaint's era have psychic technicians and spiritual folk (medicine people) and guerrillas (warriors) merged. It is a wasteful and dangerous split. The novel grew out of my attempt to fuse the seemingly separate frames of reference of the camps; it grew out of an interest in identifying bridges; it grew out of a compulsion to understand how the energies of this period will manifest themselves in the next decade" ("What It Is I Think I'm Doing Anyhow" 165). Of course, this particular focus is steeped in the environment of the end of the 1970s. Yet I think its spirit retains a great deal of relevance today, suggesting the power that may emerge from integrating health sciences with humanities, or those seeking wellness and wholeness with those seeking revolution.

[14] Interestingly, Margot Anne Kelley published an essay in 1993 in which she discussed the surprising ways in which teaching and discussing scientific principles (mainly from physics) alongside *The Salt Eaters* helped her students to get a hold on the novel, which they had previously found inaccessible.

significant nonetheless.[15] These include Nadine, a pregnant teenager watching the healing, Fred

Holt, a bus driver grieving the recent murder of his friend and co-worker, Porter, and the Seven

Sisters, a group of political performance artists who are passing through town, among many

others. In addition, we see scenes from Velma's distant and more recent past, hinting at the

marital strain, sexism in the community, overextension, police brutality, a miscarriage, and other

factors that have drained Velma of both energy and hope, and driven her to slit her own wrists

and stick her head in her kitchen's gas oven. At the same time, we are given glimpses of those

working for healing, justice, creativity, and integration all around Velma's community, both past

and present, those directly affecting Velma and those working independently. "Wholeness" and

integration are key themes in this novel.[16]

Even a brief overview of neuroscientific findings on the functional neuroanatomy – or

what specific regions of the brain do to facilitate or respond to a certain type of subjective

experience, such as trauma, stress, or memory – reveals suggestive insights on how traumatic

memory functions. For example, fearful memories are unique in that they are stored not only in

the neocortex but also in the amygdala, the brain's "alarm system" and fear/anger center (Higgins

and George 240), making them more difficult to forget and also perhaps more easily triggered by

new stimuli (243). In addition, long-term stress increases the dendritic density of neurons in the

amygdala (perhaps allowing for the storage of more fearful memories) (Roozendaal et al. 429),

but shrinks the hippocampus (430), thereby impairing the ability to form new memories – which

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[15] See Hull 132-33 for a helpful diagram of the many characters in *The Salt Eaters*.

[16] The many connections Bambara draws among seemingly disparate experiences and social forces correspond with the linkages I would posit among trauma, traumatic memory, PTSD, stress, and depression. While these are generally recognized as often related (although, of course, not necessarily coextensive) by brain sciences, trauma studies in the humanities would do well to consider the connections among these as well.

may correlate with the experience of the "bleached present" (Van der Kolk and Van der Hart 177), as discussed above. Possible ramifications of the shrinking hippocampus are also demonstrated by Fred and Velma, in whom fearful or traumatic memories from the past dominate the mind, occluding new experiences and associations in the present. Since both the amygdala and the hippocampus are linked as opposing agents in an endocrine feedback system,[17] a vicious cycle can ensue, as the depleted hippocampus becomes less and less effective in counteracting the stress-promoting effects of the amygdala. On the other hand, the medial prefrontal cortex (mPFC) can curb the amygdala, facilitating a sense of control through cognitive mastery; it also enables fear extinction and can inhibit learned fear responses (Higgins and George 243).[18] This phenomenon correlates provocatively with Minnie Ransom's emphasis on Velma's agency and choice in her healing work, and her belief in Velma's capacity for self-mastery. In this section, I will explore Bambara's account, in concert with corresponding studies from neuroscience research, of a few select aspects of the experience of traumatic memory, broadly conceived: the way it funnels thoughts and experiences in such a way that almost everything seems to remind one of it; the sensation that one's mind has been taken over, besieged by unbidden thoughts; and the phenomenon of one's senses, one's consciousness, being "tuned out" of one's present surroundings and "tuned in" to an uncannily vivid memory.

To begin by examining the phenomenology of the funneled mind I have been discussing: this is exemplified excellently by passages in which characters hear or overhear statements by

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[17] The glucocorticoid "stress hormone" cortisol, which plays a central role in shrinking the hippocampus, is released through the HPA (hypothalamic-pituitary-adrenal) axis, which is turned up by the amygdala and turned down by the hippocampus. A twin study of combat veterans and civilians has shown that a congenitally smaller hippocampus predisposes a person to develop PTSD from a traumatic event. (Gilbertson et al.)

[18] Subjects with PTSD show more activity in the amygdala, and less in the prefrontal cortex, than control subjects do, when viewing happy or fearful faces. (Calder et al.; Shin et al.)

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others and then bring them right back to their own preoccupations, in their inner trains of thought, however tangential to the speaker's point. Obie, tense with stress over Velma, returns to the thought of her during a massage with each of several tangential comments his masseur makes (162-3),[19] and Campbell, the waiter, does a similar thing (211), but it is Fred Holt with whom this happens the most. When, after Porter's death, Fred overhears one passenger ask another, "You all right?", the next lines that appear on the page are his own thoughts: "Who was there to say, "Fred, you all right? Or, "Pass the thermos to Fred. He looks a bit overheated"? Porter, the only other colored guy on the shift, used to hail him […]. And the Pit Stop would become an okay place […]" (79). Fred's thoughts would ricochet like this even when he was being addressed directly, and expected to respond – a situation that would require even more force to disengage from. Among numerous other instances of this, one comes after Fred has been ruminating on the ruin of his old home as he drives by the area slowly. We hear a passenger complain of the slow pace:

> "What's happenin, my man?" The musician with the horn case in his lap was getting impatient.
> Exactly. What? Everything ruined and wrecked, made old and garbage before its time. He picked his way carefully through memories to keep from tripping over one that might cost him too much. (73)

What might be going on in the brain that could help us to understand these funneling thoughts, and the tendency, even, to return to rumination rather than respond to others in the present who are trying to engage one? One possible answer, in cases such as Fred's, where the funneling comes after exposure to distressing sights or thoughts, is arousal dysregulation: he

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[19] "'Relax, breathe deep.'
　　　But *she* couldn't relax. Not Velma" (162).
"'Your calf feels like a brick.'
　　　She was like a brick, a stone, a boulder that would not be moved. He didn't know how to lift her; he didn't know how to satisfy her anymore" (163).

might be experiencing some of the (very distracting) physiological symptoms of acute stress, even

in the absence of present danger, due to his medial prefrontal cortex (which you remember from

the functional neuroanatomy of traumatic memory overview above) failing to curb his amygdala.

This we could infer from the findings of a study on police officers with PTSD:

> we have reported dysfunction of the medial prefrontal cortex (Lindauer et al 2004a) and
> increased heart rate and blood pressure during trauma imagery in police officers with
> PTSD (Lindauer et al, in press). The medial prefrontal cortex normally inhibits responses
> to fear (Devinsky et al 1995; LeDoux 2000; Milad and Quirk 2002). Hence, dysfunction
> of the medial prefrontal cortex could be responsible for the arousal dysregulation in
> PTSD, which might be reflected in our findings of increased intrusions and
> perseverations (Elzinga and Bremner 2002; Jelicic and Merckelbach 2004; Vasterling et al
> 1998). (Lindauer et al. 175)

In other words, when the cognitive overriding of fear, via the medial prefrontal cortex turning

down amygdala activity, fails to operate sufficiently, intrusive and perseverating thoughts appear

– likely as a result of this mPFC dysfunction – when PTSD patients are exposed to traumatic

imagery. On the other hand, some of the instances of funneling thoughts in *The Salt Eaters* do

not seem to be clearly associated with what could be considered a salient trigger for distress:

certainly, this was the case with Campbell, the waiter whose mind bounced off the conversation

around him and plunged directly into his own thoughts, in a manner that parallels Fred.[20] For

this, we should turn to a study that proposes that "unwanted or intrusive thoughts in PTSD may

not be circumscribed to trauma-related or emotionally threatening cognitions but may instead

reflect a more general pattern of disinhibition" (Vasterling et al. 131). This study found that

veterans with PTSD performed more poorly on cognitive tasks measuring attention and

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[20] As Campbell stands over the restaurant grill, lost in thought, a waitress addresses him:
> 'Camp, you through here?'
> He nodded, distracted […].
> He was not through. There was a story, a big one for Claybourne anyway, shaping up at that
> moment, one big enough to move him from the local school-board hearings assignments to what he'd been
> waiting for, preparing for. (Bambara 211)

memory, even in an emotionally neutral environment, than veterans without PTSD. The authors write:

> This hypothesis is consistent with the overall pattern of frontal system dysfunction documented on the neuropsychological tasks and supports the notion of a failure of an inhibitory gating mechanism in frontal lobe dysfunction proposed by Shimamura (1996). That is, if frontal-system functioning is disrupted in PTSD, it may be that the capacity of the frontal lobes to inhibit unwanted or situation-inappropriate information, including trauma-related memories, may be reduced. (Vasterling et al. 131)

In other words, the functions of the frontal lobe – especially the prefrontal cortex just mentioned, as Vasterling et al. emphasize (130) – such as regulating thoughts and emotion via cognitive mastery may be inhibited in traumatized subjects not only in moments of triggered distress, but on a broader scale.[21] These subjects may have, more generally, lost the reins of their thoughts to some extent.

The regulating role of the prefrontal cortex, against the fear response promoted largely by the amygdala, may also illuminate Velma's sense of the need for control in order not to be utterly invaded by unwelcome thoughts and fears. Midway through her healing process, Velma finds herself, by means of her imagination, back in the marshes – the place where she had fled, and then first felt healed, as a child (171). Velma finds the experiencing soothing, and begins to feel more herself: "It seemed quite reasonable and friendly and useable sitting there with things occurring to her rather than tracking her, haunting her, terrorizing her, catching her up, taking her over till she thought she was losing her mind" (171). This wording clearly evokes abjection.

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[21] The reader may notice that I am making inferences from studies of PTSD patients to apply to characters who, of course, cannot be diagnosed one way or the other, including some of whom probably would not fit into the current diagnostic category, even if they were to meet a present-day psychiatrist. This is an instantiation of my desire to conceive trauma-related phenomena broadly, as encompassing both PTSD and perhaps milder, but related experiences such as acute grief and chronic stress. My aim is not to argue that any of these characters could be considered to have "had" PTSD (as though psychiatric diagnostic categories were transparent, not shifting and culturally contingent), but to explore whether neuroscientific studies of patients who seem to suffer in similar ways might suggest useful frameworks for thinking about trauma's interaction with the brain and the mind.

"So, to maintain order she tried forming some other words gleaned from this visit, this calm. Something she could tell herself when the crowding began. When the pictures began" (171). Here, we could read a reference to what the prefrontal cortex does – keeping in check the amygdala-facilitated effects of panic, flashbacks, and stress. But a subsequent line revises this formula: we are told that Velma is looking for "[s]omething she could remember to be wide open with so she wouldn't have to invest all of herself staying intensely occupied, eyes, ears, mind riveted on the task at hand, the work ahead, lest she be taken over" (172). While the description of being "riveted" does sound like cognitive mastery, Velma now seeks instead to "be wide open." This goal resonates more, within the neuropsychiatric context, with the goal of desensitization therapies for phobias: to foster physiological and mental calm, through deep breathing and other conscious self-calming techniques, as one is exposed to increasing measures of the phobic object. The thinking here seems to be that through repeated exposure coupled with deliberate self-calming, the association between the phobic object and the panic response can be somewhat disarticulated. As with other forms of cognitive-behavioral therapy, an implication seems to be that cognitive mastery alone is not always enough; that the body and physical behavior must also be involved – though, of course, the physical and the psychological are always inextricable.

The way that intrusive memories affect one's experience of one's own senses, then, is a particularly fascinating way to explore the mental-physiological connection. In my catalog of the elements of the experience of abjection, I mentioned the way the senses seem to dull to one's immediate surroundings in favor of an extremely heightened consciousness of the feared object. Bambara suggests that this phenomenon might also extend to those affected by other types of trauma and stress: as Velma is sitting on the stool in the infirmary with Minnie Ransom, she struggles to maintain her attention in the present, as her mind is repeatedly shuttling off to other

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places and times – both distressing and otherwise: "But then she felt it again, surrounded, flashes of pictures, scatterings of sounds. As though she had the stereo headset on ears and eyes and was thoroughly into whatever it was. The next minute she was at the marshes" (169).[22] Elsewhere in the novel, Bambara demonstrates the converse of the funnel of traumatic memory: the excluded present. When Velma is engaged with the memory of herself fumbling about in her kitchen just before her suicide attempt, she is unable to maintain focus on her present self in the infirmary:

> All that was so indelible on her retina that the treatment room and all its clutter and mutterings were cancelled out. Her kitchen, that woman moving about in obsessive repetition, the things on the shelf, the search, the demand would not let her eyes, let her, come back to the healer's hands that were on her now. (20)

A recent study has observed that "increased environmental stress relates to decreased divided attention performance in auditory vigilance" (Petrac et al. 313), such that people under certain kinds of stress make more "auditory omission errors" (313). While this does point to the senses being intercepted by the mind under stress, more investigation will need to be done to account for the intensity that characterizes, and accompanies, the displaced senses that Bambara describes.

Not only can neuroscience research illuminate representations of the mind in literature, but the knowledge that novelists produce about human experience can suggest new approaches for neuroscience and psychiatry. For example, therapeutic practices for PTSD include "bibliotherapy," or the reading of written materials, such as self-help booklets, designed to educate patients about PTSD through direct description of symptoms (Ehlers et al. 1025), and group-based exposure therapy (GBET), in which patients are exposed to traumatic stimuli

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[22] See also p. 171: "And for a moment, she thought she felt the headphones clamped on, sounds surround her and a pulling down."

through imaginary or in vivo means in a controlled therapeutic environment (Sutherland et al.

150) – neither of which is optimally effective.   The work of novelists like Silko or Bambara might

be interpreted to suggest that the model of bibliotherapy be shifted from informational

pamphlets read alone to reparative storytelling sessions done in a community – for example,

true-to-life fictional tales of struggles overcome, that have particular cultural relevance and

pedagogical utility – in order to harness the power of story to provide new interpretive lenses,

and the power of community to provide a substantive anchor for the story's work, as Chapter

Four will argue in more detail. Alternatively, they might suggest that the group-based therapy

model be changed from one in which the group is made up only of patients, and focused, but for

the final week, on trauma and grief (Sutherland et al. 153), to one in which patients would be

integrated in an organic community of others (not currently struggling with PTSD), and sessions

would focus not only on stories of trauma and grief but also on stories of survival and healing. Of

note, a recent study implementing GBET for veterans included, at its conclusion, "a healing

ceremony during which they read aloud healing letters addressed to themselves" (Sutherland et

al. 153). Though this attention to healing and to ceremony are a good start, it could be expanded,

and revised to replace or supplement the individualistic practice of writing a letter to oneself with

a more social practice in which an individual could find empowerment through a healing

community.

Narrating Trauma? Intervention Through Community

While Velma attempts to hold back the chaos harrying her mind by speaking "words to

establish some order" (170), traumatic memory is generally opposed to any activity so agentic or

social as narrative. In fact, Janet noted that "[i]t is only for convenience that we speak of it as a 'traumatic memory.' The subject is often incapable of making the necessary narrative which we call memory regarding the event […] (Janet, 1919-25, 2:274)" (Van der Kolk and Van der Hart 160). Part of the reason for this is that the aim of traumatic memory is, exclusively, the domination of the subject; it will not release its hold long enough to be communicated to another person or modified into any other form. "In contrast to narrative memory, which is a social act, traumatic memory is inflexible and invariable. Traumatic memory has no social component; it is not addressed to anybody, the patient does not respond to anybody; it is a solitary activity" (Van der Kolk and Van der Hart 161). While this correlates clearly with the sense of isolation and "otherwise" reality I've described, in which one feels alone with the dominating memory and unable to engage with one's immediate surroundings, it also suggests the transformative role that other individuals, or a community, might play in intervening in this very isolation, as Bambara posits. Relationality, in fact, is the realm in which the key distinction between narrative memory and traumatic memory is drawn. If narrative memory is "a social act," a relational type of memory, traumatic memory, as an instantiation of abjection, is a type of memory in which relationality is at once precluded and exceeded. Attending to relationality then, can help us not only to understand traumatic memory better but also to understand in more precise ways the ameliorating effects of narrative.

Using of acts of narrative to help resolve traumatic memory is, in fact, a very prevalent recommendation in recent theory on trauma. In Van der Kolk and Van der Hart's analysis of Janet's early-twentieth-century work, they assess, "Traumatic memories are the unassimilated scraps of overwhelming experiences, which need to be integrated with existing mental schemes, and be transformed into narrative language" (176). And in more recent discourse, as Bal tells us,

"Notably following the work of Shoshana Felman and Dori Laub (1992), much discussion has focused on the need for traumatic memories to be legitimized and narratively integrated in order to lose their hold over the subject who suffered the traumatizing event in the past" (viii). "In other words," Bal says, "a second person is needed for the first person to come into his- or herself in the present, able to bear the past[23]" (xi). In considering the radical borderlessness inherent to abjection, the lack of subject boundaries, it is conceivable that the entrance of another party onto the scene of traumatic recall might help to bolster the definition of both the subject and the abject; the consuming vortex that is abjection between these latter two might become less threatening if another person were able to intervene. The intervention of others, used in the right way, could reintroduce the possibility of a positive relationality that disrupts the dynamic of abjection.

Bambara's emphasis on the connection between the "wholeness" of an individual and that of his or her community illuminates the way in which the identities of both individual and community are mutually invested. Significantly, Bal notes, "the need for a second person to act as confirming witness to a painfully elusive past confirms a notion of memory that is not confined to the individual psyche, but is constituted in the culture in which the traumatized subject lives" (x). Thus, the goal of integration on the part of the traumatized subject needs to be thought about within the context of the larger society. Van der Kolk and Van der Hart write, "In the case of complete recovery, [….] the story can be told, the person can look back at what happened; he [sic] has given it a place in his life history, his autobiography, and thereby in the whole of his personality" (176) – and this "giving a place" to traumatic memory must also be extended to the subject's place in his or her community, as well. This is because a reliable sense of social

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[23] Bal's note: "On the concept of 'second-personhood' as a basis for epistemology, see [Lorraine] Code (1991)."

connection is necessary to found the kinds of relational modes that can successfully displace the

abjection of trauma.

In addition to the need for the collective to help in the healing and integration of

traumatic memory, Keith Byerman argues that it is furthermore imperative for trauma to be

narrated in order to fight against the hegemonic silence on the subject of trauma, particularly that

of slavery and racism in the United States, and the festering paralysis that can persist as a result of

this silence. As he puts it, contemporary trauma narratives "tell of the erasure of such history and,

as a consequence, its continued power to shape black life" (3). He calls for this work of narration

to be done despite the substantial resistance that he identifies as working against it, in both Black

and white communities in the U.S.; he maintains,

> It is necessary to go through the shame and disruption of remembering in order to begin
> to forge relationships that can become communities that can make a difference.
> Constantly working against this is the desire to forget, to create a different history or to
> reject the past altogether. The possibility for change is in memory, but a memory few
> want to keep" (10).

Yet, other theorists and novelists[24] have written of the destruction that can ensue from an

engagement with traumatic memory: that facing the fearsome past head-on can re-traumatize,

paralyze, and otherwise cause real harm to an individual or a community. How can these

conflicting claims be negotiated?

Bambara and the Problem of Healing

The paradigm of healing that Bambara sets forth in *The Salt Eaters*, with its focus on

agency and community, helps to address one of the main problems of trauma theory: how to

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[24] See, for example, Gayl Jones's *Corregidora* and Octavia Butler's *Kindred.*

loosen the paralyzing hold of traumatic memory without the destructive kind of forgetting that Byerman warns against – and without dishonesty. This latter problem becomes apparent in Van der Kolk and van der Hart's essay in *Trauma: Explorations in Memory*. They explain that the flexibility of memory – its mutability by social context, its openness to being imagined otherwise, is what is missing and needed in radical traumatic memory. They recount instances of victims of traumatic memory achieving relief through more pleasant, and/or more empowering, ways of imagining the trauma: "Once flexibility is introduced, the traumatic memory starts losing its power over current experience. By imagining these alternative scenarios, many patients are able to soften the intrusive power of the original, unmitigated horror" (178). As they proceed to point out, however, "The question arises whether it is not a sacrilege of the traumatic experience to play with the reality of the past?" (179) Especially when dealing with trauma of a political nature, this strategy of the displacement of memories becomes increasingly problematic. As Caruth maintains, "To cure oneself – whether by drugs or the telling of one's story or both – seems to many survivors to imply the giving-up of an important reality, or the dilution of a special truth" (vii). Indeed, due to both the sense of responsibility to one's own past and the suffering of one's loved ones, as Caruth points out, as well as to the limitless nature of the threat of the abject, "for those who undergo trauma, it is not only the moment of the event, but of the passing out of it that is traumatic; […] *survival itself*, in other words, *can be a crisis*" (9).

Bambara offers a different model, beyond the disavowal or single-minded incubation of the traumatic memory, beyond replacing it or leaving it behind: the healing to which Velma is exhorted in *The Salt Eaters* instead involves not shutting her eyes to the pain of the past and the present, but widening the scope of her perspective in order to see the support her community has to offer her, and the strength she holds within herself. Minnie Ransom, Velma's healer, places a

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great deal of emphasis on choice and agency, which would seem to hold potential for fighting the powerlessness, domination, possession, and isolation of abject trauma. Whereas traumatic memory takes over the subject, displaces the self as the center of consciousness and agency, Bambara's method of healing insists on taking back control of that center. We have reviewed above the abjection that Velma had suffered, feeling like her mind was being "taken over" (172). Later on in the novel, a close friend says of Velma, "Self-centered? But that's a good thing, Ruby. Velma's never been the center of her own life before, not really" (240). Illustrating this concept with the image of clay being centered on a potter's wheel (115-116), Bambara emphasizes the need for balance, for being solidly grounded.

Bambara recognizes that this is not an easy feat to accomplish, and she insists that the community is an indispensable aid to this sort of healing. In the context of the community gathered around Velma's healing, she explains,

> [S]ometimes a person held on to sickness with a fiercesomeness that took twenty hard-praying folk to loosen. So used to being unwhole and unwell, one forgot what it was to walk upright and see clearly, breathe easily, think better than was taught, be better than one was programmed to believe – so concentration was necessary to help a neighbor experience the best of herself or himself. For people sometimes believed that it was […] all right to become an accomplice in self-ambush. (107)

This passage, particularly the last line, brings to mind the "exorcism" of Beloved near the end of Morrison's famous novel. Although Sethe rejoices at Beloved's return, as the story continues and Sethe becomes weaker and weaker trying to feed and please the insatiable Beloved, it becomes clear that nursing this ghost means, in a way, nurturing her own self-blame. Beloved finally disappears at the moment when, after the women of the community gather to pray outside the gates of the house she had been isolated in for so many years, Sethe is able to blame the white

men[25] who terrorized and threatened her, rather than herself, for the Misery. As LaCapra puts it, "Empathy may also be seen as counteracting victimization, including self-victimization" (40), and both Morrison and Bambara demonstrate it to be necessary for recovery. Connection to an empathetic community provides the subjective critical mass needed to anchor the individual and brace her against the abject. This is one instance when agency is found not so much in individualistic autonomy as in the empowerment a supportive community can provide – a theoretical innovation posited in complementary ways by feminist trauma theorists, as Chapter One will argue, and by the novelists themselves, as Chapter Four will show.

Bambara's emphasis is decidedly on unity: both the need for wholeness as the most basic requirement of mental and spiritual health, and the imperative of considering a community holistically, as all parts affect one another. Here she can help to illuminate the nature of collective trauma. The way the perspective of *The Salt Eaters* continually shifts from one person to another, often providing different viewpoints on the same scenes, tells us that although an individual's own thoughts will always, thoroughly, color his or her perception of a situation, everything and everyone is connected (249) – and this connectedness characterizes both the pain and the strength and hope that people can experience. In an important sense, then, knowledge is produced and shaped in and among communities: epistemology is a social enterprise. As Ron Eyerman maintains, "while there is always a unique, biographical memory to draw upon, it is described as always rooted in a collective history. [….] From this perspective, collective memory is a social necessity; neither an individual nor a society can do without it" (6). Along these same lines, then, the remedy to "cultural trauma," as Eyerman terms it, is

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[25] Sethe's newfound mobilized rage for the white men who had tormented her can be inferred by her attempted attack on Mr. Bodwin, whom she misrecognizes and who she fears is "coming for her best thing" (262).

a process that aims to reconstitute or reconfigure a collective identity through collective representation, as a way of repairing the tear in the social fabric. A traumatic tear evokes the need to 'narrate new foundations' (Hale 1998:6) which includes reinterpreting the past as a means toward reconciling present/future needs. (4)

As Bambara, Silko, and Morrison would concur, the healing needs to be a communal activity, one that centrally involves cognitive and perceptual adjustments through the adoption of new and reparative narratives.

Erikson expounds on this social emphasis in his account of a community that he identifies as traumatized: "the community in general can almost be described as the locus for activities that are normally thought to be the property of individual persons. It is the *community* that offers a cushion for pain, the *community* that offers a context for intimacy, the *community* that serves as the repository for binding traditions" (188). This theme is salient throughout *The Salt Eaters*, but we can take as a particularly apt example the fact that Velma's healing, accomplished by Minnie and the community gathered around her, could never have been done by her husband Obie, as the novel makes clear: his attempts to talk to her about her possession by pain and bitterness were not helpful to her. The empathy which Velma receives from the community of healers is, precisely, what LaCapra describes as "a form of virtual, not vicarious, experience related to what Kaja Silverman has termed *heteropathic identification*, in which emotional response comes with respect for the other and the realization that the experience of the other is not one's own[26]" (40). In this paradigm, the healing from the community comes from an empathetic involvement that involves committed engagement but not the blurring of boundaries; in doing this, the subject is encouraged and, at the same time, provided with a model

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[26] LaCapra's note: "See Kaja Silverman, *The Threshold of the Visible World* (New York: Routledge, 1996)."

of self-possession that can battle the abjection brought on by traumatic memory. This, again, is agency through empowerment.

The communal approach to the healing of trauma provided by Bambara helps to address the problem that trauma, itself, signals – a problem that Caruth aptly identifies as political. "If PTSD must be understood as a pathological symptom," she argues, "then it is not so much a symptom of the unconscious, as it is a symptom of history. The traumatized, we might say, carry an impossible history within them, or they become themselves the symptom of a history that they cannot entirely possess" (5). Just as both individual and community must become free of torment by the abject specter of trauma, both individual and community also have a right to their history and to an outlook on life capable of handling it. As Caruth says, this concern "extends beyond the question of individual cure and asks how we in this era can have access to our own historical experience" (6). Bambara was exceedingly well aware that the troubles of the community she portrayed in *The Salt Eaters* extended around the world; and in her thoughtful, complex, and devoted novel she has provided us with an admirably "usable"[27] model for addressing these concerns.

Conclusion

How do emotional and social experiences influence the knowledge we produce about our world? This is the core question I will pursue in the rest of the dissertation, and I will investigate it in two contexts: the individual mind, as represented in literature, and recent critical practices in

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[27] See Avery Gordon, "Something More Powerful Than Skepticism," in *Keeping Good Time*, on the centrality of this criterion to Bambara's ethics and aesthetics as a visionary artist.

the humanities. Since my project combines two distinct but contiguous approaches to this question, it is organized accordingly into two sections. Section One explores the affective inventories of discourse in the context of recent divergences from postmodernism. It comprises Chapter One, which charts trauma theory's recent departures from poststructuralism, and the role of affect in the practice of critical theory, and Chapter Two, which analyzes popular and literary critical engagements with neuroscience in past decade. Section Two develops an integrative framework for interdisciplinary literary criticism, focusing on the relationships among gender, relationality, trauma and healing through the dual lens of three novelists' work and corollary neuroscientific accounts of the dynamics they theorize. This section is made up of Chapter Three, which focuses on the roles of gender and relationality in the experience of trauma, and Chapter Four, on the combined roles of gender and relationality in the process of healing from traumatic experiences. Both of these latter chapters pay particular attention to influences of affect and the social on perception, cognition, and memory. The common thread that unites this project is the role of affect in epistemology, at both individual and discursive levels.

In terms of methodology, Section One is an inventory and analysis of patterns of meaning, and of the ways in which competing cultural values interact. The work of Section One builds upon feminist predecessors such as Eve Sedgwick and Adam Frank, whose brilliant analysis of the "cybernetic fold," a structure of thought prevalent in the 1940s-1960s, across psychology, technology, and critical theory facilitates an understanding of how critical theory was then, and is now, constrained by the broader structures of thought that underlie it in a given era.

Chapter One traces the departures from postmodernist conceptualizations of subjectivity as ventured by feminist trauma theory, with particular attention to revised approaches to agency

and autonomy. It juxtaposes this comparative analysis with ruminations on the psychological intimacies shared between trauma studies and postmodernist critical theory, and on the nature and effects of paranoia as a critical practice. Ultimately, it suggests that a more nuanced and capacious accounting for the affective inventory of a particular theoretical approach, in addition to that of its propositional content, will yield a more precise and useful understanding of the work that this theory does. In this, it initiates my analysis of the role of affect in epistemology at the discursive level.

Chapter Two theorizes, in a parallel move, the growing popular and academic fascination in the past decade with the brain and with neuroscience. This chapter offers extensive inquiry into the complex ways the brain is imagined in relation to conceptions of the self, and the issues and values that underlie the privileging of received neuroscience in popular culture and the academy. It includes a sustained theoretical analysis, in dialogue with other science studies scholars, of major organizing issues underlying the reception of neuroscience and invocations of the brain, such as questions of agency and determinism; it analyzes the problems and potential of the nascent field of literary criticism engaging neuroscience; and it lays theoretical groundwork for more equitable and productive dialogue between these two disciplines.

The methodology of Section Two is comprised of integrative dialogue between literary criticism and neuroscience. My dissertation builds upon recent work in literary criticism engaging neuroscientific findings, and shares the focus of certain scholars on combining the two disciplines to pursue a fuller understanding of a particular object of study (such as memory or grief), but it is distinct in that it seeks to integrate them on equal plane, rather than assuming that neuroscience "underlies" or "confirms" literary knowledge (thereby crediting it with greater epistemological proximity). The postdisciplinary framework I seek here is one in which the

unique strengths of each discipline work not in competition but in collaboration on the pursuit

of knowledge of a specific, discrete object of inquiry,[28] as well as on mutual enrichment and

constructive criticism.

Chapter Three offers an in-depth investigation of the interaction of gender with the

processing of traumatic memory, paying particular attention to the roles of agency and

relationality. Through close readings of the way that emotion impacts visual and auditory

perception, in *Ceremony* and *Sula*, with supplementary considerations of *The Salt Eaters* and

Morrison's *Beloved,* I build a literary case for the inextricable influence of affect in everyday

perception and cognition, not only in extreme circumstances. By exploring the way that

sensations of distance and isolation come into play in this dynamic, I advance our understanding

of the roles of relationality and social affect in perception and belief as well. Finally, as apparent

contradictions in the relation of gender to traumatic memory emerge, I recruit

neuroendocrinology in innovating a conceptualization of gender that allows for substantive

analysis without essentializing the experiences of men and women as such.

Chapter Four expands on my argument for knowledge as a social and affective process

through an exploration of the roles of gender and relationality in healing from traumatic

experiences, through readings of *The Salt Eaters* and *Ceremony*, as a way to enrich extant

accounts of social epistemology. I analyze gendered epistemological-relational processes such as

surrogate "mothering" as a mode of healing, and the power of story and tradition as tools for

healing. I also attend to issues of agency and choice in the healing dynamics that Silko and

Bambara present, and to the cognitive, affective, and social complexity that inheres in questions

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[28] In this I am building on Mario Biagioli's usage of "postdisciplinarity" ("Postdisciplinary Liaisons: Science Studies and the Humanities," *Critical Inquiry* 35 (2009) 816-833).

of agency in epistemology. Finally, I offer a consideration of the potential engagements to be sought between social neuroscience and the humanistic study of the self in relation, disparate though our methods may be.

These chapters demonstrate how neuroscientific and novelistic accounts of the mind can be combined together to make new kinds of knowledge on the topic: knowledge that can be both descriptive and expressive, both subjective and empirical, and that can make space for both physiology and interiority. As a literary critic, I see novelists as astute observers of human nature in social context, and find that synthesis of literary and neuroscientific accounts of the mind is more complete, vivid, and satisfying than what either field can do alone. In advancing innovative frameworks for combining science and the humanities, my ultimate goal is not only to deepen our understanding of ourselves as knowers, but also to expand our repertoire of methods of pursuing knowledge.

SECTION ONE

Affect and the Social in Discursive Knowledge Production:
Trauma Studies and Neuroscience

CHAPTER ONE

Agency in Trauma Studies and Postmodernism: On Affect in Theory

Most of us have encountered instances in which our affective attachment to a certain

argument influences our evaluation of its logic, persuasiveness, and importance: the political

views of a dear friend, the theoretical leanings of a beloved mentor or those of a colleague whom

we find abrasive. We have even experienced the tendency of a shift in our affective relation to a

theory (or the person with whom we associate it) to cause our cognitive evaluation of its cogency

and coherence to be revised, seemingly retroactively, so that we believe that we had in fact been

convinced (or unconvinced) all along. Yet the workings of this dynamic often remain outside the

scope of our attention, and substantive considerations of its role in the trends of scholarship have

rarely materialized.

The ebb and flow of critical trends offers fertile ground for the contemplation of affect in

theory. This chapter takes as its example trauma studies, which became a hot topic in the

humanities in the 1990s, during which time many of its most famous texts were written. The

volume of scholarly work published in the field in the decade that followed was many times

greater even than that of the 90s, indicating that it has only continued to proliferate since then.

Yet it is now often considered passé, though its work is far from completed, and to continue to align oneself with the field is to risk stamping one's work as outmoded.

If one were inclined to psychologize this dynamic, one could note that the degree of affective influence – whether of attraction, repulsion, or, of attraction followed by a revisionary distancing – on the evaluation of a theory is greatest in cases of especially close identification or commonality perceived by the beholder. In the case at hand, the position of the traumatized person is consonant in many ways with the critical position of much of the poststructuralist theory that was particularly influential during the heyday of trauma studies, and that is just now beginning to be questioned: a position that Eve Kosofsky Sedgwick[1] has identified as "paranoid." As I will discuss in more detail presently, the traumatized subject and the paranoid poststructuralist (particularly, post-Foucauldian) reader share certain central concerns: among them, a heightened sensitivity to perceived signs of danger; a black-and-white conceptualization of agency that breeds the anxiety that any threat to autonomy will mean annihilation for the subject; and a willingness to endure a perpetually anxious, negative affective position (indeed, the sense that one has no choice but to do so) in order to achieve their shared goal: never (again) to be taken by surprise by the feared object.

Yet already we are confronted with a certain ethical dissonance: no matter how accurate this comparison may be, it feels uncomfortable and exploitative to liken the approach of the poststructuralist to hegemony to that of the survivor to an actual trauma. This dissonance

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[1] Sedgwick's later work plays a seminal role in this chapter's critique of poststructuralist thought. Her focus on the structural components and affective positions of theoretical frameworks make her the most effective choice in this context. This kind of structural and affective analysis is, as I establish here, precisely what is needed introduce the possibility of alternatives to the rather closed circuit of some poststructuralist theory. Moreover, Sedgwick's legacy resonates with the other feminist theorists on whom this chapter draws: Judith Herman, Susan Brison, and Melanie Klein. In reading these critics together, I argue that feminist and trauma theory has provided innovative ways of thinking about relationality that contest certain postmodern approaches to agency and autonomy.

indicates a certain distinction in approaches that poststructuralist theory and trauma studies, respectively, take toward the dynamics they theorize. It may be that the combination of shared concerns and differing responses, movements, and formulations of subjectivity help to explain why a humanities governed by poststructuralism would have become so compelled by trauma studies, a field that both mirrored and departed from this framework. In exploring the ways in which trauma studies in the humanities has recently taken up, diverged from, and made something new out of postmodernist approaches to subjectivity, we can understand in what ways recent critical accounts of trauma and recovery have served to work through broader theoretical and cultural concerns about agency, subjectivity, and the borders of the self.

Trauma and Paranoia, Recovery and the Reparative: Some Intimacies in Postmodern Theory

In their analysis of the paradoxes of recent "applied theory" in the humanities, such as projects based on the work of Foucault, Sedgwick and Frank note that quite often "Foucauldian deprecations of 'the repressive hypothesis' will be transformed virtually instantaneously into binarized, highly moralistic allegories of the subversive versus the hegemonic, resistance versus power" (*Touching Feeling* 110). It seems that the more binary oppositions are denounced in critical theory, the more they proliferate.[2] Sedgwick and Frank observe:

> the structuralist reliance on symbolization through binary pairings of elements, defined
> in diacritical relation to one another [...], has not only survived the structuralist moment

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[2] I believe that this is largely due to the limited theoretical repertoire allowed by our current "digital" model of difference, as Sedgwick and Frank describe it, which can compute only the binary set of 0 and 1. I explore this and the concomitant phenomenon of what I call "protagonistic agency," in which *one* actor or explanation must emerge as central, at the end of Chapter Two.

but, if anything, has been propagated ever more broadly through varied and unresting critique – critique that reproduces and popularizes the *structure*, even as it may complicate an understanding of the *workings*, of [binarisms such as] presence/absence, lack/plenitude, nature/culture, repression/liberation, and subversive/hegemonic. (94)

These are among the binaries that form the central concerns of much of contemporary theory. In fact, some critics[3] have perceived that it has become *mandatory* first of all to frame all analysis of actors and texts in terms of hegemony and resistance, and then to produce a finding of resistance on the part of the text or historical actor studied, no matter how difficult such a finding may be to formulate or defend. This mandate is inexhaustible, moreover, since the insidiousness of oppression is understood to be without limit, either in its weight and scope or in the extent of its covert infiltration of culture and thought: it can neither be uncovered nor denounced enough.[4]

In our analysis of the singularities of postmodern theory, it is worth noting that this "resistance mandate" is a particularly striking reversal of the content, if not the structure, of the general suspicion of the agency and transparency of subjects propagated by postmodern theory.[5] A preliminary distinction could be drawn noting that postmodern skepticism surrounding the notion of the agentic, self-transparent subject is intended in general terms, while the resistance mandate focuses on what have been classified as "subaltern" subjects, marked by non-hegemonic races, genders, sexualities, nationalities, abilities, and so forth. These subjects not only always demonstrate agency through resistance, according to many recent critical studies, they're also

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[3] This observation has been articulated by Sandra Gunning in numerous settings; it also bears resemblance to Janet Jakobsen's argument regarding the homogenization of queer resistance ("Queer Is? Queer Does?" 512-513).

[4] Likewise, in her introduction to *Touching Feeling*, Sedgwick mentions the critical focus on "beneath" and "behind," "the topos of depth or hiddenness, typically followed by a drama of exposure, that has been such a staple of critical work of the past four decades" (8).

[5] See Hoy 3, Pippin 220, and the further discussion of agency that begins on page 16.

remarkably purposeful, conscious, and self-transparent regarding their perennially subversive acts.

It seems to me that this critical impulse (very much including my own work) is partly inspired by the ingenuity and genius of the subjects themselves, partly a laudable reparative impulse to address and correct appalling historical injustices of representation, as well as more direct forms of injustice and oppression; but it is also partly an impulse to reverse postmodernism's blanket suspicion of agency, especially in light of its implications for subjects of oppression. The problem this type of criticism faces, I believe, is that its critical potential has been not overextended but rather *constricted* as a result of the binaristic logic that pervades their contemporary theoretical environment: Open, complex, and sustained analysis of various multi-layered patterns of meaning – of which patterns of oppression comprise a part but not the totality of social meaning-making – have largely given way to an exclusive focus on the enactors and conveyors of oppression or of resistance. In such accounts, the message and the people who can be associated with it are rather thoroughly conflated, and the analysis sought has tended away from open-ended descriptions toward what Sedgwick and Frank might call "digital" – up/down, yes/no, subversive/hegemonic – verdicts.[6] While these digitizing, binaristic forms of analysis have narrowed the range and breadth of their theoretical or symbolic space considerably, the person/message conflation has in turn added the force of conviction to these projects, as they become increasingly (if implicitly) about defending human dignity. As a result, many of the critical practices concerned with minoritized social categories remain caught in a norm – of

[6] In an earlier version of their essay, published in *Critical Inquiry*, Sedgwick and Frank lament in "contemporary theory and criticism" "its impoverishing reliance on a bipolar analytic framework that can all too adequately be summarized as 'kinda subversive, kinda hegemonic.' Clearly, if there are theoretical adventures to be pursued beyond or to the side of the repressive hypothesis, they are not likely to share the good dog/bad dog rhetoric of puppy obedience school" (500-1).

bifurcating agency – so stringent that it leaves them little breathing room.[7] Policed and impelled

with such forceful forward velocity, they have very little lateral room for movement, for analyses

of adjacent issues, or for pursuing questions framed in terms other than "subversive or

hegemonic?".

A central component of trauma theory's usefulness in this context, then, has to do with

its structurally distinct relation to ethics. Because trauma is a potentially transient, psychological

condition rather than a social *category* on par with race or nationality,[8] for example, and because

of its long history of complicated theoretical treatments with regard to agency, it is more able to

skirt the person/message conflation as well as other dialectical impulses of "theory" discussed

above. With this in mind, it is worth attending to the broader terrain of concerns that trauma

theory shares with postmodern theory, and differences in its approach to these concerns.

In the name of the proliferation of lists and of "*nonce* taxonomies"[9] of theoretical

dynamics, we can add the following binaries to the concerns of contemporary theory, in addition

to the examples provided by Sedgwick and Frank. Note that most share the moralized shading of

"subversive/hegemonic" just discussed:

- agency/determinism

- free will/compulsion

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[7] Along similar lines, Sedgwick notes that the "mandatory injunction" of paranoid criticism "now has something like
the sacred status of Fredric Jameson's 'Always historicize' – and, like that one, it fits oddly into its new position in the
tablets of the Law. *Always* historicize? What could have less to do with historicizing than the commanding,
atemporal verb 'always? [...] The imperative framing will do funny things to a hermeneutics of suspicion" (*Touching
Feeling* 125).

[8] Of course, the two can coincide, as in the case of cultural trauma. See Eyerman, Bal et al. and Alexander et al. for
extensive treatment of this phenomenon. It is certainly true that certain kinds of trauma, whether large-scale events
or individual attacks, can be targeted at people due to their membership in a certain category; and that this
membership can be felt as significant, even central, to the way the survivor perceives and processes the traumatic
experience. For my purposes in this particular chapter, however, it is enough that this is not *always* the case.

[9] See Sedgwick, *Epistemology of the Closet* 23.

- social construction/objective truth

- subjectivity/objectivity

- autonomy/postmodern subjectivity

- Sartre and Heidegger/Foucault and Nietzsche (on choice and the will)

- fluidity/rigidity (of subjectivity)

- flexibility/indelibility (of memory)

- plasticity/hardwiring (of the brain and behavior)

While the above binaries are by no means coextensive, they share a common concern that could loosely be organized under the heading of agency versus determinism. Now, consider the following topics of concern found in trauma studies:

- narrative memory vs. traumatic memory

- subject vs. abject

- conscious mind vs. the unconscious

- working through vs. acting out

- remembering vs. repeating

- seeking pleasure vs. avoiding pain

- antimimesis vs. mimesis[10]

These binaries are, in general, just as focused as are those of postmodernism with the central concern of having control as opposed to being controlled. Yet, in this second list, it becomes harder to see how one could be entirely separated out from the other: in many cases, both elements are part of the same puzzle. Whereas poststructuralism remains fixated on such

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[10] On this point, see Leys 8-10.

binaries as resistance/normativity or agency/determinism, trauma theory does not linger on them. Rather, it goes to a third place: for example, noting that *both* narrative and traumatic forms of memory are essentially constructions (Brison 31), or that working through versus acting out is too divaricated a formulation (LaCapra 145). Seeing some of these binaries as ranges rather than sets of opposites is an integral part of correcting what Sedgwick identifies as the "damaging assumptions that have shaped psychoanalysis in (what I think of as) its Oedipal mode: [...] especially the logic of zero-sum games and the excluded middle term, where passive is the opposite of active and desire is the opposite of identification" ("Melanie Klein and the Difference Affect Makes" 630-1). Revising this logic, we can come to see seeking pleasure and avoiding pain, for example, as qualitatively and posturally distinct yet complementary aims of the self.

The need and utility of going to third place, however, is most evident in the case of another binary found in trauma theory: the blamed victim versus the powerless victim. According to philosopher Susan Brison, the survivor of rape can find herself in a "double bind" with regard to the contemplation of her own agency (73): if she concludes that there was nothing she could have done, she is left with an intolerable feeling of powerlessness, especially regarding the prospect of preventing future attacks. Yet if she focuses on what she could have done differently to prevent the attack (as Western society often tends to encourage, as Brison points out, in order to preserve its belief in a safe and reasonable world), she is left with a feeling of self-blame (74).

Brison describes the great benefit she found in taking a self-defense course after her own sexual assault and attempted murder, and she advocates this option for other survivors:

> Such training can, for some, usefully supplement talk therapy as a means of recovering from trauma. While learning self-defense does not guarantee that they will never be

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victimized again, it greatly increases their options for fending off assault,[11] and enables them to feel in control of their lives without having to blame themselves [...]. (76)

A main reason this self-defense training is helpful, then, is that it constitutes an addition to the survivor's agentic repertoire, and a shift in self-conception, that breaks up the sense of inevitable continuity between the past, present, and future.

It is this same refusal of inevitability that, for Sedgwick, characterizes the "reparatively positioned reader" in contradistinction to the paranoid one, based on affective positions theorized by Melanie Klein (146).[12] Paranoid reading detects and uncovers "the enemy" everywhere, whether in the form of essentialism, colonialism, misogyny, normativity, or the like; and it never tires of nor deviates from this central task. Sedgwick's aim is not to downplay the seriousness of these oppressions, but instead to recover the possibility that "paranoid inquiry" could be "viewed as one kind of cognitive/affective theoretical practice among other, alternative kinds" (126), rather than as the *only* possible response. Because of the notable parallels, as mentioned above, between the paranoid position and the traumatized one – as well as between the reparative process and that of recovery after trauma – Sedgwick's argument is worth revisiting here in some detail.

Like trauma studies, Sedgwick's essay focuses on the relationships among knowledge, perception, experience, and the cognitive/affective interpretive lens with which one responds to

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[11] Here Brison cites Pauline B. Bart and Patricia H. O'Brien, "Stopping Rape: Effective Avoidance Strategies" *SIGNS: Journal of Women in Culture and Society* 10.1 (1984): 83-101.

[12] Sedgwick likens paranoid reading to "what Paul Ricoeur memorably called the 'hermeneutics of suspicion' – widespread critical habits indeed, perhaps by now nearly synonymous with criticism itself" (124). Robert Pippin points out that this hermeneutical approach has as its legacy "the so-called Masters of Suspicion—Marx, Nietzsche, and Freud," who helped to lay the groundwork for this repudiation of the reliability of conscious agency (220).

and anticipates experience.[13] Noting that paranoia is a "strong theory" – that is, wide in scope and self-reinforcing to the point of tautology, it finds supporting evidence everywhere – she recognizes a possible blind spot it produces: that of the awareness of alternative interpretations. Taking up this task herself, Sedgwick suggests,

> Learning that "just because you're paranoid doesn't mean you don't have enemies," somebody might deduce that being paranoid is not an effective way to get rid of enemies. Rather than concluding "so you can never be paranoid enough," this person might instead be moved to reflect "but then, just because you have enemies doesn't mean you have to be paranoid." That is to say, once again: for someone to have an unmystified view of systemic oppressions does not *intrinsically* or *necessarily* enjoin that person to any specific train of epistemological or narrative consequences. (127)

What Sedgwick does here is to remind us of the multiplicity of possible directions in which a cognitive/affective response could proceed from a given piece of knowledge. If we understand the paranoid position not as *required* or *compelled* by a sober appreciation of systemic oppressions, but as "*a* way, among other ways, of seeking, finding, and organizing knowledge" (130), we can then explore its unique features and its alternatives. "Paranoia knows some things well and other things poorly" (130), and developing a reliable descriptive account of these epistemological strengths and weaknesses can only be beneficial to enhancing the repertoire of critical theory. Where we encounter a faculty to which paranoia remains closed, we can explore other critical avenues to recover its use.

To return to questions of temporality, the reparative alternative to the paranoid position is characterized by an openness to difference among past, present, and future. No longer tied by dread to an axiomatic belief in inevitability, the reparative position affords the possibility of hope. This imaginative flexibility extends in both directions in time:

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[13] Sedgwick comments in a later essay on "the ways in which what one already is puts its inevitable spin on what one says, does, and perceives—and vice versa" ("Melanie Klein and the Difference Affect Makes" 641).

> Because the reader has room to realize that the future may be different from the present, it is also possible for her to entertain such profoundly painful, profoundly relieving, ethically crucial possibilities as that the past, in turn, could have happened differently from the way it actually did. (146)

In this position, the subject is open to a variety of narratives about her world and experience, rather than being dominated or determined by one.

The process of focal adjustment by which a given paradigm is dethroned, shifted from being taken as a matter of course to being seen as one possible option among many, is described elegantly by Pierre Bourdieu as the move from the *doxa* to the *field of opinion*. As it has been noted that the theoretical frameworks offered by Bourdieu may provide more fertile, flexible, and agency-friendly alternatives to Foucauldian theory, it seems especially pertinent to visit them here. The doxa refers to paradigms, narratives, assumptions, and opinions that enjoy hegemonic status by virtue of their remaining unquestioned.[14] It is "the class of that which is taken for granted, […] the sum total of the theses tacitly posited on the hither side of all inquiry, which appear as such only retrospectively, when they come to be suspended practically" (*Outline of a Theory of Practice* 168). These beliefs, which usually come with a set of normative injunctions (such as the practice of paranoid theoretical habits), must be shielded from any sense of competition: "nothing is further from the correlative notion of the *majority* than the *unanimity* of the doxa" (168). Doxic beliefs also must not be enunciated too explicitly, or they would lose much of their power: the doxa "*goes without saying because it comes without saying*: the tradition is silent, not least about itself as tradition" (167). The world it produces is "a world which has no place for *opinion* as liberal ideology understands it, i.e. as one of the different and equally legitimate answers which can be given to an explicit question about the established

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[14] For an expanded discussion of Bourdieu's theoretical terminology, see Ahern (2007).

political order" (167-168). To ask such questions, and to entertain alternative answers, is to usher in precisely that *field of opinion* that displaces the doxa. This field is "the locus of the confrontation of the competing discourses" (168), in which the doxa cannot survive as such; it is forced here into the much weaker position of *orthodoxy*, which must, to some degree, stridently and anxiously acknowledge its own competition (169).

To come to see the paranoid position as one possible critical posture among other viable alternatives, then, is a movement parallel to the shift from the world of the doxa to the field of opinion. It is also consonant with the shift from the paranoid position itself to the depressive position, in Klein's framework, as the latter constitutes "the space in which challenges to a normalizing universality can develop," according to Sedgwick ("Melanie Klein" 637). Finally, this move bears an important commonality with the process of recovery from trauma, as many trauma theorists have described it. Among them, Judith Herman writes in her seminal book *Trauma and Recovery* (1992):

> After many repetitions, the moment comes when the telling of the trauma story no longer arouses quite such intense feeling. It has become a part of the survivor's experience, but only one part of it. The story is a memory like other memories, and it begins to fade as other memories do. Her grief, too, begins to lose its vividness. It occurs to the survivor that perhaps the trauma is not the most important, or even the most interesting, part of her life story. (195)

When one single memory, narrative, position, or paradigm unilaterally dominates the way we organize our perception of the world, it is often due to some sort of *power*: whether the de facto power of the illusion of unanimity, as in the case of the doxa in general, or the more specific power of terror, as in the cases of traumatic memory and of paranoia. Herman follows the passage above with the comment, "At first these thoughts may seem almost heretical," in fact, emphasizing the almost religious power which traumatic memory may seem to have over the

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subject (195). It becomes possible for knowledge and perception to be opened up, reorganized in a freer manner, when this power in some way loosens its hold on us.

But how does this hold come to be loosened? In our contemplation of the special relationship between trauma theory and critical paranoia, it is important, finally, to consider the role of crisis. This state is significant to both the traumatized and the paranoid, as their (perceived) ongoing reality. At the same time, crisis is also the state that Bourdieu identifies as necessary for the sort of "critique" that can disrupt the "perfectly closed world" of the doxa (167):

> The critique which brings the undiscussed into discussion, the unformulated into formulation, has as the condition of its possibility objective crisis, which, in breaking the immediate fit between the subjective structures and the objective structures, destroys self-evidence practically. (168-169)

Here it is worth noting that the sense in which Bourdieu intends the term "objective crisis" is not necessarily that of "crisis" in the more general sense, but of the shattering of the self-evidence of a paradigm, a sense of mismatch between the way one has come to experience the world and a new, discordant experience or piece of knowledge. This paradigm-shattering crisis finds its parallel in trauma studies as "shattered assumptions,"[15] in psychologist Ronnie Janoff-Bulman's description of trauma, and as the "loss of the assumptive world,"[16] according to a later collection of essays building on her work. The distinction must be noted that, in the case of trauma, the disruption of the "assumptive world" is generally followed – at least in its immediate aftermath – not by an opening out of multiple possibilities but by a closing down of all sense of meaning, an intolerable

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[15] *Shattered Assumptions: Towards a New Psychology of Trauma.* Ronnie Janoff-Bulman. New York: The Free Press, 1992.

[16] *Loss of the Assumptive World: A Theory of Traumatic Loss.* Ed. Jeffrey Kauffman. Series in Trauma and Loss. New York: Brunner-Routledge, 2002.

vacuum in which the threat of danger is felt to destroy all possible worlds.[17] It is only later – by

many accounts, through a sort of narrative mastery achieved through the telling of one's story to

sympathetic listeners – that the subject can, as Herman describes in the above passage, see the

horrifying knowledge conferred by the traumatic event no longer as world-destroying but as

merely one item of knowledge among others.

What comes to mind when considering the relationship of crisis (even "objective crisis")

to paranoia, on the other hand, is the impossibility of its having any impact on the paranoid

mindset. Fixed intently on the preemptive *anticipation* of surprise, paranoid subjects are unlikely

to be either swayed or ruffled by any new finding: their response is deadpan, their attitude that of

always already having known. And while any negative revelations only reinforce the paranoid

position, positive surprises do not undermine it, so thoroughly and swiftly do its faculties of

suspicion neutralize and dismantle them. Logically speaking, there is no objective crisis that

could disrupt the paranoid paradigm;[18] it may be that the only way to "bring the undiscussed into

discussion, the unformulated into formulation," is simply to formulate, articulate, and discuss its

implicit principles oneself, as Sedgwick, Bourdieu, and other theorists do.

Even when this is done, however, there will still be those who prefer not to consider it; the

negative relation at the center of paranoia and postmodern theory reserves nothing if not the

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[17] See especially Elaine Scarry's *The Body in Pain* (1985).

[18] In her 2007 essay on Melanie Klein, published several years after the essay on paranoid reading, Sedgwick recalls
the historical context that comprised the main impetus, in her estimation, for queer theoretical movements having
come to occupy the paranoid position: the horror of the AIDS crisis and the sense of uncertainty and "[d]read,
intense dread, both focused and diffuse," over the government's future response to it (639). Because of the lack of
any escape valves in the logical structure of paranoia, however, it has since persisted, lived beyond its moment:
Sedgwick then observes that "a lot of more recent queer theory has retained the paranoid structure of the earlier
AIDS years, but done so increasingly outside of a context where it had reflected a certain, palpable purchase on daily
reality" (640).

right of refusal. It may be that the only image that could compel a break in the cycle of paranoid thinking is the contrast of one's own fear with that of a person who has actually been traumatized: ethics as a way to break from aesthetization.[19] Here we encounter another contradiction: while aesthetics for Elaine Scarry is more or less coextensive with ethics, as the realm in which beauty inspires justice and benevolent creation,[20] the move toward aesthetics in postmodern theory, discussed below, often involves a stepping to the side of questions of ethics or of truth in a manner that bears some commonality with existentialism. It is in fact this kind of solipsistic tendency that Scarry posits beauty as countervailing: the act of marveling moves one's state of mind from self-absorption to what she terms "opiated adjacency": a simultaneous feeling of bliss and of being, oneself, contentedly marginal rather than central to the scene (*On Beauty and Being Just* 114). Transposing this dynamic to a new domain, the "heteropathic identification"[21] that another's trauma may inspire could be conceived as a sort of *concerned* adjacency that contrasts with paranoia as a way of feeling our existence in relation to others.

Postmodern Theory and the Innovations of Trauma Theory

The best argument for the viability of a new approach is in fact not an argument, but a demonstration. Trauma theory has provided a rich array of examples that demonstrate the variety of alternative conceptualizations of the binaries perpetuated by postmodern theory,

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[19] See Caruth, *Unclaimed Experience* 92, 102 on what she terms "an *ethical* relation to the real" (92).

[20] This theme has pervaded much of Scarry's work, but especially *On Beauty and Being Just* (1999).

[21] Kaja Silverman is most well-known for elaborating extensively on this term in *Male Subjectivity at the Margins* (1992) and *The Threshold of the Visible World* (1995), but she cites philosopher Max Scheler (1923) as the originator of the term (Scheler 19).

especially concerning agency, truth, and relationality. These alternatives show not that postmodernist formulations are false or unhelpful, but simply that they *can* be thought otherwise. I will fill out this contiguous conceptual terrain in more detail by pursuing here four broad organizing trends that have tended, with relative consistency, to be associated with postmodernist and poststructuralist thought:[22]

I. Agency is called into question, and understood at the very least to be circumscribed by social contexts.

II. As a result, "agency" and "resistance" are available only through self-production by inculcating or parodying norms.

III. Questions of truth, depth, and coherence cede to questions of aesthetics, surfaces, and fragmentation.

IV. Rational autonomy is rejected in favor of shifting, fluid, contingent subjectivity.

In the remainder of this chapter I examine, one by one, the terms of these habits and the ways in which trauma theory both addresses and departs from them. I investigate trauma theory's more complicated take on agency, responsibility, and the quest for self-possession. I trace the breaking down and building anew often posited as the process of subject formation after trauma. As appearances, perceptions, and shattering interact with questions of truth, reason, correspondence, and resolution, I delineate the ways that this complicates the binaries set out by postmodernism. Finally, I probe alternatives to rational autonomous or postmodern subjectivities in formulations of empowerment and the relational self.

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[22] From their inception, definitions of postmodernism and poststructuralism have been the subject of debate, one I certainly will not settle here. Part of this debate concerns the relationship of postmodernism to poststructuralism. As poststructuralism is often posited as a specific offshoot of the larger pattern of postmodern thought, I will adhere to that understanding for the purposes of this chapter.

I. Agency is called into question, and understood at the very least to be circumscribed by social contexts.

Agency has been a recurrent concern in critical discourse, whether it is attended by a sense of ethical urgency, as in the resistance mandate, or with a knowing skepticism, as in other corners of Foucauldian thought. "Genealogy does not deny that there is a level of conscious agency," David Couzens Hoy observes, "but it doubts the efficacy and autonomy that self-consciousness attributes to itself" (3). Inherited by Foucault from Nietzsche, who in turn adapted it from Hume (2), genealogy has now become a distinctively poststructuralist methodology. It's worth noting, too, that by "conscious agency" Hoy seems to intend simply the subjective, most likely illusory *impression* of having agency. Philosopher Robert Pippin has recently framed this sense of doubt as follows:

> many seem to have concluded that, in an ever expanding range of cases, it only seems to us that we are running any show as conscious agents in any even metaphysically modest sense; it only seems that we could be actually leading our lives. In some quarters this has become so obvious a truism that noting it counts as banal. (220)

We could add that, in the era of paranoia, contesting this conclusion is sure to be seen as naïve and self-deluded.

Trauma theory has made the question of agency a central focus for at least the last century. In Freudian psychoanalysis, this has been formulated as the distinction between repeating and remembering, after Freud's 1914 essay, "Remembering, Repeating, and Working-Through." According to this formulation, one doesn't remember the repressed, one repeats it. This seems to raise the question, which is the self: that which is consciously identified through (narrative) memory or composed of the subject's actions? Repetition and remembering were revisited in the 2002 collection *Topologies of Trauma: Essays on the Limit of Knowledge and*

Memory. In her introduction to the volume, Linda Belau identifies "repetition as the remembering of that which, structurally inconsistent to the field of knowledge, is necessarily forgotten" (xvi). Thus the question of agency is tied into questions of memory and knowledge.

Trauma theory's dealings with agency has had its own moments of polarization. Surveying the field of trauma theory, Ruth Leys identifies a central tension between two theories of trauma and traumatized subjectivity: mimesis vs. antimimesis (8-10). The earlier mimetic-suggestive model, as she terms it, conceptualized trauma as "a situation of dissociation or 'absence' from the self in which the victim unconsciously imitated, or identified with, the aggressor or traumatic scene in a condition that was likened to a state of heightened suggestibility or hypnotic trance" (8). A more extreme suspension of the agency of the victim would be hard to imagine. This fact was not lost on the field itself, as Leys postulates:

> It is as though early theorists of trauma were simultaneously attracted to and repelled by the mimetic-suggestive theory, as though the basis of the latter's appeal – its ability to explain the victim's suggestibility and abjection – was also its chief defect – its threat to an ideal of individual autonomy and responsibility. (9)

The abjecting force of trauma is arguably its most intolerable facet, both for its victim and for theorists of trauma. As a result, Leys contends, there appeared in the field "a competing, *antimimetic* tendency to regard trauma as if it were a purely external event coming to a sovereign if passive victim" (10). Not only does this model sit more comfortably for those concerned with preserving theoretical access to the agency of the victim, but its narrowing down of the problem to external rather than internal complexities simplifies it considerably. No wonder, then, that it is this antimimetic account of trauma that "has lent itself to positivistic or scientistic interpretations of trauma epitomized by the several neurobiological theories so widely accepted today" (10). The

two models often appear in tandem, however; in fact, Leys argues that this tension lies implicitly

at the heart of Cathy Caruth's *Unclaimed Experience* (17).

A more integrated account of agency in trauma is provided by Susan Brison in her

autobiographical work of philosophy, *Aftermath: Violence and the Remaking of the Self* (2002).

Brison treats the issue from a number of perspectives, but I would like to focus for now on her

complex and thoughtful discussion of agency and PTSD, long a contested issue in the field.[23]

Speaking simultaneously as a philosopher, a survivor, and a patient, Brison makes a series of

incisive points reflecting on the diagnosis and treatment of her own PTSD. First, she comments

on the relief she felt at the diagnosis, being told that her condition was "neurological," "treatable

with drugs," and not on her shoulders alone (77). Yet her induction as a subject of psychiatric

medicine did not dismiss her persistent concerns as a traumatized subject in society:

> The chemically enhanced communication among my neurotransmitters may have
> facilitated my getting out of bed in the morning, but it didn't tell me what to do next. [...]
> What else was needed? A reconceptualization of the world and of my place in it. An
> actual world in which support and sustenance were available. A sense that my various
> images of the world – and the world itself – could someday coincide enough so that I
> could navigate my way around in it. (78)

If medicine could not, by itself, complete the work of mending and rehabilitating Brison, then

neither, she finds, could submitting to pharmacological treatment amount to ceding her

individual agency.

Medicine and the question of agency persist as Brison considers questions of the will, in

light of the varying extents to which either exercises in mental self-control or the consumption of

pills can affect PTSD symptoms (83). Rather than tackle directly the "age-old problem of mind-

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[23] Just to name a few examples of its treatment in the discourse, PTSD has been historicized by Leys, read as a
symptom of history by Caruth (*Trauma* 5), approached from a medical perspective by Sandra L. Bloom, critiqued as
individualizing and medicalizing by Patrick Bracken, and discussed as a reifying diagnosis by Sharon Lamb.

body reductionism," she points that she can simply "take a pragmatic approach" (83). She

reflects: "Sometimes, it works to think of myself as a mechanical system. Sometimes, it works to

think of myself as a perceiver and maker of meaning. Sometimes thinking of myself as an agent

with free will helps and sometimes, especially when the scope of the will is exaggerated, it doesn't.

(82). When the latter happens, Brison notes, the pressure that ensues – to cure herself, to recover

by sheer force of will – can be counterproductive. Yet the reality of the situation, in her

estimation, is far from a divaricated choice between total control and none. She concludes by

pondering the intricate convolutions of agency itself:

> Acting in such a way as to make one acted upon (by drugs) can enhance agency – it can
> enable one to get out of bed, go out of the house, engage with a world that is no longer
> overwhelming. Being passive – allowing oneself to be acted upon – may be necessary for
> truly effective agency. (83)

The picture of agency that Brison paints, then, involves a folding together of initiative and

passivity, mechanics and meaning-making, in a multilayered arrangement that is both loose and

complex. As I indicated toward the beginning of this chapter, the ethically weighted content of

trauma studies presses us to revisit the postmodern exclusion of agency from the subject, while its

intricate, compelling, everyday detail (such as in Brison's account) keeps it nuanced. Its century-

long history of concern with questions of agency and transparency of the subject of trauma has

preserved in the discourse a sense of a range of possibilities that extends beyond the confines of

postmodern binarisms.

II. "Agency" and "resistance" are available only through self-production by inculcating or parodying norms.

Related to the social circumscription of agency is the question of the nature and substance of the sort of agency that may appear in a poststructuralist paradigm. According to Hoy, Nietzsche posits the "doer as a fiction that follows from rather than precedes the deed" (116), and this account of agency has then become part of the Foucauldian inheritance. For Foucault, the individual produces herself; Hoy argues that in this view, "individuals are complicit in the process of their self-formation and they learn to normalize themselves. Indeed, normalization does not suppress individualization, but produces it" (65). But it is not clear what sort of *choice* this account of self-production presents to individuals, especially when their options are so radically limited to that of the reigning regime.

Butler formulates a similarly circumscribed, binary sort of resistance through the concept of occupation of an injurious term, in the case of derogated (queer) subjects: she maintains that "only by occupying – being occupied by – that injurious term can I resist and oppose it, recasting the power that constitutes me as the power I oppose" (104). The subversion Butler seeks to introduce adds a new edition to the binary choice of acceptance and refusal: that of "straight" acceptance versus parodic acceptance, the embrace of what one is supposed to reject. This choice, however, is still quite limited and rigid in structure – and troubling because of how completely it yields its imaginative, creative, constitutive, definitional power to the (oppressive) norm. Structurally speaking, both Foucauldian and Butlerian accounts of subjectivity remain

firmly anchored in it.[24] The individual can define (or, produce) herself in positive, negative, or

parodic relation to the norm, but not independent of it.

When the agency of the subject is so constrained with regard to the *substance* of identity,

I argue, the process of identification becomes less about substance per se and more about the

posture of the individual in relation to the norm, since this is the only arena in which she has

room to maneuver. This dynamic has manifested in theory in the conceptual migration that

Sedgwick has traced from Foucault's repression/liberation dichotomy to "the even more

abstractly reified form of the hegemonic and the subversive" (*Touching Feeling* 12). This

movement has had constricting ramifications for the theory that has followed:

> The seeming ethical urgency of such terms masks their gradual evacuation of substance,
> as a kind of Gramscian-Foucauldian contagion turns "hegemonic" into another name for
> the status quo (i.e., everything that *is*) and defines "subversive" in, increasingly, a purely
> negative relation to that (an extreme of the same "negative relation" that had, in
> Foucault's argument, defined the repressive hypothesis in the first place). (12-13)

Thus the afterlife of Foucault's framework has had the effect of reproducing that which he had set

out to critique.

In contrast, the temporal openness theorized as an element of trauma recovery

recognizes that even if you wanted to totally calcify and reify "what *is*," decide that you were a

passive consumer of (or abstainer from) paradigms, subjectivities, and norms ingested through

experience, you could not do so perfectly because "what *is*" is always changing. As experience

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[24] In addressing post-Foucauldian theoretical dynamics, Sedgwick underscores the fact that they are "reifying the
status quo" (*Touching Feeling* 13). One problem with this among many, she argues, is "what it does to the middle
ranges of agency. One's relation to what *is* risks becoming reactive and bifurcated, that of a consumer: one's choices
narrow to accepting or refusing (buying, not buying) this or that manifestation of it, dramatizing only the extremes
of compulsion and voluntarity. Yet it is only the middle ranges of agency that offer space for effectual creativity and
change" (13). Not only does the subject-as-consumer thus yield the power of *production* of meaning, she also allows
the full range of conceptual space between acceptance and refusal – especially the perpendicular or non-intersecting
planes of originality and initiative – to be evacuated.

varies over time, you are bound to end up with some sense of a *range* of experiential knowledge about the world you live in, among which you might be able to choose which to privilege. At the very least, this awareness of variety and variability, like Bourdieu's field of opinion, can in some measure suspend the sense of gravity and determining power of any one experiential narrative. Trauma theory's sustained focus on lived experience helps to enhance access to this sense of variety, moreover, in its commitment to the response to trauma as a process carried out over time.

Yet, in the discourse of trauma studies itself, a similar problem has been identified by Dominick LaCapra. What he describes here is the way that the bifurcation of agency combined with the paranoid habit of inexhaustible suspicion plays out when applied to trauma theory:

> In recent criticism [...], there has perhaps been too much of a tendency to become fixated on acting out, on the repetition compulsion, to see it as a way of preventing closure, harmonization, any facile notion of cure – but also, by the same token, to eliminate or obscure any other possible response, or simply to identify all working through as closure, totalization, full cure, full mastery. The result is a paralyzing kind of all-or-nothing logic in which one is in a double bind: either totalization and the closure you resist, or acting out the repetition compulsion, with almost no other possibilities. (145)

Determined to find compulsion and repression in every case, the paranoid impulse in trauma theory caricatures any alternative as "full mastery" in order to discount it. Yet, like Sedgwick, LaCapra perseveres in wondering whether there aren't really any other possibilities, whether there aren't "middle ranges of agency" still to be explored in this scenario (*Touching Feeling* 13).[25] LaCapra's objection seems to have more traction here, in the context of trauma theory, than a similar one might were it couched in more general terms of agency and consciousness. In order to better understand the relationship between subjective everyday experience, variability over

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[25] For example, Sedgwick associates the "middle ranges of agency" with "the notion that you can be relatively empowered or disempowered without annihilating someone else or being annihilated, or even castrating or being castrated" ("Melanie Klein" 632).

time, and the ability to perceive broader ranges of possibility, I now turn back to applications of Bourdieu.

Interlude: Habitus, Lived Experience, and Time

One way around the dialectic explored by LaCapra and Sedgwick can be found in Bourdieu's theory of the *habitus*, which fundamentally posits an agent as situated in, informed by, yet *not* ineluctably determined by, their social and cultural milieu. The habitus could be conceptualized as the body of habits, gestures, assumptions, and know-how that tend to accompany adherence to a given doxic paradigm. Bourdieu defines it as "the 'feel' for the game and the stakes, which implies both the inclination and the capacity to play the game, to take an *interest* in the game, to be taken up, taken in by the game" (*Sociology in Question* 18). As Hoy argues, "Bourdieu intends the habitus to be beyond the usual antinomies of free will and determinism, or conscious and unconscious agency, or even the individual and society"[26] (106). In accounting for the process by which specific learned practices and values (say, the practice of bowing or shaking hands) come to be perceived as common sense by their practitioners, Bourdieu does not take for granted that the distinction between individual and society should be primary, or that what one is accustomed to can or should be fully separated out from one's individual beliefs and preferences.

Strictly speaking, one could argue that Bourdieu's formulation of agency overlaps substantially with Foucault's in that it posits an individual who perceives herself as having agency and choice while her choices are in fact determined by her social context. A crucial difference,

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[26] Here Hoy cites Bourdieu, *The Logic of Practice* (Stanford, CA: Stanford UP, 1990) 55.

however, is that for Bourdieu this is a general trend rather than a *rule*; an escape valve exists in his theoretical system where it is absent in the Foucauldian and paranoid models. The Bourdieuian subject can experience an awakening by which she is able to perceive the doxa as such, and recognize the arbitrariness of its norms.

The story of what happens to a subject after the doxic paradigm to which she had become attached is disrupted is told by Brison, whose account of recovery from trauma is most consonant with that of Judith Herman – and with Sedgwick's description of Klein's reparative process in the depressive position. All three feminist theorists understand this process not as a restoration of the original, pre-crisis self and world, but as a making anew.

"You will never be the same. But you can be better." This is the message that Brison received at the first rape survivors' support group meeting she attended, and it is a focal point for the conclusion of the first chapter of *Aftermath* (20). Its conveyor, group facilitator Ann Gaulin, explains this concept in a way that articulates uncannily well the impact of the disruption of the doxa on individual agency and choice: "When your life is shattered, you're forced to pick up the pieces, and you have a chance to stop and examine them. You can say 'I don't want this one anymore' or 'I think I'll work on that one'" (qtd. in Brison 20). Although Brison emphasizes that this is not a path she would have chosen, she does attest that it has afforded her "important skills and insights" (20). The aftermath of a trauma-induced disruption of one's doxic world can be described as alienation, which can often be both an emotionally troubling and a critically enriching experience.[27] As Herman describes this process, it is akin to doxic disruption: "Survivors whose personality has been shaped in the traumatic environment often feel at this

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[27] See also Janoff-Bulman: "Survivors have learned through painful personal experience that their fundamental assumptions were illusions. What remains for them to decide, ultimately, is the extent to which they were illusions" (143).

stage of recovery as though they are refugees entering a new country. [...] They must build a new life within a radically different culture from the one they have left behind" (196). Here, the "different culture" can be likened to the change in habitus that attends the shift in doxic alignment. Those who have spend time living in a different country from the one in which they were raised – particularly if the new culture differs substantially from their native one – know how uncomfortable this sense of alienation can be to live with, and also how educational the realization, achievable on some level only through lived experience, that so many of the cultural norms of one's native land are local (and arbitrary) rather than universally held. From that point on, even after your return, you feel freer to choose among them. As a result of what I term *critical alienation*, the self-evidence of given paradigms is no longer taken for granted.

Where does one go from there? Brison concludes that she is "recovered" in the sense of being "able to incorporate this awful knowledge into [her] life and carry on," even though she will never be able to return entirely to her pre-trauma self (21). This model of recovery is remarkably consonant with Klein's model of the reparative process, as Sedgwick describes it:

> It is worth emphasizing that Klein's rhetoric of reparation does not assume that the "repaired" object will resemble a preexisting object—there is nothing intrinsically conservative about the impulse of reparation. Once assembled, these more realistic, durable, and satisfying internal objects are available to be identified with, to offer one and to be offered nourishment and comfort in turn. ("Melanie Klein" 637)

How is it that the new elements of the subject's world are more "realistic, durable, and satisfying" than the old ones? I believe that this is due not so much to the fact that the new worldview is truer than the old in its specific knowledge of the world as it is to the subject's new *approach* to knowledge about the world, one that allows more room for uncertainty and change.

Along similar lines, Brison concludes her final chapter by emphasizing the value of flexibility. She reflects:

It's not a tragedy. The story doesn't have an ending. [...] 'Tragedy,' Wittgenstein wrote, 'is when the tree, instead of bending, breaks.'[28] What I wish most for my son is not the superhuman ability to avoid life-threatening disasters, but, rather, resilience, the capacity to carry on, alive in the present, unbound by dread or regret. Not the hard, flinty brittleness of rock, but the supple tenacity of the wind-rocked bough that bends, the bursting desire of a new-mown field that can't wait to grow back, the will to say, whatever comes, *Let's see what happens next.*" (117)

This passage is worth quoting at length not only because of its beauty but because of the crucial way it weaves together the elements of survival, flexibility, the absence of dread (or paranoia), and openness to the change brought by time. Sedgwick observes, "To recognize in paranoia a distinctively rigid relation to temporality, at once anticipatory and retroactive, aversive above all to surprise, is also to glimpse the lineaments of other possibilities" (146). And it is the supple relation to temporality that Brison expresses that brings home the recognition of "what *is*" as variable, as consisting of a fluid range rather than a static, closed set, as discussed earlier. This, in turn, is what provides an alternative route for agency beyond the stagnating binarism of hegemony and subversion: the hypostatization of agency as a negative relation to what *is* makes less sense – both in the sense that it becomes less logically coherent and that it seems less necessary or urgent – when what *is* is always in flux. Time, the fourth dimension, is what allows for movement and change; so it is not surprising that its acknowledgement should be so central to the escape of a seemingly closed, static theoretical structure.

In the Introduction, I referred to traumatic memory as "a vortex or funnel, such as might be formed if a heavy object, such as a stone, were dropped onto a flat yet flexible plane, such as an outstretched net:" (Ahern 9)

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[28] Here Brison cites Wittgenstein 1e, and notes, "My translation differs slightly from Winch's."

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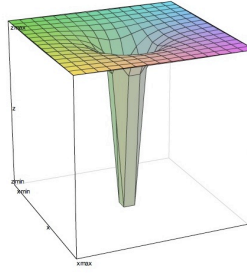
I used this three-dimensional graph earlier to represent consciousness and the way traumatic memory "pulls" conscious thought toward itself, so that even quite tangential thoughts or experiences gravitate toward and the content of the traumatic memory. But this geometric model can also be useful in understanding the constricted relation to *temporality* in traumatic memory. In this application, the plane would represent consciousness of the range of time and the breadth of the subject's many, varied experiences, while the vortex illustrates the much smaller range of experience and time in which the traumatized subject feels "stuck" while in the grip of traumatic memory. Trauma theory is deeply concerned with the singular relationship to temporality in trauma; Herman, for example, warns that the process of confronting a traumatic memory consciously "requires immersion in a past experience of frozen time; the descent into mourning feels like a surrender to tears that are endless" (195). Inhabiting this constricted space, like having fallen down a well, you can neither see nor access the expansiveness of the terrain above, and its resources, no matter how plentiful, are useless to you. The support of loved ones not immediately present, past achievements, hopeful plans for the future: all feel as pitifully remote to the traumatized subject as a rope coiled up just beyond the top of the well.

Recovery is the process by which weight of the trauma is attenuated and the surface of time, as it is consciously experienced by the subject, begins to even out. For Herman, the restoration of the subject's relationship to time is central to recovery: when it is achieved, she says,

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"[t]ime starts to move again. When the 'action of telling a story' has come to its conclusion, the traumatic experience truly belongs to the past" (195). Similarly, the vortex of a doxic paradigm (such as paranoid theory) confines the subject in a small space in which objects appear more proximate (to the observer and to one another) than they otherwise would, there is little room for lateral movement, and perception of the broader expanse of space beyond the vortex is limited indeed. When the power of the doxa lessens, likewise, access to that space is restored.

III. Questions of truth, depth, and coherence cede to questions of aesthetics, surfaces, and fragmentation.

Circling around questions of time, experience, the variability of the world and the flexibility of the self are even broader questions concerning knowledge, truth, and subjectivity under postmodernism. In this chapter, these will culminate in the questions, What constitutes contemporary subjectivity? Can we conceive of an autonomous subject? These questions are logically preceded, however, by questions of epistemology. Postmodernist thinking can generally be characterized, as Patricia Waugh puts it, as "a gradual displacement of discovery, depth, truth, correspondence and coherence with construction, surface, fictionality, self-reflexive narrative and ironic fragmentation" (292). At first glance, it could appear that this movement parallels the shift from coherent pre-trauma identity to post-traumatic fragmentation and senselessness; but upon closer inspection the picture appears much more complicated. Treatments of knowledge, memory, narrative, and consciousness in trauma studies comprise an approach that is much more complex than the dichotomy posited in postmodern theory.

In Cathy Caruth's account, knowledge and the conscious self have a fraught and complex relationship in traumatic memory: trauma becomes very much about what is unknown – and unknowable – to the subject.[29] But it is not only that: Caruth devotes *Unclaimed Experience* to probing "the complex ways that knowing and not knowing are entangled in the language of trauma and in the stories associated with it" (4). Caruth's account focuses on the "belatedness" of traumatic memory: deeply grounded in the works of Freud, she understands trauma as an event that cannot be "fully assimilated as it occurs" and therefore haunts the subject in the form of repetition, flashbacks, and other forms of possession of the subject (5).[30] This formulation of knowledge and memory seems to share postmodernism's investment in an (at least partially) unknowing subject without, however, suspending the belief in truth per se. Instead, the concept of depth assists in assembling Caruth's explanation of how an event can be real, influential, and yet not fully available to the subject's conscious recognition — owing, of course, to the legacy of psychoanalysis.

In its unruly and involuntary nature, traumatic memory is often contrasted with narrative memory,[31] which supposedly is coherent, chronologically ordered, and at the subject's command.[32] But here, too, the picture has gotten more complicated. Brison, for example,

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[29] Petar Ramadanovic has tied Caruth's account of this relation to unknowingness to modern subjectivity more generally. In *Forgetting Futures: On Memory, Trauma, and Identity*, his chapter on Caruth "argues that Caruth's notion of trauma as unclaimed experience charts a history of the modern subject as a history of implication. This subject is recognized by its inextricable ties to what cannot be experienced and subjectivized fully. And this unfinished becoming, surviving, and being with others, is the form of the subject's being and its history. The modern subject is thus defined as culturally and politically a diasporic subject, en route toward subjectivity and so en route toward memory" (5).

[30] See also Caruth, *Trauma: Explorations in Memory*, 4-5, as well as LaCapra 41.

[31] In fact, some theorists have argued that traumatic memory cannot be called memory per se, since trauma is, on their account, to violent to be directly accessible (Bal et al. viii; see also Golden).

[32] See Bal et al. x, as well as Herman 175-6.

questions the distinction many try to make between the two types of memory, arguing that

"[t]raumatic memory, like narrative memory, is articulated, selective, even malleable, in spite of

the fact that the framing of such memory may not be under the survivor's conscious control"

(31).[33] We must be careful not to overgeneralize from its more intransigent aspects and so lose

sight of its more pliable features. In addition, Brison reminds us of the mediated, subjective

nature not only of *all* memory but of all experience: she argues that there exists

> a gap between the event (which may be described in countless ways) and the experience
> of it. [...] Events are experienced by means of representations – sensory perceptions,
> bodily sensations, and linguistic classification [...], and these are all influenced by the
> perceived cultural meanings of the events. (31)

This assertion could in some respects seem postmodern, since it is more about the construction

and perception of experience than about truth – at least, what Brison calls "snapshot" truth, in

which memories and representations are taken as factually identical to the events they represent.

And yet, she is not in fact taking a position on matters of depth or truth per se; her point is the

way that that perception (including social conditioning) constantly informs our sense of the

world. Thus Brison, like Caruth, offers an understanding of the situated, mediated, and partial

characteristics of human knowing that nevertheless has no interest in rejecting the existence of

truth itself.

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[33] Brison also argues: "As Andreas Huyssen notes, 'The past is not simply there in memory, but it must be articulated to become memory. The fissure that opens up between experiencing an event and remembering it in representation is unavoidable' (3). The tendency to take certain memories – traumatic memories – as simply given, and retained as snapshots, exists in trauma theory, when a distinction is made between traumatic memories (viewed as bodily, fragmented, sensory, intrusive, recurrent, uncontrollable) and narrative memories (viewed as linguistic, more coherent, more under control)" (30-1).

IV. Rational autonomy is rejected in favor of shifting, fluid, contingent subjectivity.

Autonomy is not only a close cousin of agency, the focus of this larger analysis, but also comprises what could be argued as the quest of the traumatized subject – and, indeed, the quest presumed of all subjects according to psychoanalytic theory over the past century. As Waugh defines it, "[a]utonomy involves the capacity to act in accordance with self-determined principles rationally formulated and not driven by irrational impulses from within or tyrannical pressures from without" (295); postmodernism's position on autonomy is immediately betrayed by the terms "self-determined" and "rationally." The subject of trauma, on the other hand, is plagued by both the latter pressures: intrusive traumatic memory (and perhaps a persistent perception of danger in the environment) that can be seen as simultaneously internal and external to the subject and even to the will. Yet this subjectivity certainly cannot be said to be "shifting" or "fluid" when in the grip of traumatic memory: instead, it is fixed and restrained all too rigidly by this specific, unilateral force.

In theorizing the subject's recovery from trauma, Herman not only swims against the tide to recover the concept "autonomy," she introduces a new association to it – perhaps a somewhat paradoxical one in that it centrally involves a community of others. She focuses on *empowerment* – a term with even greater power to raise the hackles of postmodern skepticism – which, according to community activists Evan Stark and Anne Flitcraft whom she cites, can be defined as "the convergence of mutual support with individual autonomy" (134). The notion that the influence of others could provide a salutary and supportive complement to autonomy, of all things, contrasts markedly with the paranoid structure of expectations of other people. In this

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account, relationality is highlighted while being conceived as reinforcing, rather than as inimical to, individual autonomy.

Whereas perspectivism of "strong" postmodernism hypostatizes a "protean, fluid, centreless subjectivity" (Waugh 302), feminist trauma theorists such as Brison and Herman foreground a relational self. In this context, trauma and positive community bonds are seen as countervailing influences on the self, one destructive and the other reparative. Herman puts it this way:

> The solidarity of a group provides the strongest protection against terror and despair, and the strongest antidote to traumatic experience. Trauma isolates; the group re-creates a sense of belonging. Trauma shames and stigmatizes; the group bears witness and affirms. Trauma degrades the victim; the group exalts her. Trauma dehumanizes the victim; the group restores her humanity. (214)

Brison similarly affirms "a view of the self as fundamentally relational – capable of being undone by violence, but also of being remade in connection with others" (xi). It seems as though, perhaps somewhat paradoxically, the self in this account is even less autonomous, in the sense of being isolated, than the postmodern subject; but it is more distinct. Here, community ties provide solidity and definition to the subject – but according to the empowerment formula discussed by Herman, it does so at the behest and through the (more or less) conscious choice of the subject.[34] This model of relationality puts a face on that which influences identity, rather than focusing on more abstract social forces or institutions.

Finally, philosopher Kristen Brown Golden posits not a protean subjectivity for the subject of trauma so much as a somatic, even cellular one. Rather than homogenizing the self, evacuating it of substance in order to render it a surface for the imprinting of social norms, she considers the self and the body both as complex communities in themselves within which

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[34] This can be contrasted with the isolation of the experience of traumatic memory, as described by Bal et al. (x).

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communication is always happening. Beginning from Merleau-Ponty's premise that corporeity

is the basis for communication, she argues that the reverse is equally true. Focusing on the

adaptive processes undertaken by the autonomic nervous system after a cervical spinal cord

injury, she reminds us that the body itself is created, sustained, and even repaired through

complex and extensive processes of internal communication, "interrogating and responding to

felt needs" (79). (While Golden's essay is based on the nervous system, her point could be

extended to the immune system, endocrine system, cell membranes, protein synthesis, and any

number of other components or faculties of the body.) Emphasizing the active nature of the

body itself in "creating/negotiating the boundaries between the self, others, and surroundings"

(84), she argues that "the body's surface can no longer be viewed as merely a static or given sign,

but rather one that is hard won and actively differentiated by the animal itself from its

surroundings" (76). The implication of her argument for postmodernist premises is this: if not

even the body can be conceptualized as a passive object, a blank surface, how much less so the

subject?

Conclusion

Composing a varied range of new subjective and relational configurations out of the

dichotomies presented by postmodernism, trauma theory not only suggests but *demonstrates* the

possibility of multiple alternatives to reigning binarisms, populating them, enacting them.

Agency and passivity can be interleaved without canceling each other out; a supple relation to

temporality precludes the reification of "what *is*", potentially diffusing the unanimity of a purely

negative relation to it. Presented with the choice between addressing the subjectivity of

knowledge or matters of truth and depth, trauma theory instead demonstrates how the two

realms of concern can be thought together. Likewise, the formulation of empowerment unites

autonomy and community, in a model of relationality in which the social adds to and defines,

rather than detracts from, the integrity of the individual.

Especially in its theorization of recovery, trauma studies offers a way around the specific

limitations and liabilities of the paranoid position. While, as Sedgwick observes, "to theorize out

of anything *but* a paranoid critical stance has come to seem naïve, pious, or complaisant"

(*Touching Feeling* 6), the work of trauma studies is anything but naive; its ethical responsibility

toward its subject ensures that. Instead, it substantiates the possibility that Sedgwick had

suggested: that a full apprehension of horror need not be allowed to vitiate one's investment in a

reparative response. I do not mean to argue that it is the only field that can do so, but it is

certainly a valuable one.

In the discursive pursuit of epistemologically reliable, incisive, efficacious theoretical

frameworks, it is possible that we underattend to the role of affect – particularly social affects such

as shame or the anticipation of popularity or unpopularity – in the way we perceive, judge, and

reproduce one approach rather than another. Eradicating affect from our scholarly projects

would not only be impossible, it would have flattening effects on the motives that drive this work

as well as the richness of its substance. But cultivating an awareness of the contours of our own

intellectual affects, and investigating the ways in which they interact with and shape our

theoretical habits and our conclusions, would be of enormous value. Otherwise, we risk critical

blindness to the affective side of the cognitive/affective components of theory, and thereby

insensitivity to the instances in which one masquerades as the other – a compelling affect

funneling thought toward a certain conceptual conclusion, or a compelling concept funneling

affect toward a certain political conclusion. I find that this is often the case in the "suggestive,

pleasurable, and highly productive" criticism that a strong theory can underpin (*Touching*

Feeling 136). Sedgwick warns:

> The powerfully ranging and reductive force of strong theory can make tautological thinking hard to identify even as it makes it compelling and near inevitable; the result is that both writers and readers can damagingly misrecognize whether and where real conceptual work is getting done, and precisely what that work might be. (136)

Our liability to this sort of misrecognition can be abated, however, through an expansion of our

critical and self-reflexive faculties to include a more sophisticated apprehension of the role of

affect in epistemology. When we are better able to recognize and describe *why* and *how* – in

what specific register – a given argument or theory is compelling, we retain access to the full

range of possible responses to it, an open repertoire of creative means of putting its conceptual

resources to use.

Imagining the Brain in Contemporary Discourse: On Agency and Determinism
in Contemporary Critical and Public Receptions of Neuroscience

      Daniel G. Amen is an entrepreneurial guru in the thriving new self-help industry based

more or less loosely on neuroscience. A psychiatrist by training, he has set up a single photon

emission computed tomography (SPECT) scanner and sells elective brain scans to the public –

on a scale of "tens of thousands of patients from 75 different countries," according to his website.

Moreover, he has written dozens of books on brain optimization, including *New York Times*

bestseller, *Change Your Brain, Change Your Life*. The widespread criticism to which he has been

subjected by academic psychiatrists and neuroscientists[1] has not dampened the success of his

business: the appeal of personalized medical advice and lifestyle tips accompanied by (if not

actually based on) a three-dimensional image of one's brain effectively overrides the lack of

scientific evidence for his claims. Neuroscientists at the Penn Center for Neuroscience and

Society observe, more precisely, that the SPECT imaging that Amen conducts (exposing his

clients to radiation in the process) is quite epiphenomenal to the "diagnosis," "treatment," and

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[1] For some print examples of this criticism, see Andrew F. Leuchter, review of *Healing the Hardware of the Soul: Enhance Your Brain to Improve Your Work, Love, and Spiritual Life*, by Daniel G. Amen, *American Journal of Psychiatry* 166:5 (2009): 625. and Gene Wright, "Letter to the Editor: Special Issue on Bipolar Disorder," *Journal of Child and Adolescent Psychopharmacology* 14:3 (2004): 332-34.

improvement of his clients.[2] While his operations arouse ire among neuroscientists, they also

raise a larger question for humanists seeking to engage the sciences: if technological science such

as neuroscience has so much cultural authority at present that even the most suspect applications

of it command a considerable following, how can the humanities engage it on an equal plane? To

begin to answer this question, we need a sustained inquiry into the complex ways the brain is

imagined in relation to conceptions of the self, and the issues and values that underlie the

privileging of received neuroscience in the cultural context of our academic projects.

 Observations of the gulf between the "two cultures" of sciences and humanities are

longstanding.[3] Today, even as neuroscience garners remarkably broad public appeal, and social

sciences engage it through scholarship in both the history of science and science and technology

studies, the humanities are somewhat more reticent by comparison. Much of feminist theory

remains quick to dismiss biological science as a potential ally, to its own detriment, as Elizabeth

Wilson has observed.[4] Literary criticism involving neuroscience is a fledgling field, and struggles

against the current disparity in cultural capital between the two disciplines. Interdisciplinary

work between neuroscience and the humanities is of great value, but a more level playing field is

required in order to avoid the sort of methodological reductionism that simply subordinates one

discipline to another. In order to make a sounder, more substantial engagement possible, a more

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[2]Martha Farah, personal communication, August 3, 2010; Jeffrey K. Aguirre. "'Other' Neuroimaging Methods: PET, SPECT, NIRS, Etc., and Clinical Applications." Lecture presented at the Penn Intensive Summer Institute in Neuroscience, University of Pennsylvania, Philadelphia, 3 Aug. 2010.

[3] See C. P. Snow, *The Two Cultures and the Scientific Revolution: The Rede Lecture* (New York: Cambridge University Press, 1959).

[4] Elizabeth A. Wilson, *Psychosomatic: Feminism and the Neurological Body* (Durham: Duke University Press, 2004).

thorough understanding of how received neuroscience currently figures in public and academic discourse is needed.

In the investigation of the contemporary fascination with the brain and with received neuroscience that follows, I argue that this fixation is supported by a complex, reciprocal network of underlying concerns. Chief among these the attention commanded by mechanism, or the concept that our subjective thoughts and emotions have material correlates.[5] This idea compels us so in that it dramatizes our struggle to wrap our minds around a theory of knowledge that involves multiple sites of agency (volitional and material, biological and subjective), and multiple actors (genes *and* persons, choices *and* neurotransmitters), without ultimately boiling them down to one central explanatory force. Corollary to this concern is our entanglement in the dialectics of free will and compulsion, which becomes all the more complicated as issues regarding the will are also bound up in normativity and its resistance. Also essential to the draw of received neuroscience, of course, is our reverence for technology, the close associations we

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[5] I would like to clarify my use of the terms "we," "us," and "our" in this chapter. Since much of my subject matter in this chapter is comprised of the perceptions, opinions, and critical habits of groups to which I belong – the public, the academy, and literary critics in particular, in the contemporary West – I find myself making relatively frequent use of the first person plural. To a large extent, this practice is endemic to the discourse at hand; it can often be found in the work of science studies scholars analyzing popular modes of thought. Prominent among them, Nikolas Rose meditates on the challenge of using these terms in projects that staunchly affirm the importance of the heterogeneity of regimes of the self in the West, concluding that "there is a common normativity – a kind of family resemblance in the regulative ideals" that seek to govern this diverse citizenry (Nikolas S. Rose, *Inventing Our Selves: Psychology, Power, and Personhood*, Cambridge Studies in the History of Psychology (New York: Cambridge University Press, 1996), pp. 2-3). Moreover, this emphasis on commonality corresponds to the discourse on which it is based: received neuroscience, which tends to be perceived as making universalizing claims. Yet it is important to keep in mind that, while some neuroscientists and many more self-help pundits who claim to cite neuroscience would say their claims are universal, but they are also speaking to an audience of interested parties: those who voluntarily access and consume these discourses (such as Western techies, enthusiasts of the new modes of self-optimization, et al.). To a certain extent, then, this first-person plural likewise operates on an opt-in basis: to the extent that one can comment on how "we" are currently imagining the brain, this "we" is comprised of those who are thinking about the brain in the first place; to the extent that one can make observations regarding how "we" countenance new technologies, this "we" is comprised of those who are concerned with this sort of thing.

draw between technology, science, and the future, and the way all of these appeal to our love for elite knowledge.[6]

As I am concerned that the humanities cannot carry off an engagement with neuroscience, in the single-actor, hierarchical theory of knowledge that currently pervades, apart from the unfortunate dichotomy so far established of ungraceful prostrations to science and rather ungracious claims that artists are "far ahead" of scientists in their apprehension of the human condition, this chapter proposes a new theory of knowledge more conducive to integrative progress. Observing a fundamental commonality between the framework that compels the privileging of either the mind or the brain and that which compels the privileging of either scientific or humanistic accounts of the subject, I argue for a theory of knowledge that allows for multiple subjects and levels of agency, and that can conceive that distinct accounts from diverse epistemological sources may still make contributions of equal value to the same object of inquiry. This chapter aims, then, to contribute to the advancement of postdisciplinary methodologies of both literary criticism involving neuroscience in particular, and collaborations between humanities and sciences more broadly.

In pursuit of these goals, I begin with a theoretical analysis, in dialogue with other science studies scholars, of three organizing issues underlying the reception of neuroscience and invocations of the brain: the conflation of mechanism with determinism, ambivalence surrounding agency and determinism regarding the brain, and the reception of neuroscience as a

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[6] In my analyses of self-help discourse and other public opinion, my position is neither that of an antifetishist nor that of a causalist, to take up Bruno Latour's terms (Bruno Latour, "Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern," *Critical Inquiry* 30:2 (2004): 225-48). In other words, I am not operating on the presumption that the public is deceived in some way – whether in revering what they revere or in believing in their own agency. In fact, I do not exclude academics (least of all myself) from "the public" – while academic and popular discourses may differ from one another, they are not mutually exclusive. In analyzing these patterns of meaning-making, I don't presume to locate agency in one particular place; I seek to understand and interpret the meanings that are produced, not to evaluate their status as objective truth.

supreme epistemology in discourses of selfhood. From there I move to an analysis of the main

patterns that have emerged in the fledgling field of literary criticism involving neuroscience, and

the problems and potential I see in that field. Finally, I advance an analysis of the theory of

knowledge that unifies public and academic attitudes toward neuroscience and toward

mind/brain issues. I then offer a new theory of knowledge and corresponding methodology that

could take postdisciplinary scholarship further toward the goal of an integrated understanding of

the human.

The Brain and the Self

Particularly over the past decade, a scholarly discourse has emerged that analyzes the

neurosciences and their public reception. A diverse community made up of anthropologists and

biomedical ethicists, neuroscientists and historians of science, these scholars critique the

conceptualization and public circulation of scientific notions of the brain, particularly in the area

of neuroimaging.

Perhaps the most fundamental observation of this field is the contemporary equation of

the subject with the brain. As medical historian Francesco Panese points out, "[t]he

neuroscientific question 'how does the human brain work?' has become more and more

inseparable from the question 'what does it mean to be human?'"[7] Inquiry into the cultural

phenomenon of "brainhood," or "the property or quality of being, rather than simply having, a

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[7] Francesco Panese, "The Neural Basis of What? Discontents in Defining 'Human Nature'," *Frontiers in Human Neuroscience* 3:(2009): 1-3.

brain,"[8] is precisely the focus of several recent projects by Fernando Vidal, a historian of science at the Max Planck Institute for the History of Science in Berlin, and Francisco Ortega, a philosopher at the Institute of Social Medicine at the State University of Rio de Janeiro. Their collaborative project, "The Cerebral Subject: Brain and Self in Contemporary Culture," brought together many scholars working on the cultural reception of neuroscience in Germany and Brazil in the latter half of the last decade. If brainhood is the cultural framework under which we imagine the brain to be identical to the self, then the cerebral subject (of which the neurochemical self may be understood as one more specific component) is the sort of subject postulated under this framework.[9] From here, a broad array of additional concepts and terminology proliferates.[10]

Vidal provides a long history of the concept of brainhood and its precursors, tracing Western dualism and advocating the Christian tenet regarding the resurrection of the body as an alternative to what he sees as identification of the body as superfluous in comparison to the brain

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[8] Fernando Vidal, "Brainhood, Anthropological Figure of Modernity," *History of the Human Sciences* 22:1 (2009): 5-36.

[9] As Vidal puts it, the subject for brainhood is the "cerebral subject," a term also coined independently by French sociologist Alain Ehrenberg in 2004. This term, Vidal explains, "is used in the spirit of Nikolas Rose's (2007: ch. 7) 'neurochemical self', i.e. not to designate an entity reified and attributed 'effects' and 'embodiments', but rather kinds of persons or modes of being that correspond to certain accounts of personhood by virtue not only of discourses, but also of concrete practices, such as when psychiatry gives up the distinction between organic and functional disorders, postulates that the 'mind is what the brain does' – the mantra of the brainhood ideology – and acts accordingly (see also Novas and Rose, 2000, on the related rise of 'somatic individuality')" (Ibid., p. 27).

[10] For additional terminology, see Ortega and Vidal: "Psychological and internalistic notions of personhood are substituted by somatic 'bioidentities.' These are constituted through a "bioascesis," or practices and disciplines of the self that reproduce the rules of biosociality at the subjective level. Among those practices, "neuroascesis," or a cerebral self-discipline aimed at maximizing brain performance, has gained considerable momentum, and defines one of the many worlds of the neuro universe. This particular culture is socially significant in that it contributes to the formation of neurosocialities and neuroidentities" ("Mapping the Cerebral Subject in Contemporary Culture," *RECIIS - Electronic Journal of Communiation Information & Innovation in Health* 1:2 (2007): 255-59, quotation on 257).

(and thereby the mind).[11] He identifies the emergence of brainhood in the philosophy of Locke,[12] and argues, "We 'have' bodies only in the perspective of the post-Lockean possessive individualism that makes us their owners; objectified and distanced from our 'selves,' our bodies are for us things we own, not entities we are" (935-6). It seems, however, that this view is now changing precisely as a function of the fascination with the brain. We perhaps first re-approach the idea of "being" our bodies through the assertion perceived to exist in neuroscience that we are our brains (and thereby our bodies). At the same time, we "have" brains and imagine that we can improve, modify, and use them much as we think of doing with computers, so in this respect the Lockean perspective still pertains. Still, it seems odd that Vidal concludes the essay by proposing that the doctrine of the resurrection of the body can be "an inspiring story for those who, against the neurological reduction of self, would rather live with body, desire, history and the other than in the solitude of isolated brains" (974). This formulation is hardly reconcilable with the fields of social neuroscience or neuroanthropology, which are devoted to the work of studying the brain in social and cultural context. Moreover, it figures oddly in the question of whether the brain is opposed to the body or the mind. It seems to me that it is the corporeality of the brain that is particularly striking in the era of postmodern constructionism and unease regarding materiality, but Vidal seems to take issue most with the idea that the body can be reduced to the brain, rather than with the notion that the mind can be reduced to the brain.

Nevertheless, Vidal's point is interesting when considered in light of the question of how the current focus on the brain could have turned out otherwise. Even if we were still to adhere to

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[11] Fernando Vidal, "Brains, Bodies, Selves, and Science: Anthropologies of Identity and the Resurrection of the Body," *Critical Inquiry* 28:4 (2002): 930-74.

[12] This point also appears on page 13 of "Brainhood."

the nervous system as a focus, the central nervous system involves more than the brain, and the brain depends on other parts of the body, particularly the endocrine system, to supply the hormones it uses in basic functioning. Yet we're not reading books and doing exercises to try to enlarge our adrenal glands, for example. Since the brain does not do even its most proprietary jobs alone, it is odd that we think of it in isolation. As for identifying with one particular organ or system as the seat of the phenomenological self, we have many other candidates for this site of identification. For example, even if we were to focus only on the sensory systems and others that directly pertain to how we feel subjectively, how we respond, our "instincts," our subjective selves, as opposed to our bodies conceived as objects or as animals apart from the mind, it would be very possible to imagine identifying, as we currently do with the brain, with our bodies more generally. Colloquially, we say that we "know in our bones," feel in our gut, and experience great joy or pain in our hearts – and, in fact, psychiatrists and neuroscientists such as Richard D. Lane are currently exploring these sensations under the rubric of the mind-body connection.[13] Our choice of the brain as the central locus of the self was by no means a necessary one.

This sort of attributional slippage, from identity to brain, can be found in the genre of popular neuroscience, beginning with books such as Joseph LeDoux's landmark *The Emotional Brain* (1996) and Simon LeVay's *The Sexual Brain* (1993). More recent titles such as Louann Brizendine's *The Female Brain* (2006) and *The Male Brain* (2010) give a similar functional overview, describing the brain processes of humans in certain specific roles, contexts, or conditions (e.g., adolescence, the workplace, etc.) with the aim of providing the general public

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[13] Lane and his colleagues are working innovatively at the interface between neuroscience and psychosomatic medicine, or medicine that focuses on mind, body, and social context connections. See R. D. Lane et al., "The Rebirth of Neuroscience in Psychosomatic Medicine, Part I: Historical Context, Methods, and Relevant Basic Science," *Psychosomatic Medicine* 71:2 (2009): 117-34, and "The Rebirth of Neuroscience in Psychosomatic Medicine, Part II: Clinical Applications and Implications for Research," *Psychosomatic Medicine* 71:2 (2009): 135-51.

with ways of understanding what they observe and with advice on how to interact with others in these states. Journalist Katherine Ellison's *The Mommy Brain: How Motherhood Makes Us Smarter* (2005), while distinct in both its nonscientific authorship and its central aim (not simply to give a general overview but, more pointedly, to counter negative stereotypes), is comparable in terms of the way it situates "the brain" in a social/functional context that then defines it – both grammatically and symbolically. What semantic difference is there, we might ask, between the brain of a mother and the mommy brain? Between the brain of a female and the female brain? This subtle syntactic shift bears some commonality with the sort of brain labeling critiqued by scholars of the popular reception of brain imaging.

Some of the reason for the exclusive focus on the brain in popular receptions of neuroscience may, in fact, result from the popularity of brain imaging in particular. Canadian neuroethicists Éric Racine and Judy Illes have coined a useful term for this phenomenon: "neuro-essentialism" (160). As they put it, "[t]he concept of 'neuro-essentialism' reflects how fMRI research can be depicted as equating subjectivity and personal identity to the brain" (160). As a number of brainhood critics suggest, this phenomenon has to do not only with the currently prevalent cultural belief in brainhood, but also with the particularities of visual epistemology: the significance, for scientists as well as for the public, of being able to literally present a picture of the brain under a certain condition (whether a particular mental illness, an emotion, or a task). Thus furnished with a visual representation to point to regarding brain activity during a particular experience, there is often a slippage into receiving this image as a snapshot of the mind itself. Images of brain scans, as Anne Beaulieu argues, have

> taken on what might be called an iconic role, standing for what I have termed 'the mind-in-the-brain' (Beaulieu 2000a). [...] These biological rainbows [...] are widely used to figure the higher mental functions – broadly defined – evoking concepts ranging from

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consciousness to humanness. (55)

It would seem, in fact, that simply having a phrase (such as "the mommy brain") or image available to attach to a certain brain invites a substantial amount of inference regarding functional-biological links to identity. Whether this is because we tend to assume that any instance of materiality entails a solidifying of the subject, or whether this proclivity has other, even more obscured sources, remains unclear.

To compound this complex identification, the conflation of brain scan with human has led to the propagation of the notion of different "kinds" of humans based on different brain scans, as other scholars, most prominently anthropologist Joseph Dumit, have observed. Commenting on PET images labeled NORMAL, SCHIZO, and DEPRESSED, Dumit argues, "These images insist that there are at least three *kinds* of brains. Presumably, these brains belong to different people – who are three different *kinds* of *persons* because their brains are not the same" (6). Accordingly, Dumit's project traces "[t]he cultural and visual logics by which these images persuade viewers to equate person with brain, brain with scan, and scan with diagnosis" (6). Again, it may be the materiality of the scan combined with the materiality of the brain, in addition to the unique current cultural responses to visual representations of scientific knowledge that Beaulieu describes, that facilitates this train of associations. That does not at all mean, however, that the perceived relationship between brains and human categorization is self-evident. Dumit advocates "attending to social and institutional forces in order to understand how it is that we look to the brain for an answer" regarding identity and its classifications (6).

This challenge is taken up, in part, by the newly initiated field of critical neuroscience, as articulated by Suparna Choudhury, Saskia Kathi Nagel, and Jan Slaby, a neuroscientist, cognitive

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scientist, and philosopher, respectively.[14] They write, "In particular, this project responds to the

recent focus on the question of neural distinctions between 'kinds' or categories of people [...]"

(62). Critical neuroscience can be described as a branch of brainhood discourse that extends into

the brain sciences, seeking not only to critique them from the outside, so to speak, but to engage

and impact the way in which neuroscientists themselves conceive of their work.

A related intellectual movement, in response to this recent trend in brain-typing, is the

neurodiversity movement, chronicled by Francisco Ortega, among others.[15] Ortega and Vidal

also provide a concise explanation of its core concerns:

> On the positive side, brain images help de-stigmatize mental illnesses by graphically
> confirming that they are conditions of the brain. Patients understand themselves not as
> "having," say, depression, but as being a particular kind of person, a depressed person, by
> virtue of having (or rather being) a certain brain type. "Neurodiversity" becomes a value
> that "neurotypicals" must respect. (257)

Whereas respect for certain sorts of neurodiversity, as a sort of brain-based identity politics,[16]

may be a potential salutary outcome of brainhood, the deterministic and typing capacities with

which the brain is attributed here still suggest that we are now investing this organ with

tremendous significance, the extent and causes of which we have not come close to realizing in

full.

To the extent that we do think of the brain in particular as what we are, in any case, I

would argue that the role it pays for us is that of not only our identity, but also a structuring force

that seems external to identity and the will. As I will discuss in more depth in the next section, the

brain is often cited in everyday conversations as what accounts for that which goes beyond,

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[14] More about the project of critical neuroscience can be found at http://www.critical-neuroscience.org.

[15] Francisco Ortega, "The Cerebral Subject and the Challenge of Neurodiversity," *BioSocieties* 4:4 (2009): 425-45.

[16] See Paul Rabinow's theory of biosociality, in Paul Rabinow, "Artificiality and Enlightenment: From Sociobiology to Biosociality," in *Incorporations*, ed. Jonathan Crary and Sanford Kwinter (New York: Zone, 1991), pp. 234-52.

counter to, or beneath our conscious, volitional mind: "Sorry, I'm trying to concentrate but my brain's not cooperating"; "My brain was telling me to turn left, but I knew that was wrong"; "My brain is working slowly today." In a sense, the brain is the new unconscious, if you like: a placeholder that helps us to explain ourselves to ourselves and to others, especially when we feel limited, in conflict, or not entirely in control.

Mechanism as Determinism

Closely related to the practice of equating the brain with the person is the widespread reception of fMRI and other brain imaging as a sort of ultimate validation of the phenomena they aim to measure. Racine, Bar-Ilan and Illes have an apt term for this as well – "neuro-realism" – which "describes how coverage of fMRI investigations can make a phenomenon uncritically real, objective or effective in the eyes of the public" (160). Examples they provide include press coverage of imaging studies that confirm that acupuncture can relieve pain, or that eating fatty food is enjoyable, by illustrating how the relevant regions of the brain are activated by these activities. These news stories demonstrate the odd, pervasive, and fascinating phenomenon of the substantial public excitement over studies that "prove" (or, perhaps, justify) via neuroscience basic things we already know, such as brain scans showing how we like candy. One might call this the neuroscience of the obvious, yet many find it quite compelling. Vidal makes a similar critique of neuroscience studies being used to make vast claims about human nature based on relatively little evidence, citing the term "brain overclaim syndrome," coined by Stephen J. Morse in reference to overextended interpretations of neuroscience in criminal law and questions of criminal responsibility, but useful in other contexts as well (23). It is worth investigating why it is

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that we greet these findings with such reverence and enthusiasm. Visual representation does

seem to be part of their appeal and perceived value: "neuro-realism reflects the uncritical way in

which an fMRI investigation can be taken as validation or invalidation of our ordinary view of

the world. Neuro-realism is, therefore, grounded in the belief that fMRI enables us to capture a

'visual proof' of brain activity, despite the enormous complexities of data acquisition and image

processing" (23). Undoubtedly the visual illustration of certain brain states, combined with the

labeling previously discussed, gives us a sense that the findings thereby presented are evident and

indisputable. And yet, to modify a point of Dumit's,[17] we would most likely not have the same

response if we were shown the same sort of "visual proof" of increased blood flow to the toe in

connection with a specific stimulus, such as the consumption of candy or the recollection of a

fond memory. Instead, we would be more likely to read this as one effect among many that may

be associated with the stimulus than we would be to infer that the seat of consciousness (or even

pleasure) is located in the toe. This suggests, then, that it is not only what we believe about visual

representations, and what we believe about scientific objectivity,[18] but also what we already

believe about the brain, in particular, that drives our response to such findings in brain imaging.

To linger upon this point a bit longer, our current ambivalent fascination with

mechanism may also be at work here. We seem to make a wide and perhaps unwarranted range

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[17] Here I refer to Dumit's modification of a thought-experiment of Wittgenstein's – that, were we to study brain flow in the toe in connection with experimental stimuli as we do brain flow in the brain, and collect a comparable amount of significant data, we would be unlikely to conclude that we had discovered the seat of selfhood in the toe. Dumit reviews this point: "But why is it that when we find a reading correspondence in the brain we are satisfied that we are in the right place? Because, suggested Wittgenstein, that is our form of life, our local culture. At certain points (and not others), we no longer ask for an explanation or a test of its truth; explanations come to an end" (Dumit, *Picturing Personhood* 20-21). Our local culture at present, then, does seem to believe in a certain specialness that should be attributed to the brain.

[18] See Lorraine Daston and Peter Galison, *Objectivity* (New York: Zone Books, 2007), as well as Dumit, particularly Chapter 5.

of inferences from mechanism – knowledge of the biological processes that underlie a given activity or sensation – ranging from determinism to a sense that this knowledge has explanatory power, or can provide justification for our attachment to the activity or sensation. Like neuro-realism more broadly conceived, discoveries concerning mechanism make us feel that the phenomenon they study is real, that it has a reason, and also perhaps that we can now consider ourselves to have less of a choice concerning this phenomenon, since, after all, it has a biological basis. The stock we put in biology, and particularly in our current notion of being "hardwired" to think, feel, or behave a certain way, may stem from our sense that this provides us with a kind of support or justification for being the way we are. On the other hand, our excitement over neuroscientific studies in particular may be related to our current extraordinary enthusiasm for technology – both in terms of the scanning technology that facilitates neuroscience and in terms of our brain-as-computer framework -- that is, our enthusiasm to find out how something works and thereby become able to fiddle with it. These are all dynamics that will be explored in later sections of this chapter.

Earlier I mentioned the tendency to assume that a solidifying of the subject attaches to any instance of materiality – that is, that when a physical or neural configuration or trace is associated with a certain behavior, state, or identity, it somehow makes the behavior, state, or identity more forcefully compelled, determined, and/or immutable. All of a sudden, we believe ourselves to be in the territory of essentialism, of brain types, of "natural kinds," when we are faced with the material contours of the self, especially the brain – whether that entails the neural effects of experience, or potentially predisposing brain structures or genes. The fact that, from the perspective of neuroscience, none of these material factors are reliably predictive of behavior, and many of the neural configurations one is either born with or forms through experience, such

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as the size and density of specific brain regions, synaptic relationships among specific neurons, and myelination of often-used neural pathways, are in fact quite mutable, [19] does not alter the degree to which humanists in particular, as well as the public in general, will tend to respond to them.

Penn neuroscientist Geoffrey K. Aguirre points out that many public responses to neuroscientific findings reveal a latent belief in Cartesian dualism, since otherwise these findings would not seem so noteworthy. He underscores the point that fundamental to contemporary science is the belief in non-dualism, meaning that we would logically expect there to be a neural substrate for every function of our minds, including our thoughts, emotions, and behaviors. Therefore, if we are already aware of the existence of a given tendency, trait, or behavior, finding a neural substrate for it should not come as a surprise. Yet we find it so compelling, whether the findings are an instance of the "neuroscience of the obvious" that holds great public appeal, or whether they are perceived as supporting the sort of biological essentialism which humanists (quite understandably) find so abhorrent.[20]

To illustrate this point further, bear with me in a thought experiment. In my view, it is quite true that, to take up a point of Eve Kosofsky Sedgwick and Adam Frank's, neuroscience would be particularly amenable to "doing justice to difference (individual, historical, and cross-cultural), to contingency, to performative force, and to the possibility of change" (93), particularly from the vantage point of plasticity, or the way the brain shifts structurally in response to experience. But what would the humanist reaction be if I were to give the following example?

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[19] Martha J. Farah. "Brain Development." Lecture presented at the Penn Intensive Summer Institute in Neuroscience, University of Pennsylvania, Philadelphia, 11 Aug. 2010.

[20] Jeffrey K. Aguirre. "Perceptions and Misperceptions of Imaging." Lecture presented at the Penn Intensive Summer Institute in Neuroscience, University of Pennsylvania, Philadelphia, 4 Aug. 2010.

One would expect to see certain differences in brain structure and activation levels regarding

gender norms in people who were, let's say, socialized to believe that it's feminine to carry

firewood (such as residents of Marsabit, Kenya) as opposed to those who were socialized to

believe that it's masculine to do so (such as residents of many parts of the United States). I believe

that most humanists would balk, shudder at this prospect, because it sounds as though this

somehow reifies socialized gender (for example – or race, ethnicity, or class), somehow makes it

less socially constructed, by making reference to biological correlates of socialization. Yet,

crucially, it does not in fact necessarily do so. It seems that a central premise of neuroscience is

that biology – as in brain structure, patterns of myelination, and so forth – is an architectural,

always-being-modified, reflection of experience,[21] and in no way does it suggest that that

experience is not socially constructed.[22] What our reaction, then, underscores is our tendency to

read determinism into structural or mechanistic descriptions of thought and behavior. Whether

we spurn or venerate such accounts of structure or mechanism, we do so mainly because we see

them as determining.

Of Agency and Determinism

Logically, the issue underlying the conflation of mechanism with determinism comes

down to a related question: how agency or determinism appeals to us in matters of the mind and

the brain. In the complex tangle of fears and desires associated with both determinism and

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[21] Brain structures and psychological outcomes (such as depression, for example) are also the result of a complex interaction between genes and experience, but the discussion of genetics is beyond the scope of this chapter.

[22] See Martha J. Farah. "Sex Differences in Brain Function." Lecture presented at the Penn Intensive Summer Institute in Neuroscience, University of Pennsylvania, Philadelphia, 11 Aug. 2010.

agency involving brain as we conceive it (in which the fears may in some cases prove as pleasurable as the desires), two conflicting desires come to the fore. On one hand, determinism can be attractive at points when we are looking for it to provide support or justification for the aspects of ourselves that we are unable or unwilling to change. On the other hand, the notion that we can always modify ourselves – in both brain and behavior – beckons as well, as the promise of self-optimization resonates profoundly with the somatic ethics that makes up our current mode of subjectification, in the terms of Nikolas Rose.[23] According to Rose and Paul Rabinow, biopower[24] involves, among other things,

> [m]odes of subjectification, through which individuals are brought to work on themselves, under certain forms of authority, in relation truth discourses, by means of practices of the self, in the name of their own life or health, that of their family or some other collectivity, or indeed in the name of the life or health of the population as a whole. (197)

Somatic ethics, then, is the mode of subjectification according to which individuals must improve their bodies (including their brains) in order to improve themselves in these terms.[25]

In the somatic ethics that underwrite the new self-optimization impetus focusing on the brain, the dynamics of agency and domination through subjectification are complex. Paradoxically, agency is commanded from the subject, as each individual is required to take charge of his or her own optimization. As feminist sociologist Victoria Pitts-Taylor observes

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[23] See Rose, *The Politics of Life Itself,* as well as his collaborative essay with Rabinow, "Biopower Today."

[24] Rabinow and Rose note, "At its most general, [...] the concept of 'biopower' serves to bring into view a field comprised of more or less rationalized attempts to intervene upon the vital characteristics of human existence" (196-7).

[25] Rose argues, "Novel conceptions of 'biological citizenship' have taken shape that recode the duties, rights, and expectations of human beings in relation to their sickness, and also to their life itself, reorganize the relations between individuals and their biomedical authorities, and reshape the ways in which human beings relate to themselves as 'somatic individuals'. This is linked to the rise of what I term a 'somatic ethics' – ethics not in the sense of moral principles, but rather as the values for the conduct of a life – that accords a central place to corporeal, bodily existence" (*The Politics of Life Itself* 6).

with reference to the neuro-self-help movement, "[t]he ideal subject constructed here is not passive; she is encouraged to relate to her own consciousness, learning, memory and intelligence as constituting an 'individual, somatic problem' to be solved, to use Simone Fullagar's terms (2009: 309)" (10). If the ideal subject must be active and take initiative in this self-optimizing and somatic problem-solving, however, it is also, fascinatingly, the case that she is instructed to do so while understanding herself not as a discerning subject, but as an object of scientific knowledge which she should implement but to which she could not contribute. This is a key difference between the sort of work on the self encouraged by the sector of the self-help movement that is organized around received neuroscience and the sector organized around cognitive psychology, for example. While both depend on some measure of expert knowledge for guidance, the received notion of the brain as fundamentally external to the subject, in an epistemological sense – that we cannot have any epistemological access to its workings on our own, whether through intuition or experience – renders us more radically dependent on this expert knowledge, and unable to participate as co-experimenters.

In this sense, the somatic individual[26] hailed by neuro-self-help is similar to the addict, as described by Sedgwick, in that she is an object of knowledge and of subjectification:

> From being the *subject* of her own perceptual manipulations or indeed experimentations, [the addict] is installed as the proper *object* of compulsory institutional disciplines, legal and medical, which, without actually being able to do anything to 'help' her, nonetheless presume to know her better than she can know herself [...]. ("Epidemics of the Will" 582)

The main difference here is that the universalizing modes of received neuroscience and neuro-self-help render this subjectification a feature of a norm rather than of a pathologized group. In

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[26] See Rose, *The Politics of Life Itself* 26.

this field of expert knowledge and an arcane, yet law-driven, brain, one could argue that the most

agentic position available to the subject of neuro-self-help is that of the hacker: the resourceful

rogue who, by seizing the "manual" of this arcane knowledge about the brain provided by experts,

is able to hack into the mainframe of her own brain and alter its code – alter the way it behaves,

determine the way it determines her.

At the same time, however, the portrayal of the brain as "hardwired," or determining, still

proves compelling across many arenas of popular culture, especially where it may serve as a basis

for justifying the self. On the surface, it may seem paradoxical that two of the most prominent

figures of contemporary brain-focused subjectivity – the hardwired brain and the hacker –

endorse more or less opposite agentic relationships between the brain and the self. Yet this

closely reflects the dialectical poles of free will and compulsion[27] theorized by Sedgwick in the

essay just referenced, "Epidemics of the Will." She observes,

> So long as an entity known as 'free will' has been hypostatized and charged with ethical
> value – a situation whose consolidating moment in the Reformation already revealed the
> structure of its dramatic foundational fractures and their appropriability to the complex
> needs of capitalism – for just so long has an equally hypostatized 'compulsion' had to be
> available as a counterstructure always internal to it, always requiring to be ejected from it.
> (586)

In this system, not only do the notions of free will and compulsion depend on one another for

oppositional definition, but they work in a dialectical relationship in which the purer the will that

is postulated, the more powerful and pervasive the compulsion that corrodes it, and then the

rarer, more hunted, and still purer the will, and so forth.[28]

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[27] The question of free will and compulsion is also a pressing one in the field of neuroethics and law. See the work of
Stephen J. Morse for excellent treatments of this issue.

[28] Sedgwick notes, "The late writing of Nietzsche is an excellent example of this contradiction: all that there is to learn
from, and to recognize in, Nietzsche's rendering of human psychology qua an exquisite phenomenology of addiction

"If there is one value that seems beyond reproach, in our current confused ethical climate," Rose argues, "it is that of the self and the terms that cluster around it – autonomy, identity, individuality, liberty, choice, fulfillment" (*Inventing Our Selves* 1). How fitting, given Sedgwick's formulations, that our popular obsessions (addiction, trauma, the brain as a determining structure) should focus on those forces, habits, and events that would threaten these cherished ideals. In fact, it may be that these forces are "at times mustered as a line of defense against the excesses of normative discourses that rely on the belief in an autonomous, even unilateral, will," as I have argued in another essay.[29] This phenomenon may be a response, whether conscious or otherwise, to the governmentality that operates *through* the notion of autonomous self-government that Rose, a Foucauldian, describes:

> in the history of power relations in liberal and democratic regimes, the government of others has always been linked to a certain way in which 'free' individuals are enjoined to govern themselves as subjects simultaneously of liberty and of responsibility – prudence, sobriety, steadfastness, adjustment, self-fulfillment, and the like. (12)

In this context, I argue that popular notions of the brain currently set it up as opposed to the will, paradoxically, to free the subject from moralizing, normalizing, pathologizing, or otherwise dominating modes of subjectification. To the extent that we can claim that we are "hardwired" to think, feel, or behave in a manner that is criticized by others but with which we identify, this notion of the brain acts as a bastion of the self from which to resist normative regimes of the self.[30]

– *all* tied to the bizarrely moralized imperative for the invention of a Will whose value and potency seem to become more absolute as every grounding possibility for its coming into existence breathtakingly recedes and recedes." (586)

[29] "Self-Reflexivity in the Formulation of Autonomy: An Appeal from Feminist Cultural Studies," *The American Journal of Bioethics Neuroscience* 2:3 (2011): 53. In this short essay, I discuss this concept in the context of an argument for incorporating a nuanced understanding of contemporary cultural ambivalence about self-government into bioethical discourse on autonomy.

[30] In no way do I mean to occlude or diminish here the gravity of other uses of rhetorical recourse to "hardwiring" or other sorts of biological determinism, which can in other contexts be invoked to support all sorts of prejudicial

To connect this point back to the role of materiality in received truth claims, one could argue that the excesses of materially based compulsion or intransigence attributed to this "hardwiring" of the brain serve to balance out the excesses of a free will formerly imagined to be radically incorporeal, and therefore positing of a self that was infinitely modifiable. I call this self, with great inelegance, the "mushy moral mind." An important aspect of received notions of structure and mechanism regarding the brain is that they provide a sense of "realness," substance, and also permanence to something we may have long thought was always malleable and could be determined and reshaped at any moment by force of will. In many moments in Western thought from the Reformation to the cognitive self-help movement, we have thought of the mind as a nebulous, entirely subjective, nonmaterial phenomenon that could be entirely subjected to morality, willpower, positive thinking, and the like – and that everyone therefore was more or less radically responsible for their thoughts, feelings, and actions, since the mind could always be changed through willpower. According to this theory of the mind, we just have to resist the draw of candy, and buck up and trust our betrayer again, for example. It may be that part of the draw of the "neuroscience of the obvious," part of the reason we get so excited by brain imaging studies "showing" that we like candy (say, because it activates our "reward" center as well as our "well-being" center) or that the trust-related area of our brain has been worn down is that it shows that our feelings are concrete in some way. At the very least, it helps to explain and defend why fighting temptation is hard or why change is slow. If the invocation of mechanism does not prove "hardwiring" and irrevocable determinism, it does support a paradigm of malleability over

norms, especially racism, homophobia, and sexism. This important observation has been widely noted; here I am confining myself to exploring, alternatively, the ways in which determinism could be invoked upon oneself for liberating purposes. The key to this distinction for me is that I am addressing "the extent to which *we* can claim that *we* are 'hardwired' [...]."

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time as opposed to instant alchemy, which is crucial for negotiating and defending our own sense of self.

Neuroscience As Supreme Epistemology

Rabinow and Rose define a "new regime of biopower" as "a qualitative new configuration of knowledge, power and subjectivity" (212). In considering the modes of subjectification associated with the regime of received neuroscience,[31] as described above, it is therefore important also to consider another central aspect of this form of biopower: "[o]ne or more truth discourses about the 'vital' character of living human beings, and an array of authorities considered competent to speak that truth" (Rabinow and Rose 197). In this case, of course, the privileged truth discourse is neuroscience, and both neuroscientists and, to a secondary degree, those who appear to cite neuroscience credibly, comprise the "authorities considered competent to speak that truth." The phenomena of "neuro-realism" and "neuroscience of the obvious" mentioned above demonstrate that this discourse is a privileged one indeed. They imply that we believe that neuroscience has a special explanatory power with regard to human behavior, and

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[31] While Rabinow and Rose's definition of a regime of biopower makes clear that the term "regime" could be usefully applied to the way in which neuroscience (and other media claiming to cite neuroscience) is received by the public, I will prefer to refer to this as "received neuroscience" in this chapter. I seek to use terminology that is as clear as possible, and I am concerned that, to some readers, the term "regime of neuroscience" might read as though the field of neuroscience itself is voluntarily imposing these effects, which I believe is hardly the case. What I most want to underscore by using the term "received neuroscience" is the distinction between the field itself and the way that "neuroscience" figures in the public imagination as well as in specific markets such as that of self-help books, websites, and programs that cite it (however loosely they may actually interpret the science). It's also worth noting that neuroscience itself encompasses a much broader range of work (including cellular neuroscience and electrophysiology, for example) than what is most commonly cited and represented in broader culture, which is usually limited to social and cognitive neuroscience. In fact, some popular works use the term "neuroscience" for work that is actually cognitive science or psychology, because they prefer the more technological-authoritative sound of the word. This habit only further supports the argument of this chapter regarding the perceived epistemological supremacy of neuroscience.

perhaps human nature, one unrivaled by any other discipline, suggesting that neuroscience is currently received, by the public and in many other academic fields, as a supreme epistemology.[32]

Notably, this belief is *not* generally shared by neuroscientists, many of whom are uneasy about the apparently messianic status accorded their field.[33] Most of these researchers focus the majority of their daily efforts instead on specific, discrete experiments exploring very specific, discrete faculties (such as the brain localization of the ability to read facial expressions, or the areas of the brain which are activated when a subject squeezes a ball with his or her fist), and wrangling with the frustrating intricacies of data analysis and statistical thresholding.[34] Why, then, has this popular exaltation of received neuroscience come about? Many interwoven factors contribute to this dynamic, among them our reverence for technology, our love of elite knowledge, and the tight string of associations we draw among the brain and the computer, neuroscience and technology, and technology and the future.

Making use of multi-million-dollar scanning technologies such as magnetic resonance imaging (MRI), positron emission tomography (PET), and magnetoencephalography (MEG), as

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[32] As an illustration from popular culture, it's worth noting that Ellison's *The Mommy Brain*, while not primarily aimed at self-help, does go in that direction in its concluding chapter, "Neuroscientists Know Best," subtitled, "Top Ten Tips to Help You Make the Most of Your Mommy Brain." This chapter title, which is appears to be based on the maxim, "Mother knows best," seems to be offered quite without irony, based on the content of the chapter itself. Whether or not this is intentional, it seems like an uncannily straight portrayal of the actual attitude of most popular books that deal with neuroscience in some way. Whether because neuroscientists have become akin to "rocket scientists" for the public imagination, as people who sound especially intelligent and educated (after all, not only are they scientists, they study the brain!), or because the brain has become a real cultural fixture of explanatory authority, the findings, opinions, and even the most tentative suggestions (actual or imputed) of neuroscientists do seem to be often cited as trumping other kinds of knowledge, other forms of authority.

[33] For example, see Martha J. Farah, "Neuroethics: The Practical and the Philosophical," *Trends in Cognitive Sciences* 9:1 (2005): 34-40.

[34] It's amusing to note that, while the main epistemological trait which humanists impute to scientists as the basis for objecting to their work is the tendency to make universalizing claims, in stark contrast to many theorists in the humanities and social sciences (myself included) most scientists' "claims" are quite discrete, conservative, and end in "but we don't know for sure yet," "but we just don't have the data," "but that study hasn't been replicated," and so forth.

well as very sophisticated and expensive imaging software, some of the luster that attaches to received neuroscience derives from its use of such difficult-to-attain, cutting-edge technology.[35] Mario Biagioli notes that not only are the sciences outperforming the humanities on most university campuses in terms of both enrollments and external funding, but, "thanks to the technophilia that permeates contemporary culture, the sciences look cool, too; the figure of the hacker snatches some of the aura traditionally associated with that of the artist" (825). This particular choice of metaphor underscores the extent to which the status enjoyed by the sciences is inextricable from the status enjoyed by the technologies they employ. I will argue in particular that the status of neuroscience is founded to a large extent on the fact that, like high technology, it is considered applicable to all, but accessible to few.

I'd like to begin by addressing the converse of this argument: to what extent may the source of the popularity of the sciences actually be as banal as the fact that they are popularized? Few disciplines in the humanities have popular magazines designed to make their latest findings accessible, as publications like *Scientific American Mind*, *Psychology Today*, and *New Scientist* do for the sciences. While several excellent literary magazines and periodical collections of nonfiction essays, such as *Harper's* and *The New Yorker*, do circulate widely, these do not feature, nor are they closely related to, literary criticism as it is practiced in the academy. How might the humanities be received differently if there were popular publications devoted to them sold at newsstands, with plenty of accessibly written prose, colorful illustrations and topical advertisements?

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[35] Aguirre notes in "Perceptions and Misperceptions of Imaging" that this reverence for technology applies even within neuroscience, to the extent that patterns of publication and citation of journal articles are biased to favor the researchers with the more expensive equipment and software, and the flashier images, over those with the better science.

The fact remains, however, that they are not, and that mainstream magazines such as *TIME* and *Newsweek*, both of which have covered dozens of cover stories on neuroscience findings,[36] are far less likely to publish a cover story presenting research in the humanities. Part of this is due not only to issues of disciplinary privilege but also to popular beliefs about empiricism.[37] The empirical basis of science, as it is currently received, makes it seem common sense that *Newsweek* should report on it, and that the public should have popular science magazines (starting in childhood, with publications like *3-2-1 Contact*) available to them. Because of our received sense of the empirical, we believe that what scientists can "show" us are simply observable facts, observable by anyone – and that this sort of self-evident knowledge is the right of all citizens. Moreover, if we believe that the findings of science are *objectively* true, it could follow that they are more important and relevant for a public audience than what philosophers, critics, theorists are debating, which is received as only matters of opinion. Similarly, in Western culture, technology is imagined as our common birthright, the magnum opus of our civilization, so to cite technological science is to cite the most widely revered, authoritative knowledge source.

Despite or perhaps because of its perceived universal applicability, technological science also functions as a source of *elite* knowledge. Science is often received as indisputable, making it an ultimately authoritative epistemology. But while its findings are believed to apply to everyone, very few people believe they could participate in scientific knowledge-making. Whereas many people read novels, and a great number feel they could interpret them, technological science has

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[36] Aguirre comments on the widespread and rather overstated headlines citing neuroscience in *TIME* and *Newsweek* in "Perceptions and Misperceptions of Imaging."

[37] See Daston and Galison's extraordinary tome, *Objectivity* for a far more thorough treatment of different historical approaches to scientific epistemology.

little of this aura of accessibility – thanks in large part to its technological equipment, and also to its stringently regulated methods. Like the most expensive, cutting-edge consumer technology, technological science is theoretically available to all, imagined as applicable to all, but only actually accessible to a few. In this way, received neuroscience appeals to our love of "secret" or elite knowledge.

In a related dynamic, technology (and technological sciences such as neuroscience along with it) is revered specifically as guarantor of the *future*. Since we are a culture that already strongly associates technology with the future, the move to seeing technologically sophisticated neuroscience as the harbinger of a new era is a short step to take. Michael Hagner of the Max Planck Institute for the History of Science, and Cornelius Borck, Director of the Institute for the History of Medicine and Science Studies at the University of Lübeck, observe that this is not a particularly recent phenomenon, in fact:

> Since linking the mind to the head, brain research has frequently operated in an outspokenly futuristic mode. This started in the early nineteenth century with Franz Joseph Gall's phrenology, which promised to be a comprehensive basis for the management of society, including education, religion, and law. [...] Promises to deliver an empirical solution for the mind-body problem or attempts to decipher the brain as merely a computational device are examples for the proleptic structure of the brain sciences. (508)

Serving as just one example of this prolepsis is the writing of Zack Lynch, self-described "social forecaster," of the Neurotechnology Industry Organization. In an article entitled, "Neurotechnology and Society (2010-2060)," he predicts,

> Building on advances in brain science and technology, neurotechnology, the set of tools that influence the human brain, will allow people to experience life in ways that are currently unattainable. Neurotechnology will enable people to consciously improve emotional stability, enhance cognitive clarity, and extend sensory experience. As people begin to experience life less constrained by one's evolutionarily influenced brain chemistry, neurotechnology will give rise to a new type of human society, a post-industrial, post-informational, neurosociety. (233)

Lynch's prediction that "neurotechnology" – indeed, a melding of the two entities most exciting to us right now: technology and the brain – will revolutionize not only the experience of the individual but the structure and functioning of society at large is perhaps the greatest measure of the significance we attribute to these entities. Lynch's rhetoric itself is worth noting: as he bounds from one sweeping claim to the next while rarely pausing to define the many neologisms with which the article is peppered, yet offers many specific examples of how this promised future will benefit the reader personally, one almost gets the sense that he is trying to garner even more of the awe with which technology and neuroscience are already habitually met. Consider this passage, for example: "Using cogniceuticals to increase memory retention, emoticeuticals to decrease stress, and sensoceuticals to add a meaningful pleasure gradient, neuroeducation will allow people to acquire and retain information faster. Imagine learning Arabic in one year rather than ten, or calculus in eight weeks" (233).

While texts such as Lynch's may not be altogether mainstream, they are fairly illustrative of a larger trend toward figuring neuroscience as not only a revolutionary but also a quasi-magical discipline in which new, otherwise unobtainable solutions, treatments, skills, and other benefits will be handed down from on high. This pattern is consonant with other, milder manifestations of the privileging of knowledge from the brain sciences in other fields, including "brain overclaim syndrome" in the intersection of neuroscience and criminal law, and the corollary debate over free will in the field of neuroethics. With the rise of neuroscience as a supreme explanatory discipline, discourse on topics in which it has appeared as a contributor has often developed into a dichotomy between "experts and idiots," so to speak: it is almost as though non-neuroscientists are now believed to have little, if anything, to contribute, and discussing human nature apart from neuroscience is supposed as much of a waste as thinking the earth is

flat.[38] To the extent that we tend to treat neuroscience as a discipline of superior authority, this

may be related to our fascination with mechanism, as discussed earlier, and our inability to

distinguish mechanism from determinism. If we believe that the discovery of the neural substrate

of a particular act or feeling means that we are bound to act or feel in that way, this may explain

why we feel that neuroscience must have the last word in longstanding debates about human

nature.

In addition to its association with technology in general, neuroscience derives much of its

popularity from the public and scientific enthusiasm around brain imaging in particular, as many

social scientists have observed.[39] As Aguirre points out, brain imaging often functions as

"window dressing" in its popular applications, such as the Amen Clinics, Inc. example discussed

above. In other words, the basic advice Amen gives is sound: getting plenty of rest, a healthy diet,

and so forth – but this advice is received as exponentially more forceful and authoritative since it

is paired with a brain scan. This phenomenon moves Aguirre to contend that brain imaging is

now the opiate of the masses.[40]

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[38] I am grateful to Laura Baudot for pointing this out to me; some of the phrasing in this sentence is hers.

[39] See Dumit and Beaulieu, for example.

[40] Aguirre, "'Other' Neuroimaging Methods." This remarkable enthusiasm for brain imaging can be found not only in the public, however, but also within scientific communities, as Beaulieu observes: "The argument that pretty pictures are useful for popularization does not explain the way representations also pervade research environments. Yet, researchers insist they do not know the brain by seeing it, by making its activity visible" (Beaulieu, "Images Are Not the (Only) Truth" 56). We may be dealing with two different kinds of epistemology, then: conscious, avowed research methods, such as the scientific method, and less deliberate receptions of the data and images after their production. Compelling as the visual may be, particularly in the latter, post-hoc epistemological moment, scientists tend to be more comfortable identifying numerical data as the source of their research-based epistemology. Beaulieu puts this in historical perspective: "The visual as problematic should be understood in relation to a tradition that orders types of evidence hierarchically in modem Western science, with images and some forms of visual knowing generally low on the scale (Stafford 1991, 1996; Cartwright 1995). This hierarchy relies on the ordering of ways of knowing the world, which provide better or worse access to truth about the way things are, appealing merely to the senses (perception), or to the mind (reason). This ordering of image, text, number is not absolute, however, and there are other ways of constituting visual representations according to linguistic or quantitative logics (e.g., as graphs) that enhance their status by associating them with a quantitative ethos rather than a pictorial one" ("Images Are Not the

With this in mind, let us revisit an earlier question: what causes brain imaging to garner such power and appeal? Part of the answer may be that it represents the brain in a way that makes it appear static: while the image is a graphical representation of numerically measured and statistically analyzed proxies for brain activity, such as blood flow, at a particular moment, they are often received as a permanent, enduring "picture" of the brain, as though brain activity were not always in flux. Perhaps more important is its more obvious feature: it represents an isolated brain, thereby cutting out all the messier factors of social context. The idea that studying an individual brain in isolation renders the account of the individual that is the most reliable, the most proximate to ultimate truth, correlates excellently with neoliberal beliefs about individuality and responsibility.[41]

Interestingly, the social and environmental factors that are excluded from the representation of the brain scan are likewise excluded from the extremes of free will and internal or biological compulsion discussed above. In the same essay on this subject, Sedgwick offers:

> the best luck I've had so far in reconstructing an 'otherwise' for addiction-attribution [which sees compulsion everywhere] has been through a tradition that is not opposed to it or explanatory of it but rather one step to the side of it. This is the tradition of reflecting on *habit*, a version of repeated action that moves not toward metaphysical absolutes but toward interrelations of the action and the self acting within the bodily habitus, the appareling habit, the sheltering habitation, everything that marks the traces of that habit on a world that the metaphysical absolutes would have left a vacuum. (591)

To construct a fuller picture of the subject, then, social neuroscience, social psychology, and

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(Only) Truth" 56-7). This translation from number to image is not always a clean process, however; as several brainhood scholars have pointed out, the variability and selection of the data involved in interpreting quantitative data are erased by the unitary image of the brain scan. What is perhaps most striking about the scientific hierarchy of evidence that Beaulieu outlines, however, is the extent to which it runs counter to much of current public consensus. In popular culture today, that which appeals to the senses is generally felt as more immediate and undeniable (in the current age of narrative, testimony, and personal experience) than that which appeals to the mind (and has the potential to be logically convoluted or faulty).

[41] See Pitts-Taylor, "The Plastic Brain."

many other social sciences and humanities would need to be brought together. In fact, Penn cognitive neuroscientist Anjan Chatterjee has observed that new kinds of interdisciplinarity are needed to bring the social level of personhood into focus – in his field, cognition is thought of as the highest or most macrocosmic level at which to study the human.[42] To combine two different arguments of Sedgwick's, we can conclude that is when one steps aside from "the extremes of compulsion and voluntarity," and toward the wider realm of habit, that one gains access to "the middle ranges of agency," which alone "offer space for effectual creativity and change" (*Touching Feeling* 13).

Neuroscience in Literary Criticism

"Proust Confirmed by Neurosurgery." Thus read the title of a note published in *PMLA* in 1970. This singular little piece by Columbia Proust scholar Justin O'Brien presents the findings of a paper delivered in 1957 by neurosurgeon Wilder Penfield to the National Academy of Sciences, pertaining to the nature of memory and consciousness,[43] in a brief comparison with selections from Proust's accounts of the same. In form, this note consists mainly of relatively long passages from each source juxtaposed, with rarely more than a line or two of commentary connecting them. In the language of this commentary, O'Brien states, regarding Proust, "As so

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[42] Anjan Chatterjee, in Anjan Chatterjee, Martha Farah, and Stephen J. Morse. "The Future of Neuroscience and Its Role in Other Fields." Panel discussion presented at the Penn Intensive Summer Institute in Neuroscience, University of Pennsylvania, Philadelphia, 11 Aug. 2010.

[43] I cannot resist including a mention of one of the passages of Penfield's which O'Brien excerpts here: commenting on a female patient communicating a spontaneous vivid memory recall upon electrode stimulation of her brain, he writes, "This, I thought, was a strange moment for her to talk of that previous experience, but then, I reflected, women were unpredictable, and it was never intended that men should understand them completely" (Penfield 53, quoted in O'Brien 295). O'Brien lets this go without comment.

often happens among the greatest, men of science eventually catch up with the creative artist and confirm his observations" (295). While introducing some excerpts from Proust subsequent to accounts by Penfield, on the other hand, O'Brien says, "A certain number of passages well known to every Proustian deserve to be juxtaposed here to the findings of the neurosurgeon" (296). Whereas the brain science is figured here as confirming the literature, the literature "deserve[s] to be juxtaposed" – as an illustration, perhaps, or at best a corollary, but most likely one would not think of saying that literature "confirms" neuroscience, irrespective of questions of chronological order. To draw up a few quick observations on this piece, it seems that we can note three things: one, that the mutual relevance of the scientific and literary accounts of memory and the brain are felt strongly, but exactly how they might be interfaced, and with what sort of commentary, remains unclear to the author; two, that it is assumed that some sort of generally unified truth (however elusive) does exist regarding memory and the brain, so that literature and brain science are understood to each provide separate angles on the same underlying reality; and three, that authors provide an intuitive and artistic sense of what this reality is while scientists, though less intuitive and descriptively rich in their accounts, have the claim to ultimate proof or disproof of said reality.[44]

Forty years later, the general state of critical approaches to neuroscience in the humanities, and in the field of literary criticism in particular, seems much the same. The three

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[44] Biagioli has valuable observations that relate: he encourages humanists to "avoid being epistemologically intimidated by the sciences—a problem I see as much more serious than concerns about finances and institutional clout. The philosophers' early and somewhat stodgy disdain for the reductivism of the scientists' method has given way to either the endemic epistemological defensiveness of the humanities or to the science-envy of the social sciences. While the former stance often reflects attempts to defend old-fashioned academic privileges, the latter is equally predictable and unhelpful, but it has caught on" (825). Bruno Latour is right, in his celebrated essay, "Why Has Critique Run Out of Steam? From Matters of Fact to Matters of Concern," about the need to move toward instead of away from "facts" in that we need to question and engage the sciences (see Daston and Galison, e.g.), instead of dismissing these disciplines out of hand based on rather hazy assumptions about their bases (231).

principles stated above seem to hold more or less true – particularly the first: we are still struggling to negotiate the interface of these two fields. Although literary criticism and theory involving neuroscience remains relatively rare (though cognitive approaches to literary criticism are gaining ground), when and where it appears it is clear that we do feel that this intersection can be productive – we are just not always sure how to execute it, or how, even, to justify it to our colleagues. This section will chart the five main methodologies that are emerging: analysis of historical confluences of concepts across disciplines; pursuit of a specific faculty, such as imagination or sympathy, through a framework in which the author intuits and the scientist confirms; cognitive science that values the unique contributions of literature; science as a hermeneutic device; and literature offered as "data" for neuroscience. It will likewise probe the unique problems and potential that are particular to this field, and begin to theorize the sort of integrative framework we need to move forward.

The field of nineteenth-century studies is a notable exception to the general paucity of work involving science in literary criticism – much more can be found here, especially regarding British Romanticism and Victorianism.[45] Alan Richardson's *British Romanticism and the Science of the Mind* appeared in 2001, for example, and Anne Stiles's edited volume, *Neurology and Literature, 1860-1920* in 2007. But these scholars have found a useful and comfortable lens through which to analyze science and literature: they all tend to focus on the confluence of concepts about the subject during their chosen time period, ranging from gender to Victorian

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[45] Reaching into the early twentieth century, but along similar lines, see Maria Farland's 2004 article, "Gertrude Stein's Brain Work."

mind shock. They also have, somewhat uniquely,[46] a ready justification for this dual-discipline

analysis: that writers and scientists in the 19th century were reading one another's work, trying to

speak to one another, and were directly influencing one another.   As Stiles asserts,

> exchanges between literary and scientific writers during these six decades were not
> simply reflective – science influencing literature or vice versa – but rather dialogic or
> circular, a conversation where literary and scientific authors were mutually responsive to
> one another. (2)

That intellectuals in these two fields were doing so to a greater extent then than in recent times is

hardly debatable.   But does this alone explain the relative paucity of such critical analysis

regarding the current era, or is it also that it is more difficult to see this in one's own time?

Literature and neuroscience continue to share a host of common concerns, including gender,

trauma, memory, consciousness, mental illness, language, sexuality, personal relationships and

social dynamics – and while the two disciplines may not share altogether the same assumptions,

they do continue to operate within a common broader culture and social *habitus*. Nineteenth-

century studies that compare conceptualizations of the subject across disciplines may be a fruitful

model, then, for similar analyses in the current era.

Criticism such as Michael Miller's "Modern Neuroscience and Coleridge's Theory of the

Imagination," while also on British Romanticism, is distinct in that its aim is not to compare

Romantic literary notions of the subject with those of scientists of the time in order to develop a

fuller account of specifically Romantic subjectivities, but to compare them (in this case,

Coleridge's theory of the imagination) with corollary views in current neuroscience in order to

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[46] One other field in which approaches to the brain, brain sciences, and technology are more abundant is, of course,
science fiction. See, for example, Lisa Yaszek, *The Self Wired: Technology and Subjectivity in Contemporary
Narrative* (2002), David Porush, "Post Media Human Modern: How Nature Was Finished When It Invented the
Human Brain" (2007), and Christopher A. Shinn, "On Machines and Mosquitoes: Neuroscience, Bodies, and
Cyborgs in Amitav Ghosh's the Calcutta Chromosome" (2008).

develop a fuller account of the aspect of consciousness in question. Miller identifies this Nobel laureate Gerald Edelman's Theory of Neuronal Group Selection as particularly amenable and demonstrates how it might support Coleridge's theory.

Similarly, Wendy S. Jones's excellent essay, "*Emma*, Gender, and the Mind-Brain," approaches Austen's account of sympathy, particularly in its non-gender-specific nature, and presents neuroscientific support for this account. Jones argues:

> In revealing the centrality of sympathy to cognition and sociality, Austen therefore—inadvertently—depicts a neurologically accurate account of behavior. In this sense, we might call *Emma* an allegory of thinking, a text that demonstrates, through its representation of thoughts, feelings, and relationships, what neuroscience tells us about how the brain works. (317)

Here, again, the paradigm continues to be that authors "inadvertently" intuit accounts of the mind that can be confirmed as "accurate" by neuroscience. While the hierarchical nature of this interface between the disciplines needs to be rethought, it remains interesting, perhaps even promising, that both are considered necessary to a developed account of the subject.

A few other scholars are making similar moves toward synthesis in the field of theory. Hazel Barnes, in fact, also takes up the work of Gerald Edelman, in this case to juxtapose it with Sartre's philosophy of consciousness. In this case as well, the relationship is framed rather hierarchically: "Edelman's position not only is compatible with Sartre's philosophy, but also provides support and a biological foundation for Sartre's view [...]" (118). In fact, it is interesting to observe that, in this specific hierarchy, while science is with little doubt the more privileged discipline, it is often described in language such as "foundation," "grounds," "underpinnings," "basis," and "support" – not only by Barnes but by many others as well. Here, though, such imagery does not seem meant to assign subordinate status to science, but rather to align it with alternative connotations such as "down to earth" and "bottom line" (as in ultimate issue) – to

align it, perhaps, with what Sedgwick identifies as *beneath* (8). In her introduction to *Touching Feeling*, she describes "the topos of depth or hiddenness [referring to *beneath* and *behind*, respectively], typically followed by a drama of exposure, that has been such a staple of critical work of the past four decades" (8). Rather than *beneath*, *behind*, and *beyond*, she pursues *beside*:

> Invoking a Deleuziean interest in planar relations, the irreducibly spatial positionality of *beside* also seems to offer some useful resistance to the ease with which *beneath* and *beyond* turn from spatial descriptors into implicit narratives of, respectively, origin and telos. (8)

If neuroscience is commonly framed as what lies *beneath*, then, perhaps it does mean that we continue to consider biology –or perhaps more specifically the brain – to be the *origin* of human consciousness, rather than simply its physical component. Indeed, Barnes puts her own goal this way: "What is needed is a neurobiological theory that can link the activities of a free, creative consciousness with its organic origins and underpinnings" (118). This formulation appears in some respects like a newer incarnation of an older dualistic model, in which the "free, creative" spirit still appears in marked contrast to the material, except that now the former is tethered to the latter like a kite on a string. In any case, it is the drive toward integration of different knowledges to produce a unified theory that is particularly of interest to this chapter.

In this quest for an integrated theory, cognitive science is surely the most developed literary critical resource currently available. Prominent cognitive scientist Mark Turner lays out the goals and potential of cognitive science in the humanities in his 2002 article, "The Cognitive Study of Art, Language, and Literature," in *Poetics Today*. The same journal published an example of a focused exercise in this new field, Richard Van Oort's "Cognitive Science and the Problem of Representation," the following year.

Patrick Colm Hogan has been among the pioneers of cognitive science in literature; two

monographs on this topic, *Cognitive Science, Literature, and the Arts: A Guide for Humanists* and *The Mind and Its Stories; Narrative Universals and Human Emotion* appeared in 2003. He is currently at work on a book on literature and cognitive science in the study of emotion, and has another forthcoming entitled *Understanding Nationalism: Narrative, Identity, and Cognitive Science.* In 2006, Hogan and his wife, Lalita Pandit, co-edited a special journal issue entitled "Cognitive Shakespeare: Criticism and Theory in the Age of Neuroscience." In their introduction, they offer these fascinating insights:

> The human mind does not operate like a scientist in a laboratory, at least not like a scientist pursuing "normal science," in Thomas Kuhn's phrase (1970). It does not formulate and test hypotheses using strict empirical evidence and narrowly logical inference. Indeed, Pascal Boyer has argued that "scientific activity is quite 'unnatural' given our cognitive dispositions" (2001, 321). The human mind, rather, works like a poet, drawing on images and metaphors—again, models. This partial confluence of literary inclinations and cognitivist conclusions has helped to foster the extremely productive interaction between literature and neuroscience that we find in so much current work by psychologists, anthropologists, and neurologists—as well as literary critics and theorists. (1-2)

This observation on the nature of the human mind exemplifies the more holistic approach offered by cognitive science – and it suggests a powerful reason to focus on literature when studying the mind.

Other scholars in this field use cognitive science or neuroscience as a hermeneutic device in literary criticism. Gordon and Louella Hirsch, for example, use cognitive neuroscience in order to "understand the representation of cognitive processing, in relation to memory and chronic depression," in Trollope's *The Last Chronicle of Barset* (166). This kind of project can be distinguished from those of critics seeking to "diagnose" either characters or authors with specific conditions based on current psychiatric guidelines.[47] Because, as Jonathan Metzl has pointed out,

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[47] See McManus, I. C. "Charles Dickens: A Neglected Diagnosis" (2008) for one example.

these diagnostic categories are often problematic and always culturally constructed and shifting, such projects could be vulnerable to charges of anachronism.[48]

A related but distinct project is exemplified by Mary Thomas Crane's 2001 *Shakespeare's Brain: Reading with Cognitive Theory.* This book aims to offer, via cognitive science applied to literary criticism and theory, "new ways to read texts as products of a thinking author engaged with a physical environment and a culture" (4). With a rather more material approach, and a focus on the text as a document yielding "cognitive traces" to investigation, Crane aims to "show how these traces of cognitive process reveal not only the possibilities but also the limits of individual agency within a biological body and a cultural matrix" (4). This sort of approach, then, seeks to probe not only the text as a surface but also the matters of material and cultural subjectivity which its contents suggest. Similar methods can be found in articles such as Sabine Sielke's on reading Emily Dickinson via scientific, material, and historical angles on cognition.

Perhaps one of the most focused and sustained engagements with literary perspectives on a single aspect of consciousness is Suzanne Nalbantian's 2003 monograph, *Memory in Literature: From Rousseau to Neuroscience.* Because it's the longest and most focused work by a literary scholar, I would like to engage in a bit more detail the ways in which Nalbantian frames the interface she constructs between literature and neuroscience in particular. In doing so, I want to emphasize that Nalbantian is far from alone in her technique – and that it is because her work approaches a project very similar to the sort of interdisciplinary criticism I undertake in the following three chapters that I find this lengthier consideration worthwhile.

First, it bears mentioning that only the last of her eight chapters focuses on current

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[48] Jonathan Metzl, *The Protest Psychosis: How Schizophrenia Became A Black Disease* (Boston: Beacon Press) 2009.

neuroscience, whereas the other seven engage other aspects of memory as engaged by thinkers from Rousseau onward. In this chapter and her introduction, for the most part, the integrative paradigm employed by Nalbantian seems to be that of offering literature as data for the consideration of neuroscientists. While, on one hand, she is indicating that fiction writers have something valuable to offer without which neuroscientific accounts of memory would be impoverished and incomplete, on the other hand she consistently sets up neuroscience as the privileged discourse for which literature must strive for honor of becoming raw material. Among the laudatory yet strikingly scientifically oriented phrases she chooses to describe literature are "a laboratory for the workings of the mind" (1), "illuminating test cases" (2), and "valuable material for the classification of memory phenomena" (2). Other such phrases include "mediums for the unleashing of the memory process and its catalysis into artistic images" (2) and "series of case histories of a variety of operations of human memory" (3). It is abundantly clear that Nalbantian finds the scientific register appealing, evidenced all the more strongly by the extent to which she stretches and strains many of these terms out of their original meanings in order to fit her assertions about literature into them. For example, as Hogan and Pandit would most likely agree, a "laboratory" is exactly what literature is *not*. Likewise, it is unclear what Nalbantian means by referring to literature's "catalysis" of memory "into artistic images", when this term usually means the instigating and/or speeding up of a process by a catalyst that remains unaffected. Unless literature is being personified here as a spirit of some sort, calling the writer to create art out of memories, it could hardly be considered unaffected by this process, being its very product. In a similar vein, Nalbantian claims, "in showing the linkage between art and its sources in actual life, I offer *clinical proof* of the saliency of real life experiences to the artistic work and, therefore, the inextricable link between author and text" (3, my emphasis). Again, this is a fairly clearly

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inappropriate term – further suggesting the power of its appeal to the author.

What is troubling about these formulations is that, within the subordinating framework Nalbantian seems to advance, literature gains import by being disarticulated from its status as an art, from its very literariness, and slid between the thin glass slides of "Science." This rather grisly process is evident in assertions that literature can operate as "a rich and complex array of data that is tantamount to field studies for capturing episodes of memory" (2-3). This obscures the fact that, no matter how "rich and complex," literature, as an art, does not "capture" memory, nor any other naked component of everyday cognitive functioning, but *portrays* it. Why and how, then, has it become more valuable simply as "data"? That neuroscience is the privileged discourse in this pairing is further reinforced by introductory remarks implying that it is the scientific research on the topic of memory that provides its importance: "In light of the immense scientific research on memory in recent times, it seems most appropriate to address the topic from the literary optic" (1). Yet, if literature is to become useful to neuroscience only through ceasing to be understood as art, the core of its potential for a unique and substantive contribution to this dialogue will be drained from it.

In the chapter that focuses on neuroscience, Nalbantian's tone softens somewhat, and although she continues to highlight how literature can "enhance the evidentiary base" of neuroscience," she also helpfully points out that "memory research [...] can help inform the interpretation of literary texts and artistic works" (135). In the body of the chapter, however, Nalbantian's comparisons of neuroscientific, literary, and philosophical passages concerning memory differ little from those of O'Brien in the sparseness of the intervening commentary; like his, her work is clearly wanting for an adequately integrative framework with which to negotiate this sort of interdisciplinary dialogue. While the development of such a framework will be no

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small feat, I suspect that it is through addressing the prior questions of the status and value of

literature as art, vis-à-vis the status and value of neuroscience, that it will most effectively be

approached.

Multifaceted Unity of Knowledge and Postdisciplinary Scholarship

A pattern can be seen between the tendency to favor *either* literature *or* neuroscience as

an epistemology of the human and the tendency, discussed earlier, to confuse mechanism with

determinism in thinking that *either* our minds are a function of our neurological activity *or* we

are conscious, thinking persons with free will. This pattern involves an underlying

hypostatization of *one* explanation, one privileged epistemology, and one more or less unilateral

agent, and I call it *protagonistic agency*.[49] By this term, I intend to evoke all the dramatic imagery

surrounding the word, particularly the sense of spotlighting, as well as the sense that the

protagonist "drives the action in a situation."[50] Discourse, whether public or academic, that

operates on the assumption that there is *one* central actor, explanation, or epistemology that

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[49] Protagonistic agency is one part of a larger theory of *agonistic agency* which I elaborate in another essay ("Agonistic Agency," in progress). Agonistic agency includes *antagonistic agency*, which works in binary oppositions. Protagonistic agency, in turn, encompasses *positive protagonistic agency* and *negative protagonistic agency*. Positive protagonistic agency, often found in feminist and other progressive scholarship, generally constrains the scholar either to focus on and celebrate the subject's resistance and creativity (e.g., Jennie Livingson's *Paris is Burning*) – and risk criticism for occluding the oppressive structures under which the subject suffers (e.g., bell hooks's "Is Paris Burning?") – or to focus soberly on the oppressive structures under which the subject suffers – and risk criticism for denying agency to the subject. Negative protagonistic agency, such as that found in the work of proponents of the antisocial thesis in queer theory (e.g., Lee Edelman), generally constrains the scholar to assign positivity exclusively to the hegemonic, heteronormative order, so that the only option for queer agency is to be found in negativity. With the term *agonistic agency,* I also intend the secondary sense of agonistic as competitive, straining to win an argument, since I find that arguments that are constrained by this logic do sometimes strain somewhat at the seams.

[50] "protagonist." Roget's 21st Century Thesaurus, Third Edition. Philip Lief Group 2009. 24 Sep. 2010. <Thesaurus.com http://thesaurus.com/browse/protagonist>.

"drives the action," that is only able to conceive of and/or focus on one primary agent at a time, is discourse in which protagonistic agency is at work.

Protagonistic agency is widespread, but Sedgwick's persistently useful question, "How could it be otherwise?" would be well placed here.[51] As an alternative, I propose *nonagonistic agency,* which could keep in view multiple actors working in complex relationships which may not necessarily involve antagonism. More germane to our purposes here, however, is its corollary theory of knowledge: *multifaceted unity.* With this term, I mean to propose a theory of knowledge that posits the multiple epistemological angles which maybe taken on an entity (for example, the phenomenon of memory) as potentially equally valid and valuable, as well as potentially valuable in collaboration with one another, for the purpose of knowledge production regarding that entity.[52] Underlying this position is the theory that there is some ontological unity of the entity that would support this multifaceted, collaborative approach to its exploration, in spite of the different kinds of knowledge that would be produced about it as a function of diverse

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[51] Sedgwick begins the final section of "Epidemics of the Will" by "asking a much more difficult question than *Why now?* – namely, *How could it have been otherwise?* What shards of outdated cognitive resources may we still find shattered by the roadside of progress, resources by which it might be, or might once have been, possible to think volition and compulsion differently – to resist simply repropelling the propaganda of a receding 'free will'?" (591) Sedgwick and Frank engage a similar question toward the end of their essay.

[52] My affirmation of epistemological multiplicity is long predated by the Jaina theory of anekantavada, or the multifaceted nature of reality and the relativity of truth. This theory states that since the world has an infinite number of facets, multiple, even contradictory, statements can simultaneously be true. Each statement's truth is dependent on the specific standpoint of its speaker, and diverse statements can be synthesized to produce a higher-level knowledge of reality. As Nagin J. Shah puts it, anekantavada "takes care not only to demonstrate that truths of different views, ideas, or systems are relative and partial but also to relate and reconcile those truths properly and intelligently in order to arrive at a more and more comprehensive, concrete, and higher truth" (xi). For more on this theory, see Kumar et al. and Shah.

epistemologies and of different aspects and different macro- and micro-levels at which it could be analyzed.[53]

As an illustration, multifaceted unity would answer the question of whether I am most properly conceived as being my atoms, my molecules, my cells, my organs, or the entire organism that comprises my body as "yes." It would also answer "yes" to the questions of whether I am my (largely) socially constructed ethnicity, gender, and nationality, my thoughts and desires, or my social security number. Multifaceted unity posits that the aspects available to knowledge production concerning a given entity proliferate with our technologies (material and epistemological) for representing it. For example, imagine that a single cat becomes the subject of a photograph, a painting, a film, an x-ray, an MRI, and an essay. Which of these represents the real cat? This is exactly the sort of question which multifaceted unity obviates. If we prefer one representation over another, this may indicate our epistemological preferences, but we still have to acknowledge, on some level, that all of these media represent the same cat.

Multifaceted unity, then, is a theory of knowledge organized not around the bifurcating modes of *either/or* but rather of *both/and*: memory is a phenomenon proper to both the mind and the brain, and a subject proper to both humanities and sciences (indeed, may be best understood through a collaboration of both approaches to it). Since it tends toward decentered, non-hierarchical multiplicity rather than binaries, it does not entail any privileging of one aspect or angle over another, such as the mind over the brain or neuroscience over literary criticism. Distinct from the spotlighting protagonistic agency discussed above, multifaceted unity posits

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[53] My theory of the multifaceted unity of knowledge is contiguous with E. O. Wilson's seminal theory of *consilience*, the unification of knowledge from information obtained across disciplines (8). This theory founds his proposition that each discipline can usefully inform the others, and that their combination can be very fruitful.

multiple agents or factors working in a variety of relationships to one another, which may or may not be competitive or collaborative.[54]

At the same time that it posits, for the sake of argument, an ontological unity of the object of knowledge, multifaceted unity is *not* constrained to endorse any sort of static *essence* of this entity. It can pertain to entirely material entities (such as mountains), social phenomena (such as gender norms), and subjective entities (such as memory), as well as the dynamism to be found in all of the above, without necessitating a position on the absolute truth or essence of the entity, since what is being studied is the phenomenological appearance or impression obtained by each epistemological method and standpoint. For example, a comparative anthropological study of the received significance of the cat to Culture A and Culture B tells us what the cat is to those cultures in a way not incommensurable with the way a photograph or a film tells us what the cat is to the camera: the perspective, lens, and methods of each epistemology attach to its product.[55] For these reasons at least, multifaceted unity takes no position on, for example, questions of social construction versus natural essence.

At this point, I'd like to pause to engage the extraordinarily useful insights into different approaches to essentialisms articulated by Sedgwick and Adam Frank in their essay, "Shame in the Cybernetic Fold: Reading Silvan Tomkins,"[56] which I invoke here since their project of

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[54] In spite of multiple connotative and denotative problems with this term, I am tempted to refer to these as "double agents," as a nod to Sedgwick and Frank's observation regarding digital approaches to difference, specifically in Ann Cvetkovich's *Mixed Feelings*: "[S]he descries after much deductive work that Frederic Jameson's discussion of mass culture is 'suspiciously essentialist in its conception of affect' (29). The suspicion resides in the reading eye, not in the read text, but it's a common development, this strange metamorphosis from antiessentialist to ontological private eye" (*Touching Feeling* 110).

[55] See Daston and Galison.

[56] This essay appeared first in *Critical Inquiry* 21.2 (1995), then in Sedgwick and Frank's book *Shame and Its Sisters: A Silvan Tomkins Reader* (Duke, 1995), and finally in Sedgwick's book *Touching Feeling* (Duke 2003). I will be referring to the latest version in my citations.

negotiating with a theory of affect that endeavored to actually posit descriptive accounts of specific affects shares some kinship with the project I am describing, which would endeavor to actually posit descriptive (if not exhaustive or supremely authoritative) accounts of specific aspects of entities such as memory. Crucially, they outline two different structures of thought that have pervaded structuralism and poststructuralism, respectively: the analog and the digital. Pertaining to both technological and theoretical models, the digital system that now prevails is a system which, like an on/off switch, can compute only the values 0 and 1, and as such conceives of difference in terms of binaries (or, often, in terms of the presence or absence of a single factor, such as a given electrical current or masculinity). The analog system, on the other hand, works more like an array or a list, dealing in all values that are more than two but less than infinity, and is able to describe qualitative difference and distinctness, rather than simple presence/absence, like a color wheel, a family tree, or a menu.

Noting the difficulty with theorizing qualitatively distinct affects, for example, under the current digital system of thought, which often results in work which, like Cvetkovich's, melts down these difference into one monolithic term, Affect, Sedgwick and Frank puzzle this out, in a passage well worth excerpting at length:

> Wouldn't it, after all (we imagine the quizzing from any well-drilled graduate seminar), wouldn't it risk essentialism to understand affects as qualitatively different from each other? Yes, it certainly would. In fact, if we are right in hypothesizing that the entire, analogically structured thought realm of *finitely many (n>2) values* is available today only in some relation to biological models, and that the concepts of *the essential, the natural,* and *the biological* have by now become theoretically amalgamated through some historical process, then it makes all the sense in the world that a 'theory' structured in the first place around hypervigilant antiessentialism and antinaturalism will stringently require the sacrifice of qualitative differences among, in this case, different affects. (111)[57]

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[57] See the work of Elizabeth Wilson, especially *Psychosomatic: Feminism and the Neurological Body*, and *Neural Geographies: Feminism and the Microstructure of Cognition* for excellent demonstrations of how this particular amalgamation can be detangled.

Risks of essentialism remain in most structures of thought, Sedgwick and Frank argue, and

cannot be eliminated by choosing one over another: the risk of digital modes of essentialism is as

real as that of analog modes. In fact, digital essentialism requires even greater caution, they

maintain,

> precisely because, under the current routines of 'theory,' it is not recognizable as an
> essentialism. Essence is displaced, under these routines, from the analogic possibility of
> *finitely multiple qualitative differences* to some prior place where an *undifferentiated*
> stream of originary matter or energy is being turned (infinitely) on or off. (112)

Our differential degree of awareness or discomfort with each mode tells us much more about our

own historically specific epistemological and theoretical preferences than it does the actual

degree of essentialist risk inherent in each.[58]

When dealing with concerns of essentialism with the multifaceted theory of knowledge,

it's important to remember that, because it is all-encompassing, there is no aspect of knowledge

that is outside it to subordinate or exclude, and no aspect of knowledge that is necessarily more

intrinsic or central than any other to privilege or essentialize. Because no level of inquiry –

neurological, subatomic, or social – can be believed to hold the "secrets" of the object of study,

and none can be construed as superfluous, this actually pulls the plug on the wildly appealling

prospect of short-circuiting the epistemological process, or finding shortcuts in it, through

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[58] See Sedgwick and Frank: "To see the latter as a less 'essentialist' metaphorics than the former reflects, we argue, only the habitual privileging of digital models wrongly equated with the machine over analog models wrongly equated with the biological" (112). They also point out, "There is not a choice waiting to be made, in evaluating theoretical models, between essentialism and no essentialism. If there's a choice it is between differently structured residual essentialisms. But why be limited to the digital model of choice? A repertoire of risk, a color wheel of different risks, a periodic table of the infinitely recombinable elements of the affect system, a complex, multilayered phyllo dough of the analog and the digital: these are the models that Tomkins's work makes us eager to deploy" (114). Particularly germane to this chapter is their observation that the analog and the biological don't "constrain an understanding of difference, contingency, performative force, or the possibility of change. Indeed, we've been arguing that they may be irreplaceably crucial for access to certain important ranges of difference" (114).

pursuing one level of inquiry as opposed to another (e.g., brain vs. mind, neuroscience vs. other epistemologies). No one approach to the subject can trump or obviate the others.

But can different epistemologies on the same subject be mutually informative? Of course. For example, working with structurally and qualitatively descriptive accounts of a subject together can be extremely useful, like taking along both a map *and* a walking tour book to explore a new city: together they can help you to figure out what it's made up of, and how to get where you need to go within it. Let's take back up the example of the mind/brain, in which neuroscience aims to provide a structural/functional "map" of the brain, involving which structures are used in which cognitive and affective processes, while literature and the humanities aim to provide a more subjective, detailed "walking tour" of the mind, involving descriptions of how thoughts, emotions, and memories operate on a phenomenological level. In addition to potential clinical applications, functional neuroanatomy may (eventually) be able to suggest different cognitive and emotional processes that may stimulate or inhibit one another due to their specific localizations.

To illustrate the unique usefulness of subjective, literary accounts of the mind in collaborative work, let's return to the city metaphor. Given the methodological constraints of their work, neuroscientists are generally bound to studying brain localization in just a few ways: trying to induce a target mental state in a subject who is in or attached to a scanner of some sort, and then analyzing brain activity measured at that moment (which is usually quite profuse and difficult to separate out), stimulating a brain region (depending on where it's located) and seeing what effect it has on the subject, or working with patients with legions in certain areas and observing their behavior. Now, say that the problem at hand for our city exploration project is to identify the building that is on the corner of Euclid and First. While a neuroscientist might be

able to observe the general outline of the building, and note its location in reference to other buildings and streets, their method for deducing its *nature* or *purpose* would be roughly equivalent to placing lab subjects at the doors of the building and asking them who, at any given moment, is going in or out of the building. The trouble with this is that, since most brain regions serve multiple purposes and are part of multiple networks, the subjects might come back with "bankers" at one moment, "students" at another, and "postal workers" at another. Is the building a bank, a university, or a post office? If you had access to a walking tour that told you that three blocks west of the fountain was a large building with very high, ornate ceilings, rich curtains, and, at times, beautiful live music, you could deduce that this was a concert hall. Or, more broadly, if the neuroscientist working remotely had access to a writer "on the ground" relaying detailed descriptions of the behavior of students, audiences of certain events, effects of parades on traffic patterns, and so forth, she would be able to make more sense of what she sees, and learn more quickly what to look for and where.[59] This model suggests just one of the many ways in which knowledge from quite different disciplines can work more productively in collaboration on a shared project.

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[59] This theory of knowledge is compatible with Mario Biagioli's excellent suggestion, in a recent essay in *Critical Inquiry*, that different disciplines work together in specific, problem-oriented collaborative teams: "Rather than seeking some kind of disciplinary kinship between the humanities and the sciences—a naïve project, I believe—we should keep an eye out for points of contact or shared problems. We could then work at those locations for as long as the contact lasts and then move on to other points of intersection. These intersections are not going to be between science and the humanities in general but between specific lines of work in some scientific and some humanistic disciplines, for some period of time. Such collaborations may not even appeal to scientists and humanities practitioners for the same reasons. They don't need to. It's not important to define how these emergent intersections should look and why collaborations should emerge around them but rather to keep an eye out for them. And when they seem to happen, it is important not to frame them through the dichotomies— the "two cultures" image being a particularly influential one—that have framed previous conceptualizations of the relationship between science and the humanities" (826).

Conclusion

The focus of this chapter has been the kinds of meaning we are currently making, in academia and in the public, about ourselves and our approaches to knowledge. These interrelated patterns of meaning range from how we conceive of the mind, the will, and the brain; of technology and technological science; of the value of literature. Among these patterns, certain trends have emerged regarding how we value certain kinds of knowledge over others, both in public discourse and in literary criticism, and how we approach questions of materiality.

The fruits of this inquiry pertain most saliently to pressing questions of how neostructuralisms now protrude from the surface of what we had taken to be a poststructuralist era, and how they combine in complex ways with other, concurrent structures of thought. For example, we have explored the recently renewed investment in material accounts of the subject, and the particular lure of determinism for the haven it might provide from normative regimes of the self via the mind and the will. In the very same discursive time and space, however, we have noted the compelling opportunities promoted for self-optimization via the material, as received neuroscience seems to promise a new way to work on the self.

This chapter has sought not only to observe these cultural and theoretical developments, but to suggest how such observations might facilitate more satisfying collaboration between neuroscience and the humanities. Just as a moderate middle ground is the most promising site for stable and effective agency, the most fruitful interdisciplinary engagements of neuroscience come from approaches that avoid the extremes of adulation and biophobia in favor of a more equitable dialogue. This chapter has endeavored to make such approaches easier to realize, by unpacking and examining the mystique of received neuroscience. Affective elements, such as

desire, popularity, and anxiety, are very much in play in the way neuroscience (as well as other forms of knowledge) is received in both the academy and society at large; given this fact, we would be wise to attend not only to the knowledge claims before us, but also to the hopes and fears they evoke: to the affective transactions that populate discourses of the brain and the self in academia and beyond.

The payoff of this double attention is the ability to identify and disentangle specific cultural attitudes toward neuroscience from the actual knowledge it provides and the questions it raises for our collaborative projects. If we can recognize hallmark elements of the prevalent privileging of neuroscience, and understand where they are coming from, we will not need to reproduce them in our own work, and we can focus more clearly on other intellectual issues that might arise. For example, an analysis of the conflation of mechanism with determinism not only helps to explain what has drawn neuroscience into the limelight, but also invites contextualization of these concerns within the larger history of feminist and humanist reservations, over the past several decades, regarding the essentializing risks of discussing materiality and biology in accounts of subjectivity. Likewise, observation of the way that our ambivalence over agency and determinism has developed alongside an increasing isolation of the individual as the subject of identity, responsibility, and normativity in the age of biopolitics suggests how much we might benefit from a wider lens. Projects that reintegrate accounts of the "cerebral subject" with the social, the environmental, and the habitual provide pathways toward a productive equilibrium between the study of the brain and the study of its context, and between neuroscience and the humanities.

Finally, on an epistemological level, this chapter has aimed to retrieve some of the unique representational capacities of analog structures of thought, such as those that stray from digital

accounts of protagonistic agency to participate in multifaceted unity as a theory of knowledge. It is my hope that this work will contribute in some small part to thinking through productive ways forward from the complex, recursive intersection of structuralisms and poststructuralisms in contemporary thought, particularly with reference to applications such as the problem of materiality in feminist theory. It must also endeavor to aid in forging new, postdisciplinary paths to integrative knowledge, and the theories ventured here to that end will be tested through their application in the rest of this dissertation.

Affect and the Social in Individual and Communal Knowledge Production:
Trauma and Healing

Chapter Three

Gender, Relationality, and Neuroendocrinology
in the Post-Traumatic Consciousness:
Silko, Morrison, and Bambara

"Have to be whole to see whole," Sophie Heywood advises in *The Salt Eaters* (92). Yet

wholeness is elusive for many of the characters in the novels of the 1970s that deal with the

aftermath of war and racial trauma in the United States. Men like Tayo in *Ceremony* and

Shadrack in *Sula* are shattered by the horrors they've seen in battle, and it is their inability to

come to terms with the suffering of others that fractures their perception of the world. Women

like Sula and her grandmother Eva, on the other hand, must witness deaths just as tragic, but

respond in ways that differ as much from one another as they do from the men. All of these

characters deal with the psychological aftermath of trauma in ways that are profoundly

concerned with relationality, but vary according to gender as well as sex, pressing us toward a

more complex theory of gender as independent from sex. At the same time, they demonstrate

how our emotional state impacts not only how we think, but even how we see and hear,

illuminating the role of emotion in epistemology.

Through readings of *Ceremony* and *Sula*, with supplementary considerations of *The Salt Eaters* and Morrison's *Beloved*, I pursue an in-depth investigation of the interaction of gender with the processing of traumatic memory, paying particular attention to the roles of agency and relationality. Through close readings of the way that emotion impacts visual and auditory perception, I build a case for the inextricable influence of affect in everyday perception and cognition, not only in extreme circumstances. By exploring the way that sensations of distance and isolation come into play in this dynamic, I advance our understanding of the roles of relationality and social affect in perception and belief as well. Finally, as apparent contradictions in the relation of gender to traumatic memory emerge, I recruit neuroendocrinology in innovating a conceptualization of gender that allows for substantive analysis without essentializing the experiences of men and women as such. I begin the chapter by introducing this new framework, and then employ it toward the end of the chapter to illuminate gender differences among women in *Sula*.

First, though, a word about reading the individual alongside the social and historical. At the end of Chapter One, I spoke of multifaceted unity, the approach that can accommodate multiple accounts simultaneously, without having to choose *one* facet as the *real* explanation. This approach becomes crucial as we read Silko, Morrison, and Bambara due to the simultaneous nature of their novels as art, intricate weave of imagery and metaphor; as astute psychological observations grounded in the authors' experience; and as historically situated social and political commentary, or record keeping, as Bambara put it. In a 1981 letter to June Jordan responding to Jordan's book of essays just out, *Civil Wars: Observations from the Front Lines of America*, Bambara meditated on her connection with her readers:

> I forget all too often I am a subject-participant in an ongoing history,that what happens around me requires documentation,that what happens inside of me constitutes a process that is important to my groth *and* reflective'indicative of a group journey.CW reminds me in a concrete way,the importance of nailing down the moments,capturing them in words,keeping track.[1]

Bambara understands her creative work not only *in* social history but *as* social history.   Not only are her novels historical documents in themselves, then, but they convey her view of the mirroring relationship between the individual and the collective: "the intimate face of universal struggle," as Jordan terms it (*xi*). As Jordan explains in *Civil Wars*:

> You begin with your family and the kids on the block, and next you open your eyes to what you call your people and that leads you into land reform into Black English into Angola leads you back to your own bed where you lie by yourself, wondering if you deserve to be peaceful, or trusted or desired or left to the freedom of your own unfaltering heart. And the scale shrinks to the size of a skull: your own interior cage. (*xi*)

For writers of this moment, then, the connections among the local community, the larger political context, and the individual mind are extensive, multidirectional, and profound. The genius of these writers is that they can represent all of these levels at once.

To do them justice, then, a simultaneous reading can incorporate all three levels of engagement, even while focusing on representations of the mind of one traumatized character. With regard to the larger community, we can consider the ways in which it may be symbolized through this character, as Phillip Novak and Susan Willis do in reading Shadrack's psychological fragmentation as a figure for the cultural, social, and physical violence done to Black veterans after World War One (Novak 187 and Willis 321). In Chapter Four, I will outline in detail an argument, based in both literature and biology, for the ways in which the community can be

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[1] I have transcribed this quotation exactly as it appears in her letter; Bambara was dashing it off on a typewriter before "taking [her]self to lunch" on her birthday, so we can forgive her the odd typo. (In her typewriting, Bambara habitually omitted spaces after punctuation.) I am grateful to Lynda Leahy at the Schlesinger Library at Radcliffe for her generous assistance with the archived correspondence between Bambara and Jordan during my June 2011 visit.

understood as an organism. Here, I will simply suggest that the individual character can, in turn, be read as a representation of her or his community. The theory of fractals, a concept in mathematics that has generated a lot of buzz through its applications in the life sciences, refers to patterns that repeat themselves across widely varying scales (think of atoms that look like solar systems that look like galaxies). The exciting implication of fractals is that what we can learn on a scale that's easier to observe can at times be extrapolated to shed light on entities at a scale that may be inaccessible to observation (Mandelbrot). For example, fractals catalyzed a breakthrough in forest ecology when the patterns found a single tree (branch spacing, size, and density, e.g.) reflected the patterns of the forest in which it grew (Lorimer et al., Vedyushkin). In a similar way, the fragmented consciousness of an individual can be read as a fractal representation of a fractured community.

On the level of broader historical context, we can read the specific forms that the character's post-traumatic perception takes as rich metaphors for the social, racial, imperialist, and class dynamics of his or her time. For example, Alan Wald's reading of Tayo's hallucinations of his family's faces on Japanese bodies as reflective of the shared struggle of Native Americans and the Japanese against American capitalist imperialism engages this perspective (24-6). Finally, where "the scale shrinks to the size of a skull," the novels represent individual psychology and phenomenology of trauma: what post-traumatic consciousness feels like; how traumatic memory behaves and acts on the subject. This is where considerations of the brain can enter in, in dialogue with accounts of the mind.

The readings I offer here comprise both neurobiological and literary readings of gender, the psychology of trauma in dialogue with histories of racialized violence. The theory of multifaceted unity reminds us that our task is not to single out a single layer of meaning as *the*

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explanation, but to understand them all together, in concert. Of course, each critic has a unique

set of priorities, and my own project is principally concerned with the precise mechanisms

through which emotion influences perception, to build a deeper understanding both of trauma

and of the downstream effects of emotion in epistemology. But all levels of reading are needed,

and work best in synthesis. A psychological reading stripped of historical context would be as

incomplete as one that relies solely on a sociological level of analysis.

Thinking Gender Away From Sex

At the time of this writing, after the advent of third-wave feminism and queer studies, of

feminist science studies, of feminist neuroscience, "gender" has become a slippery subject, and

pinning it down long enough to write about it is no easy task. Not only does each discourse mean

something different by the term, but gender as a category has sustained so many different layers

of deconstruction – each important and revealing – that it is sometimes now difficult to

determine precisely what remains within the parameters of the term. The challenge this chapter

takes up is to do justice to the multiplicity and intersectionality of genders without engaging in

"infinitizing trivialization"[2] to talk about gender in a way that is substantive without becoming

essentializing, while negotiating among different disciplinary vocabularies.

A salient distinction can be noted in the ways the that neuroscience and the humanities

currently understand gender. A good deal of "strategic essentialism" is still present in progressive

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[2] Eve Sedgwick and Adam Frank use this phrase to register the concern that perhaps "some momentum of modernity (call it monotheism? call it the Reformation? call it capitalist rationalization?) has so evacuated the conceptual space between 2 and infinity that it may require the inertial friction of a biologism to even suggest the possibility of reinhabiting that space" (108).

neuroscience, aimed at proving that sex and gender matters to a field that only relatively recently began to stop generalizing to the whole population what they found from studying males alone. Generally speaking, many neuroscientists do understand gender as social construct (Li et al., Fischer), but restrict it to binary terms, according to which masculinity is linked only to males, femininity only to females.

In contrast, feminists in the humanities are coming to endorse a plurality of genders, as theorists such as Eve Sedgwick have articulated it. She argued for a conceptualization of genders not as opposite ends of a spectrum, but as multiple modalities in "orthogonal," or independent, relationship to one another (15). Pushing away from binaristic formulations, she contends:

> If we may be forgiven a leap from two-dimensional into n-dimensional space, I think it would be interesting [...] to hypothesize that not only masculinity and femininity, but in addition effeminacy, butchness, femmeness, and probably some other superficially related terms, might equally turn out instead to represent independent variables – or at least, unpredictably dependent ones. [...] Why not throw in some other terms, too, such as top and bottom? (16)

Importantly, the full array of genders is theoretically open to anyone, regardless of sex, in this paradigm. Sedgwick argued that the neat equation by which masculinity is for men and femininity the proper domain of women must be troubled by everyday examples such as "[t]he boys I know who were so profoundly nourished, and with such heroic difficulty, by their hard-won feminine and effeminate self-regard – and for that matter, the girls who extracted the same precious survival skills from a sturdily masculine one [...]" (12). The practice of assuming that when we are talking about women we are talking about femininity, and when we are talking about femininity we are talking about women, does not justly reflect the complexity and variety of human experience.

As this account of gender is combined with the key humanist principle of cultural and

historical contingency,[3] gender's immense variety and variability both within and among

individuals becomes clear. The somewhat embarrassing problem that arises is how, now, to talk

about it. Since gender can't be reliably tied to sex, and since it is dependent on so many different

and varying factors simultaneously, we cannot necessarily be sure of precisely what it is we learn

by studying what women versus men do in a given context. For the same reasons, terms like

"masculinity" and "femininity" are difficult to populate with a discrete set of definite descriptive

parameters. How do we define these terms? Who is to say?

I maintain that the solution to this conundrum lies in the direction of proliferating,

rather than narrowing down, the possible ways we might conceive of gender. One promising

avenue for this proliferation may be found in neuroendocrinology, the study of hormones and

neurotransmitters that affect the brain and behavior. The variety, multiplicity, and variability of

human hormones are striking, and might offer another useful dimension for considering the

complexity of gender in nonbinaristic terms that are not necessarily anchored to sex. Notably,

among the dozen or so hormones that can affect the various fields of behavior, emotion, and

habit generally associated with gender, none are exclusive to or proprietary of males or females.

Contrary to popular belief (and in spite of their misleading names), androgens and estrogens are

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[3] This principle comprises the belief – a legacy of feminist and womanist studies – that gender is both contextually
contingent and a moving target, changing over the years in culture, and from moment to moment for the individual.
The majority of humanist feminists understand gender as thoroughly defined and influenced by culture (local and
historical), as well as by class, race, ethnicity, sexuality, region, religion, and a variety of other social factors. One
implication of this is that the masculinities, for example, engaged by both men and women in a given social group
will often have far more in common than will the respective masculinities engaged by men of two different social
groups. As a result, careful criticism will not generalize either about the genders of men or women of a particular
group, nor of "masculinity" or any other gender across time, space, cultures, sexualities, and so forth. But gender's
multiplicity and variability must not be used as an excuse not to engage the prominent and pressing issues of gender
and gendering practices in a sustained way. Gender is not a stable universal, but that in no way detracts from its
central importance to the ways that societies and individuals are conditioned and defined. The challenge, then, is to
engage in a substantive analysis of gender without overgeneralization.

both instrumental in the development and functioning of *both* females and males. Testosterone, in fact, is transformed in the brain into estradiol, a form of estrogen, in a process called aromatization (Wagner 350). This set of facts enable us to think about the preferences, temperament, inclinations, and behavior of high-progesterone men,[4] for example, without being restricted to terms such as "feminine" or "effeminate" that imply that they are behaving like a woman. (So far, even terms like "effeminate" or "butch" usually imply a specific affiliation to a certain sex.) Used in the right way, this framework can help to dissuade us from thinking of gender as "proper" to one sex or another.

An added benefit of the neuroendocrinological model is that it allows us a new way to talk in substantive, if tentative, terms about the behaviors, preferences, feelings, and attitudes that one might read as gendered, without necessarily essentializing them. If the traditional model in which a given gender, no matter how thoroughly contextual, intersectional, and shifting, is expected to engage coherently a vast array of behaviors and affects can be combined with the neuroendocrinological focus on *specific* behaviors and affects, it will yield a more complex, and perhaps a more workable, framework. Traditional conceptualizations of gender can be expanded, enriched, and perhaps even reconfigured through the addition of a new dimension in which it becomes possible to think about relationality, emotion, initiative, expression, anxiety, or nurturing in substantive ways that intersect with gender in ways untethered from sex.

Of course, as the previous chapter has demonstrated, neuroscience has a heavy burden both of misconceptions and undue authority in the public eye, which must be addressed in order to undertake actual interdisciplinary work. Misperceptions of the brain and its endocrinology as somehow determining or inborn, or as a sort of ultimate truth that obviates further discussion,

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[4] For discussion of the impact of progesterone on men, see Andersen and Tufik, as well as Wagner.

must be jettisoned from the outset: not only are brain structures and neural networks "plastic," or malleable, shifting with experience, but hormone levels especially are in constant flux, and longer-term patterns among these are likewise extremely sensitive to environmental influence. Furthermore, the model I suggest here works as intended *only* if we understand that neuroscience is not a superordinate discipline but a peer one and a human one, and that the inferences and interpretations neuroscientists produce about hormones are contingent and still changing; that each is one interpretation among many. But a neuroendocrinological approach can prove useful, as I will argue, in working through the difficulties and apparent contradictions that emerge in the relationships among gender, relationality, and the processing of trauma.

Gender, Relationality, and Agency in Men: Crises of Survival

The interface between gender and patterns of relationality is shown in all four novels to be complex and unexpected. The most consistent theme to emerge, however, is that men's trauma is represented as having centrally to do with being exposed to violence against others and not being able to help. The most detailed example of this is found in Tayo in *Ceremony*, who is torn apart by guilt over not having been able to save his cousin Rocky in combat. In addition, when Tayo's fellow soldiers are ordered to shoot some Japanese POWs, Tayo is overwhelmed by a sense that one of the men being shot is his beloved Uncle Josiah – a feeling that continues to torment him long afterwards. His quest for a path out of the madness that engulfs him after these two traumas of survival is the central focus of the novel.

Tayo is far from alone in this particular sort of anguish: in *Beloved*, Halle loses his mind after having to watch Sethe being assaulted by Schoolteacher's nephews, unable to intervene. The

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last time Paul D. saw him at Sweet Home, the plantation at which all three had been enslaved,

Halle had smeared his face with butter. When Sethe is outraged upon learning that Halle

witnessed her assault and didn't avenge her, Paul D. replies, "A man ain't a goddamn ax.

Chopping, hacking, busting every goddamn minute of the day. Things get to him. Things he

can't chop down because they're inside" (69).[5] Throughout *The Salt Eaters*, Fred Holt is

mourning the loss of his friend Porter, who had been stabbed while on the job, much to Fred's

helpless consternation. And in *Sula*, Shadrack's struggles with insanity begin during World War

One, after he witnesses a fellow soldier's head being blown off in battle; his is the only case in

which there was no close relationship between the victim and the traumatized man, but what it

lacks in personal connection it makes up in sheer graphic violence.

This striking pattern, in which men are broken psychologically by their own inability to

save others from violence, abuse, and death, suggests a correspondence between the dynamics of

trauma and gendered ways of defining oneself in relation to others. While female characters such

as Sethe, Eva, and Sula must also face the suffering and loss of their close relatives, they differ in

their approaches to the situation, and they process these losses differently – a set of differences

that I will investigate toward the end of this chapter. Since relationality is central to these

dynamics, a detailed investigation of its role in the processing of trauma will be useful before

delving into engagements with gender. To this end, I will attend to the motif of distance used in

representing the ways that characters process trauma: specifically, how sensations of distance or

proximity figure in their perceptions and cognitions. After exploring the themes of distance and

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[5] A similar story set in slavery is found in Gayl Jones's *Corregidora*: Tadpole's great-grandfather loses his sanity after
some creditors take away his wife, whose freedom he had bought along with his own. They seize her as payment for a
debt, with the approval of the courts. "He said his great-grandfather had just gone crazy after that. 'You can imagine
how he must of felt,'" Tadpole says (151).

relationality in representations of how emotion affects perception, I will return to the question of relationality and gender.

The gendered term "emasculation" implies that helplessness is both shaming and traumatizing for a man.[6] Along confluent lines, the novels explored in this chapter tell a story in which a lack of involvement and agency, particularly in a traumatic situation, leads to isolation, detachment, even madness. This dynamic is writ large in the male characters just discussed at the same time that it is writ small in the novelists' representation of perception and cognition as they are influenced by emotion. While the characters' situations are extraordinary, these representations suggest the possibility that isolation and madness are in fact on the same continuum as the habits of perception and belief that we understand as ordinary. Through investigating representations of visual and auditory perception, I will explore how emotion and the social affect perception and belief through sensations of distance or proximity, arguing that perception and emotion converge not only in extreme situations, but in everyday ones as well.

From "Seeing Things" to Seeing Things: Emotion in Visual Perception

In the representations of visual perception in these novels, we are presented with a host of examples at every point along the continuum between everyday visual function and dramatic, distressing hallucinations in the aftermath of trauma. As this spectrum continues to be populated, it becomes increasingly difficult to distinguish the precise gradations of emotionally valenced visual perception, suggesting that there may be in fact a fluid continuum – a slippery slope, even – between seeing things and "seeing things." In other words, emotion's sway over

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[6] See Ross 311 for discussion of emasculation and masculine anxiety.

perception in instances of visual hallucination differs in ordinary perceptual interpretive practices in degree only.

On the most extreme end of this continuum, we see instances of characters who see things that aren't there, such as has often been attributed to Sethe in regard to Beloved. Akin to these are characters who mistake one person for another in a sustained and persistent manner, as Sethe does when she sees Mr. Bodwin approaching her home and believes him to be Schoolteacher, or as Tayo does when he sees Josiah's face on a Japanese soldier who has just been shot: "he watched his uncle fall, and he *knew* it was Josiah; and even after Rocky started shaking him by the shoulders and telling him to stop crying, it was *still* Josiah lying there" (8). Shadrack's perceptual experience is similar when, in the veteran's hospital, he perceives his own hands to be growing out of control – a perception that is anchored primarily in his visual faculties: "his fingers [...] began to grow in a higgledy-piggledy fashion like Jack's beanstalk all over the tray and the bed. With a shriek he closed his eyes and thrust his huge growing hands under the covers. Once out of sight they seemed to shrink back to their normal size" (9). When a strong emotion or agitated state causes the character to supplant the sight of the object or person in front of them with another sight altogether – a sight that is vivid, persistent, and with which they interact – this is the perceptual impact of emotion at its most extreme, and would be categorized by most as a form of hallucination, delusion, or insanity, temporary or otherwise.

Shadrack's hallucination has been read as a symbol of historical violence: Susan Willis argues that his "imagined physical deformity is a figure for the equally monstrous psychological and social transformations that capitalism in all its modes (slavery, the military, and wage labor) has inflicted on the minds and bodies of black people" (321), a valuable insight. Regarding Tayo's seeing his uncle in place of the Japanese soldier, Alan Wald contends that this "alleged psychosis"

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was in fact nothing of the kind (24). When Betonie tells Tayo of the shared ancestry of Native

Americans and the Japanese, Wald concludes that Tayo's experience was "not the result of

psychotic hallucinations but the consequence of a higher order of perception" (24). While these

historical readings are valuable, they may not tell the whole truth. Due to their large-scale focus,

interpretations that emphasize a sociological level of analysis may not always make room for

considerations of the individual. If we were to understand a character exclusively as a

representative of a social category, we would miss the illuminating psychological insights that the

author has to offer. For example, Tayo's experience is not only one of perception, but of acute

distress, and a sense of guilt that is very specific to his relationship with his uncle, who had died

while he was away at war. When Tayo tells Betonie of his vision, his "voice was shaking; he could

feel the tears pushing into his eyes. Suddenly the feeling was there, as strong as it had been that

day in the jungle. 'He loved me. He loved me, and I didn't do anything to save him'" (124). In

Silko's complex novel, Tayo's distress is significant *both* for personal reasons that are

psychologically significant *and* as an indicator of solidarity with the Japanese against American

capitalist imperialism. Neither reading obviates the other. As a result, critical approaches that

seek a synthesizing, *both/and* approach to interpretation will ultimately prove the most faithful to

the text.

Just beneath this apex of vivid hallucination are instances in which the character sees

what is around him or her, but sees it *otherwise*: as outlines, as Tayo does, or as two-dimensional,

as Shadrack does. While in his own veteran's hospital, Tayo perceives himself to be invisible,

"white smoke," and his surroundings are similarly evanescent to him: "He had seen the outlines

of gray steel tables, outlines of the food they pushed into his mouth, which was only an outline

too, like all the outlines he saw. They saw his outline but did not realize it was hollow inside" (14-

15). Shadrack shares Tayo's sense that those who surround him are insubstantial. Upon being

(wrongfully) discharged from the hospital,

> he noticed that there were many people about, and that he was just now seeing them, or else they had just materialized. They were thin slips, like paper dolls floating down the walks. [...] All seemed to be smoking, and their arms and legs curved in the breeze. A good high wind would pull them up and away and they would land perhaps among the tops of the trees. (11)

In these two instances, the perception that others are mirages of a sort is a manifestation of

feelings of alienation and isolation from those around one, for the traumatized individual, at the

same time that it registers as an inversive representation of the erasure of the veteran of color

from the white-dominated national narrative.[7]

In *The Salt Eaters,* Bambara addresses directly the distinctions – and sometimes

discrepancies – among various types of visual perception and interpretation, as she muses: "The

eyes and the habits of illusion. Retinal images, bogus images, traveling to the brain. The pupils

trying to tell the truth to the inner eye. The eye of the heart. The eye of the head. The eye of the

mind. All seeing differently" (7). In an early scene in the hospital, Velma tries to pay attention to

Minnie Ransom, but is unable to shift her attention from visual memory of her kitchen, which is

still vivid in her mind's eye. Before attempting suicide, Velma had been rifling around her

kitchen in a frantic search, the object of which was unclear. The desperation with which she'd

sought some measure of relief from the clamor of her life now continues to press the sights of that

kitchen upon her:

> All that was so indelible on her retina that the treatment room and all its clutter and mutterings were canceled out. Her kitchen, that woman moving about in obsessive repetition, the things on the shelf, the search, the demand would not let her eyes, let her, come back to the healer's hands that were on her now. (20)

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[7] Alternatively, Matthew Teorey suggests that Tayo's sense of "hollowness mirrors society's false promises, aggressive actions, prejudiced beliefs, and empty consumerism" (7).

In Velma's case, the distance or separation she feels from those around her in the infirmary is not so much a matter of feeling a generalized isolation or hollowness as it is a feeling of magnetized attention, presence, in the memory of another time and place. Her sense of imperviousness to her immediate surroundings as she relives a memory is remarkable, arguably, only in its relatively extreme intensity, not in kind.

Not only is Velma's experience similar to daydreaming in nature, if not in degree, but Bambara ties it to another everyday phenomenon: the influence of attention on the salience of certain objects in the visual field. Velma recalls how her godmother had described the visual aftermath of going into the woods to collect particular plants:

> gathering is a particular thing where the eyes are concerned, M'Dear Sophie taught. You see nothing but what you're looking for. After sassafras, you see only the reddish-brown barkish things of the woods. Or after searching out eucalyptus, the eyes stay tuned within a given range of blue-green-gray and cancel out the rest of the world. [...] The gathering's demands stay with you, lock you in to particular sights. The eyes will not let you let it go. (19)

If the residual effects of the selective visual attention involved in a gathering expedition will, in everyday life, tend to persist for a while after the expedition is over, this phenomenon is not all that dissimilar, Bambara seems to suggest, from the altered visual attention Velma experiences after a distinctly more emotionally laden quest. Here, again, she seems to demonstrate a perceptual state that differs from the everyday in extent only.

Interpretation, rather than perception alone, comes to the fore in *Ceremony*. When Tayo returns home to New Mexico, he feels that the drought he finds there is of his own making. During the misery of the jungle downpours in which Rocky had died, he had prayed for the rain to stop; now, his guilt over not having been able to save his cousin has generalized to include a feeling of personal responsibility for the drought that surrounds him back home. Hence, in all

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directions he sees evidence of his own culpability: "Wherever he looked, Tayo could see the consequences of his praying; the gray mule grew gaunt, and the goat and kid had to wander farther and father each day to find weeds or dry shrubs to eat. [...] he cried for all of them, and for what he had done" (14). In this case, there is no alteration of his visual field per se, as in the examples above; what is influenced is his perception or interpretation of what he sees – what it seems to prove or to imply.[8] In this case, Tayo's interpretation seems influenced by his traumatized state to an extent substantially greater than is perhaps typically found in most people's everyday experience, while his visual perception itself is not strictly affected.

Already the lines between the ordinary and the extraordinary (or what some might be tempted to call the "normal" and the "pathological") have begun to blur; from this point the spectrum extends continuously into the realm of even more commonplace convergences of perception and emotion. These instances are well within the scope of typical perceptual practice, and strong emotion is not required to attain the perceptions that result. Still, they exemplify how perception of one's surroundings is always in some way contingent on one's emotions, viewpoint, or agenda. For example, the witch's story that Betonie relates to Tayo explains that white people "see no life / When they look, they see only objects. / The world is a dead thing for them [...]" (135). Here, the perceptions of the people are an extension of their worldview. In contrast both to this particular worldview and to the sense of remoteness from life that he had suffered through earlier, Tayo's healing progress toward the end of the novel is represented in part as the regeneration of his perceptual faculties, and of the world itself as seen through his eyes: "As far as

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[8] Here, Edith Swan contends that Tayo's "illness is cultural," and that his perception that he is responsible for the drought is a result of the fact that his "universe is founded on a 'world made of stories' (100)" (45). While Swan's emphasis on Laguna culture as a hermeneutic lens for Tayo's distress is often illuminating, here it seems to occlude consideration of Tayo's individual journey through post-traumatic distress and crushing personal guilt.

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he could see, in all directions, the world was alive" (221). In these examples, each vision of the world is a reflection of the mind of the beholder – and the implication is that this is true for all of us, not just those in extraordinary circumstances. The implication, in fact, may be that no one simply lives in "the real world" without the modification of perception by emotion and belief.

Finally, Silko extends this concept to encompass the ways that perception aligns specifically with belief in and commitment to a particular story or paradigm. She puts this elegantly: "The ear for the story and the eye for the pattern were theirs; the feeling was theirs: we came out of the land and we are hers" (255). Through the formulations, "the ear for the story and the eye for the pattern," Silko reminds us how much perception and interpretation are dependent on the particularity of the perceiver. Moreover, her particular use of the term "feeling," here and throughout *Ceremony*, describes a state that draws together emotion, sensation, belief, and perspective, as well as the impact of the social upon all of these. For example, toward the end of his quest, Tayo runs into his old pals, Harley and Leroy. After spending some time drinking with them, the new convictions Tayo had accrued seem to recede: "It was difficult then to call up the feeling the stories had, the feeling of Ts'eh and old Betonie. It was easier to feel and to believe the rumors. Crazy. Crazy Indian. Seeing things. Imagining things" (242). In formulations like these, Silko draws our attention to the often overlooked roles of emotion in cognition as well as perception, and of social influence, in turn, in emotion. Here she suggests that the decision to grant credence to a story, viewpoint, or characterization is a matter of affective and social alignment.

Silko also uses the motif of distance to represent these relationships among emotion, belief, and the social, and their influence on cognition, memory, and perception. For example, the viewpoint Harley expresses, as he tries to convince Tayo to come along to a bar, seems to

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occlude or obscure certain memories in his mind: "When Harley talked like that, things that had

happened, the dead sheep, the bar fight, even jail – all seemed very remote" (24). Conversely,

later in the novel Tayo begins to grant more credence to Betonie's vision, to commit to it more,

after he meets Ts'eh: "Until the previous night, old Betonie's vision of stars, cattle, a woman, and a

mountain had seemed remote; he had been wary [....] but suddenly Betonie's vision was a story he

could feel happening [...]" (186). In these passages, the dual meanings of "remote" as applying to

possibilities, as evaluated cognitively, and to physical or affective distance operate simultaneously,

highlighting the convergence of affect and cognition.

Social Isolation and Self-Consciousness in Auditory Perception

The motif of distance is used in these novels in representations of auditory perceptions as

well, but with a significant distinction. Where visual perception tends to involve inference and

belief, auditory perception is even more closely related to matters of social connection or

isolation. And whereas the impact of more extreme emotion on the visual faculties can result in

feelings of being invisible or insubstantial, its impact on hearing tends to lead to a heavier, more

distressing, and more self-conscious sense of isolation from others.

Suggesting that hearing has, in some sense, a closer relationship to subjectivity, the

novelists represent it as involving a more heightened awareness of the self as a participant or as

remote than is typically mediated through the visualization of distance. For example, shortly

after Tayo returns from the war, he is at a bar surrounded by his friends, but feels cut out from the

scene despite their attention to him: "They were outside him, in the distance; his own voice

sounded far away too" (41). Back at the hospital, Tayo's emergence from his state of "white

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smoke" oblivion to open up to the new doctor is signaled through Tayo's increased ability to hear his voice: "his questions dissolved the edges of the fog, and his voice sounded louder every time he came" (15). In these examples, being able to hear a voice, whether one's own or another's, implies a feeling of connection with the speaker: difficulty hearing one's own voice corresponds to a sense of disconnection from oneself, as well.

The ultimate sort of dissociation, however, is represented through being able to see *but not hear* the world around one. This happens to Tayo at the moment when his rage towards Emo finally descends upon him fully, "[l]ike two days of snow piled deep on the branches of a big pine tree the morning of the second day, when the sun came out and crystal by crystal penetrated the snow, melting it away from the pine needles until a single gust of mountain wind and suddenly all the snow came tumbling down" (62). Taunted one too many times, Tayo lunges at Emo and stabs him repeatedly with a broken bottle. As their friends pull him away, Tayo feels a deep sense of isolation from the scene: "He saw their mouths open, yelling, but he didn't hear them, and the snow tumbled over him. The silence was dense; the darkness was cold" (63). As his own rage overtakes him, Tayo loses access to the sounds around him. This hermetic seal from one's surroundings is, in fact, what the distraught Velma is actively seeking as her gaze hunts around her kitchen just before her suicide attempt, and settles on an hourglass egg timer: "To be that sealed – sound, taste, air, nothing seeping in. To be that unavailable at last, sealed in and the noise of the world, the garbage, locked out" (19). As the social world is represented uniquely though the medium of sound, extreme silence figures the ultimate measure of isolation.

Bambara offers an observation that might help to explain why it is that sight without sound has the most profoundly disconnected, hollow quality. As Velma looks around at the sealed glass jars on her kitchen shelves, she contemplates:

> in the jars was no air, therefore no sound, for sound waves weren't all that self-sufficient, needed a material medium to transmit. But light waves needed nothing to carry pictures in, to travel in, can go anywhere in the universe with their independent pictures. So there'd be things to see in the jars, were she in there sealed and unavailable to sounds, voices, cries. (19)

Bambara was extremely widely read,[9] and her physics here is spot-on. The fact that sound waves need matter for transport can be read as a metaphorical model for understanding why it is that the sensation of seeing without hearing one's surroundings evokes the sensation of being in a vacuum, cut off from the world. And though images can haunt, as Bambara points out (19), her phrasing in the above passage reminds us that it is generally through vocalization that a subject is called, interpellated, summoned. Since most communication among the hearing is primarily oral/aural, the trope of momentary deafness signifies the experience of a specifically social isolation.

Furthermore, while Tayo's visually informed sense of his world being hollow or invisible was accompanied by the sense of his own invisibility as well, representations of auditory remoteness or insensibility tend to involve a heightened, rather than a dulled, consciousness of oneself, a state in which the self feels real but quite alone, visible but heavy with sorrow. Combining self-consciousness and remoteness simultaneously, the emotions that cause auditory sensations of isolation turn the attention inward toward the self, in ways that can be quite uncomfortable. In the dreaded moment in *Sula* in which a hostile white train conductor calls Helene "gal," this self-consciousness washes over her. Having only just boarded the train, Nel in tow, for the long trip back to New Orleans that she had regarded "with heavy misgiving" (19),

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[9] Gloria T. Hull notes that *The Salt Eaters*, "[w]ith its universal scope, it demands our intelligent participation in disciplines and discourses other than our narrowly-conceived own – ancient and modern history, world literature, anthropology, mythology, music, astronomy, physics, biology, mathematics, medicine, political theory, chemistry, philosophy, engineering, and so on" (130). Sekou Sundiata, upon moving into the apartment she'd just left, found that "the bookcases were full of books, probably the ones Toni decided to leave behind... enough to make a library" (Holmes 7).

Helene accidentally enters a car reserved for whites. Just as she and Nel make it to "the door

marked COLORED ONLY" (20), the conductor confronts Helene: "What you think you doin', gal?"

(20), and she begins to unravel:

> All the old vulnerabilities, all the old fears of being somehow flawed gathered in her
> stomach and made her hands tremble. She had heard only that one word; it dangled
> above her wide-brimmed hat, which had slipped, in her exertion, from its carefully
> leveled placement and was now tilted in a bit of a jaunt over her eye. (20)

As the insulting appellation pierces Helene's confidence and remains suspended in the air,

Morrison draws our attention to Helene's hat, which in this passage seems to symbolize her self-

perception, the persona she imagines for herself.[10] Picturing it angled over one eye, we can

imagine how it protrudes in her peripheral vision, a jostling and convicting reminder of how the

anxious Helene must imagine herself to be viewed by others. As its askew position clashes with

the "carefully leveled placement" she had determined for it at the outset of her journey into the

south, the hat's slip symbolizes the swiftness with which Helene's proud and self-possessed

manner is gutted by the specter of the conductor's lazy, racist and racializing scorn for her: the

experience transforms her instantaneously, if temporarily, into the object of this scorn, rather

than a subject of her own determination. In this scene, as well as in those discussed above, the

novelists' representations of auditory perception as it relates to self-perception suggest how self-

awareness is formed in social-emotional context.

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[10] Patricia McKee notes, "Clothing might represent or reform the body, making it look different; this is the case with Helene Wright's clothing, for example" (20-1). Although the most prominent example for critics has been the dress Helene wore on her train journey south, I would argue that this extends to her hat in this scene as well. Chuck Jackson observes that "Helene's guard, 'a beautiful dress,' was supposed to allow her the comfort of dignified, black bourgeois selfhood, but under the gaze of the white conductor, its meaning turns inside out: a worthless or obvious performativity, an attempt to pass (19). However, it is not Helene's intention to pass *as* white, but rather to pass *through* white space [...]" (380). The significance of Helene's hat transforms under this caustic gaze in a similar manner.

Gender, Relationality, and Agency in Women: Patterns and Contradictions

In the above sections we have explored, through the subtleties of representations of visual and auditory perception, how isolation and detachment work on cognitive, emotional, and relational levels to skew perception. Returning to my original formulation, these novels' focus on the opposition of detachment and madness to involvement and agency is also played out in the broader traumatic dynamics of several of the male characters – but this is notably less true for the female characters. Velma was, in fact, overwhelmed by an excess of involvement with others, until she felt torn in all directions with no room for herself. The suffering that distressed her was primarily her own. But Eva, Sethe, and Sula each suffered the loss of a loved one similar to the losses of the men discussed above, all with divergent responses. How to make sense of their difference from the men and from one another is the puzzle addressed in the rest of this section.

Of the traumatized men discussed, only Tayo makes a recovery; all of the others who lost their sanity never manage to regain it. But these three women all manage to endure their traumatic loss without ultimately succumbing to madness, although they do so in varying ways. If living through the horror of a loved one's torment or death, and not being able to save them, claimed the sanity of these men, how did the women withstand it? Issues of agency, involvement, and gendered patterns of relationality arise in this question.

In the representations of Eva's and Sethe's responses to stress, trauma, and loss, survival comes to the fore in a way that it does not in representations of the men. It becomes a salient issue for Sethe after Beloved's return, as it becomes clear that her devotion to Beloved is sapping Sethe's life away. In Eva's case, both Morrison's narrator and the character herself explicitly

stresses the pressing need to survive, to press on, in spite of emotional or relational

considerations:

> When [BoyBoy] left in November, Eva had $1.65, five eggs, three beets and no idea of
> what or how to feel. The children needed her; she needed money, and needed to get on
> with her life. But the demands of feeding her three children were so acute she had to
> postpone her anger for two years until she had both the time and the energy for it. (32)

Years later, Eva responds with irritation when Hannah asks her if she had felt sentimental

mother-love for them, or played with them, when Hannah and her siblings were little. Eva

reminds her of the destitution they'd faced back then, the hunger and disease, and how tirelessly

she'd had to struggle just to keep them all alive:

> They wasn't no time. Not none. Soon as I got one day done here come a night. With you
> all coughin' and me watchin' so TB wouldn't take you off and if you was sleepin' quiet I
> thought, O Lord, they dead and put my hand over your mouth to feel if the breath was
> comin' what you talkin' 'bout did I love you girl I stayed alive for you can't you get
> through your thick head or what is that between your ears, heifer? (69)

While Eva shows her love for Hannah in other ways, throwing herself out of her bedroom

window in an attempt to save her when Hannah's dress catches fire, her rough phrasing in this

last line suggests that, in extreme circumstances, Eva manages to survive by splitting affect from

action.

A single-minded focus on survival is what makes survival possible for Eva, a focus that

demands, in her view, the capacity to do *anything* that seems necessary, no matter how grim. The

desperate poverty she faces as a newly single mother forces her over the brink of a difficult

decision, and she leaves her children for eighteen months on a quest that is never quite spelled

out. But the implication is strongly suggested that she sacrifices her own leg in order to get

insurance money to support her family.[11]

A similar willingness to undertake any desperate act if it comes to seem necessary can be

seen in Eva's response to Plum, who is infantilized and consumed by heroin addiction after he

returns from the war. Unable, presumably, to intervene in any other way, Eva decides to end his

life by immolating him one night, after holding and rocking her delirious son one last time.

When Hannah questions her about this dreadful act, a tearful Eva explains how she perceived his

regression as a doomed quest to return to her womb: and she

> would have left him if I'd've had the room, but a big man can't be a baby all wrapped up
> inside his mamma no more; he suffocate. I done everything I could to make him leave
> me and go on and live and be a man but he wouldn't and I had to keep him out so I just
> thought of a way he could die like a man not all scrunched up in my womb, but like a
> man. (72)

Eva's action is shocking; there can be no doubt about that. But what is clear is Eva's audacious

willingness to intervene in situations she finds intolerable, no matter how unthinkable her

solution may be. Whether such desperate and extreme acts can rightly be called "agency," given

the paucity of choices available to her, and the extraordinary nature of the acts and their

ramifications for her and for others, is debatable. But Eva shows a desperate refusal to disengage

even from the most impossible situations: rather than submit to helplessness, Eva casts about

widely and wildly until she finds some way to intervene, for better or worse.[12]

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[11] Sula brings this up in her fight with Eva upon returning to Medallion (93), and the theory is generally accepted in criticism on the novel (see Homans 191).

[12] McKee reads Plum's immolation as primarily about Eva's preoccupation with policing boundaries (10), while Jackson sees it has her bid to safeguard his masculinity (384). My own emphasis, instead, is on the *manner* of Eva's interventions: in this instance, as in the leap she takes from her top-floor window in an attempt to save Hannah, her mode of action is a drastic one.

While Eva is deeply saddened by her decision, however forced, to kill her child in order to save him from a worse fate, Sethe is haunted and tormented by hers. If, as critics widely believe,[13] the girl who appears at her home is the vivid ghost of Beloved, this form of haunting differs markedly from the torment Tayo experiences. Whereas Tayo is plagued by the intrusive memory of the dead body he took to be his uncle's, as an image frozen in time, Sethe is haunted by the apparition of a *live* and growing Beloved: this is a different kind of confrontation. While it is no less harrowing than Tayo's, it is more dynamic, and may represent an attempt on the part of Sethe's mind to reintegrate the memory of her lost daughter, however fraught the process.

At this point one might be tempted to argue that it is women's persistence in engagement, their refusal to detach or to stand by while their loved ones are in danger, that helps them to survive, and to avoid the isolation that can lead to madness. But Sula's response to witnessing her mother burning to death throws a wrench in any such generalization of women and trauma. In this scene, Sula watches in silence from the back porch, and takes no action. Although it is not clear that there was anything she could have done, she does not attempt to intervene, which shocks Eva. Despite this, Sula doesn't seem tormented by helplessness, nor torn apart by the burden of the memory of her mother's suffering: she does not even revisit it in the novel.[14] Eva believes that "Sula had watched Hannah burn not because she was paralyzed, but because she was interested" (78), and this interpretation is never contradicted.

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[13] For a few examples, see Harris, Krumholtz, and Erickson.

[14] In the sole instance in which the incident is mentioned again, it is Eva who brings it up, in the fight that ensues when Sula returns home after ten years' absence – and Sula is defiant. In response to Sula's mention of Plum's burning, Eva says, "Don't talk to me about no burning. You watched your own mamma. You crazy roach! You the one should have been burnt!" Sula replies, "But I ain't. Got that? I ain't. Any more fires in this house, I'm lighting them!" (93) Sula does not engage with Eva's accusation of having simply watched as her mother burned; her attitude is not guilty but aggressive.

While Sula's example does not defy inference regarding gender, relationality, trauma, and agency, it does preclude any such inferences that would tie gender to sex. In other words, a reading of gender in this case must move beyond the anchored binaries of men and women, and think in alternative ways. Since, as discussed toward the beginning of this chapter, the model of neuroendocrinology might provide one path toward extricating gender from sex, it may prove useful here. The question we might ask, then, becomes, Do the complex behavioral effects of human sex hormones suggest relational postures, approaches, or mindsets that process bereavement and loss differently? By incorporating such considerations into a model of gendered relationality in cultural context, we may begin to make some sense of this puzzle.

Gender Differences Among Women: Sula and Nel

In disarticulating gender from any predictive or proprietary relation to sex, we invigorate our investigation of gender by "putting it in different terms," as Morrison once described her own approach to questions of good and evil in writing *Sula* ("Intimate Things" 215). This frees us to continue to explore the relationships between gender, trauma, and relationality through an analysis of gender differences between Sula and Nel, particularly in their response to the shared trauma of Chicken Little's drowning.

One day when the girls are twelve, Sula and Nel are playing by the river with Chicken Little, a young child from the neighborhood. Sula is swinging him around in circles when he slips from her hands and flies out into the river, never to surface. Immediately afterwards, Sula is openly distraught, while a much calmer Nel tries to comfort her, and, as we later learn, feels proud of her composure (170). The differences between the girls' emotional reactions, as well as

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their outward expressiveness, returns at Chicken Little's funeral (at which they have told no one of their involvement in his death): Nel feels an acute sense of guilt: her "legs had turned to granite and she expected the sheriff or Reverend Deal's pointing finger at any moment. Although she knew she had 'done nothing,' she felt convicted and hanged right there in the pew" (65). While Nel fears discovery, Sula, we are told, "simply cried. [...] she let the tears roll into her mouth and slide down her chin to dot the front of her dress" (65). Both Sula's emotional reaction and her expression of it are less inhibited and less influenced by social concerns such as shame, guilt, and propriety. As a result, Sula's affective, expressive, and social behavior would most likely be judged less traditionally feminine than Nel's – or, at the very least, as demonstrating a different sort of femininity – according to contemporary Western delineations of femininity as engaging concerns with social propriety, editing affective expression down to the accepted range of discreetness, and showing the resilience and composure to focus on attending to others in times of crisis.

If femininity is traditionally conceived as perhaps the most intimately involved of all genders with concerns of conscience, morality, concern for others, and concern for social convention, it becomes apparent how problematic Sula's evident sense of independence from the feeling of guilt is within this framework. It is with Nel, not Sula, that Eva brings up the drowning many years later, accusingly, and Nel who expresses guilt; the experience does not seem to return to Sula's consciousness for the rest of the novel. Reading Sula's relation to gender and ethics alongside Tayo's, it is striking that, while both characters dabble in androgyny to some extent, Tayo's gender evolution, particularly his embrace of the feminine, is profoundly ethical in

nature,[15] while Sula's is just the opposite – and hardly an evolution, at that. Rather than a gradual change over time, Sula's relationship to ethics, identity, and social mores is presented as having been molded in a day. Chicken Little's drowning is recalled only once more in the novel, by the narrator, and then only to explain why Sula did *not* feel guilt, about that or anything else:

> hers was an experimental life – ever since her mother's remarks sent her flying up those stairs, ever since her one major feeling of responsibility had been exorcised on the bank of a river with a closed place in the middle. The first experience taught her there was no other that you could count on; the second that there was no self to count on either. She had no center, no speck around which to grow. (118-9)

As Sula's "experimental" approach to life, to morality, and to gender and sexual norms was founded by these two formative events, it is worth exploring how their mothers' influence, and their understanding of relational ethics, may shape the gender repertoires of both Sula and Nel.

The contrast between Hannah and Helene as mothers and role models is stark indeed, as the ladylike Helene urges Nel to "pull" her nose, and sleep with it in a clothespin, in order to "improve" its shape according to white standards of feminine beauty (18), while the free-spirited Hannah takes lovers indiscriminately (most of them married men), and "never scolded or gave directions" (29). Hortense Spillers aptly observes that "Hannah Peace is self-indulgent, full of disregard for the traditional repertoire of women's vanity-related gestures, and the reader tends to love her for it" (313). Hannah's manner is described as vividly sexual without being traditionally feminine, her only shoes in winter "a man's leather slippers with the backs flattened under her heels" (42). The contrast between gender conventions and sexuality is made explicit in the narrative: "Without ever a pat of the hair, a rush to change clothes or a quick application of paint, with no gesture whatsoever, she rippled with sex" (42).

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[15] See Herzog and Teorey.

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In Hannah's case as well as in Sula's, a neuroendocrinological account of these forms of self-expression might prove at least as helpful as one engaging traditional definitions of femininity. Both the lack of interest in certain "girly" behaviors and the heightened sexual interest and activity find a home under the rubric of testosterone. Popularly believed to be a "male" sex hormone, testosterone is also secreted by the ovaries, and is in fact a key player female sexual arousal as well. Supplemental doses of testosterone are now the routine treatment for women seeking medical augmentation of interest in and pleasure from sex (Shifren et al. 682). Testosterone has many other functions: for example. it also helps to combat depression and increase feelings of well-being in both males and females (Shifren et al. 686), and plays a role in male-male competition and in parenting behaviors (Gleason et al. 466). But for our purposes here, it can provide a useful framework for disarticulating female sexuality from gender norms (be they feminine, femme, or butch), and breaking down the myth of gender-sex propriety that tends to label female behaviors and inclinations that deviate from these norms as in some way "masculine," "mannish," or in any other way trespassing in the proper domain of males.

The link between social norms and morality is implied by Morrison and identified explicitly by Spillers, who contends that "the older Peace women in their indifference to decorous social behavior provide the soil in which [Sula's] moral isolation is seeded and nurtured" (313). Gender and ethics are both rendered ambiguous, even deviant, in the Peace household. Not only do the Peace women depart from traditional femininity with its particular concern for social mores, but Spillers's formulation of "moral isolation" helps to suggest a relationship between concern for social convention and morality that we can read through the lens of attachment. In this field, attachment in the sense of parent-child bonding, groundedness, and secure

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relationships with others intermingles with questions of attachment to social mores and to one's image in the eyes of others.

Sula's outlook on the world may be read as one of perception without attachment. As a lack of judgment taken to the extreme, her viewpoint borders on the amoral: neither the death of Chicken Little by her hand nor that of her mother before her eyes ever seems to haunt her, and she responds with disbelief and irritation when Nel takes exception to her sleeping with Nel's husband. Elizabeth Abel argues that Sula's act of watching her mother's demise, "gripped by the purely visual excitement, [....] had snapped the conventional link between perception and moral cognition, delighting instead in the play of sense data" (429). I would add to this reading the implication that, without a "center" or an "ego" (119), Sula occupies the role of observer almost exclusively, without seeking to turn her attention to her own identity, behavior, or impact upon others. Morrison specifies that this characteristic of Sula's originated when "her one major feeling of responsibility had been exorcised on the bank of a river with a closed place in the middle," teaching her "that there was no self to count on" (118-9). What isn't entirely clear is what, exactly, this exorcism of responsibility refers to: the event of accidentally hurling Chicken Little into the river, and discovering how radically she could cause harm irrespective of her intentions; or, perhaps more likely, Nel's absolution of her after she "collapse[s] in tears" (62). It is conceivable that the calm, the authority, and the social sensibility with which Nel led Sula away from the scene gave Sula a sense of evacuation from personal responsibility that left a moral vacuum, a disengagement radical enough to continue reverberating throughout her adult life.

Sula's approach to interpersonal relationships is likewise one of a quest for information carried out independent of attachment. Abel observes that friendship, for Sula, has more to do with cognitive sameness than it does with empathy: it "demands complete identification, which

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to her means a shared understanding of personal discovery. Nel's position is more traditional: friendship means loyalty" (429). Sula's relational emphasis on a shared outlook as opposed to personal attachment may have become the only path available to her after she learned that "there was no other you could count on" (118-9). The experience that taught her this, the "mother's remarks [that] sent her flying up those stairs" (118), revealed that Hannah didn't like Sula, though she loved her. Though the overheard conversation continued from there, Sula "only heard Hannah's words," frozen in an awful moment in which she was trapped with this threatening and wounding news. This betrayal evidently proved too much for twelve-year-old Sula to bear, and she fled from emotional attachment, in my reading, into the world of "experiment," where curiosity, divorced from emotion, could not cause her pain.[16] So it was that, by the following year, it seemed to Eva that Sula simply looked on while her mother was immolated, "because she was interested" (78).

In terms of neuroendocrinology, social attachment in adulthood is founded in large part on maternal nurturing in childhood (Higgins and George 181), a behavior in which oxytocin, as well as estrogen, progesterone, and prolactin, play a key role (177). Oxytocin is also instrumental in facilitating feels of trust and risk-tolerance, as well as in pair bonding (186). Contrary to popular conceptualizations of the biological as always inborn or determining, these particular dynamics have been shown to be entirely dependent on socialization. For example, the level of maternal attention and affection shown by an adopted female is predicted not by that of her

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[16] Jane S. Bakerman maintains that Sula sleeps with Jude, Nel's husband, "because she is a damaged personality" (553), citing the narrator's account of Sula's "experimental life" (Morrison 118-9). Here, I pursue in more specific terms the history and contours of this experimentalism.

biological mother but by that of the one who raised her (181),[17] and the degree of oxytocin level increases in women after contact with their partners is dependent on the level of support they feel in the relationship (186). Thus, oxytocin may provide a model for understanding both why and how Sula's learning of her mother's dislike of her impeded her ability to form emotional attachments to others thereafter, impacting not only her approach to relationships, but to morality and femininity as well.

The state of current research findings in neuroendocrinology is incomplete and often tentative; of course, Morrison's economical and symbolic representations of Sula as a character, and the forces and events that helped shape her, is likewise not intended as an exhaustive account of human nature, in all its intricacies. I don't mean to suggest, then, that either source provides a fully complete window into the complex relationship among gender, relationality, and trauma, only that they can be fruitfully contemplated together. In addition to more traditional gender analyses, neuroendocrinological analysis can expand our critical repertoire, offering another way to think substantively about the various impulses, behaviors, and relational styles that intersect with categories of social gender.

This multilayered analysis of gender and the post-traumatic consciousness has sought to invigorate the study of both by focusing on *how*, precisely, they operate, and pursuing this

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[17] Comparing Sula with Alice Walker's protagonist Meridian, Barbara Christian argues that both women "are who they are because of their *maternal* ancestry and their knowledge of that ancestry; and it is from their mothers that they acquire their language" (241, emphasis original). This doesn't mean, though, that Sula's relationship with her mother was necessarily a nurturing, peaceful one. While Mary Katherine Wainwright suggests that "Morrison uses her technique of the 'three-woman' household in Sula to show how the roots of Nel and Sula's respective dreams are planted in and nurtured by their childhood upbringings" (136), I'm not sure that "nurtured" is quite the right term. Each family has its own pattern of disturbance in the mother-daughter bond. As Spillers points out, Sula's bruising experience overhearing Hannah's dislike of her is echoed by Eva's response to Hannah's tentative question, "Mamma, did you ever love us?" with "No. I don't reckon I did. Not the way you thinkin'" (67), suggesting that "the intricacies and entanglements of mother love [...] is a dangerous inquiry to engage" (315). In the Wright family, repudiation travels in the other direction, as Helene's studied censure of Rochelle is recalled by Nel's pleasure at the soldiers' disdain for her mother on the train.

question in detail. The psychological aftermath of trauma can be better delineated and understood, as I have tried to show, through investigation into the specifics of the emotional shaping of visual and auditory perception, as well as of cognition and memory. Likewise, exploring in substantive ways how gender interfaces with relational and emotional patterns, with a focus on gender differences among women, allows us to pursue the topic in more specific terms. Finally, neuroendocrinology offers a few framework, a new vocabulary, for thinking about a variety of specific sexual, relational, and affective behaviors in ways that do not necessarily fall easily into alignment with currently available categories of gender and sexuality. These topics are extraordinarily complex, and have a vast history of critical debate surrounding them. By implementing detailed and innovative modes of analysis, we can continue to contribute new and, I hope, useful readings of them.

Relational Epistemologies:
Gender, Community, and Healing in *The Salt Eaters* and *Ceremony*

In the quest for a reliable and sufficiently comprehensive account of how people process

experience and produce knowledge about their world, it is imperative to be able to address the

ways in which they do so together, in the context of social relationships. Yet in the field of

epistemology, which undertakes this quest most directly, social approaches have appeared on the

scene only in recent decades (Schmitt 3; Corlett x), and remain strikingly limited in scope.

Lorraine Code emphasizes that "[s]ocial epistemology claims its title, in large measure, from the

centrality it accords to testimony and to knowledge-conveying exchanges in the real world" (30).

While crediting testimony as a source of knowledge, and naturalistic rather than normative

considerations of knowledge transactions, are progressive moves within the discipline of

philosophy, this field still has a ways to go in providing an adequate account of how the social

bears upon knowledge production. The majority of social epistemological studies to date limit

themselves to the explicit communication of information and the social factors and

environments that influence who is seen as credible (Schmitt 18-19). Those that delve into

questions surrounding the conditions of knowledge tend to focus on science (Schmitt 20-26),

and extensive examinations of these questions in other fields and contexts are still rare.

I hope here not only to widen the scope of inquiry in several ways (most importantly,

regarding how people *think together),* but also to start moving from the transmission of

information to questions of how knowing the world is a dynamic, living process – one

inextricably involved with, and influenced by, emotions, attitudes, self-conceptions, and choices

that are developed in relational contexts, shaped in community. In the previous chapter, I

demonstrated, through the study of novelistic portrayals of psychological trauma, how

thoroughly perception, cognition, and memory – the building blocks of knowledge – are shaped

by emotion, often in relational contexts. My project here is to expand, by looking at novelistic

portrayals of psychological healing, on how central relationality is to the affective, perceptual, and

cognitive conditions that precede and found knowledge, belief, and identity. In other words, the

focus of this chapter is on how others shape how we know ourselves and how we know the world.

Social neuroscience is concerned with the biological "mechanisms that underlie social

behavior" (Harmon-Jones and Winkielman 4), and how the "manipulation of social bonds can

dramatically alter neural, hormonal, and immunological processes" (6). In other words, its

investigations could be conceived as concerning the material, biological avenues through which

people affect one another cognitively, affectively, immunologically, neurologically, and in a host

of other ways. The physiological emphasis of this approach to the interface between an

individual and the social world helps to suggest, to me, some of the senses in which a community

can function as a source of healing for an individual. The continually dynamic nature of social

relationships, in turn, suggests that this works as a process that extends through time. What

particularly sparked my interest as a literary scholar, though, was the possibility that this model of

healing might be extended to include tradition, narrative, and stories – to include literature – as

part of the way people affect one another in material, physiological ways. If humans impact one

another through social means, and if stories have become an essential part of our social

interactions and relationships, then stories might also be thought of as a key means through

which humans accomplish social work, including, for instance, the healing of suffering

individuals. This prospect not only reinforces my heightened interest in reading deeply the

accounts of healing set forth in Leslie Marmon Silko's *Ceremony* and Toni Cade Bambara's *The*

Salt Eaters, it also compels me to think in new ways about the kind of work that novels like this

do, as instruments of socially mediated healing. The more that I do so, the more I become

convinced that both authors posit healing as an epistemological process that unfolds in relational

contexts, highlighting the importance of social epistemology as a lens for thinking about both

literature and healing.

In this chapter, then, as in the rest of this dissertation, I read the novelists I study as

theorists, and analyze their richly complex accounts of the human mind, of healing, of

community for what they have to offer scholarly discussions of social epistemology. The authors

I have chosen are both extraordinary thinkers: progressive, politically engaged, and artistically

ingenious. Since its publication, *Ceremony* has been greeted with acclaim not only for its literary

value but also for its broad usefulness in informing a range of disciplines. In a comparative study

of Silko's theories and those of quantum physicists, for example, Susan Dunston argues:

> Silko's novel has much to offer science toward realizing its own nascent sense of the
> partnerships between fictional and factual realities, between scientific and artistic
> conceptions of truth, between feminism and the gendered culture of science and
> technology, and between knowledge and participation. (158)

In her tenacious commitment to a comprehensive and balanced consideration of the social

dynamics of knowledge, Silko's contribution is priceless.

Bambara's endlessly intricate theory of individual and collective consciousness is

similarly prescient and illuminating. It rests on her belief, as Gloria T. Hull explains, "that all

knowledge systems are really one system and that […] the traditional divisions are artificial and

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merely provide the means for alienating schisms. This basic epistemology is one reason why *The Salt Eaters* is such a 'heavy' book" (130). Another reason why the novel can across as dense, even impenetrable to some, can be attributed to the richly integrative theories of knowledge that its author advances: social-affective, cognitive-volitional,[1] Bambara pursues portrayals of the mind's workings that are faithful to its complexity in incorporating many levels of thought and emotion simultaneously. As a result, she "struggles with the problem of finding words and ways to communicate these forms of knowledge for which we, as yet, have no adequate vocabulary," according to Hull (127). But my own impression of her work sides with that of Adrienne Rich, who reviewed *The Salt Eaters* in a feminist newspaper immediately after its publication, and wrote to her:

> You seem to me to be saying a great deal about the integration of politics and spirituality, of politics and culture, that is vital within a society that no longer knows how to use them on the scale for which they were intended. More than anything, you are writing in this novel like a queen, a banshee, a visionary. (Letter, 7 June 1980).

The work of both novelists is not only breathtakingly elegant, but also brimming with portable, useable theories of how the world is experienced in and through the social realm – theories which must be brought to bear on our understanding of epistemology.

In the chapter that follows, I am interested here specifically in the extent to which knowing can be conceived of as a social and affective *process* – and, in turn, healing can be conceived of as an epistemological process that is often relational in orientation. I begin with a consideration of the roles of affect and the social in epistemology that argues for the importance of process to knowledge, being, belief, and the subject. I then survey the epistemological

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[1] By the term "cognitive-volitional" I refer to Bambara's theorization of the mind and the will – and their products – as fundamentally intertwined. I discuss this concept more extensively in the section below entitled "Agency and Choice in Healing: The Social, Cognitive, and Volitional Complexity of Agency in Epistemology."

dynamics of gender and healing in *The Salt Eaters* and *Ceremony*, with particular emphases on surrogate "mothering" as a mode of healing, perception as a relational epistemology, and thinking through gender and community in culturally specific contexts. From there I investigate the operation of cultural tradition and stories as extensions of community, and the power they offer to resist symbolic domination (in Bourdieuian terms) and to transform and sustain individuals. I attend to issues of agency and choice in the healing dynamics that Silko and Bambara present, and to the cognitive, affective, and social complexity that inheres in questions of agency in epistemology. Finally, I offer a consideration of the potential engagements to be sought between social neuroscience and the humanistic study of the self in relation, disparate though our methods may be.

Affect and the Social in Epistemology

When we examine carefully the components of Bambara's and Silko's representations of healing, what we find are portrayals of how others in the community help individuals to see, perceive, believe, and/or know something through a social and affective *process.* The importance of process to knowledge, being, belief, and the subject is a relatively little-explored aspect of epistemology. According to Bambara and Silko, healing is the process by which a person comes to know and to perceive the world and themselves in a salutary new way, a way rooted in the history and traditions of their community, by means of specific ceremonies and other processes enacted in partnership with a healing community. This formulation presses us to think of healing as a social-affective epistemological process.

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In *The Salt Eaters*, community is theorized as central to the healing of the traumatized individual. Velma Henry's healing takes place over the course of a couple of hours in the Southwest Community Infirmary, yet Western medicine is peripheral to the scene.[2] Instead, she is tended primarily by Minnie Ransom, "the fabled healer of the district" (3), who is assisted in turn by her own spirit guide, Old Wife, and surrounded by a spiritually supportive circle of twelve members of community. Bambara describes the centrality of the community in healing in terms that highlight the importance both of perception and belief to wellness and of socially mediated processes to an individual perspective:

> [S]ometimes a person held on to sickness with a fiercesomeness that took twenty hard-praying folk to loosen. So used to being unwhole and unwell, one forgot what it was to walk upright and see clearly, breathe easily, think better than was taught, be better than one was programmed to believe – so concentration was necessary to help a neighbor experience the best of herself or himself. For people sometimes believed that it was […] all right to become an accomplice in self-ambush. (107)

In this simple yet intricate passage, the components of experience – perception, thought, comportment, belief, and the body – are addressed comprehensively as they pertain to wellness and its lack. The need of a supportive community to help enact a course correction for an individual emerges in this formulation on the level of the will: the community must loosen the individual's "fiercesome" grip on sickness, and the way they must do it is by means of "concentration." Thus Bambara introduces consideration of the role of the will both in individual belief and in social-affective processes of transformation.

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[2] Ann Folwell Stanford notes that novels like *The Salt Eaters* "begin by decentering medicine, placing it and all of its specialties and technologies in a broader context of healers and factors that affect health, but ultimately they redefine it. In the hands of these authors, medicine becomes a rich complex of approaches, healers, and beliefs" (*Bodies in a Broken World* 30).

The model of subjectivity that Bambara endorses resembles the one bell hooks describes from her own upbringing: "We learned that the self existed in relation, was dependent for its very being on the lives and experiences of everyone" (30-1). This fundamentally relational subjectivity helps to clarify community's centrality to healing in *The Salt Eaters*, and why "most of the characters privilege relationships and relational ways of knowing," as Margot Kelley observes (485). Moving beyond the traditional scope of social epistemology, relational ways of knowing encompass all the complex affective transactions, as well as the shared consciousness, that often appear in community settings. In fact, I would argue that relational ways of knowing see social and affective experience, as well as the knowledge they produce, as mutually inextricable, which is why I often amalgamate the term "social-affective." This formulation acknowledges that affect is often significantly shaped by social environment, and that the mode through which the social impacts an individual's outlook is often extensively engaged with affect. Thus, social epistemology can be dramatically enriched through greater consideration of relational ways of knowing – as well as with the irreducible complexity of experience upon which Bambara insists, in a novel that "resists any attempt to separate mind, spirit, body, and social context" (Stanford, *Bodies in a Broken World* 17). Instead, as Avery Gordon notes, "Bambara focuses her creative energy – her power […] on showing the intimate, sensual, and embodied process which heals […] from the bottom up, from You to the world waiting for you to be ready" (269).

Similarly, in Silko's novel the protagonist, Tayo, is healed by means of a network of people, at the center of which is Betonie, the healer who leads the central healing ceremony for Tayo, and Ts'eh, who guides and inspires him as he begins to find his way again. The story, presented in verse, that precedes and informs the healing ceremony is one of a young man who has gone missing, kidnapped by Coyote. By the time his family tracks him down, he has become

transformed almost completely into a coyote himself, and can barely answer them. The

ceremony prescribed to save him comes from the Bear People, who "have the power to restore

the mind" (141). As Betonie and his helper perform this same ceremony for him, Tayo is

beckoned:

> Following my footprints
> walk home
> following my footprints
> Come home, happily
> return belonging to your home
> return to long life and happiness again
> return to long life and happiness. (143)

Here, as in *The Salt Eaters*, belief, emotional well-being, and social belonging are posited as being

intertwined. But this beckoning is part of a different dynamic than the battle of wills found in the

Bambara's Infirmary. This part of the ceremony helps to prepare Tayo for his next steps, the

search for the cattle and learning from Ts'eh; it is part of a longer healing process, one in which

Tayo must take part, one which will be completed through his own actions.

Maternal Epistemologies: Healing as a Gendered Epistemological Process

Bambara and Silko both present healing as a set of socially mediated processes. These

processes often appear as gendered – whether they involve mothering, the embrace of the

feminine, or the claiming of a traditional form of Laguna manhood. These portrayals invite

further exploration into the social and epistemological facets of gendering.

Velma's healing is, according to Carole Boyce Davies, "a ritualistic re-immersion into the

womb" (43). The novel ends as "Velma, rising on steady legs, throws off the shawl that drops

down on the stool a burst cocoon" (295). In the meantime, she journeys through a series of

liminal spaces in her own memory, where images of water and of darkness evoke an in utero experience.

The intense, physical as well as spiritual, one-on-one attention and support Velma receives from Minnie Ransom is consistent with this pattern as well: Minnie provides Velma with mothering of many different sorts. Boyce Davies notes that in *The Salt Eaters*, and the spate of Black women's novels about healing[3] that she credits it with initiating, "mothering functions therapeutically as another caring Black woman assumes the role of healer and 'mother' of the 'daughter' in whom she recognizes herself in need of healing. Significantly, these mother-healers are never biological mothers […]" (41). Given, then, that this relationship is not about "maternal instinct" in a biological sense, the question arises: why mothering? What does this particular gendered and reproductive dynamic tell us about the process of healing?

Minnie is described as a mother of her patients in ways both explicit and subtle throughout the novel. Before Velma had come in, Cora Rider, an "old-timer" in the Infirmary, had seen the healer tend to another woman who was completely undone with grief over her own mother's death, and unable to accept the grief. "'Hold my hand, daughter,' she had coaxed the wailing woman. 'Let me share your pain'" (110). Then, to Cora's disbelief, the woman climbed right up into Minnie's lap, and Cora watched "Miz Ransom rocking that woman like the mothers of all times hold and rock however large the load, never asking whose baby or how old or is it deserving, only that it's a baby and not a stone" (110). In this way questions of merit are bracketed from the nurturing Minnie Ransom offers.

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[3] Among the novels that Boyce Davies identifies as part of this thematic legacy are Walker's *The Color Purple*, Naylor's *The Women of Brewster Place*, Marshall's *Praisesong for the Widow*, and Shange's *Sassafrass, Cyprus and Indigo* (43).

Minnie's method is described in general ways, as well, as that like of a mother-healer: She approaches her patients in a way that's both deeply empathic and also salutary: she tunes into them radically, but also leads them, works them, "welcomes" them into a place of wellness. Bambara describes her process as that of an artist, healer, and midwife all at once:

> On the stool or the chair with this patient or that, Minnie could dance their dance and match their beat and echo their pitch and know their frequency as if her own. Eyes closed and the mind dropping down to the heart, bubbling in the blood then beating, fanning out, flooded and shinning, she knew each way of being in the world and could welcome them home again, open to wholeness. Eyes wide open to the swing from expand to contract, dissolve congeal, release restrict, foot tapping, throat throbbing in song to the ebb and flow of renewal, she would welcome them healed into her arms. (48)

In ways that are extensively physical as well as metaphysical, Minnie is a healer who posits the importance of *knowing* her patient and their "way of being in the world," in order to reach them. Hers is not a blanket cure.

This way of knowing is like the particular sort of hunting that Velma recalls toward the end of her healing, as it was explained to her by Nilda, Inez, and Maazda, members of the Seven Sisters, a multiethnic women's group. This kind of hunting was about seeking out understanding, not about destruction: "To have dominion was not to knock out, downpress, bruise, but to understand, to love, make at home. The keeping in the sights of the animal, or child, man or woman, tracking it in order to learn their way of being in the world. To be at home in the knowing" (267). Being at home in the knowing of Velma, Minnie offers her invitations rather than directives, choices rather than orders. The peacefulness found in this space of feminist knowing suggests a new kind of epistemological mastery.

Ann Folwell Stanford's observations about the healing relationship between Minnie and Velma support both a feminist and a maternal dynamic: "Bambara's text insists, after all, that healing is a release from bondage (a 'ransom' of captives), and that caring constitutes both

detachment and connection at the same time" (28). This kind of caring is empowering but not overpowering, and in that sense could be interpreted as part of a feminist ethic, a maternal one, or both.

Minnie is not the sole provider of healing; she is assisted by Old Wife, a spirit guide. Gay Wilentz describes the centrality of ancestors in traditional Africana conceptions of health and wellness for an individual or a community, contextualizing Minnie Ransom as a "diviner-healer" in this tradition (61). Thus she is, in an important sense, a conduit for the larger community, rather than the font of wisdom in an autocratic, Western model.

This maternal empowerment model recalls "mothering the mind," a formulation which Patricia Hill Collins posits to African-American mothers who

> often try to protect their daughters from the dangers that lie ahead by offering them a sense of their own unique self-worth. Many contemporary Black women writers report the experience of being singled out, of being given at an early age a sense of specialness that encouraged them to develop their talents. (186-7)

The term "mothering the mind" comes from the title of a collection in which Mary Helen Washington's essay on Paule Marshall, Dorothy West, and Alice Walker appeared; in it, Washington argues, "The bond with their mothers is such a fundamental and powerful source that the term 'mothering the mind' might have been coined specifically to define their experience as writers" (qtd. in Collins 187). "Mothering the mind," at its core, then, involves the encouragement and inspiration that impels a child's intellectual development. The concept is expanded to encompass the relationship between a professor and the graduate students she

mentors by Barbara Christian, who refers to herself in as an academic mother and grandmother (174).[4]

How does Bambara's representation of Minnie Ransom advance our thinking about "mothering the mind"? Washington, Collins, and Christian acknowledge that writers, daughters, and academics comes to form their identity, find their way to their calling, by means of a long, involved, deeply relational process of nurturing, guidance, and inspiration. Bambara develops this model of social and relational epistemology further by highlighting its power not only to mold but to heal, by emphasizing the centrality of the healer's coming to understand her patient in order to help this person to "experience the best of himself or herself" (107). This formulation suggests not only that knowledge is rooted in experience, but that experience itself is thoroughly mediated and refracted through *relational* environments and models of thought – and how, consequently, a person or community can *change* an individual's affective, experiential, and epistemological standpoint through modes of healing.

The theme of mothering as a process integral to healing appears in *Ceremony* as well, only it finds a place not just in the healer but in the patient. Paula Gunn Allen interprets Tayo's process of healing as his "initiation into motherhood," one that results in his respecting and nurturing life through plant cultivation among other reproductive arts. Matthew Teorey goes so far as to compare Tayo's symptoms of psychological trauma after the war – nausea and "uncontrolled vomiting, often in the morning" (Teorey 11) – to those of pregnancy, noting that they begin "[a]fter Spider Woman implants the seeds of doubt that cause Tayo […] to nurture a new sense of self" (11). Teorey interprets these as signs of a struggle to adapt to internal changes,

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[4] While this formulation is rarely used explicitly in the humanities, it is widely and more formally observed in the sciences. There it is not uncommon for entire family trees to be drawn out and circulated, outlining the mentorship lineages in a scientific field.

to the paradigm shift from Western patriarchal, destructive norms of manhood to what he terms a "bigendered identity" that integrates "feminine" nurturing (2).

So, "mothering" for Tayo, as for Minnie, is a relational, perceptual, and epistemological posture toward the world, and by implication toward oneself. It entails an attitude of respect for living beings, a perception of their intrinsic value as well as an earnestly sought familiarity with their "way of being". In these senses, it is a particular way of knowing, perceiving, and relating. It is also a particular kind of agency, one that is reproductive rather than destructive, and its characteristic type of epistemological mastery over the world reflects this.

What is not clear in the novels is why the gendered dynamic "mothering" has come so dramatically to the fore. To be sure, the kind of relational and emotional work that healing seems to demand is often gendered as maternal or otherwise feminine work. But whether the significance of this gendering movement extends beyond that remains to be seen. In the critical reception of *Ceremony*, the significance of the feminine becomes more distinct in the context of Laguna knowledge traditions, and thus an exploration of gender and healing in Tayo's case may yield more satisfying answers.

Healing and Perception as Relational Epistemologies

In Silko's portrayal of Tayo's healing process, perception is foregrounded as a measure of well-being. Tayo's mental health depends largely on the form and focus of his awareness – whether it be on the specters of the war he has lived through, on the natural world around him, or on his own presence. Once the healing is under way, Tayo reflects:

> In a world of crickets and wind and cottonwood trees he was almost alive again; he was visible. The green waves of dead faces and the screams of the dying that had echoed in his head were buried. The sickness had receded into a shadow behind him, something he saw only out of the corners of his eyes, over his shoulder. (104)

Thus we get the sense that Tayo's life is gradually being relinquished to him by the horrific memories of war, and the sickness that had pervaded him.

In addition to sensory perception and awareness of presence, a clear apprehension of the pattern set before him both signals and facilitates Tayo's return to health. After the ceremony has progressed further, we are told: "Inside him the muddy water turmoil was settling to the bottom, and streaks of clarity were slowly emerging. Gathering the spotted cattle was only one color of sand falling from the fingertips; the design was still growing, but already long ago it had encircled him" (196). As the turmoil, both emotional and cognitive, settles down, cognitive and perceptual clarity surfaces. Tayo understands the design of ceremony, understands the pattern of the world and his place within it. Allen argues that "Tayo's illness is a function of disordered thinking. It causes him to *see reality in a way that is damaging to him*. That mode of perception, attributed to witchery, is the cause of the illness that is worldwide […]" (11-12, my emphasis). If it was possible for Tayo to think and to perceive in disordered and damaging ways, it is likewise possible for him to do so in healthy and healing ways. As Silko portrays this dynamic, emotion, perception, and cognition are all interconnected. We may not be accustomed to thinking of perception and cognition as damaging or healing, or as intimately rooted in affect, but Silko elegantly details their connection to well-being.

Toward the end of the healing process, we are given this promising sign of Tayo's recovery: "As far as he could see, in all directions, the world was alive. He could feel the motion pushing out of the damp earth into the sunshine [...]" (21). Here, again, Tayo's newfound

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freedom is perhaps most saliently a perceptual freedom. As he learns to cultivate plants, he can feel their motion, their energy, in an empathic, arguably maternal sense that parallels Minnie's tuning into her patients. And what this yields for him, crucially, is an amplified attunement to the reality of nature, the continuation of life, the presence of the land, in spite of witchery and the trauma of war. He is amply aware, in sensory, affective, and cognitive ways, that he is not alone. As Allen puts it,

> The cure for [witchery's mode of perception] is a bone-deep understanding that the true nature of being is magical, and that the proper duty of the creatures and of men is to live in harmony with what is. For Tayo it is planting Her plants and nurturing them, it is caring for the spotted cattle, and it is knowing that he is home. (12)

Tayo finds his home by means of a restored sense of perception, rooted in tradition, and an empathic understanding of the natural world.

The prominence of perception also appears in the theme of darkness unraveling as Tayo heals:

> He had proved something to himself; it wasn't as strong as it had once been. It was changing, unraveling like the yarn of a dark heavy blanket wrapped around a corpse, the dusty rotted strands of darkness unwinding, giving way to air; its smothering pressure was lifting from the bones of his skull. (198)

This unraveling corresponds to another that echoes it at the very end of the ceremony in the kiva, at the end of the book, where the verse appears:

> They unraveled
>   the dead skin
> Coyote threw
>   on him.
>
>   They cut it up
> bundle by bundle.
>
>   Every evil
> which entangled him
>   was cut

to pieces. (258)

The verse seems to continue the story about the man who was saved by his family from Coyote. In this story, the skin Coyote threw on him not only constrained but transformed him, changed his "way of being in the world" until he was almost unrecognizable to his family, and almost incapable of communicating with them. Thus it was no less than a transformed identity that ailed him. The way that Silko describes the darkness finally loosening away from Tayo makes clear that it had been suffocating him, and placing a "smothering pressure" on "the bones of his skull." So as it begins to fall away, Tayo is able to breathe again, to think and feel without the constant pressure on his temples, and to perceive the world (and himself) more vividly as the darkness is drawn away like a curtain. In the story in verse, the man's family are the ones who unravel and destroy the disfiguring dead skin that had encased him; for Tayo, it is done through the ceremony, by means of his family and community, and also by means of his own quest: "He had proven something to himself." So here we find a balance of agency, in which Tayo's own actions do the healing as much as the healing is done to him by others.

Gender in Tayo's Healing: Community and the Divine Laguna Feminine

Among Tayo's healers, gender appears as a salient factor, both in the novel and in its criticism. Kristin Herzog notes the presence in *Ceremony* of what she terms "feeling men," or "male figures who are sensitive instead of ruthless, gentle instead of heroic, community-conscious instead of individualistic" (25). Among these she counts "old Ku'oosh, a wise Laguna medicine man; Robert, the kind uncle and stepfather; and especially Betonie, the Navaho-Mexican medicine man who patiently counsels Tayo and brings about his healing by guiding him through

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the ceremony" (29). All of these men play important roles in Tayo's restoration to wellness.

Boyce Davies noted that mother-healer figures in the African-American women's novels she

studied were never their charges' biological mothers; similarly in *Ceremony*, Tayo's biological

father, a nameless white man who left his mother long before he was born, is not a part of the

picture.

Edith Swan interprets the dynamics among men in the novel as a sign of their peripheral

or impermanent position within a matrilineal society. She argues:

> The message is clear – men are transitory. Upon each construct of masculinity in the
> novel is imprinted the metaphor of substitution: Josiah is replaced by Robert, Ku'oosh
> acts in lieu of Tayo's biological father, Betonie takes up where Ku'oosh left off, Rocky dies,
> and Tayo exists in his stead (43-4).

But in my reading, the picture being painted here is one of surrogacy, rather than transience: like

the "othermothers" Patricia Hill Collins describes (182), Tayo benefits from a community that

provides a flexible web of nurturing.

This community is hardly made up of men alone, however – to begin with, as LaVonne

Ruoff notes, Tayo's grandmother is an important figure in the network as well:

> When he is so terribly ill after coming back from the army, his aunt doesn't hear him cry
> out, but his grandmother does. Also, she is the one who says, in effect, "Well, all this fancy
> medicine isn't going to do him any good –we've got to get a medicine man in here." So
> she is, in a sense, a curer. Thus, in the novel, there is a myth creator or healing woman
> (Spider Woman or Grandmother Spider) and a human grandmother who starts the
> process or brings in extra force necessary to begin the process of healing. (Ruoff and
> Sands 68)

Tayo's grandmother acts as an important catalyst for the healing he receives. As a human

correlate to the central creator, Grandmother Spider, her presence is significant even if her

involvement in the healing process, once she has helped to initiate it, is not extensive.

The figure that is most significant, according to the critical consensus, for Tayo's healing is Ts'eh. As Wilentz argues, "Although Tayo is helped along the chantway by different healers, male and female, it is Ts'eh's part of the ceremony that takes the healing to mythic dimensions" (98). And Ts'eh is described in resoundingly mythic terms. In a published roundtable discussion of the novel, Allen remarked, "If you try to define who Ts'eh is, you find that she is Reed Woman, Spider Woman, Yellow Woman, on and on. That's important because that is exactly who she is. She has many faces, and this is also true of the animals. She is not a spider but, at the same time, of course, she is" (Ruoff and Sands 67). Along similarly mythic lines, Herzog describes Ts'eh as "the symbol of an ordered cosmos in which mind and body are in balance" (32). Ts'eh plays the part of Spider Woman, or Thought Woman, the mastermind, creator, and author of life in its specific patterns, and models for Tayo how to join in this pattern.

Ts'eh is also taken to be a maternal figure by some, in ways that both parallel and depart from the maternal descriptions of Minnie Ransom. Toni Flores calls her "the goddess herself, the nurturer, the land, and, most important, the mother principle in all humans, male and female" (54). This would suggest that, in communing with Ts'eh, Tayo is awakened to his own "mother principle," as Allen might agree, and as the novel bears out insofar as Ts'eh teaches Tayo about plant cultivation. Swan sees Ts'eh in similarly divine terms: "Embodying the feminine principle of the spider matrix, Ts'eh is the source – she becomes Tayo's lover and teacher, his maker and salvation" (56). In this array of roles, all of which are extremely important, Ts'eh as "the source" might similarly be seen as a mother figure who awakens in Tayo his own capacities for nurturing. Allen describes Ts'eh as the "creatrix of the waters of love that flow from a woman and bless the earth and the beloved with healing. It is loving her that heals Tayo" (8). In these terms, Ts'eh's

loving nature reads simultaneously as maternal and as that of a lover. Allen's conclusion is

significant: it is not only Ts'eh's loving Tayo that heals him, but his loving her.

In all of these accounts, Ts'eh is both a divine mother and a guide, both a source of

nurturing and a model for it. While we are told that Minnie Ransom is healing Velma in order to

empower her to join in the work ahead (267), Velma's future contributions remain beyond the

scope of the novel, as it focuses mainly on her past struggles and on Minnie's intensive care of her.

Tayo, on the other hand, is healed in part by his own actions, and Ts'eh's care of him is successful

when it initiates him as a nurturer in his own right. So Ts'eh is a maternal figure, but one focused

more on shaping and teaching Tayo rather than remaining herself the primary source of

nurturing.

Critics of *Ceremony* tend to agree that Tayo is healed in large part as a consequence of

getting in touch with his nurturing side. What they disagree on is whether or not this side of him

is properly conceived of as "female" or "feminine." Judith Antell, for instance, argues that the

aim of Tayo's healing ceremony is to "connect him to femaleness, to the feminine principle"

(218). Toni Flores, who ascribes the illness that pervades society to an unchecked masculine

destructive energy, contends that "Tayo's desperate task is to cure the gender-sick world, that is,

to reestablish the proper harmony of the engendered universe by reestablishing respect for the

female principle and the bedrock necessary willingness to be loved by and to love the Mother"

(54). These labels may be initially perplexing. What do "the feminine principle" or "the female

principle" mean, what do they refer to, and why are they gendered in these terms? It is clear from

the context that both critics are referring to the sort of gentle, empathic nurturing discussed just

above. But the figure of Thought Woman may also be illuminating here, since Tayo's

apprehension of meaning is so central to his healing. Swan reminds us that it is "the maternal

principle which originates and organizes planes of meaning in the Laguna worldview" (57), so in this context the "feminine" may also refer to ordered patterns of understanding.

Swan is arguably in the other camp, however, along with Kristin Herzog. Defining manhood in traditional Laguna terms, Herzog argues that Tayo's "true manhood had been violated" in the violence of war, and that "his sensitivity and his nurturing instincts […] in the end, make him more, not less, of a man" (28). Swan, on the other hand, sees Tayo's war experience as one half of a balance that must be observed:

> Tayo's development as "the taker of life" and "shedder of blood" essential for establishing his identity as warrior/hunter is paralleled by another cycle, growing into the opposite side of this duality. To wit: becoming a provider, the planter of seeds, and a caretaker, the keeper of animals (Beidler 13-18). In short, a man connected to life, nurturance and stewardship of the land. (54)

In Swan's analysis, both of these roles are masculine and befitting a man, even if the patterns of meaning in which they cohere are associated with divine female figures.

In either case, relief from the binary masculine/feminine classifications of human behavior arrives when the role of the land is considered. Swan explains, "For the Laguna the fundamental feminine entity is the earth – it is a holy place. Tayo must, therefore, be re-united with the land" (54). Arguably, then, it is in *this* sense that Tayo must be reunited with the feminine. Allen concurs: "Tayo's illness is a result of separation from the ancient unity of person with land, and his healing is a result of his recognition of this oneness" (7). Since the land is a central figure here, questions of how roles and dynamics are gendered need to be thought through in Laguna terms.

Tradition, Belief, and Story:
Resisting Symbolic Domination through Embodied Communal Knowledge

Gender dynamics in *Ceremony* are illuminated in light of Laguna traditional frameworks. For both Silko and Bambara, reconnection with tradition is likewise a key component of healing. Both authors portray reconnection to one's cultural traditions as an important part of reconnection to oneself, to one's community, and to sanity.

Here, tradition is seen as a valuable resource for resistance, in particular: it can help protect a person or community from witchery, in Silko's terms, or from the serpent, in Bambara's. Both of these terms refer to destructive Western norms that privilege whiteness and instigate self-hatred. Velma reflects:

> Thought she know how to build immunity to the sting of the serpent […]. Thought she knew how to build resistance, make the journey to the center of the circle, stay poised and centered in the work and not fly off, stay centered in the best of her people's traditions and not be available to madness […]. But amnesia had set in anyhow. (258)

In a lengthy review of *The Salt Eaters*, about which she had been corresponding with Bambara, who called it her "favorite kind of review" (Letter 20 Sept. 1980), Adrienne Rich observed:

> Bambara's real concern, if I understand her rightly, is the poison of the serpent, the madness that circulates in the bloodstreams of the oppressed, causing them to destroy themselves and each other, take on the oppressor's values, forget their traditions, devalue their own powers. There is, in *The Salt Eaters*, enormous concern with finding again what 'amnesia' – that potential disease of all people whose history and traditions have been forcibly stolen – has erased of the usable past. (12)

The serpent is similar to the "White sight" that Bambara discusses in her essay, "Deep Sightings and Rescue Missions," as the "propaganda" of the White establishment designed to keep White people in the spotlight as the heroes of the country (171), and as "the affliction of viewing the self

from an outside and unloving vantage point" (172). White sight and the serpent can interpreted

as manifestations of a dynamic that Pierre Bourdieu describes as "symbolic domination," which

> is exerted not in the pure logic of knowing consciousness but through the schemes of
> perception, appreciation and action that are constitutive of habitus and which, below the
> level of the decisions of consciousness and the controls of the will, set up a cognitive
> relationship that is profoundly obscure to itself. (37)

In other words, the serpent is the extensive but unacknowledged catalogue of pernicious

interpretive habits that value Whiteness as superior and that perceive Blackness through the eyes

of the (paternalistic or derisive) White establishment – a catalogue that is simply ingested, rather

than explicitly learned, by those exposed to symbolic domination. As Bambara puts it, "I did not

know […] that I'd already become addicted to the version of the world and my community

promoted by Hollywood movies" ("Deep Sightings" 172). According to Bourdieu, a dominating

version of the world (or *doxa*) garners most of its power by the fact of its unconscious acceptance,

the lack of awareness on the part of its practitioners of the specificity of its rules, values, and

beliefs.

This power proves perhaps most injurious when it acts on self-perception. Carole Anne

Taylor interprets the serpent in another manifestation, the Black Medusa who terrifies Velma's

imagination as "the black woman's internalized, mirror image of negative versions of herself" (97)

or as a "nightmare of the primitive" (98), images come from the racist imaginary of white culture.

Velma had been contemplating this very question, that of the serpent,

> one morning combing her hair, and the answer had almost come tumbling out of the
> mirror naked and tattooed with serrated teeth and hair alive, birds and insects peeping
> out at her from the mud-heavy hanks of the ancient mothers' hair. And she had fled
> feverish and agitated from the room, flopped languid and dissolved at Jamahl's, lest she
> be caught up and entrapped in glass […]. (259)

This passage is mysterious, but it seems that a specter of racist imagery regarding Black women

has appeared to Velma, as she stands before the mirror, with a surge of emotion that is

irrepressible. This may be likened to the kind of internalized oppression that Bourdieu analyzes

as follows:

> The practical acts of knowledge […] through which the dominated, often unwittingly,
> sometimes unwillingly, contribute to their own domination by tacitly accepting the limits
> imposed, often take the form of *bodily emotions* – shame, humiliation, timidity, anxiety,
> guilt – or *passions* and *sentiments* – love, admiration, respect. (38)

If the Medusa that haunts Velma is a form of these negative "bodily emotions," then White sight

is, among other things, a manifestation of the manipulated positive "passions and sentiments"

associated with symbolic violence. Both are effects of the "schemes of perception and

appreciation" that adhere to White symbolic domination. In describing the reclaiming of

tradition, bell hooks observes, "This process of self-recovery enables us to see ourselves as if for

the first time, for our field of vision is no longer shaped and determined solely by the condition of

domination" (31), suggesting the power of tradition in resisting symbolic domination.

Bourdieu is adamant, however, that no amount of consciousness-raising can prevail

against symbolic domination, that it can only be altered by changing the objective conditions that

sustain it. He argues,

> The passions of the dominated habitus (whether dominated in terms of gender, ethnicity,
> culture or language) – a somatized social relationship, a social law converted into an
> embodied law – are not of the kind that can be suspended by a simple effort of will,
> founded on a liberatory awakening of consciousness. […] this is because the effect and
> conditions of its efficacy are durably and deeply embedded in the body in the form of
> dispositions. (39)

As an advocate of accounting for the complex interrelationships among body, belief, emotion,

and the social, I appreciate Bourdieu's reminder of how belief can become somatized. Still, I

would argue that it is possible, without altogether underestimating the power of *doxa*, for this

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process to work in reverse, and for social relationships to be implemented to "help a neighbor experience […] herself or himself" (Bambara 107) in a new way. In fact, the description of the law's effects as "durably and deeply embedded in the body" seems to echo Silko's description of the coyote skin that had enveloped the lost man, transforming him all but completely. Still, even that process proved to be reversible.

Bourdieu's central point, in my reading, is that an entire symbolic order cannot be supplanted by a mere belief. But what it can be supplanted by, I argue, is another symbolic order – or, in Bambara's more elegant and usable phrase, another "version of the world." This, then, suggests the power of tradition as social epistemology: it provides not only the story and the lens through which to view the world, but also the internal social legitimacy, the critical mass, the *embodied* communal knowledge (actualized not just in individual bodies but in an entire people) that provides the force sufficient to overwrite an oppressive symbolic order. For example, tradition is for Tayo the key to resisting the witchery: "A central question for Tayo is whether he will trust himself and his own knowledge, assessment, and critique of his world. Together he and Betonie construct a re-membered story, a narrative that counters the colonized script against which Tayo has been struggling" (Stanford, *Bodies* 50). Bourdieu's focus on objective conditions misses the fact that no condition is experienced objectively, but through a socially informed interpretive framework.

The amnesia that Bambara decries, however, is a direct effect of symbolic domination that occludes and obscures any knowledge tradition that it does not value. hooks explains,

> Social construction of the self in relation would mean, then, that we would know the voices that speak in and to us from the past, that we would be in touch with what Paule Marshall calls 'our ancient properties' – our history. Yet it is precisely these voices that are silenced, suppressed, when we are dominated. It is this collective voice we struggle to

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recover. Domination and colonization attempt to destroy our capacity to know the self, to know who we are. (31)

The history and tradition of the dominated are discarded, according to Bourdieu's framework, for reasons that could almost be described in economic terms: the devaluation of the people leads to the devaluation of their culture and knowledge traditions, which are then neglected due to their low levels of social capital. But Silko suggests that there might be more intentionality at work:

> Their evil is mighty
> but it can't stand up to our stories.
> So they try to destroy the stories
> let the stories be confused or forgotten.
> They would like that
> They would be happy
> Because we would be defenseless then. (2)

This verse encapsulates the power of stories and tradition to resist symbolic domination.

The Epistemological Power of Stories:
Creation, Interpretation, Transformation, and Sustenance

For the Laguna, stories are not only a crucial part of tradition, they are also the means by which reality is created. Swan explains:

> Speech and thought are fundamental human faculties in Laguna precepts. Since words embody thoughts, they create reality. The cosmos sprang from Spider Woman's process of ideation in Ceremony (1) as well as in Laguna origin legends where her intrinsic power is the ability to name. [....] Words mark the inception of reality, so reality becomes a projection of thought made concrete through speech in the verbal art of stories, and storytelling (41-2).

The result of this reality-generating storytelling is expressed by Silko as a world that is both rooted in history and endlessly dynamic:

> Everywhere [Tayo] looked, he saw a world made of stories, the long ago, time immemorial stories, as old Grandma called them. It was a world alive, always changing and moving; and if you knew where to look, you could see it, sometimes almost imperceptible, like the motion of stars across the sky. (95)

The dynamism of the world and the stories that create it paints a picture of an ongoing, perhaps even recursive epistemological and ontological process. Silko expands on this account in a later passage in which Ku'oosh is talking to Tayo in the Laguna language:

> "But you know, grandson, this world is fragile."
> The word he chose to express "fragile" was filled with the intricacies of a continuing process, and with a strength inherent in spider webs woven across paths through sand hills where early in the morning the sun becomes entangled in each filament of web. It took a long time to explain the fragility and intricacy because no word exists alone, and the reason for choosing each word had to be explained with a story about why it must be said this certain way. That was the responsibility that went with being human, old Ku'oosh said, the story behind each word must be told […]. (35-6)

In this view, then, not only is the self understood in relation, but words and stories likewise only become fully coherent within a large network of other stories. Silko points out in her essay, "Language and Literature from a Pueblo Indian Perspective," that "[t]his perspective on narrative – of story within story, the idea that one story is only the beginning of many stories and the sense that stories never truly end – represents an important contribution of Native American cultures to the English language" (50). Moreover, it is the most complex model ever advanced of social knowledge production.

Stories not only create the world, but provide lessons in how to navigate it. "Stories teach what one must know," Swan asserts, "in order to belong, to have health and prosperity, to survive crisis and rear one's children. Stories are knowledge and knowledge is power over the word" (42). The understanding of the world that stories offer can also bring a crucial sense of peace. Toward the end of the novel, Tayo "cried the relief he felt at finally seeing the pattern, the way all the stories fit together – the old stories, the war stories, their stories – to become the story that was

still being told. He was not crazy; he had never been crazy. He had only seen and heard the world as it always was […]" (246). Since stories function as an interpretive lens, seemingly senseless events begin to make sense in light of the right story.

Similarly, the power of story is the power needed to transform identity in cases such as Tayo's or that of the man who was in the grip of Coyote. As Teorey argues,

> Josiah tells traditional stories that reorient Tayo's behavior and identity. The story of not killing green-bottle flies because they helped humans long ago not only arrests Tayo's thoughtless violent impulse to kill them but also ingrains a respect for life and difference that keeps him from killing Japanese prisoners during the war and stops him from murdering Emo with a screwdriver at the novel's climatic moment. (9)

Thus stories help to form and preserve identity, as well as provide the knowledge needed for survival – two functions that at times may be identical. "As the old people say, 'If you can remember the stories, you will be all right. Just remember the stories,'" Silko remarks ("Language and Literature" 58). The stories can serve as a guide and a safeguard through the vagaries of life.

Stories can facilitate survival not only by helping to orient a sturdy identity, but also by acting as a source of strength. During the long and exceedingly difficult march through the rain, carrying the wounded Rocky, Tayo "made a story for all of them, a story to give them strength. The words of the story poured out of his mouth as if they had substance, pebbles and stone extending to hold the corporal up […]" (12). Providing power, providing company, a story can also be a resource in the most trying moments.

Many critics have noted that both novels constitute healing narratives in their own right. Athena Vrettos observes that novels like *The Salt Eaters* "not only represent acts of healing and female healers, but take narration itself as a means of recreating history and healing the past" (472). Wilentz refers to both novels as a "wellness narrative" (55, 88), and argues that "the plot of *Ceremony* itself develops as a healing chant" (88). Carol Mitchell concurs, saying "Silko intends

the novel itself as a curing ceremony, not just for Indians but for anybody who reads it" (Ruoff

and Sands 63). My interest is not only in how these two novels conceive or constitute healing

narratives, but more broadly in the role of literature in the reparative work of the social. If part of

social neuroscience research is concerned with the affective, cognitive, and somatic effects that

people have on one another (Harmon-Jones and Winkielman 6), one-on-one or within small

groups, the argument of this chapter would broaden the scope of this inquiry to ask how stories

and literature might constitute the tools that human cultures have to influence, and even to heal,

one another across larger expanses of time and space.

Agency and Choice in Healing: The Social, Cognitive, and Volitional Complexity of Agency in Epistemology

Bambara connects the power of stories, the process-oriented shaping of belief, and the

importance of community in the theory of social epistemology that she advances in *The Salt

Eaters*. As Avery Gordon observes, "The community is not a panacea for all ills, but it is the place

where Bambara *locates the practice of freedom*, the *second sight* that gives us the knowledge that

we have the sovereignty, the authority, to free ourselves on our own terms" (Gordon 272; first

emphasis mine, second emphasis hers). This "second sight" allows the community member an

alternative lens through which to see the world, furnished by the consequential "version of the

world" that lives in and among the community. The self-sovereignty that this second sight

confers is not only part of the propositional content of this version of the world, but also a

resource that becomes available for use only when the doxa-displacing second sight arrives on the

scene, making resistance to symbolic domination a real possibility.

Bambara's focus on the "practice of freedom" highlights her theory of a pragmatic, process-oriented sort of agency, one that evolves over time through active engagement with the world. Bambara may have arrived at this view with the help of her teacher, "a very surly wise cracking ole lady" who, when Bambara was struggling with knee pain, asked her, "You want I should heal it,or you want to cure yourself by changing the reality that brought it about so's you take notice of what's wrong with your attitudes?" Bambara relays her response humorously: "Quite naturally,being a stupid type student,I opted for the latter,and have limping around for 2 years and really cannot bear another revelation/epiphany/insight,ya know?) says I can clear up if only I'd concentrate.Yeh,sure" (Letter to Adrienne Rich, 30 May 1980).[5] Here, again, "concentration" – that blend of cognitive and volitional powers – is endorsed as the cure (by Bambara's teacher if not yet by the author herself).

The first line of *The Salt Eaters* is addressed from Minnie Ransom to Velma: "Are you sure, sweetheart, that you want to be well?" (3) Throughout the novel, Bambara foregrounds *choice* in the healing process: the power and responsibility to *decide* to recover, to choose health. This decision does not appear instantaneously, however, but is part of a complex volitional process, as Bambara theorizes it: "Took heart to flat out decide to be well and stride into the future sane and whole. And it took time. So the old-timers and the circle concentrated on their work, for of course patients argued, fought, resisted" (108). Paradoxically, the will becomes something of a problem in this comprehensive view of agency: until the patient has enough "heart" to decide to recover, the community must fight their will to resist health.

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[5] I have transcribed this quotation exactly as it appears in her letter; Bambara was knocking it out on a typewriter before "dashing to the airport," so we can forgive her the odd typo. (In her typewriting, Bambara habitually omitted spaces after punctuation.) I am grateful to Lynda Leahy at the Schlesinger Library at Radcliffe for her generous assistance with the archived correspondence between Bambara and Rich during my June 2011 visit.

Those who struggle against recovery don't lack reason for the resistance, however, as Bambara recognizes. Referring to the opening line of the novel, Gordon says, "Minnie Ransom must ask Velma this question fifty times, repeating it over and over again, trying to make Velma hear the question: Are you ready to be better? Do you want to eliminate your own misery or do you need it to live?" (269) Through these questions, Bambara acknowledges the enormous cognitive, affective, and volitional complexity involved in the choice: a form of "misery" may serve a purpose for the patient, while wellness may appear to entail its own set of scary, burdensome, or otherwise unappealing ramifications. A person's perception and evaluation of these different options will tend to depend on her affective state while weighing them, as well as on the version of the world she subscribes to in that moment.

How does one change one's mind, then? Bambara offers the model of holding a thought. "There's nothing that stands between you and perfect health, sweetheart," Minnie tells Velma. "Can you hold that thought?" (104) Holding, spending time with a thought is part of a process-oriented theory of cognition. As Gordon argues, "[f]or Bambara, healing is the process by which you hold that counter-intuitive thought and overcome the resistance to a truth that doesn't so much set you free, as set you up to *practice a freedom that improves upon use*" (270, emphasis mine). Waiting out the resistance of the will to a new proposition underscores the importance of process in cognition and choice. As Gordon points out, agency in this paradigm is a pragmatic affair, the bridge between belief, choice, and practice. And, as Stanford notes, "Minnie exemplifies the attitude toward healing that feminist ethics calls for, an interest in fostering agency […]. Implicit in Minnie Ransom's question is the insistence that Velma be willing to take responsibility for healing and its implications – being well" (*Bodies* 18). In this feminist version of healing, the maternal care that Velma receives is balanced out by the agency she herself is

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granted in the interaction. Healing is not simply done to her, but is something that ultimately

only she can choose to realize.

The sort of agency that Silko theorizes is just as focused on choice, and at the same time

perhaps even more concerned with connection to community. Betonie makes clear to Tayo, as

Stanford argues, that

> Healing will demand a certain volition and participation on Tayo's part – not the
> individualistic and alienating volition that the white doctors call for, but a willingness to
> move further into the ceremony's pattern and to rediscover his part in, and the strands
> that connect him to, the larger web of the human community. (*Bodies* 53)

Silko's theory of agency, then, is a participatory agency, resulting from the interface of individual

choice and the story of the community as a whole. Thus it serves as a foil to the purely

individualistic agency that tends to dominate Western frameworks, and it underscores the

substantial overlaps among volition, belief, and the social realm.

Engaging Social Neuroscience:
Sociohistorical Complexity and the Somatization of the Social

Neuroscience has, in a sense, provided one guiding framework that encourages scholars

to think of cognition, emotion, perception, and memory as being in interaction with one another,

since they all impact and are subserved by the brain, and their pathways are often intersecting.

Likewise, interactionist social neuroscience in particular models a way to think about the

physiological and neurological effects of social interactions, as well as of past experience, for

similar reasons. But the methodological constraints of the discipline as a whole have so far meant

that this kind of richly complex thinking that accounts for a very great number of variables is

difficult for neuroscientists to put into practice in their daily work. Just to give a very brief

overview of the field as I understand it, the fine specialization of neuroscientific fields means that, even just among those who study what we might call "the mind" (as opposed to, say, motor function or visual processing), the majority of its practitioners focus on one specific division of human mental function: cognitive, affective, behavioral, or social. These may overlap (e.g., behavioral and social), but it would be rare for a single researcher to span all of them. In addition, due to the necessity of being trained extensively in a particular field and method, researchers are further dispersed into different scopes of inquiry (e.g., molecular endocrinology, behavioral endocrinology, neural electrophysiology, functional neuroanatomy, etc.). Researchers tend to be further segregated based on their typical subjects and methods, so that those who work with human fMRI studies, hormonal assays, or rodent studies would tend to be most conversant in that particular field of research, and would rarely swap methods. Thus, one of the main contributions that humanists can offer to scholarly thought regarding the mind is at the level of high-altitude, broad-ranging, and intricate theories of the multidirectional interactions among perception, emotion, cognition and social, cultural, and historical context, in addition to physiology.

As the current trend toward increased interdisciplinary dialogue continues, literary critics and neuroscientists will have a great deal to offer one another. For example, let us consider as a brief case study what Silko, Bambara, and their critics might have to say, and what questions they might raise, regarding the study of oxytocin – a hormone implicated in a wide range of functions, affects, and relational dynamics discussed in this chapter, from mothering to aggression to the strengthening of social bonds. The study of oxytocin as element in relational interactions is part of the field of "*social neuroendocrinology*," which, "by definition, attends to the joint and mutual influences of social context and hormones," according to behavioral

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neuroendocrinologist Sari van Anders (66). Since hormones can impact (and be impacted by) perception, affect, and behavior, social neuroendocrinology is one way of studying the relationships among these elements of experience and the social contexts in which they appear.

The specific mechanisms through which these relationships take place are extraordinarily complex, however. For example, van Anders, Goldey, and Kuo note that the dysregulation of oxytocin response that may result from involvement in abuse (whether as a victim or a perpetrator) could occur at any of several levels: "at the neural level, i.e. that social bond systems have not developed along typical patterns; at the hormonal level, i.e. that OT [oxytocin] does not respond to bond-related stimuli; or at the perceptual level, i.e. that bond-related stimuli are not perceived as such" (1271). This type of complexity illustrates the multiplicity of sites and mechanisms (from habits of perception and categorization to neurological development and neuroendocrinological response patterns) through which past experience can impact upon a person's present-day responses to the world.

While the tendency of neuroscience research, broadly speaking, is to seek out stable and generalizable accounts of *the* function of a hormone or a brain region, Jennifer Bartz and her colleagues argue that an interactionist approach is necessary to understand how context and individual traits matter in oxytocin responses. This means that they look for oxytocin-related patterns that arise *in the interface* of the individual and the social context, emphasizing the impact of interpretation: "Importantly, individuals can differ in the value they assign to certain stimulus types or in the expectancies they have about the meaning of those stimuli, and these 'psychological ingredients' underlie individual differences in behaviors in a given context [82,85]" (302). This interactional complexity opens the door to consideration of how a person's background, history, and culture might influence their perception of certain stimuli. In the terms

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of this chapter, this is where tradition, and the power of stories to shape a worldview, would come into play. The way a person or community might interpret a given experience depends on which version of the world they subscribe to, or what kind of story they see it as a part of, Bambara and Silko would argue.

Adding temporal depth to the picture, van Anders et al. speculate that the differential steroid/peptide responses they may see between men and women in certain contexts

> could relate to evolved functions, social roles, and/or socializations. As an example, certain activities may be high T [testosterone] competitive for men but not women, because men have been taught to value those activities as competitive, while women have not (e.g. handshake grip strength); or women have not been encouraged or allowed to engage in those activities, while men have been. (1272)

Socialization, then, could lead members of certain groups to read a certain situation differently (e.g., as competitive or cooperative; as stressful or relaxing; as familiar or unfamiliar) due to the social roles to which they have become habituated. The steroid/peptide response effects of this socialization may, arguably, be one manifestation of what Bourdieu calls the "*somatization of the social relations of domination*" (23), although in this case the somatized social relations may or may not be saliently inflected with symbolic violence. This process is one in which "the distinctive identities instituted by the cultural arbitrary are embodied in habitus that are clearly differentiated according to the dominant principle of division and capable of perceiving the world according to this principle" (23). In other words, social roles that determine a person's identity, their self-perception, and the functions, characteristics, and situations that they come to see as "mine" or "not mine" are realized through both social and somatic means, via the habitus, with demonstrable neuroendocrinological effects.

This pattern, the diverse ramifications of culture as described by thinkers as diverse as Bourdieu, van Anders, Bambara, and Silko, must inform contemporary questions in social

neuroscience as well as other fields. For example, a debate appeared in *Biological Psychiatry* in 2009 regarding the best way to interpret the results of an experiment regarding oxytocin. In a study by Simone G. Shamay-Tsoory and colleagues of young Israeli adults, oxytocin was administered in test conditions in which participants believed that a fellow competitor in a game of chance had fared better, worse, or the same as they had (866). The participants were then asked a few questions that were designed to detect envy or Schadenfreude. Since those who had received exogenous oxytocin yielded, on average, somewhat higher ratings of both unattractive emotions than did the control group, this study caused a stir among the research community that had, to that point, taken oxytocin to be primarily a prosocial hormone (864).

The debate that ensued concerned how to develop a revised theory of oxytocin and social interactions: the lead author of the study proposed a "social salience hypothesis" (35), in which oxytocin is thought to modulate all social emotions, positive and negative. Other neuroscientists wrote in with alternative interpretations: Mattie Tops argued that oxytocin instead increases a willingness to engage with others (5), while Andrew H. Kemp and Adam J. Guastella maintained that "oxytocin may serve to increase approach-related behaviors while inhibiting withdrawal-related behaviors" (33). But in seeking one universal, generalizable account of how oxytocin works, all of these authors overlook the cultural specificity of the participants studied, the relational responses tested, and the measures used to test them. For example, the original study depended on responses to "relative loss" or "relative gain," vis-à-vis the other player (who, as it turned out, was fictitious) (866). But these responses are intimately involved with cultural frameworks such as individualism vs. communitarianism, which Bambara and Silko have established as a major player in the way cultural tradition influences how a person views the world. For instance, an individualistic culture and a community-oriented culture may propagate

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competitive and cooperative instincts differently. And responses to the individual fortune or misfortune either of oneself or a neighbor might register quite differently in a culture in which resources and burdens are shared, as opposed to one in which they are dealt with by individuals discretely. These issues would seem to precede the questions and measures set forth in the study, yet at no point do the authors describe or analyze the cultural mores of their participants as they may bear upon their target questions.

Finally, as van Anders and colleagues point out, pre-existing social frameworks and assumptions often bleed over into the neuroscience research a culture produces. For example, they point out the "gendering," in research on peptides and testosterone, of

> the topics studied: research with T [testosterone] has mostly been conducted on the competitive side, which neatly fits with cultural attitudes about masculinity and T, and much less attention has been paid to the nurturance side (cf. Storey et al., 2000; Fleming et al., 2002; Trainor and Marler, 2002; van Anders and Watson, 2006a, 2007; van Anders and Gray, 2007). (1272)

While testosterone is important for both males and females, its popular connotation as a male hormone and a symbol of stereotypical Western masculinity has helped to facilitate this imbalance in the research. This particular cultural division, between masculinity and nurturing, recalls the very issues that concerned both Tayo as a character and critics of *Ceremony*. Without energetic critical effort across neuroscience, literary criticism, gender studies, and other fields, a certain circularity of cultural production will continue, in which the questions we ask and the answers we find are circumscribed by the preconceptions we bring to the table.

Conclusion

In the pursuit of a comprehensive and faithful account of how human beings know their world, we would do well to draw on the expertise of as many disciplines as are concerned with these questions. Among the most prominent fields in the conversation, social epistemology and social neuroscience are both of great value, but necessarily somewhat incomplete. Social epistemology tends to focus on formal knowledge, and does not yet extensively incorporate considerations of the interactions between emotion and cognition, or the materiality of connectedness. Social neuroscience does include studies that engage this kind of complexity, but its methods constrain it to focus, ultimately, on measures of individuals, rather than expanding the ways that thinking and feeling emerges from groups, and the quest for universal explanations that tends to inhere in scientific discourse often precludes studies that seriously incorporate cultural difference from gaining substantial attention. The unique position of trailblazing novelists such as Silko and Bambara as theorists of human nature, however, enables them to develop accounts of the mind in social context that is both broadly comprehensive and deeply complex. As a result, they can help scholars to synthesize the findings of an array of fields, and push us toward more satisfying accounts of knowledge.

Conclusion

The ultimate concern of this dissertation has been the role of affect in epistemology: the impact of emotion and the social on knowledge production. Attendant to this investigation are three core propositions. The first is that knowledge is a *process*. The second is that trauma and healing, my chosen case studies, are processes that involve knowing the world in a new way, and are often shaped in relational contexts. The third is that, in these cases as well as in everyday experience more broadly, knowing, feeling, thinking, perceiving, remembering and relating are all mutually inextricable.

In my investigations of the dynamics of affect and the social in knowledge production on both individual and discursive levels, issues surrounding agency and relationality have come persistently to the fore. Over the last twenty years, revisions of agency along relational lines has been key to feminist critiques of postmodern subjectivity, particularly as advanced through feminist trauma studies. For these theorists, empowerment is emphasized over individualistic autonomy as a conceptualization of agency. Agency, on this account, is not necessarily set up in opposition to others; rather, other people, relationships, and relationality can be key to the formulation and realization of agency.

Concerns regarding agency are also at the heart of the "neuroscience fever" that has heightened in American public discourse over the past decade or so, as I have argued. As mechanism is conflated with determinism, we can observe the interplay between two fantasies of

the will that pull in opposite directions: fantasies of determinism, and fantasies of self-making. This discourse contains, in other words, both the hacker imagery of "rewiring" one's own brain, promising the tantalizing power of supreme control over the self, and the deterministic imagery of being "hardwired" to think, feel, or behave a certain way, offering an "out" through a narrative of having no control over the self ("my neurons made me do it"). This has largely to do with the self-optimization imperatives – and the flight from them – that attend our current era of biopolitics, as I have discussed.

These apparent contradictions may also have to do, however, with concerns over *boundedness*: the ways we currently imagine the boundedness of the brain, of the body, and of materiality are mutually implicated with our concerns over the boundedness of the will and of agency. In fact, it is almost as if the recent focus on the materiality of the brain makes us feel somehow more isolated as individuals, confined to the boundaries of our bodies. This is due, again, to misconceptions of what it means to have a brain: the simple fact that thought and other ways of processing experience are subserved by neural mechanisms does not in any way undercut the real importance of the social and relational world we interact with every day.

A multiplex, or "both/and," approach to complexity is needed to reconcile these concerns. We are material, social, biological, relational, thinking, feeling beings, neither utterly determined by our neurology nor untethered from it. We often realize agency *through* our relationships with others, rather than in opposition to them. And, as our emotional experiences in relational contexts continually shape the way we think, perceive, and remember, they ineluctably inflect the knowledge we produce about our world.

My hope here has been to contribute to interdisciplinary or postdisciplinary horizons of collaboration between the humanities and the sciences, and particularly between literary criticism and neuroscience. Facilitating a dialogue that maintains an egalitarian equity between the two fields is much easier said than done, as I have found, in no small part due to the tangle of differential attributions of epistemological privilege that surround them in contemporary culture. In addition to that, it is still exceedingly difficult to weave together in one project the *use* of neuroscience to illuminate the workings of the mind, feminist and other analytical *critiques* of neuroscientific methods and operating assumptions, and a contextualizing *history* of the various cultural and theoretical investments that drive the reception of the discipline in Western popular discourses. This kind of varied and simultaneous set of approaches to a field requires a multiplex theory of knowledge that is not yet well established in critical practice – but which my project aims to work toward.

In the Introduction, I elaborated on my particular investment in the novel due to the opportunity it provides for the author to develop a theory of subjectivity as well as of a range of other topics, and a symbolic system through which to represent and demonstrate these theories. Given my focus on relationality, novels prove especially useful in their capacity to offer a representation of the social world that is complex and verbal and intricate. Furthermore, the novelist has a wide range of movement allowing her to move freely among individual minds, local communities, and the larger world, probing the relationships among all of these. This macroscopic, analytical, and theoretical freedom makes the novelist, in fact, a particularly apt partner for the neuroscientist, who is often bound to the microscopic, to what can be proven and replicated through laboratory experimentation. Given their shared devotion to the understanding of the mind, as well as their divergent and complementary methods and scopes,

novels and neuroscience are well poised to shed light together on pressing matters such as the interplay of cognition and emotion.

Finally, I have endeavored with this dissertation to begin to contribute to a larger project: namely, bringing clarity and nuance to our understanding of underattended aspects of epistemology. In choosing a combined focus on the role of affect in knowledge production on both discursive and individual levels, I have aimed to allow each to illuminate the other. From this project I hope ultimately to work towards a new "humanities studies," a complement to science studies that contemplates the distinctive foundations, methods, and conceptual apparatus of humanistic work. In reintegrating the affective and social elements that had been banished from Western notions of rationality and autonomy in knowledge production, my goal has not been to chastise or embarrass. The fact that our epistemic grasp on the world will always be in some way shaped by social constructs and emotional impulses is not only part of what makes us human, but also suggests what makes the pursuit of knowledge compelling and rewarding. We cannot excise these elements, nor should we try to do so. But by acknowledging and making room for them in our accounts of knowledge production, we can make great strides toward making these accounts more reliable, more robust, and more useable.

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