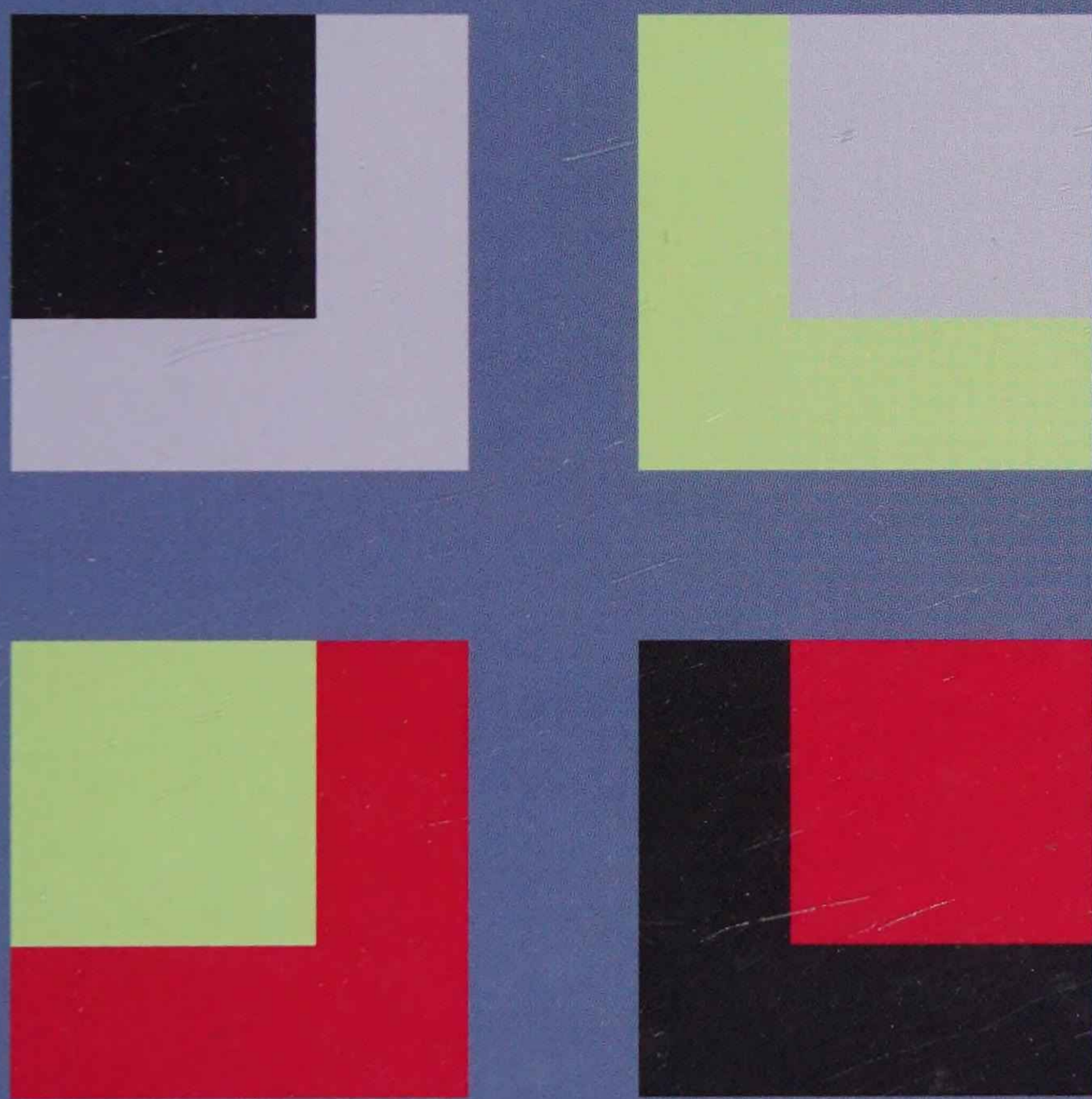
Constructing the Self

Valerie Gray Hardcastle



Advances in Consciousness Research

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Constructing the Self

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Constructing the Self
by Valerie Gray Hardcastle

Constructing the Self

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To the man who wore red suspenders

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Preface

For a brief moment, I thought about dedicating this book to all the men in my life, for being a woman raised as I was, despite this being the twenty-first century, my personal identity has arisen mainly through my interactions with people of the totally opposite sex. And what could be more appropriate for this book, than a dedication underscoring my own reflections of who I am and how I got to be this way?

However, to be perfectly honest, most of my self has come from my reacting against the men in my life, much to their own consternation and dismay. They may take small comfort in knowing that I am a better and more interesting person for it, but probably not. I realized that this is not the stuff of warm and endearing dedications. So instead I am dedicating this book to the man with whom I am now privileged to celebrate my ways of being, though he's had less to do with the life adventures that have carved out my soul. He should count his blessings! He is a rare and beautiful treasure, and I am very, very lucky indeed.

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In addition, I publicly tried out many of the ideas that made it to these pages at several different venues. I also publicly tried out many ideas that did not make it to these pages. My deepest appreciation goes to the audiences at the Association for the Advancement of Philosophy and Psychiatry Group Meeting, American Philosophical Association-Eastern Division (1997); the Pavlovian Society Annual Meeting (1997); the Emotions, Consciousness, and Qualia Workshop (1998); the Narrative and Consciousness: Literature, Psychology, and Cognition Conference (1999); Cognitive Science in the New Millennium: Foundations, Directions, Applications, and Problems (2002); the University of Arizona, Tucson (1999); the University of Cincinnati (1999, 2000, 2002); Virginia Tech (1999), Northern Illinois University (1999); East Carolina University (2000); Binghamton University (2000); Washington University at St. Louis (2002); Alleghany College (2002); the University of Oslo (2006); the Kentucky Philosophical Association (2008); and Miami University (2008) for helping me cull the good ideas from the bad.

I also thank Cheshire and Kiah Hardcastle for permission to use their journal entries in my discussion of children's narratives. Even though their diaries are marked "privet," they made an exception for what they understood to be a good cause.

Finally, I owe special thanks to John Bickle and several anonymous referees for reading and commenting on previous versions of the manuscript, to Maxim Stamenov for his encouragement, and to Kiah Hardcastle for proofreading and indexing the book. The final product is much stronger because of audience participation and careful scrutiny by my colleagues and daughter. Any remaining lacunae are due solely to my own pig-headedness.

I am memory alive
not just a name
but an intricate part
of this web of motion,
meaning: earth, sky, stars circling
my heart
Centrifugal.

–Joy Harjo, *Skeleton of Winter* (1983)

CHAPTER 1

On being a person

> *It must be some one impression that gives rise to every real idea. But self or person is not any one impression, but that to which our several impressions and ideas are supposed to have a reference. If any impression gives rise to the idea of self, that impression must continue invariably the same, through the whole course of our lives; since self is supposed to exist after that manner. But there is no impression constant and invariable. Pain and pleasure, grief and joy, passions and sensations succeed each other, and never all exist at the same time. It cannot therefore be from any of these impressions, or from any other, that the idea of self is derived; and consequently there is no such idea.*
>
> –David Hume, *A Treatise on Human Nature*

David Hume claims that we cannot experience our own selfhood. And yet, in most cases, we do not have difficulty recognizing others or ourselves as people. Are we just mistaken, as Hume thinks, in treating a succession of perceptions as a unity? At the same time, it does *seem* as though we have a good sense of self. It is not just that we have an illusion of an enduring thing, but that we can make predictions about what we (and others) are going to do, based on our experiences with ourselves as selves. We *understand* ourselves as things with selves, things with unique selves. My way of being is both a distinct way and a way different from yours. What is this "way" if it is not something I can introspectively identify? This book is about how to understand our ways of being; it is about what it means to be a person.

But first, some preliminaries. When thinking and talking about the ontology of persons, three questions arise.[1] First, there is the question of *personhood*: What makes people persons? What distinguishes people from other animals, well-designed computers, or alien Martians, if anything? My Aunt Francis, now in her eighth decade, is locked away in a special home for those suffering from Alzheimer's disease. Though she has always been a bit New Agey, and so, by my lights, a bit eccentric, she used to work full time for an insurance company and she single-handedly raised my cousin Tom, her son, to be a successful man. By just about any definition of normal, she was normal. But things begin to unravel last year, when she sold her home to move into a retirement community. She became increasingly

paranoid, convinced that Tom, in his efforts to help her fix up her house for sale, was actually bilking her out of all her money. Once she moved into her apartment, she believed that people had broken into her home and stolen her medication and her car keys. (She had mislaid both.) Finally, one day, convinced she had been kicked out of her new home, she wandered the highways, thinking that she was looking for a new place to live, but really being mainly lost, mentally and physically. She now becomes psychotic if she doesn't take her medication before sunset – so-called sundowners syndrome – and spends her time in a hospital designed for people like her. But she is okay; she thinks she is at an AA retreat hosted by the Jewish Community Center. Still, her prognosis is not good; her brain will continue to deteriorate until she no longer can believe much of anything at all, much less complex fabrications about the nature of her life. She will become infantile, then comatose, then she will die. The question is: at what point, along the continuum of her slide, does she stop being a person? At what point is "nobody home" anymore? When does she move from being eccentric but normal to being incompetent but still a person to no longer being a person at all?

The question of personhood becomes important as we try to decide how to treat embryos, the senile, and the mentally challenged. In our culture, persons have inalienable rights; non-persons don't. (Whether non-persons should have rights is a separate question and would require a different book and a different philosopher to answer.) Knowing when Aunt Francis stops being a person helps us to know how we should treat her. Are autistics persons? Are schizophrenics? Settling the question of personhood will answer these questions, too.

Second, there is the matter of *re-identification* (some philosophers label just this the problem of identity, but I think all three questions I discuss are tied up with our notion of personal identity): Is this person before you now the same person you saw yesterday or thirty years ago? Can one become a different person? Philosophers often dream up silly stories to illustrate the difficulties with re-identification. If I could divide like amoebae, would my offspring be me? Or be not-me, but otherwise identical to me? Would I cease to exist? If you could copy my brain and put it into another body, would that body then be me? What if you copy the brain, transplant it, and then destroy the original? Star Trek seems to have this matter all figured out. When Scotty beams Kirk up using the Transporter, a computer maps out all of Kirk's molecules and then reconstructs a duplicate on board the ship while simultaneously destroying the original on the outpost. No one on the Enterprise believes that identity isn't somehow preserved in all this. After all, this move isn't really all that different than what happens over the course of our lives as cells die and are replaced. We aren't the same physical thing over time. Our mental attributes change as well. So what criteria should we use to pick out the same person across time, if we can't use physical or mental ones?

Here is perhaps a more realistic example of what I am talking about. In the successful treatment of patients with Dissociative Identity Disorder (née Multiple Personality Disorder), the various personalities merge into each other. Eve's three faces became one, and the one that was left retained some attributes of her ancestors, but not all. When this happens, does the patient cease to exist? Continue to exist as something else? What about the personalities who merge? Are people lost or fused? How much can I change and still remain me? Answering these sorts of questions will tell us about how we survive as ourselves.

Third, there is what Marya Schechtman calls *characterization*: What is it about me that makes me the person I am? Many of my undergraduates are struggling with this question. What of their lives is a genuine reflection of who they are and what, perhaps, is merely what their parents or society has inflicted on them? Is there a real difference between the two cases? These sorts of questions become starkly demanding when we are confronted with human actions we cannot understand. What sort of person could drown her children in a lake so that she could be more available to her boyfriend? What sort of person could dismember his homosexual lovers and keep them in his refrigerator? It is evasive to pretend that Susan Smith and Jeffrey Dahlmer are just crazy, as though that somehow settles the issue. I remember in the aftermath of the Columbine massacre, I spent hours reading all the accounts of the killers I could find, searching in vain for clues about what sort of child could be so misguided, so filled with rage or despair or hopelessness, that he would be capable of killing so many innocent with so little provocation. And now that I have lived through Virginia Tech's tragedy with Seung-Hui Cho as a student in my college, I confess I am still just as mystified. In so many ways, Cho appeared relatively normal; in so many others, he clearly was not. I have little insight into his mind (but saying he was "just crazy" does bring me a tiny measure of comfort for reasons I cannot explain well). In any event, these are problems of characterization, picking out the crucial aspects of people that make them the people they are. Sometimes it is easy to discern what these important dimensions are; most of the time it is not.

Knowing how to characterize ourselves tells us what it is we should be concerned with about ourselves, both from the past and into the future. We should be concerned with the things that are truly "of us," as opposed to those things that are merely peripheral. When I think about questions of my own survival, I know that I want not just to survive, but also to survive in a certain way, as the certain sort of creature I am. Settling on how to characterize people will tell us what is important about being a person.

Questions about personhood arise most notably when our rough-and-ready everyday concept of person is squeezed in one way or another. As my Aunt dies of a horrible brain disease and her personality slowly winks out, it is no longer clear

when she has permanently left this good Earth with only her body remaining. There is more to being a person than having a beating heart, but how much more? With or without intensive therapy, our memories, wants, desires, and thoughts change considerably over time, sometimes change considerably over very short periods of time. If this is so, then what enduring traits (psychological or otherwise) should we use to pick out people over time? What trait stays with us for as long as we are around? Identity crises don't stop at the end of adolescence. It makes sense to ask, who is the real I?

None of these questions has an easy or obvious answer. As long as we are not asking questions like these, then we have a pretty good sense for what counts as a person and what does not (and what things are in a gray area). But insofar as we cannot readily answer the more difficult questions, we don't really know what counts in being a person.

If Hume is right, then he gives perhaps one good reason why we can't answer the hard questions. If there be no such thing as a self, though we usually believe that there is, then that would explain why we get confused about personal identity when confronted with odd cases. This book explains why and how Hume is wrong (though in a certain sense, Hume is right after all).

1.1 Personhood

Philosophers, usually so good at drawing subtle distinctions, have a difficult time keeping the three questions of identity distinct. As a result, they have muddled the answers to these very important questions. Highlighting the differences among the concerns should overcome this difficulty. We have three questions – personhood, re-identification, and characterization – with three very distinct answers.

Aristotle gives the most enduring answer to the question of identity. He is often glossed as claiming that man is a rational animal; however, this expression is misleadingly brief. Aristotle is interested in the form, the *psuche*, of living things in his world. He wants to know, not just for man, but for all things, what it is that makes that thing the thing it is. He envisions all living creatures existing in an ascending nested hierarchy, in which each organism above contains all the *psuchai* of those below, plus an additional feature that set it apart.

To be a eucalyptus tree means that you have a certain capacity for growth and metabolism. To be a paramecium means that you have the capacities for growth and metabolism, plus an additional capacity to move. To be a hedgehog requires all those things; in addition, it requires that you have certain sensory systems, which in turn allow for certain basic desires and perhaps for some thoughts as well. (Aristotle didn't write directly about hedgehogs.) And so on up the great

chain of being, until you get to humans. We have all the capacities of the creatures below us, plus the capacity for rational thought.

To understand what it is to be human, we need to investigate all the *psuchai* functions, how they are layered, how they interact with one another, and what the distinctively human *psuche* brings to the mix. To Aristotle, this entails an empirical investigation. He isn't interested in analyzing the meaning of the term human or in any other form of conceptual analysis. He wants to know what it is that we actually are, out in the world.

From his investigations, Aristotle concludes that man is an action-oriented practical problem solver: "Choice is either desiderative reason or ratiocinative desire, and such a source of action is a man" (*Nicomachean Ethics*, vi. 2. 1139^{b}4–5). What distinguishes us from all the rest of the living world is our capacity to deliberate, choose, and then act on our choices. Importantly integrated into our living hierarchy is the capacity for rational action.

I am not certain that we have come up with a better analysis in the intervening millennia. There seems to be vague agreement in the literature that persons are rational, linguistically competent, and self-conscious (cf. Dennett 1976). All these ingredients are required in order to hold that a creature is a moral agent, someone who is responsible for her actions and who can hold others responsible for theirs. What each of these terms means, of course, is a matter of huge debate.

I shall not rehearse the debates here. I am just going to outline what I take the correct analysis to be and leave it at that. I don't believe what I have to say is too controversial, though it does betray a certain bias in my thinking. I am inclined toward viewing *Homo sapiens* on a continuum with other animals – I take the "animal" part of Aristotle's "rational animal" very seriously – and away from emphasizing our allegedly special intellect – I am less taken with computer metaphors for the mind.

To be rational is to be able to engage in means-ends reasoning. Humans can actively solve problems in ways that some other animals can't. All animals, down to the lowliest sea slug, behave contingently in response to its environment. Poke a sea slug and it will retract away from the noxious stimulus. If you repeatedly poke a slug, it will eventually learn that the stimulus isn't so threatening after all and it will cease retracting. This is intelligent behavior. But it isn't reasoned. To be rational, one must be deliberately pro-active, at least some of the time. That is, one must be sensitive to environmental contingencies and able to choose among a set of behavioral responses to select the most advantageous.

We see rational behavior in Tolman's rats (Tolman 1948). Edward C. Tolman, one of the first experimental psychologists in the United States, trained rats to run a maze with various branching options. The rats were rewarded if they chose a particular right-angled branch. He then put the rats in a different maze, which

had the same sort of right-angled branch that the rats were conditioned to pick, as well as a tube which led directly to the food reward at a 45 degree angle. The rats invariably chose the most direct route to their meal, even though they could not see their reward at the end of either route. This is rational behavior. The rats chose the route that would best lead to their getting what they wanted, namely food, even though they had been trained to follow a different physical path.

Stephen Stich (1990), among others, has argued that humans aren't so rational after all. Under certain conditions, we consistently refuse to obey certain well-known rules of logic, even when we can recite and follow those rules under other circumstances (see discussion in Smith & Osherson 1995). So, for example, we know that the logical consequence of a statement cannot be less likely to be true than the statement itself. If the probability of "P & Q" is equal to one, then the probability of "Q" alone cannot be less than one, for instance. Anyone who knows basic logic should agree with this. However, when confronted with deciding the probability of the following two statements:

(1) Every banker is wealthy.

(2) Every young banker is wealthy.

undergraduates typically gave a higher probability ranking to sentence (1) than (2), even though (2) is logically entailed by (1) (Shafir et al. 1990). (If all bankers are wealthy, then even young bankers have to be wealthy.) Cognitive psychologists call this sort of error in reasoning an inclusion fallacy. This fallacy and others similar to it are easy to elicit in people, even in those who have studied logic formally. The long and the short of it is that sometimes we have difficulty generalizing what we know.

However, this is a much more stringent view of rationality than what I am appealing to. To be rational in my lowly sense of the term is to have available "in mind" a set of behavioral responses and to be able to choose one of them over the others. To be degree that creatures exhibit this property they resemble persons. Squirrels are vaguely person-like; chimps are much more so.

On the other hand, Kathleen Wilkes argues that humans with all sorts of mental deficits are still rational: "The existence of mental illness … does not suggest that the patient is less of a rational creature than the mentally sane. Quite the contrary: to be neurotic or schizophrenic in fact presupposes and implicates the fullest and most intricate activity of conscious and rational, as well as of unconscious or non-rational capacity" (Wilkes 1988: p. 89). Schizophrenics, for example, follow recognizable rules of thought and reaction. It is just that their starting point in their chains of reasoning and the way they see the world is quite different from my starting point when I reason and how I see the world. Nevertheless, "conscious, planned,

and rational behavior ... and irrational, neurotic, or obsessive behavior, are explained by the same model – the familiar, everyday model of rational explanation which starts from ideas, thoughts, motivations, moods, fears, and then uses them to help make intelligible the resulting behavior: shows us what its purpose is" (Wilkes 1988: p. 80).

This view of rationality is closer to what I am adumbrating. There is a difference between reasoning well and reasoning at all. Sometimes we don't reason well, as Stich tells us, because we follow the wrong rules or we fail to take into account things that we should. Other times we don't reason well because our primitive axioms are unfounded. In both cases, though, that we reason at all, that we follow some sort of recognizable pattern in our thought from starting information to conclusion, is enough for me to claim that we are rational in the sense that makes us people.

What about the other standard criteria for being a person? What does it mean to be linguistically competent, for example? Again, I follow what I take to be the traditional path here. To be linguistically competent is to be able to use arbitrary symbol systems to communicate with conspecifics. To be a person, you have to have the capacity to communicate with other humans using some sort of representational scheme.

Of course, this definition leaves much unanswered. What counts as an arbitrary symbol system? A baby crying because it is hungry and the mother responding by giving food isn't enough. A baby crying because it is hungry and because it knows that its mother responds to its crying by giving food might be enough. A baby crying because it is hungry and pointing to a food source to draw its mother's attention to its predicament is enough. It is enough because the behavior isn't induced solely by the want or need, but it is channeled in such a way that it tells others about the want or need.

Species-specific birdcalls that attract mates are probably not a form of linguistic competence; they are too stereotypical. What their calls sound like depends too much on genetic endowment and not enough on environment – there is little that is arbitrary about them. A clearer instance of a basic linguistic competence in non-humans might be Irene Pepperberg's gray parrot. Pepperberg taught her parrot how to imitate human language in response to complex stimuli. Now the parrot imitates the sounds humans make in order to receive a reward. But she does more than this, too. She also taught her offspring this "language," even though her daughter would not receive rewards for the same behavior. They play what can only be described as language games even when there aren't any humans around who could reward this behavior. This sort of behavior is closer to what I mean by using an arbitrary symbol system to communicate with conspecifics. Some believe the parrot actually understands the words as we understand them; others think she

does not. But in either case, the bird taught the system to another one of its kind for its own reasons, reasons that go beyond what her human keepers want her to do. The more that the parrot actually understands about reference and grammar, the more person-like she is.

Wilkes argues that linguistic competence is actually a subset of tool use (Wilkes 1988). She may be right, but I am interested more in its social dimensions. Language emerges out of complex social structures; as I shall argue later, these complex structures are fundamentally important to having a self. Even if language is a subset of tool use, it is a *cooperative* tool use. And it will turn out that the cooperative effort is what is important; its use as a tool to improve living conditions is secondary.[2]

Some humans lose their capacity for language. Global aphasia is one case in point. "Aphasia" refers to a cluster of neurological syndromes whose symptoms include difficulty in comprehending spoken or written language, repeating words, naming objects or ideas, and producing speech. Global aphasics, fortunately fairly rare, have all of these symptoms (cf., Alexander 1997). They can utter little more than simple stereotypic words ("ta, ta, ta"); these words appear to have no real meaning for the patient, nor do they exhibit any particular grammatical structure. They can comprehend few spoken words and only then one word at a time. They cannot repeat back what has been said to them. They cannot name the names of familiar objects. They cannot read or write. It is a consequence of the view I am describing that such patients lose some degree of personhood to the degree that they lose their capacity for language.

The current rage in psychology is to see the mind as being highly modularized; different parts of the mind/brain don't share information with one another and each part just computes whatever function it is supposed to compute. If the modularists are right, then one might argue that whether one can speak or understand a language is not tied to any other function of interest in humans. And surely the discovery of Brocca's and Wernicke's areas give us good reason to suspect that language is modularized in exactly the way psychologists assume.[3]

However, things are not as simple as that. For far from just being a way to alert our friends or foes to important aspects of the world, language also structures and organizes our thoughts. If we have no language, then we cannot assign names to our ideas. Consequently, we can no longer manipulate our ideas as we did before. Without a way to symbolize our thoughts to ourselves, we have difficulty recalling them outside of particular contexts. Global aphasics can no longer think as nonaphasics do.

Losing the capacity for language means losing a particular way of thinking. Of course, we cannot claim that being linguistic completely determines how we think, nor can we claim that being alinguistic means that we don't think anymore.

The truth is surely more complicated than that. Nevertheless, having a language is an important component in being person-like and, at the least, it is not clear what to think about humans lacking that competence.

I have less to say here about the criterion of being self-conscious (though see chapter two). At a minimum being self-conscious requires that we are able to represent our beliefs and desires (or whatever you want to call our dominant mental states) to ourselves as second-order states. Frankly, I see this type of self-consciousness criterion as being little more than a sophistication clause on the previous two desiderata. It allows for reflexive representations, which we need if we are going to be able to communicate our wants and needs to others in a deliberate manner and if we are to be able to reason about how best to attain our goals, whatever they may be. Basically, being self-conscious, in the minimal sense, means that we simply turn our ability to name things inward.

Self-consciousness is notoriously difficult to document. The typical experiment involves determining whether a creature can recognize a spot on its forehead as such when it sees itself in a mirror (Gallup 1970). This is actually a terrible way to determine self-consciousness, I am sure you will agree, for you have to assume first that the creature knows what it looks like and second that it knows what a mirror is. Neither assumption, though, is connected to being self-conscious in any obvious way. I, for example, have little idea what I look like, though I do appreciate mirrors. I have on several occasions admired this svelte person's outfit, only to realize later that I had been looking at myself in a mirror completely unaware that that was what I was doing. I would have failed the spot-on-the-forehead tests on these occasions, believing instead that this svelte person with the great outfit is making some sort of social statement I didn't understand. Still, I am self-conscious; at least, I think I am.[4]

True loss of this sort of self-consciousness (without also losing consciousness entirely) is also hard to document. Some believe that autistics lack any sort of self-consciousness. I am more dubious of this claim. Autistics have trouble with language, social relations, perseverative cognition, and affect. Whether they also lack an awareness of their internal states above and beyond their other deficits or whether they simply have difficulty in communicating what they perceive in themselves due to all their other deficits are questions beyond our capacity to test right now. For those of us who aren't, we really don't know what it is like to be deeply autistic with any surety (perhaps those with Asperger's syndrome can tell us some things about what it is like to be autistic, but then again, perhaps not. Having a little bit of a syndrome may not at all feel like having a lot of a syndrome. Think about the difference between hitting your head and seeing stars versus hitting your head and being knocked out cold.) And, because of their difficulties with communicating, autistics can't tell us.

Nevertheless, being a sophisticated reasoner and language user might be required to be a genuine person with all the rights and responsibilities thereof. Self-consciousness might be one way to demonstrate the requisite sophistication. I don't know. But my point in all this discussion is not to advocate too strongly one set of criteria for being a person; rather, it is to give a flavor of how the game is played. What separates persons from rutabagas, rabbits, and racing cars are certain cognitive abilities. Examples of these abilities are things like: being rational, having a language, and being self-conscious. These things, or things like these, are required for being a person.

1.2 Re-identification

Now, once we have some criteria for picking out people in our world, we can move onto the second concern, how to determine whether this person you have identified before you now is the same person from some previous time. What are the endurance criteria for personhood?

In theological circles, the question of what makes me the same thing over time is answered in terms of an immaterial substance. My soul remains constant as my body and my mind change. The soul is perhaps the container in which our changing thoughts, perceptions, memories, desires, moods, emotions, and so forth, reside.

Even for those inclined to religious belief, and I am not among them, this view suffers from difficulties. First and foremost, it is completely unhelpful. I admit, there is some ambiguity in the question before us. We might be looking for criteria we can use to determine whether we are perceiving the same object at two different times – an epistemological concern about how we can know things. Or we might be looking for criteria that identify the same object as the same object, regardless of whether we know the criteria apply – a metaphysical concern about what is really there. Let us suppose for the moment that things aren't ambiguous, that the question is epistemological in nature, and that we are seeking criteria to guide what we conclude about objects in our world. The problem with a soul view in this case is that we have no independent way of identifying souls.

In general, theologians believe that one soul is allocated per body, but so far as I know, there is not a principled argument for why that would be the case. (It would be perfectly legitimate for theologians to respond that they do not need principled arguments for their beliefs.) Nor is it clear how we would tell if a particular soul moved out of a body and another took its place. In general, theologians also rely on a one soul per unit of psychological traits connection, but again, there aren't any principled reasons that I can see for doing so. Indeed, when it comes

right down to it, we don't have any way whatsoever for identifying souls or any other immaterial substances. Our perceptual transducers simply aren't that good. We don't know – we can't know – whether bodies have immaterial substances attached to them that make them persist through time as the same person. As an epistemological criterion, having a soul is essentially useless.

But what if we are looking for a metaphysical criterion here and we are not so concerned with whether we can actually use this criterion to pick out the same person over time? What then? The soul criterion still doesn't fare very well. Part of the reason is that our metaphysics is rather inextricably tied to our epistemology. There is something absurd about claiming that something exists without being able to claim that we have reason to believe that it exists (again, theologians may not be so concerned about this point). Our study of what there is depends intimately on what we can know, for we don't have any other way to ground our metaphysical claims. Wishful thinking or leaps of faith are not good philosophical practices.

Another part of the reason why the soul criterion doesn't fare well is that we are in fact able to recognize persons across time, with alarming regularity. If re-identification were grounded in an immaterial substance we cannot access, then it would be hugely puzzling how we can recognize all the folks we invariably do. Whatever we are using to identify people across time with, it is safe to say that it isn't an immaterial soul. Simplicity would suggest that we should use whatever it is that we are already actually using to re-identify people with as our criteria for re-identification, despite the existence of a soul, if such a thing exists.

Secondly, even if we were able somehow to make the soul criterion useful in the way we need, in order to be able to use something like a soul as a criterion for re-identification, we need to be able to pick out the same soul over time. Never mind for the moment whether the same body continues to have the same soul. Before we start to worry about that issue, we need identity and re-identification criteria for souls. We don't have any.

I'm just going to assert that last point without further argument. I think my point has been made: criteria for re-identification of persons that rely on immaterial substances are hard to make work. We should seek an easier alternative, if we can.

If we agree that there aren't any physical or mental attributes that remain constant across a person's life and that we can't (or shouldn't) use any immaterial substances for our re-identification criteria, then we must conclude that we can't (or shouldn't) use any enduring substance as a basis for re-identification. There aren't any such things, so far as science can tell. Hume was right about that one.

We are forced, then, to try to find some sort of *relational* criteria for re-identification, criteria that depend on how our psychological states are connected to one another. John Locke advocated the first modern quasi-relational view for

the re-identification of persons. Locke is commonly interpreted as advocating a memory view of what he called personal identity (though is more accurately described as re-identification of persons). He writes:

> For since consciousness always accompanies thinking, and it is that which makes every one to be what he calls self, and thereby distinguishes himself from all other thinking things; in this alone consists personal identity, i.e., the sameness of a rational being: And as far as this consciousness can be extended backwards to any past action to thought, so far reaches the identity of that person; it is the same self now it was then; and it is by the same self with this present one that now reflects on it, that action was done. (Locke 1694/1975: p. 335)

Here is what I understand Locke to mean. Our thoughts and perceptions, which later become our memories, pass through our consciousness. My thoughts receive only my mark of consciousness, metaphorically speaking; your thoughts receive yours. Anything that has received my mark is of me, belongs to my person. Anything that has received your mark belongs to your person. It doesn't really matter whether we actually remember experiencing the thought, feeling, or perception later; we could forget the event as soon as it occurred. Still, if it passed through my consciousness box, it's mine, if I know it or not.

More contemporary versions of the same idea rely heavily on the memorial aspects of what Locke has to say. Since most contemporary philosophers don't think of consciousness as being a Cartesian theater anymore, they wouldn't know how to talk about things passing through consciousness as some sort of genuine psychological event. Moreover, since we all now know that lots of what happens in our head is unconscious but still ours, we know that using consciousness as a criterion for re-identifying persons is wrong-headed. In any event, there are several re-identification criteria afloat in the literature that turn on what we can remember (or what we used to remember conjoined with what we can now recall) and other related psychological traits. I am the same person over time if I have (more or less) the same set of overlapping memories.

Immediately, though, we can see that this story can't be the right one. We should all be familiar by now with false-memory syndrome, especially given the play it has gotten in the popular press as of late. Without too much difficulty, psychiatrists can convince patients that they were abused as children, that they participated in all sorts of satanic rituals, that they despise their parents for all the damage they wrought. Patients under their psychiatrists' spell not only believe these things to be true, but they claim actually to remember these events occurring. The memories were repressed because they were so heinous, but now with the miracle of modern talking therapies, they have been released in all their full glory.

I have no doubt that sometimes memories are repressed because they are too awful to remember and they come rushing back in a flood with the right trigger. Sometimes, though, it only seems that this is what is happening, when in actuality, all the supposed repressed memories are in fact false. They were implanted by the very powerful suggestions of an overzealous psychiatrist.

False memories don't have to be so extreme. Elizabeth Loftus has demonstrated how very easy it is to get people to remember things that never happened or to embellish or alter memories along the lines she suggests (Loftus 1997). We probably all have the experience of having a childhood memory, but not knowing whether we actually remember the event or whether we think we do because we have heard the story so many times from others. I myself had an on-going argument with my husband over when and how we decided to get married. He claims it happened at one time in one location. I swear it happened someplace else at a different time. We both have vivid memories, but for at least one it is of a completely fictitious event.

However, regardless of how things seem to me, only genuinely veridical memories can be used as a criterion for re-identification. We can see that this is true if we think about the relation between re-identification and responsibility. I am only responsible for those things I actually did; I am not responsible for the things I think I did, but in fact did not do. We would like to have a criterion for re-identification that preserves responsibility. Consequently, only memories of events that actually took place with me as the central actor can be memories used for re-identification. (All this gets tricky, though, for it will turn out that memories that we wouldn't want to use to establish re-identification might still be memories fundamental to ourselves. But I am getting ahead of myself.) Am I the same person who teased my little brother about his funny-looking shoes? That depends crucially on whether that event actually took place. For if it didn't, then there is no way I could be that person.

The long and the short of these considerations are that we can't use purely internal criteria for re-identification. That is, we can't stay inside the mind, as it were. Any criterion for re-identification that relies on any contentful psychological state will also be required to have some external verification procedure attached to it. To determine that I am the same person as the child who hated to play outside, we need to know, for example, whether a chain of overlapping memories connects me to that child and whether these memories are actually true. Old-fashioned first-person criteria have to make way for more contemporary third-person criteria.

But this move is a bad one to make, for it makes our criteria for re-identification circular (Perry 1996). What does it mean to say my memory of teasing my brother is veridical? It means that I actually teased my brother. But this is exactly what we are trying to establish. Am I the person who teased my brother many years ago? If we knew the answer to that question, then we could determine whether

my memory is veridical. To say that my memory is veridical is to say that it is a memory of something that really happened in my life to me. But to say that is to say that I am the same person as the person who was there during that event. We are begging the question. Any principle of external verification is going to require that we have already solved the problem of re-identification. But since solving that problem is exactly what we are trying to do, external verification won't work as a criterion for it.

Let us take stock. Criteria relying on immaterial substances won't work. Criteria relying on purely internal accounts of psychological states won't work either. Criteria relying on external verification won't work either. What is left?

One standard move at this juncture is to go to a bodily criterion for re-identification. Of course, our cells die and are replaced all the time. So we can't think of the body as a constantly existing substance over time. Instead, we have to take a relational view of the body. My body is comprised of cells that exist in certain configuration to one another. If some die but are replaced by other cells performing the same function as the now dead cells, then my body remains the same. If I have the same body over time (as understood in this relational sense) and if I am a person, then one can re-identify me at a later time as the same person from a previous time.

Of course, we don't want to take the entire body as what is required for re-identification. I can clip my toenails, lose a leg, have my appendix removed, and I am still the same person. Only some parts need to be preserved to allow for re-identification. Usually philosophers think that the part that needs to be preserved is the brain. Eric Olson (1997) goes one better and argues that we only need to have our brainstems preserved across time for re-identification.

Notice the underlying motivation for claiming that the brain should be used in re-identifying people. Our mentality is housed in the brain.[5] Using the brain as a criterion is a way to bring back the old container view. The brain is a container for memories (though because it is not immaterial, it might have one advantage over the soul). The brain is the thing that permits the ebb and flow of our perceptual bundles. Hume might be relieved: we may not be able to perceive our brains as the brains they are, but they are the things that seem to remain constant across human lives. (At least, they remain constant as long as they are understood relationally, as a group of cells that interact with one another in a particular way.) So we don't need to check to see whether I indeed teased my brother when I was younger; all we need to do is determine whether the brain I have now is the same brain that teased my brother long ago. It doesn't matter what I remember or whether what I remember is true. Problem solved!

I will spare you any diatribe on the neurophysiology of a developing brain. Just take it from me that brains don't remain constant over time. This fact should be

patently obvious to any materialist. As our memories change, as we learn more about the world, as our perceptions shift, so too our brains change. Actually, our brains change in response to environmental inputs more than one might think, but even without a course in brain science, it should be clear that we aren't going to be able to get a very informative relational description of any brain across time. Brains aren't like that. There isn't going to be any internal criterion for picking out a brain as the same brain across time. The only way you will be able to say that I have the same brain as I did when I was a child is if you already are able to re-identify me. But, of course, that just begs the question again. (This, too, is one thing wrong with Olson's suggestion. Brainstems also change in response to cortical alterations and other pressures. There isn't a good sense in which I have the same brainstem over time, unless you can already identify who I am over time, which, of course, only begs the question.)

That the brain criterion falls apart in the same way that the memory criterion does shouldn't surprise anyone. Insofar as materialism is true, then the mind just is or is instantiated in the brain in some important sense. Though it doesn't follow from this fact that the memory criterion should reduce to the brain criterion (for they could be focusing on different aspects of minds/brains), that the criteria don't work for the same reasons isn't odd.

Does anything remain constant across our lives that we might be able to hang re-identification criteria around? The one suggestion that makes sense here is rarely discussed in the literature, for reasons that escape me: our DNA. I do in fact have the same genes I did as a child. Does this solve the problem?

Worries about this suggestion come from two camps. First, there are those who are concerned with possible genetic alterations, enhancements, and therapies. I am going to ignore these people since a discussion of what is right and what is wrong about this criticism would take us too far afield. Second, there are those who worry that genetic continuity isn't enough. If I had an identical twin, then she would have the same DNA as I do. But we aren't the same person. Moreover, the only ways we have to differentiate us begs the question again. I have the same genes as I did last year, but you can only know that it was I last year if you already know it was I and not my identical twin. That is, you can only know that if you have already solved the re-identification problem, which we haven't.

We are in a pickle. Or rather, those who care about re-identification criteria are in a pickle, for none of the criteria explored works. Quite often when philosophers reach this sort of impasse, they try a different tack: They argue that the query is ill formed. Perhaps, looking for ways to tie together the adult you see before you with the child you remember from yore is a completely wrong-headed approach.

Some argue that what you see before you when you think you see a person is really just a "person-stage," part of a person. The person itself is a four-dimensional

object existing through time. All we ever have access to, though, are glimpses of people. Being four-dimensional ourselves, we can only interact with time-slices of other four-dimensional objects, which happen to cross our time trajectory.

Questions of re-identification aren't about how to determine whether two people are numerically identical. Instead, they are about part-whole relations. Is this person-stage part of the (four-dimensional) person of which this other person-stage is a part? We start with a four-dimensional object and then carve it into pieces, just as we might start with a steak and carve it into pieces. Our person-slices are going to be across time, though, instead of across space, as in the case of meat.

On the one hand, there is something undoubtedly right about this move. We live in a four-dimensional world. All other objects exist in four dimensions. I have little reason to believe that we would somehow be special and exist in some other way. That we are extended in time as well as space seems obviously true.

On the other hand, though, I fail to see how this move actually answers our concern. Perhaps it does answer the metaphysical question: What ties this person before you with the child she once was? Answer: Nothing, for there is no person before you, only a person-stage. The child is a person-stage of the same person whose stage you now see if the stages in fact belong to the same person. At the same time, this way of talking makes answering the epistemological version of the re-identification question all the more pressing. How can we know that two distinct person-stages belong to the same person? We have just described our original concern using a different language.

Schechtman (1997) offers a different criticism of this move. She claims that there is something fundamentally incoherent about the whole tack because the only thing that distinguishes a person-stage from a full-blown person is the length of time the person-stage or person exists (see also discussion in Shoemaker 1984). And, she rightly points out, how long something exists shouldn't be a criterion for being a person. Person-stages have beliefs, desires, emotions, memories, experiences. They behave just like persons, in fact. Of course, this is how we could be confused for so long in thinking that person-stages were actually persons – they look and act just like them. They just exist for a brief period of time, until the next person-stage takes over, as it were. But if there were no next person-stage and if there were no previous person-stage, then what we would have would be a genuine person existing only for a short duration. But, Schechtman notes, what comes before or after aren't appropriate criteria for personhood.

But Schechtman here is making the same error that she and I accuse other philosophers of making when thinking and writing about the ontology of people. She is confusing identifying a person with re-identifying a person. We can use one criterion to pick out things as people, then another to pick them out as the same thing across time. This is how we operate with most objects in our environment.

So, for example, in determining whether this object is a chair, we might note whether we can sit on it, whether it is used as furniture, and so forth. But if we want to know whether this tiny, beat-up, wooden chair is the same gleaming chair that I was scared to climb upon as a child, then knowing whether it is being used as furniture isn't going to be helpful. We already agree that both instances of the chair (or chair-stages) in question are instances of being a chair. The question now is whether it is the same chair. Here we have to use different criterion. Schechtman falls prey to her complaint about other philosophers; she doesn't keep the questions straight.

I am ending this section without offering a solution to the problem of re-identification. In the final analysis, this perhaps might be the right move to make, for it isn't clear that we have good intuitions about re-identification to work with in the first place. As long as our lifespans are relatively short, we can make relational views of re-identification seem plausible. This plausibility, however, might be illusory in that we are rarely confronted with cases in which there aren't clear relations between earlier and later person-stages. If we lived to be several thousand years old, it is no longer obvious how we would want to think about the relation between the final person-stages and the original ones. There could simply be too many changes in the interim such that we would no longer want to claim that Methuselah in his second millennium is the same person as child Methuselah. He used to be child Methuselah, but he is no longer. Or perhaps there won't be too many changes and we would still identify the two stages as being of the same person. I don't know and I don't know how to answer this question either. In the end, there may be something wrong-headed about trying to give principled and definitive answers to questions of re-identification. Perhaps the best we can do are the rough and ready criteria we use in our everyday life.

I recognize that this has been a fairly breathy and whirlwind tour through the first two questions surrounding the ontology of persons. My main concern here is not that all the attendant concerns be aired and soberly analyzed. Indeed, I have raised the questions of personhood and re-identity largely to dismiss them. In this book, I want to talk about the third question, about selfhood and how to characterize people. I do not particularly want to discuss the metaphysics of personal identity or how it can be that we can re-identify people across time. Those might be worthy problems indeed – and I hope that this chapter has given you a bit of the flavor of what it is involved in solving them – but they aren't the problems I am choosing to answer.

1.3 Characterization

The third question, how to characterize a person, is asking us to pick out those characteristics that make that person who she is. Which memories, thoughts,

hopes, desires, behaviors, and so forth are truly "of" that person, which are peripheral, and why, are questions of characterization. Similar to questions of re-identification, questions of characterization are relational questions. However, when we characterize a person, we are looking at the relations between a person and his or her actions and thoughts; we are not looking for the connections between person-stages. (These are related issues though, since re-identification might very well assume characterization.) What is key in understanding how to characterize people is knowing how it is we organize our own experiences. Some of what we do is absolutely central to our very being; some is not. How can we tell the difference?

The most popular answer to this question by far is that we characterize ourselves, we cull the important events in our lives, via a *narrative self* (e.g., Barresi 1999; Barresi & Juckes 1997; Bergson 1977; Bruner 1983, 1986, 1990; Carr 1986; Damasio 1999; Dennett 1988, 1989, 1992; Flanagan 1991a, b, 1992, 1995; Hermans *et al.* 1992; Kerby 1991,1988–1989; Kermode 1967; MacIntyre 1981; McAdams 1990; Muldoon 1990; Ricoeur 1986; Schechtman 1997; Turner 1996; see also Gallagher 2000). Indeed, there is a remarkable consensus regarding what the human self is. For the last century or so, the sciences and humanities have operated somewhat removed from one another, with little overlap among either individual research projects or larger conceptual frameworks. But studies within disciplines as diverse as anthropology, artificial intelligence, cognitive science, communication studies, history, law, linguistics, literary theory, philosophy, political science, psychology, psychiatry, religion, and sociology all converge on or around the idea that a narrative structure unites our fleeting and fluttering Humean perceptions into a single self.

What is a narrative self *exactly*? In broadest terms, the consensus view is that we somehow create the self by narratively interpreting a subset of our life events. But, the details of what "narratively interpreting" amounts to, especially from a neurobiological point of view, and how we winnow our life events remain obscure. Instead, narration is usually taken as a primitive to explain selfhood. Part of this lack is undoubtedly due to the almost unprecedented agreement among the assorted intellectual traditions within philosophy (including philosophy of mind, bioethics, feminism, history of philosophy of science, phenomenology, philosophical psychology, philosophy of language, philosophy of law, philosophy of science, political philosophy, and metaphysics) that, in a very real sense, we are who we say we are. Nonetheless, explicating precisely what a narrative self is and understanding how we might build such a thing from our neurobiology will give us deeper insight into what being minded, being a person, and having a self are (and how these things differ). Connecting our more philosophical and political notions of a narrative self with what we know from developmental psychology, cognitive neuroscience,

clinical neurology, and psychiatry to be the case will give future discussions of selfhood a sound scientific foundation and intellectual framework.

A.P. Kerby admonishes us to "avoid consideration of the human subject from a traditional ... naturalistic standpoint" for "such models and hypotheses rarely if ever connect with the *experience* human subjects have of themselves as meaningful, understanding, self-reflective social subjects" (1991, p. 11). Not surprisingly, I strenuously disagree with his suggestion. Only by reaching reflective equilibrium among all the different voices in the sciences and humanities alike can we produce a complete understanding of ourselves; phenomenological reports are but one strand in what promises to be a complicated and complex recital. Though only a few in philosophy have tried to integrate hermeneutic perspectives on self with scientific ones (e.g., Dennett, Gallagher, Flanagan), juxtaposing different perspectives is necessary if we are to clarify and evaluate the current uses of narrativity in understanding the self. And it is imperative that we do reach a clear understanding of what is meant by the self being a narrative process, for so many different disciplinary traditions are already taking the hitherto unanalyzed notion as axiomatic.

The rest of this book is devoted to uncovering and outlining the neurobiological and psychological building blocks for our narratives selves, articulating what this self does for us, and what we can learn about being a self when the narrative self breaks down. In this section, I would just like to give some hand-waving reasons for why it is so many people think we have a narrative self in the first place and why we use this self to characterize ourselves with. I give the answer in the form of a just-so story. I have to confess I am not sure that the story is true even in its broadest outlines, but it does nonetheless illustrate one important vision of self-consciousness and selfhood. (Damasio 1999 gives a good version of this tale, as does Dennett 1989; see also discussions in Bermúdez *et al.* 1995.) Still, even though I am not convinced by the story, I do believe its description of the final product is a worthy place to begin our investigation.

Let us begin with mono-cellular organisms. Very primitive creatures cannot even implicitly record a history of the events that affect them. Things like paramecia and amoebas can respond in stereotypical ways to noxious stimuli in their environment, but they cannot note where the stimuli were so they can avoid them in the future, nor can they mark what their reactions were even as they undergo them. These organisms merely react and nothing more.

One can see the evolutionary advantage to being able to record what our bodies are doing as well as where and why they are doing these things. For if we could record such information, we could then use it later. More complex creatures, just a wee bit up the evolutionary ladder from the amoebae, can do just that. Once Mother Nature hit upon the brain as a useful way to regulate the rest of the body, we also had a way to begin to track ourselves. We could form simple body maps that told us what we were doing as we were doing it. Some believe that these maps

form the merest beginnings of a proto-self, a simple awareness of how our bodies are behaving for each instant in time.

Over time and with ever more complex brains, our simple body maps recorded not just what we were doing for any given moment, but they also compared the present behavior to what we had done in the past. Eventually, they even started making predictions about how we might behave in the future. As Antonio Damasio explains, "The brain inherently represents the structures and states of the organism, and in the course of regulating the organism as it is mandated to do, the brain naturally weaves wordless stories about what happens to an organism immersed in an environment" (1990, p. 189). Now add language, and voilá, the narrative self is born.

As part of the complex body maps we continually make and revise, we pick out certain past events as important, highlighting those over others. We use those events to understand and explain what our bodies are currently doing, and we use past and present circumstances to envision what is to come. With a few additional bell and whistles, this is essentially all the narrative self amounts to – using our interpretation of our past to explain the present and predict the future. Of course, present circumstances become memories of the past and we use these to revise and polish our subsequent interpretations, explanations, and predictions.

Now, to the details of this process….

CHAPTER 2

Whither narrativity

We live beyond any tale that we happen to enact.

–V.S. Pritchett *A Cab at the Door and Midnight Oil*

Odd, though, all these dealings of mine with myself. First I've agreed to a principle with myself, now I'm making out a case to myself and debating my own feeling and intentions with myself. Who is this self, this phantom internal partner, with whom I'm entertaining into all of these arrangements? (I ask myself.)

Well, who am I talking to now? Who is the ghostly audience for the long tale I tell through every minute of the day? This silent judge sitting, face shrouded, in perpetual closed session?

–M. Frayn *Headlong*

It's not healthy to live life as a succession of isolated cool moments. Either our lives become stories, or there's no way to get through them.

–D. Coupland *Generation X*

When I first starting writing this book, I thought I would be able to get away with not discussing in any detail why I believe we have narratives selves. Its truth seems so obvious to me, and most who worry about such things agree that we have something like a narrative self. Of all the things we academicians hypothesize to explain our world, a narrative self appeared a sure bet – more widely accepted than most any other psychological posit. Then Galen Strawson wrote an article denouncing narrativity (2004), and my original plan started to unravel; maybe we need to examine whither a narrative self after all.

I now want to explain why Strawson is wrong, why selves have to be narrative, why even happy-go-lucky fellas who are completely engrossed by the here and now – as Strawson believes himself to be – are fundamentally narratively constructed, perhaps despite their best efforts not to be.

Let us begin by first revisiting the distinction between persons and selves, the distinction between identification and characterization.

2.1 Persons vs. selves redux

In the previous chapter, I define a person as a thing that has certain attributes, like rationality and language. Others define person using other attributes. In the *Second Meditation*, Descartes recites a long laundry list of items involved in personhood: "A thing that thinks. … A thing that doubts, understands, affirms, denies, is willing, is unwilling, and also imagines and has sensory perceptions." Regardless of what is contained in them, all these lists attempt to answer the question: What am I? Or perhaps better: What is it about me that distinguishes me from non-persons? That is, *pace* Aristotle, what is my *psuche*?

Notice that to be a person you do not have to be aware of yourself having these attributes of personhood. Indeed, it is not clear that you have to be aware of anything much at all in order to be a person; self-consciousness can be quite negligible. From the perspective of those who have selves, being a person is a fairly minimal condition. Selves are a subset of persons. You can be a person and not have a self, but you cannot be a self without being a person.

Being a self means that in addition to having an answer to the question "Who am I?" you can answer it in a particular way. According to Lynne Rudder Baker, for example, having a self means that you can answer the question with "a coherent and comprehensive story of your life, of which you are the subject" (Baker 2000: p. 81). Lest any nay-sayers point fingers and suggest that Baker's criteria for selfhood begs the question against narrativity, I hasten to underscore that her criteria only claim that you *could* tell a story about your life, not that you actually do when asked who you are, nor that, even if you do tell these stories, that these stories compose your self.

Perhaps a better way to put the point is that selves can take a first-person perspective from which they can think of themselves as selves and from which they think of their mental states – current and past – as theirs (cf., Baker 2000; Frankfurt 1971; Rudd 2005). This is a more robust form of self-consciousness than that that might be required for personhood. It is self-consciousness of a particular form, as opposed to merely being able to name one's internal experiences in some fashion or other.

To be a self, then, is to ascribe experiences to oneself as one's own experiences. It is a second-order self-consciousness, as it were. As Ricoeur notes: "The *person* … remains on the side of the things about which we speak rather than on the side of the speakers themselves [the *self*], who designate themselves in speaking" (1992, italics mine). Similarly, Kant points out that "it must be possible for the 'I think' to accompany all my representations, for otherwise something would be represented in me which could not be thought at all, and that is equivalent to saying that the representation would be impossible, or at least would be nothing to me" (1933, B 131–132).

Being able to think about my ideas as mine requires at least that I can recognize that these ideas are *mine* such that they cannot be identified with just any similar ideas.

Anthony Rudd (2005) argues that Hume could not have searched for the precursors to his sense of self without already being able to stand back from his impressions and ideas and to recognize them as his. Hume himself already had to be more than a mere collection of ideas and impressions to be able to ask whether he was more than this bundle. In making a robust first-person perspective fundamental to normal selfhood, we move from Hume's rather loose bundle of qualities to a deeper and more unified psychological experience.

Having thoughts but not recognizing the thoughts as one's own is an abnormal state for most of us (though approximately 70% of college students experience thoughts not their own at some point in their lives (cf., Stephens & Graham 2000)). When this happens with some regularity, psychiatrists speak of thought insertion, psychosis, alienation, and depersonalization. Some schizophrenics experience thoughts as belonging to someone else and believe that other beings put those thoughts into their minds. Mistaking the internally driven for externally caused, they believe that, e.g., Jesus is telling them to "Kill God," to take an example from Christopher Firth.

But merely taking this sort of first-person perspective is not enough for being a full-blown self; it is a necessary, but not a sufficient, condition. Rather, you are a self when you relate your experiences to one another, when you see patterns in your experiences, thoughts, emotions, reactions, and so on. Over time, you can discern repetitions and significant acts in your behavior and thought; you see patterns of character and dispositions. You are a self when you thread your experiences together into larger tapestries – they are yours; you recognize them as such; and you can see some cohesion among them. You can see your life as following a certain trajectory, one in which past activities foreshadow current ones, and we expect the future to bear a certain relation to the past and present. We see our lives as more than merely a jumble of memories, emotions, and actions, but as lives whose memories, emotions, and actions are richly connected to one another (cf. Schechtman 2005).

Both Hume and Parfit stress the constantly changing nature of our psychological lives. But if we watch our reactions over time, we can see personality and other enduring traits emerge – even the trait of not caring about the past or future only reveals itself across time. And the only way we have to capture or describe that constancy over time is as a narrative – that is just what a description of an intelligible pattern of events across time is. (I leave it to the next chapter to explain more fully why this description must be storied.)

To describe our experiences across time as being intelligibly linked together and coherent requires that we stand back from the flow and flux and evaluate the

events according to some scheme or other. To make sense of even very simple actions requires that they be situated in some sort of larger context – this is what distinguishes motions from genuine behaviors. In the main, we situate our activities relative to what we have done in the past and what we what to achieve in the future: "To explain *why* you made that decision you need to explain the goal that the action was meant to achieve, and why you wanted to achieve that goal. And that will involve reference to your beliefs, desires, values, and then further questions can be raised as to why you have those beliefs, etc." (Rudd 2005, p. 429, italics his).

Therefore, to have a self is not a passive event. We have selves because we actively seek to make sense of the events in our lives. We monitor ourselves, keeping track of how we are feeling, what we want, where we have been. Through this self-monitoring we relate present to past, which gives us a sense of continuity and coherence. And we see the present as flowing from the past and on through the future.

Raymond Martin (1998) calls this self-monitoring the "perceiver self," which refers not to some internal homunculus but to the phenomenal experience of observing ourselves over time and through time. We use this experience, he believes, to organize ourselves psychologically. And in so ordering ourselves, we develop a sense of self. Then, as Marya Schechtman puts it: "The psychological organization which produces the experience of a stable, substantial self is the psychological organization needed [to constitute a self]" (2005, p. 28).

One way to illustrate that we exercise this capacity is to notice that we can, by and large, always answer the question: Why am I doing this? And if we cannot answer it, that fact generally prompts us either to seek an answer or to change activities. Freud's discussions of the unconscious follow directly from these perspectives. We need to understand ourselves, therefore, sometimes our unconscious beliefs or desires must explain our actions, if no external prompt can be found.

We find in the literature two ways to understand what these larger dispositional patterns amount to in normative terms, one via a model of self-control and the other via a model of self-expression (cf., Schechtman 2004). Harry Frankfurt's work in personal identity and selfhood exemplify the former approach, while his critics illustrate the second.

Normativity enters into discussions of self if one believes that having a self is an achievement of some sort. That is, besides wanting things and knowing that we want things, we can also want-to-want things. For Frankfurt, what is remarkable about having a self is that, as part of the process, we develop second-order desires and preferences about our own natures and dispositions. When our desires conflict with one another, we can take sides, as it were, and not just yield to whichever want is the strongest. When we want that second helping of ice-cream, we can push our chairs back and go for a walk instead, because we also want to control our weight,

even though our hunger is much more visceral and driving than our intellectual concern about our health. Frankfurt believes that being able to choose in this way allows us an autonomy that defines the human experience. He thinks that it is in virtue of this capacity that we are truly human selves. (Chapters eight and nine examine whether these notions of choice and autonomy are actually viable, given what we know about human psychology and physiology, and, if they are not, what this tells us about our selves. For now, we shall leave these concerns aside.)

If correct, what this analysis means is that not all desires a person experiences will be part of the self. In particular, those desires that a person ignores, dismisses, or repudiates are, in some important sense, external to the self. In Frankfurt's language we "identify" with some desires, which means we endorse the desire "wholeheartedly" and without reservation from a second-order, all-things-considered perspective. He concludes: when we do so, "to this extent, [we] ..., in making a decision by which [we identify] ... with a desire, *constitute [ourselves]*" (Frankfurt 1988, p. 170, italics his). According to Frankfurt's picture, we are most ourselves when we are acting in accordance with desires that we have wholeheartedly endorsed. We are most ourselves when we are in control of ourselves, and being in this sort of control is the best way to live a good and fully human life.

In direct contrast to this view is that idea that we are most ourselves when we are least inhibited; the less self-control, the better. We see this theme played out in many contemporary plays, novels, and films: the protagonist (usually a woman) rejects some of her desires as improper, but then later (usually with the help of some free-spirited man) learns to embrace these desires, expressing them triumphantly. And, in doing so, she is a better, freer, and more authentic self.

We subscribe to this way of viewing life when we say that someone is "trying to be something he is not," when we describe someone who is acting in accordance of the dominant norms of his immediate culture, but not in accordance with his natural tastes or proclivities – the country bumpkin acting the urban sophisticate, for example, or the city slicker pretending to be comfortable on a farm. In these descriptions, we are implying the there is a fundamental nature associated with this person, that he is not expressing his true self in his actions, and that it is better to express this true self than to try to cover it up.

Obviously, not all natural proclivities are going to count as being authentically of the self; only those that are relatively stable and relatively broad should. That is, a passing fancy for a bag of Lay's potato chips is probably not a self-defining wish, but a deep and daily desire for junk food might be. Schechtman argues that these sorts of desires are normally associated with a particular life-style as much as they are desires for particular items. The desires stand in as descriptors of the sort of person one wants to be. When we express these desires, then we are expressing our natures. When we repudiate these desires, then we are denying our natures.

These two accounts stand in direct opposition to one another. A Frankfurtian might argue that an Islamic woman who willingly enshrouds herself in a hijab, who stays at home, submitting to her husband and caring for her children, is exhibiting self-control, and thereby expressing her self, because she is engaged in activities that she has deliberately and thoughtfully chosen. One of his critics might counter that this woman is actually frustrated by the unenlightened aspects of Islam; however, because of her own conservative upbringing, she does not know how to rebel. Though she thinks she has willfully selected this life-style, in fact she is not expressing her true and deepest desires for individualism and freedom. (The British and French governments recently seem to have taken this latter line (cf., *BBC News Online*, 2005, and the French law on secularity and conspicuous religious symbols in schools, law 2004–228 of 15 March 2004).)

I am not going to adjudicate between these two perspectives here. Rather, I want you to notice that behind each of these conceptions of what it means to lead a good human life – to "flourish," in Frankfurt's (2002) terms – is the view that we should direct our lives such that we engage in purposeful and meaningful activities (cf., Schechtman 2004, p. 423). We, as interpreters of our own behavior, are fundamentally meaning-seekers. As a result, we can, either through a failure of self-expression or of self-control, be alienated from our own lives.

I hope that you will agree with me that the picture I have sketched makes immanent sense. Of course, we track our lives through time, we have a sense of our tracking ourselves, and we use this tracking to organize our activities and understand our behavior. While many quibble about the details of how this process might be done and its importance in being fully human, I have found only one person who makes a case for this picture not capturing what we mean by self in the slightest: Galen Strawson. I believe his concern is the following: Even if we all can engage in this story telling, what is it that makes this process relevant to the self? Might the self be something else entirely, especially for people who (apparently) do not identify with these historically grounded stories?

These are good questions.

2.2 Against narrativity

Strawson argues, mainly through personal example and assertion, that the claims that "all normal non-pathological human beings are naturally Narrative" is false (2004, p. 429). He believes that it could be the case that

> One does not figure oneself, considered as a self, as something that was there in the (further) past and will be there in the (further) future. One has little or no sense that the self that one is was there in the (further) past and will be there

> in the future, although one is perfectly aware that one has long-term continuity considered as a whole human being. (Strawson 2004, p. 430)

Strawson believes this because he believes that our pasts can shape who we are in the present without our needing to remember it explicitly at all. Just as a musician's playing will reflect endless hours of past practice without the musician needing to recall any particular episode of practice, who we are now incorporates what we have done in the past, without being mediated by any memory or description of that past.

He takes himself to be a case in point:

> I have a past, like any human being, and I know perfectly well that I have a past. I have a respectable amount of factual knowledge about it, and I also remember some of my past experiences "from the inside," as philosophers say. And yet I have absolutely no sense of my life as a narrative with form, or indeed as a narrative without form. Absolutely none. Nor do I have any great or special interest in my past. Nor do I have a great deal of concern for my future. … When I am experiencing or apprehending myself as a self, … the remoter past or future in question is not my past or future, although it is certainly the past or future of GS the human being. … I have no significant sense that *I* – the I now considering this question – was there in the further past. And it seems clear to me that this is not a failure of feeling. It is, rather, a registration of a fact about what I am – about what the thing that is currently considering this problem is.
>
> (Strawson 2004, p. 433, italics his)

It is here that Strawson stumbles. He is making three mistakes. First, he is critiquing a straw man. The views on what makes a self narrative quoted above do not require that one sense one's life *as* a narrative. Instead, we sense our lives, and our sensing, for the reasons discussed above, happens to take a narrative form. But whether we have some third-order perspective on our self-descriptions and self-ascriptions that they are narrative is probably something that few people actually contemplate. In other words, we can be extremely un-self-reflective and yet still have narrative selves.

Second, the very descriptions that Strawson provides of himself are strikingly narrative in nature (as narrative is described above and later in chapter three). All of the "I" sentences quoted above are psychologically organizing descriptors of how Galen Strawson conceives of himself as a self. Galen Strawson is a man who does not perceive his life to be a narrative; he is one who is not particularly engrossed either by his past or his future. Using these descriptors, we can then predict some things about how Strawson might respond under certain circumstances, and he can use these descriptors to make the same predictions about himself. For example, he might deny that he conceives of his life in narrative terms if asked about it.

Third, he is confusing identifying and re-identifying a person with characterizing a self, as these were defined and discussed earlier in this chapter and in chapter one. The *person* is the object or entity that we wish to identify across time. It is the thing that (we assume) endures during our (post-infant) lives and ceases at or before our deaths. The *self* is what separates and uniquely identifies individuals. Persons are similar in that they each exhibit person-attributes (rationality, language, etc.); selves differ from one another in that they have differing experiences, which help shape differing preferences, differing memories, and differing interpretations of events.

Strawson agrees with the Earl of Shaftesbury:

> … What matter for memory? What have I to do with that part? If, *whilst I am*, I am as I should be, what do I care more? And thus let me lose *self* every hour, and be twenty successive selfs, or new selfs, 'tis all one to me: so [long as] I lose not my opinion [my world view or moral beliefs]. If I carry that with me 'tis I; all is well.
> (1698–1712/1900, p. 136–137)

If we ignore the person/self confusion for a moment, then we can see that Strawson, in his agreement with the Earl of Shaftesbury, accepts the fundamental idea behind the narrative self, *viz.*, that the self is inextricably tied to one's perspectives, beliefs, morals, and world-view. Further, both Strawson and champions of the narrative view agree that one's perspectives, beliefs, morals, and world-view are created by one's previous interactions and reactions.

I believe, therefore, that Strawson is simply wrong in his assertion that "truly happy-go-lucky, see-what-comes along lives" (2004, p. 449) are not narrative in the sense I have spelled out. Strawson is simply misconstruing what most mean by a narrative self, and, as a result, his discussion misses the mark.

However, at the same time, Stawson's piece raises some larger questions regarding the minimum conditions for being a narrative self. We do not want the claim that we have narrative selves to be trivially true in that there are no other ways for *Homo sapiens* to be. To address this question: are there in fact persons or fully developed humans, recognizable as such, that do not possess a narrative self? I look at two possible instances in which this might be the case, the case of the amnesic Clive Wearing and the case of the Amazonian Pirahã tribe.

2.3 Clive and the Pirahã: Narrative counter-examples?

In 1985, Clive Wearing, a 46–year-old, well-educated, choral musician, was struck by a terrible case of viral encephalitis. By the end of the third day of his illness, most of his hippocampus and temporal lobes had been destroyed bilaterally and his memory was irreparably damaged. Today, Wearing remains one of the most extreme cases of

retrograde and anterior grade amnesia on record. He has very few memories of his life before 1985 – he remembers his wife Deborah and that he has children (though he cannot remember their names) – and he cannot form new memories. He remains trapped in the immediate present, always feeling as though he is awakening for the first time. Though he senses something is amiss, he cannot understand what is wrong with him because he forgets what is being told to him as it is being said.

Deborah Wearing reports early conversations with Wearing after he woke from coma:

> August, 1985: "How long have I been ill?"
> "Four months."
> "Four months? Is that F-O-R or F-O-U-R (ha ha!)?"
> "F-O-U-R."
> "Well, I've been unconscious the whole time! What do you think it's like to be unconscious for… how long?"
> "Four months."
> "Four months! For months? Is that F-O-R or F-O-U-R?"
> "F-O-U-R."
> "I haven't heard anything, seen anything, smelled anything, felt anything, touched anything. How long?"
> "Four months."
> "… four months! It's like being dead. I haven't been conscious the whole time. How long's it been?"
>
> (2005)

She notes that she soon started replying "almost five months" to his query so that he would skip the F-O-R/F-O-U-R joke in his endless loop.

Wearing can learn some information implicitly. For example, this conversation became shortened over time to "HowlonghaveIbeenill?," spoken as one hurried word, then just to, "How long?" and now he never asks the question anymore. If you ask him where the kitchen is in the residence hall where he lives, he will reply that he does not know. How could he, since he is just seeing the place for the first time? However, if you ask him to make you a cup of tea, he will go to the correct cupboard to retrieve the teacups.

He spends much of his time writing in a diary, constantly recording the very important event in his life, that he is now conscious for the first time:

> 7.46 am: I wake for the first time.
> 7.47 am: This illness has been like death till NOW. All senses work.
> 8.07 am: I AM awake.
> 8.31 am: Now I am really, completely awake.
> 9.06 am: Now I am perfectly, overwhelmingly awake.
> 9.34 am: Now I am superlatively, actually awake.
>
> ("The Death of Yesterday," 2005)

He then goes back and crosses out previous entries, because, from his perspective, they are wrong. He obviously was not conscious when he wrote them, since he is now conscious for the very first time. Over time, his entries have become more and more insistent, with the crossings-out becoming more and more vehement, as he is more and more frantic, trying to express his unique awakening amidst what surely must be a serious of dreadful mistakes.

Perhaps someone like Wearing is what a Strawsonian self (or pseudo-self) might be like, someone, though shaped by past events, truly has no (conscious) memory of them and cannot and, therefore, does not refer to them in response to any present query. Wearing, not a devil-make-care philosopher, is what it is like to be completely rooted in the present.

Does Wearing have a narrative self? Does he have a self at all? I do not know the answers to these questions, but I can see in Wearing a man extremely frustrated in his inability to tell his own story, a man driven to try to express what little of his own life he can understand and to get others around him to understand the momentous (recurring) event in his life. He has been most definitely not content to revel in his present without any past to anchor himself. Even now, more than twenty years after his illness, and after he has settled into his own life routines, implicitly remembered as they are, it does not take much to bring back his agitation at being lost from himself.

While I do not know whether Wearing represents an example of a person who is not a self, I do believe that he presents a strong counter-example to what Strawson claims. If we are forced to live solely in the present, we rebel as best we can. The connection between past and present is a fundamental component of human experience and being denied that connection is painful, confusing, and de-humanizing. Clive Wearing illustrates that our drive to understand ourselves in terms of our past is the basic scaffolding of our psychological lives. At least, Wearing illustrates this drive as it is played out in Western cultures.

But there is another avenue to considering Strawson's claim. Let us look at a people who cannot narrate their lives, not because they cannot remember, but because they have no real way to do so in their language. Their world perspective does not seem to include much of anything beyond immediate present experience.

Numbering something over 300, the Pirahã of Brazil form a small hunting and gathering tribe, living along the Maici River and trading with the Brazilians. They have no writing, nor do they draw. But it is their language that fascinates Western linguists, for it is literally the most unusual thus uncovered (relative to Western sensibilities). It allows for no numerals, numbers, counting, nor apparently any sort of quantification at all. Indeed, when linguist Daniel Everett tried to teach the Pirahã basic counting and arithmetic in Portuguese (at their own request, because they were

afraid that they were being cheated by their Brazilian trading partners), after eight months of nightly classes, he had failed to teach even one person to count to ten or to add one plus one (Everett 2005). The linguist Peter Gordon has also confirmed that the Pirahã apparently completely lack the concepts of number or counting and cannot tell, for example, whether three or ten nuts have been put in a can (2004).

Moreover, there is no evidence that they can embed phrases in their speech, e.g., they cannot say, "I said that [Jim will arrive at 11:30]." That is, they seem incapable of recursion, an alleged hallmark of all languages and of rational thought. They also lack any sort of color terms and any sense of a color "space." They have the simplest pronoun inventory known (only three) and do not employ them in the full range of functions normally associated with pronouns, instead opting to repeat the noun or noun phrase at each mention. Their language has no perfect tense (they cannot say, e.g., "I have eaten.") and has very few words for time. They also have one of the simplest kinship systems ever recorded, being able to refer only to sons, daughters, one's own generation, and maybe two generations back (e.g., parents and grandparents), and it is rare that a Pirahã can remember the names of all four of his or her grandparents. Finally, the Pirahã have neither indigenous creation myths nor fiction. If asked about creation or history, the Pirahã reply, "Everything is [always] the same" (Everett 2005, p. 633).

Everett argues that the lack of abstraction and generalizations in their language constrains how the Pirahã can think about their world. He believes that they literally cannot conceive of things beyond personal and immediate experience. They have no abstract thought at all, nor do they have any way of preserving history, even very recent history, as events occurring in the past. (It is probably also relevant to note that the Pirahã are resolutely monolingual, even with a history of at least 200 years of interacting with and sometimes marrying Portuguese-speaking Brazilians. They seem to be unable to make the appropriate translations for the concepts in Portuguese.)

For example, when the Pirahã are along the banks of their river as a canoe arrives, they say, "The boat *'ibipío*." When the canoe leaves and disappears around the bend, the Pirahã repeat, "The boat *'ibipío*." When a match is lit, they say the match *'ibipíai* (another verb form of the same word). They repeat the same expression when the match goes out. Everett reports that they love to watch a flickering match, saying, "Keep on *'ibipíai*." After much crosschecking between and among uses of this word, Everett concludes that the Pirahã must be referring to things coming into and departing from the boundaries of their experience. In contrast to other known cultures, which value events and objects out of sight, the Pirahã value things crossing the borders into and out of experience. They seem to delight in such events, taking them to be "almost as traveling into another dimension" (Everett 2005, p. 632).

Additionally, the Pirahã often starve, even though there is abundant food, for they simply do not prepare any food in advance. While other tribes in the region will gather roots and then grind them to make enough flour for a month's worth of their breads, the Pirahã generally only gather and grind enough for an hour or so, barely a single meal.

I recognize that Everett's analyses are controversial (see especially the commentaries in his 2005). However, at the time of this writing, Everett is the only fluent Pirahã-speaker in Western society, so there is little we can do to adjudicate his claims. I propose for the sake of this discussion, we take him at his word and accept that the Pirahã people are, as he claims, the "ultimate empiricists" (as quoted in Davies 2006), living in the moment, without concepts for the passage of time or any way to generalize across individual events so that they could point to common themes or threads in their existence.

In other words, the Pirahã might be a non-pathological case of a Strawsonian self: no past, no way to think about oneself reflexively, and no way to generalize or abstract. What sort of self do the Pirahã have, if any?

I think one must conclude, on the basis of the evidence presented, and assuming that the presentation is accurate, that whatever sort of self the Pirahã have, it is not a narrative one. They simply cannot have a narrative self because they lack the cognitive tools to create one. Here is Strawson's counter-example; this is what a life would look like if it truly lived in the present.

However, more importantly, I also think that, on the basis of the evidence presented, we would have to say that the Pirahã are not persons either. Even the most minimal list of criteria for personhood requires something like rationality, which, in turn, requires some sort of ability to abstract and generalize and probably some means by which to iterate thoughts. While I do not wish to claim that the Pirahã are not intelligent; in many ways, they clearly are (they are expert trackers, for example). But relative to the way we Westerners understand what is important for being a person, the Pirahã are apparently missing the most basic of ingredients.

I conclude: contrary to what Strawson thinks, he, and others like him, are narrative selves. But there also seem to be cases of non-narrative, non-pathological, fully functioning, adult humans. It might be the case that all non-pathological, fully functioning adult persons are also and coincidentally narrative selves. (It might also be the case that, on the basis of the evidence that the Pirahã present, we need to revise our notion of personhood.)

This excursion into possible examples of non-narrative selves allows us to accept the claim that at least the vast majority of (non-pathological) human persons have narrative selves. At least, this shall be my assumption for the rest of this book. I am using this assumption as a launching pad to ask further questions about how we story ourselves: What exactly in this process makes it *narrative*,

as opposed to merely historical (chapter three)? What developmental precursors exist for narrative selves in infants and small children (chapter four)? What is the relationship between our emotions – our placing value on things – and narrativity (chapter five)? How is conscious experience and the unconscious connected to our self-stories (chapter six)? How do narrative selves break down and what can this tell us about normal or healthy selves (chapters seven and eight)? And, finally, what is the relationship between autonomy and narrative selves (chapter nine)?

CHAPTER 3

Self stories

> *Friendship is indispensable to man for the proper function of his memory. Remembering our past, carrying it with us always, may be the necessary requirement for maintaining, as they say, the wholeness of the self. To ensure that the self doesn't shrink, to see that it holds on to its volume, memories have to be watered like potted flowers, and the watering calls for regular contact with the witnesses of the past, that is to say, with friends. They are our mirror; our memory; we ask nothing of them but that they polish the mirror from time to time so we can look at ourselves in it.*
>
> –Milan Kundera, *Identity*

> *The human being is the being who cannot depart from himself, who knows others in himself, and, if he says the contrary, lies. … It is the misfortune of beings to be for us nothing else but useful showcases for the contents of our own minds.*
>
> –Marcel Proust, *Remembrance of Things Past*

From all the events and thoughts that happen to us over the course of our lives, we cull only certain things as exemplifying who we are. Perhaps we do this as an extension of mapping the trajectory our bodies take through space, remembering those events that affected our trajectory the most and predicting the ones that might have an impact in the future. Perhaps. But regardless of why and how we do this, we all do tell stories about the important things in our lives and these stories are fundamentally, constitutively, important to who we are.

But before we can get to a more detailed discussion of those marvelous and marvelously complicated processes, we need to understand first what the narrative in a narrative self is supposed to be. This puzzle has been brought home to me by fellow philosopher John Christman, as he keeps insistently reminding me that what counts as a story these days is just about anything at all. Javanese shadow theater does not organize the events it narrates along a temporal dimension – there is no beginning, middle, or end in the productions. Instead, they organize plots spatially (see discussion in Linde 1993, pp. 110–111). Those critical of modern movements in contemporary literature note that fiction is becoming less and less

story-like and more and more arcane word salad. So what is the narrative of a narrative self? It has to be more than mere word salad, but how should we understand the more?

Actually, I don't think that the picture is quite as bleak as Christman paints it to be, for there have been active studies in narratology for several decades now and they can speak to the questions we are trying to answer. I don't do a thorough and critical review of the movement here, but instead I pick and choose those discussions that can best help us understand the non-fiction oral traditions we adopt in describing our lives. Once we have some sense of the structure of what it is we are talking about, then we can ask in later chapters how it is we come to construct these narrative selves and what happens when we fail to construct them appropriately.

3.1 A brief and skewed primer on narratology

Scholes and Kellog claim that a narrative requires "the presence of a story and a story-teller" (1966, p. 4). We use narratives to transmit a plot, an outline or "skeleton" of events (p. 12). They are probably right, but this characterization is unhelpful as it stands. Given the discussion of the first two chapters, we have some idea of what counts as a story-teller (or at least we have some idea of the work we need to do in order to identify story-tellers). But the question we need to address in a serious fashion is what counts as a story. Claiming that we need one doesn't contribute much to the discussion.

Narratologists look for the rules that make stories stories.[1] A subspecies of semiotics arising largely out of the French structuralist traditions found in linguistics, philosophy, and literature,[2] narratology became a genuine "area" of study following the English translation of Vladimir Propp's *Morphology of the Folktale* in 1958 (originally published as *Mofológija Skázki* (1928)). It solidified as a distinct discipline in the 1960's as people started to wonder what it is that binds all stories together. What do things like autobiographies, ballads, biographies, broadcasts, epics, films, folktales, histories, jokes, legends, movies, musicals, myths, news reports, novels, plays, short stories, sequences of still photographs, and spontaneous accounts of events in daily conversation have in common?

For Propp, the basic unit that ties all those things together is what he calls a "function," an act defined in terms of its role in a story. The same act can play different roles in different stories, thereby being different functions in different stories. Joan sees John's act of infidelity as promise breaking and an act of betrayal. John sees the same act as regaining his sense of self-worth. Different stories, different functions, but the same event. And all stories, according to Propp, are composed of such functions.

Roland Barthes (1966) expands upon Propp's views and notes that functions get their meanings by being one of an actor's actions and then these actions in turn get their meanings by being part of a narrative, which is just the ordering, telling, and evaluating of actions. In a similar sort of move, Wendy Lehnert (1981) defines a "plot-unit" as a narrative event that underlies emotional reactions or judgments. John regained his sense of self-worth by being kissed by June. The kiss is meaningful in that it is what spurred the change in John's self-esteem. The kiss is a genuine kiss because June intended it to be that way; it wasn't a hiccup, nor did she accidentally brush John's face with her lips. June's physical behavior is a genuine action because her beliefs and desires (or whatever relevant psychological states) caused the physical activity. (Dretske 1987 discusses how movements become behaviors in great detail; I shall not dwell on these points here.) The kiss becomes a functional element in the story because we need to talk about it in order to explain the change in John.

However, not all ordered, evaluative tellings are stories. A.J. Greimas (1976) and Tzvetan Todorov (1969, 1971, 1975) say more about culling the appropriate actions for a narrative. According to them, to be a story, one has to move from a description of disorder or alienation to an account of order or integration. All narratives depict particular transformations; they all go from negative beginnings to positive ends. Even a seemingly gloomy tale, such as John betraying Joan by kissing June, can be interpreted as a positive transformation, as Joan realizes John's true view of her and their relationship, whereas before she was confused, misguided, or simply wrong. Learning the truth is a positive change. It has to be, if it is to be part of a narrative.

Other narratologists don't require this sort of resolution for a telling to be a story. For example, Michael Dyer (1983) suggests that we combine plot-units or functions such that they illustrate or exemplify some commonly held adage or idiom that in turn describes the function. That is, the basic units in a story combine to depict a hidden blessing, a close call, a come-uppance, and so forth. And, as Propp has noted, what counts as a hidden blessing by one (John) may be a come-uppance for another (Joan).

To take other examples: Thomas Pavel (1976, 1985, 1986, 1988) is more inclusive in his analysis of narratives, claiming that they only have to propose or assume some problem or conflict and then make some attempt at solving the problem or resolving the conflict. Gerald Price is even more minimalist. He defines a plot as "the representation of at least two real or fictive events or situations in a time sequence, neither of which presupposes or entails the other" (1982, p. 4). He is probably too minimalist for our purposes, though, for not all lists of personal events should count as a self-story.

Obviously, there are many different ways to slice the narrative pie and I don't aim here to sort out all the subtle and not-so-subtle differences and adjudicate

among them. Speaking in broad strokes, we can decompose narratives into basic functional parts, which gain their meaning and identity by being connected to the other functional bits in the ways they are described to be. An event becomes a functional unit in a story because it is described as such, and it is described as such because doing so allows the event to be part of some larger pattern (whether that be a pattern of problem-solving, transformation, or idiom-matching).

But all this still isn't enough to pick out all and only stories, for some strung-together descriptions of events make a story, while others don't. Not all descriptions of hidden blessings or decreased alienation are stories, e.g., rain cancelled the soccer game, but it also fed the crops. Something more is required.

Marie-Laure Ryan (1991) calls this extra ingredient in story making "tellability." Some strings of events are worthy of being part of a story; others aren't. What is the marker that sets one string of events apart from another? Jerome Bruner cautions that "in contrast to our vast knowledge of how science and logical reasoning proceeds, we know precious little in any formal sense about how to make good stories" (1986, p. 14, as quoted in Ryan 1991). He overstates the case, however. Several have hinted at the sort of things required for making a story tellable. In brief, all tellable stories have points.

Robert Wilensky describes the points of stories this way:

> Points are structures that define those things that a story can be about. They characterize those contents that constitute reasonable stories and account for the existence of that story as an item to be communicated. … [A] person tells or listens to a story because the story has a content of some intrinsic interest. The content that bears this interest value is … the point.
>
> (1983b, p. 583, as quoted in Ryan 1991)

Literary theorists joke that the most successful stories have religion, sex, aristocracy, or mystery at their center, hence, the best short story of all is: "My God," said the Princess, "I'm pregnant. I wonder who the father is?"[3] Roger Shank (1978) lists death, danger, power, sex, and money as points of "absolute interest" for the most tellable stories.

Some themes in stories probably do owe their interestingness to their universal appeal. Love, sex, and death are three such items. Others have appeal for more local and cultural reasons. For example, we in the West (in general) like stories concerning power and wealth.

Tellability can also depend on how the story is presented. Part of what makes *Bridget Jones's Diary* so popular is its being structured as a set of personal journal entries. Readers get the sense that they are truly eavesdropping in someone else's mind. Familiar topoi increase a story's tellability quotient. Just about anything set in outer space will gain a certain following in the United States.

We should be sensitive to the possibility that there aren't common elements of tellability across all narratives. I don't really know whether there are, but to forestall that worry (since it isn't our concern anyway), I am going to narrow our focus a bit. Until now, we have been talking about narratives in general. What is it that makes any story a story? From here on out, though, I shall be discussing only properties of nonliterary, nonfictional narratives, since those are the sorts of stories that interest us here, just in case their "points" do in fact differ from the points of more traditional fictional stories.

Of course, there is the as-of-yet unanswered question of whether our personal stories aren't actually fiction. However, we tell them as though they are true, regardless of whether they are. Insofar as we intend them to be true, then we can think of self-narratives as falling into the genre of nonliterary nonfiction. Later we shall take up the question of whether (more accurately, how much) we make up our stories out of whole cloth.

3.2 The point of nonliterary nonfiction

Though for most the study of narratives and the study of fiction go hand-in-hand, some distinguish the two sharply and worry about the properties of one apart from the properties of the other (e.g., Bauman, Labov, Mandler, Polyani, Rubin, Rumelhart, Ryan, van Dijk). We can add ourselves to that list. We want to know what stories are like when they are not fictional (at least, not fictional in a traditional sense) and not literary. We want to know what they are like as they are a part of our everyday conversational exchanges.

Most good stories have lots of points embedded in them. Ryan describes narratives as a "sequence of peaks and valleys," with tellability focused on how one builds from a valley to a peak (1991, p. 151). The peak, a narrative highlight, articulates some unusual event or feature. Understanding why one wants or needs to talk about the peaks also explains why the story told is tellable.

Following Wilensky, Ryan divides tellability criteria into two types. On the one hand, we have pragmatic principles of tellability that concern the current or historical relationship between the teller and the listener. On the other hand, we have formal principles, which concern how the stories are structured, regardless of content or context. The latter are akin to what narratologists traditionally have been concerned with. Both of these criteria apply to cases of nonliterary nonfictional narratives.

Pragmatic tellability criteria for nonliterary nonfiction include things like facts that depart from the norms established in the current social situation. Rare, outrageous, or improbable events are tellable; mundane events are not. Telling you

about how I ended up yelling at the employees of Midwest Express Airlines only makes for an interesting story if I am someone who rarely yells.

Stories designed to evoke a certain mental state on the part of the listener also are tellable; tales that evoke fear, arousal, pity, empathy, anxiety, happiness, and so forth are worthy of repeating. My Midwest Express story is even better if the story makes you feel curious, amused, anxious, and then finally angry along with me.

Finally, stories satisfying some desire or need on the part of the listener are tellable. Telling a story as an answer to a listener's query makes the story better. If I tell you about my experiences with Midwest Express because you asked me why I have a stress headache, the story recounts an unusual event and provokes in you sympathy or empathy, then that story would be the most tellable.

Notice in each of these cases, though, what makes the narrative satisfying depends on local circumstances. Each social group determines its own norms, and what counts as the relevant social group changes as the situation changes. What violates the expectations of a Southern Baptist congregation may be fairly ordinary from the perspective of those who frequent the bathhouses in Northern California. Similarly, descriptions of a tough day at work may provoke sympathy in a spouse, but only boredom in a neighbor. While a mother may be interested in the details of her toddler's playtime, the banker down the street likely isn't. The relationships between speaker, listener, and environment establish the pragmatic criteria of tellability.

Internal criteria of tellability for nonliterary nonfictional narratives don't depend on the particular circumstances surrounding the story telling. These are attributes that "legitimize a story from within" (Wilensky 1983b, p. 583). Formal internal structures that legitimize stories include things like reversals in plot, parallelism, and multiple functions for single actions.

Aristotle was the first person we have on record noting the literary importance of inversions – changes in fortune – for stories. Losing the tournament after winning 36 consecutive games is more tellable than winning the same tournament under the same circumstances, for the story did not end as one would have anticipated. Much like good magicians, good storytellers can maximize the effect of reversals by emphasizing events that lead the listener in the wrong cognitive direction.

Parallelism refers to sequences in stories that mimic the activities of others. In self-narratives, we see parallelism when the story we tell about ourselves follows established cultural norms for an activity or other stories recently told. Stories concerning romance are particularly straight-jacketed when it comes to following tradition. In fact, we generally go to great lengths to preserve the Cinderella mythology in our modern lives. Boy loves girl; girl loves boy; boy and girl transcend obstacles; boy and girl live happily ever after. As Phyllis Rose writes in her introduction to *Parallel Lives: Five Victorian Marriages*, "the plots we choose to impose on own lives are limited and limiting. And in no area are they so banal and sterile as in this of love and marriage.

Nothing else being available to our imaginations, we will filter our experience through the romantic clichés … a betrayal of our inner richness and complexity" (1984). Nevertheless, even though literary analysts may fret, stories illustrating how our personal lives conform to romantic norms are quite tellable. This is a second reason why *Bridget Jones's Diary* is so popular.

A very powerful story results when parallelism and plot reversals are combined. An immanently tellable story is one that begins by shadowing previously told stories, but ends unexpectedly with a different resolution. Ted Hughes's poetic account of his wife Sylvia Plath's suicide presents a good case in point. In "The Minotaur," Hughes highlights how her death counters the ever-present happily-ever-after marriage motif.

> The bloody end of the skein
> That unraveled your marriage,
> Left your children echoing
> Like tunnels in a labyrinth,
>
> Left your mother a dead-end,
> Brought you to the horned, bellowing
> Grave of your risen father–
> And your own corpse in it.
>
> (Hughes 1998)

Finally, good stories have narrative peaks that we can decompose into several different functional units. Plath's suicide meant not only the end of her life, but also the end of Ted's marriage, the abandonment of her children, and an unsolvable puzzle for her mother. June's kiss, to return to that example, means one thing to John and another to Joan, so telling the story of the kiss with both John and Joan as characters makes a better story than one in which either John or Joan are absent.

To summarize: nonliterary nonfictional narratives are more tellable when they describe situationally unusual events, evoke some emotional response in the listener, and respond in some fashion to local conversational demands. They are also more tellable if they exemplify some reversal or inversion, follow other known or accepted story patterns, and if they are narratively complex. Insofar as the stories we tell in defining our selves fall in this genre, then we should expect community norms and good story-making design principles to constrain our own self-narratives.

3.3 The structure of self narratives

Let us now focus even more narrowly on the stories that comprise self. In telling others the stories of our lives, we interact socially in a particular and well-defined way. What in particular can we say about the composition of our self-narratives?

Life stories generally assess the speaker. The narratives composing selves describe the sort of person one is and the actions undertaken in moral terms such that, in the final analysis, the person described is a good person who behaved appropriately. We essentially bring ourselves in line with the basic values of society, giving what Erving Goffman calls an *apologia*. He claims that we either tell a "success story" in which exemplary personal traits led to a present triumph and will then lead onto a rosy future, or we tell a "sad tale" in which the person is not responsible for a past or present predicament. Or, I maintain, we can tell both at the same time.

My friend Elaine recently reported to me that she doesn't like to travel because she can't sleep unless she is in her own bed. She told a story about her first philosophy conference. By the fourth day, she was so sleep deprived time seemed to flow in jerks. As she explains it, her basic nature determines how she sleeps, so she herself is not responsible for her inability to travel well – a "sad tale." She concluded her story with: "… but I am still cool." Why the coda? The last sentence was needed to assure me that, despite her environmental sensitivity, she is still a worthy person to know and befriend. She is still "successful."

We use assumptions implicitly held by our community at large to structure, tell, and then evaluate our narratives. Elaine's story relies on pop psychological notions of anxiety and what is required for sleep. If we believe what current news media tells us about the relationship between anxiety and sleep and between nightly rituals and sleep, then we can see that Elaine's story fits with what we expect of sensitive sleepers.

My realtor JJ, a deeply religious man, once told me a story about the birth of his third child. He described how on the morning of the birth, he opened his Bible for his morning reading. The pages fell open to a passage that noted the birth of a son. JJ already had two sons and had been asking God for the duration of his wife's pregnancy for a daughter. He read the passage and believed that God was sending him a message about his future child. He believed that God was telling him that he was going to have a son. JJ wasn't terribly happy about this, but accepted his lot, and realized that the child being born healthy was all that really mattered. Lo and behold, when his wife delivered, she delivered a daughter. JJ was astonished and eventually confided his experience to his spiritual advisor. She replied that God has a sense of humor.

This is a story that makes sense to JJ and tells him something of the nature of God and his relationship to Him. This story makes less sense to me, as one who does not believe the hand of God micro-manages in any fashion. I don't know how to evaluate this story, except to say that it is the story of a Christian believer. JJ and I live in different communities and our personal narratives and how they are meaningful and how we evaluate them differ as a result.

Indeed, we can sort life narratives by the larger cultures in which they are told. A "good" person in the United States is one who is independent and respects

the rights of others – lessons found in the Declaration of Independence and our Bill of Rights on down through the latest automobile commercials (Shweder et al. 1990). A "good" person in Japan is one who is empathetic and fosters connections with others – ideals exemplified in the writings of Confucius and Mencius and cultivated through appropriate moral education in the public schools (Markus et al. 1997). (North) American self-narratives emphasize positive results achieved by individual labor. In contrast, Japanese life stories focus upon negative features of self requiring improvement, especially as they failed to conform to the expectations of others (Kitayama & Markus 1994; Kitayama et al. 1997; Markus & Kitayama 1994; Yeh 1995).

Linde's (1993) research on narratives involving career choices bears out these analyses. American subjects spontaneously list relevant character traits as being the primary factor in their choice: "I liked working with my hands, so I took up cabinet making as a hobby, which then turned into a full-time job." External opportunities for change are mentioned, but they are not generally cited as decisive: "The directorship position opened up, so I decided to apply for the position."

Interestingly, we rarely mention restricted opportunities in our career choices. Linde believes that this is a product of postwar American mentality. We are not supposed to have any cultural, economic, or social barriers, so these factors do not figure into our personal narratives. I am less confident of her analysis here; this could be an artifact of the sort of persons she interviewed. When one expands "career" to include being a housewife or working in the coalmines or the neighborhood factory, I suspect restricted choices and overweening expectations are mentioned more as decisive factors.

What she does claim that is more likely the case is that being bad at something is likewise rarely cited as a reason for changing our careers, even though being good at something is often given. We are more prone to say something like, "I developed a fear of heights, so I had to quit my job as a lineman for the phone company," instead of noting that the fear of heights prevented one from completing assignments. We tell our stories to maintain at least the illusion of control, even if we have to omit or warp the facts a bit.

One exception to this last rule is if we no longer identify with the self being described and so are not ascribing limitations or bad character traits to the current self. In this case, we can talk about how we failed in the past, as long as those failing don't carry appreciably over into the future. We failed then, but learned something, became a better person, succeeded now, or changed course entirely. Think about how President Clinton always paired admitting that he was wrong in having his liaisons with Monica Lewinski with a plea that he learned something in the process and is now a better person for it and you will see what I mean.

The Japanese, in contrast, explain their professional success in terms of situational luck and their professional failures in terms of their own lack of effort or ability (Kitayama et al. 1995). They seem to lack entirely the self-serving biases found in Americans, regarding effort as the primary cause of both success and failure. But again, such self-deprecation follow naturally from the expectations found within Japanese culture. Their professional baseball players, for example, are required to rehearse their mistakes publicly. Even their advertisements urge the Japanese citizenry to become more proficient – "Let's become masters at refreshing ourselves" exhorted an ad for a vacation resort (Markus et al. 1997, p. 30). Critical self-examination is a familiar touchstone in their community.

Lest one conclude that these social theorists are merely following Western prejudices in their analyses of Asian thought processes, allow me to digress briefly to outline recent imaging work in neuroscience that dovetails with the sorts of differences cognitive psychologists are beginning to find in how different cultures analyze their world around them. While these results don't directly support the analyses of social theorists, they do indicate that what the social theorists are claiming is based on more than their own personal biases.

Nisbett (2003) explains that when North Americans are shown the series of words, "monkey, raccoon, tree," and asked to pick out which words are the most alike, they invariably select monkey and raccoon. Westerners group objects by similarity. East Asians, on the other hand, select monkey and tree; they group by relationship. Similarly, when both groups are shown a series of animal pictures against backgrounds (an elephant standing in front of a group of trees, for example) and then given a surprise memory test, East Asians make more errors than Westerners when the animals now appear without the backgrounds.

Moreover, when we look at which areas of the brain is active during this sort of test, we find that North American brains show greater activity over the medial temporal gyrus than do East Asian brains (Park 2003). This tells us that Americans do more semantic processing when confronted with visual scenes than do Asians. People from the United States are focused more on objects in complex scenes, while people from Japan concentrate more on the complex visual percept itself. It is clear that culture affects our memory and learning systems; it is not unreasonable to conclude that it would also affect how we therefore think about ourselves.

In any event, stories can only be told if they fit into the social milieu. If they don't already fit exactly, they are altered such that they do fit. Narrators of self adjust, correct, edit, and modify their descriptions of the self so that it will remain in the appropriate relation to others. By judging the responses given as a story proceeds, storytellers can make changes as they go along. Indeed, each of us "selects, abstracts, and distorts" the past to create an image of the self that is most useful in the current situation (Goffman 1972, p. 542). In this way, through our

narratives we reflect social norms in our self-conception. Thus, our interpretation of the immediate social situation influences or determine how we define our selves (see also SmithBattle 1995).

George Mead was an early and strong proponent of this view. He writes: "Only insofar as [any individual] ... takes the attitudes of the organized social group to which he belongs toward the organized cooperative social activity or set of activities in which that group as such is engaged, does he develop a complete self or posses the sort of complete self he has developed" (1934, p. 155). We need our social group in order to tell stories about ourselves in the first place, for we don't know how to conceive of our behavior except as it has been sieved by community norms. (If we belong to multiple cultures, then we can create hybrid identities that satisfy the constraints of both groups (Barker 1997).)

Moreover, our stories change as our view of what is it to be good changes or as the social norms in which we are embedded change. Personal stories find their meaning and their significance through their connection to the present. This meaning and significance transform as the current situation mutates.

Though that conference happened a long time ago, Elaine has only recently begun telling that story as part of her personal repertoire, as mental health issues have become a socially acceptable item to include in our narratives. Whereas as little as ten years ago, anxiety and fear were stigmatized, now they can even be "cool." I have no doubt that President Clinton's presentation of whether and how he inhaled has been altered as he moved from being a college boy roaming around in Europe to being President of the United States.

As narrators we distance ourselves from our self in two ways. First, in relying on shared assumptions for structure and evaluation, we tell our stories adopting the interpretive strategies of our community. As teller, we take on the role of the removed expert and give an account of the deeper or "truer" reasons for the actions or activity. Elaine doesn't particularly express anxiety as she tells her story. Instead, she speaks as a mental health professional analyzing a patient. JJ isn't overwrought by the miracles he has seen when he tells his story. Instead, he simply relates what has been revealed to him about God. But in both cases, Elaine and JJ present themselves as deliverers of the truth, as telling their audience the real motivations behind the actions, motivations that they themselves were not aware of at the time the events took place.

Then, second, we distort the facts as we know them so that our reports will fit as closely as possible to accepted social norms. Our selves are very much constructed after the fact, and we could just as easily have constructed an entirely different self had we lived in different circumstances. Harrison is correct: "Narrative is made from the rubble of experience, a ... retrospective process of assembling those details that contribute to the chosen story, discarding others, equally true, that might resolve into another picture" (2000, p. 84).

The social negotiation involved in telling our life stories is not always easy or obvious, for we need to tell our stories such that others in the same group find acting that way in those circumstances natural and plausible. We need community approval, a consensus decision that we in fact are okay and behaved correctly. Telling our stories such that we represent a generic Everyman (or Everyperson) is one way to feed this need.

One implication of our trying to negotiate approval is that we at times will tell our stories in an ambiguous way as we try to construct the appropriate self. If we aren't sure what the social mores are, we tell stories such that we end up being okay regardless of how the community judges the case.

We find a clear example of this in Linde's transcription of a police conversation. Here is the relevant excerpt:

> I'll never forget this one we had in Midville. We had this guy on uh um it was a Kawasaki, one of those nine hundreds or whatever it was. … We got in a pursuit of this guy and he went off the freeway; it was one of those kind of there's about four motorcycles speedin' and he's the one that split off to the side street and really gunned it and took off so we decided to chase him instead of takin' the other three. … The pursuit's on, I'm a, it's we're workin' graveyard and my partner's drivin' and we take the guy on the straight aways but he, he was killin' us on the curves. … Well, he got on this, the uh, an expressway and we finally got up to him and every time we'd get close enough to read his license plate this guy is smart enough he'd hit his brakes and made us back off. … So we're so busy ya'know we couldn't even get his license number and every, we did this about 4 or 5 times and finally got off on another city street and hittin' curves and all that stuff, and we're just kind of got a straight away and we're startin' to catch up with him and I, I mean, we'd been chasin' the guy ten, fifteen minutes, and I said to my partner next time he, he hits his brakes just nail the son of a bitch. … O.K. son of a gun if he didn't hit his brakes and my partner not listening to me he hit the brakes but we chased the guy and the brakes had gotten hot and were fading. … He hit his brakes and we didn't lock up we just kinda rolled into him … and tapped him just enough bike went this way and he I mean he just dropped right on the ground .. but the bike went on up the road and I looked over at my partner and I said "you really did it." … He said "No" (laughter) but uh you shoulda' seen the look on the guy's face when we nailed him in the bush finally … All it did was bend the rear fender … of the bike and uh I think we flattened his rear tire or something.
>
> (1993, pp. 118–119)

In this example, the police officer describing his experience has to determine what counts as provocative behavior on the part of the motorcyclist and whether he and his partner's response was socially unacceptable or whether it was socially legitimated. As we can see in how he tells his story, the policeman is unsure what the answers are to these questions. The story is ambiguous about whether the

policemen intentionally knocked the cyclist off his bike or whether they did so accidentally. On the one hand, the partners discussed knocking the cyclist down with their car. On the other, the storyteller noted that their brakes were failing. The social group is silent on how far the police may go in enforcing the law. Can they break the law in order to uphold it? The policeman telling the story did not know the social norms to use to explain the event. Hence, his narrative reflects this uncertainty as well.

Underscoring how much our life stories conform to the norms and exemplars passed down by culture, Mark Turner (1996) argues our stories are fundamentally parables. His hypotheses hark back to the original narratologists' views that stories illustrate some accepted idiom or other. Following ancient scripts, we tell stories that illustrate fundamental principles of basic movements and actions. Everything we tell is analogous to some accepted simple story; we are simply projecting that simpler scheme onto current circumstances.

However, I worry that Turner is limiting what we do in our stories too much. Sometimes we do project from simpler schemes onto more complex narrative spaces, but sometimes we don't. Sometimes we report completely new and different experiences as such. We can say, "I can't begin to describe what that felt like…" in our stories and mean exactly that. Sometimes we speak metaphorically, but sometimes we speak quite literally. "It was like someone just turned out the lights" is an example of the former; "I suffered a severe concussion" illustrates the latter. Both are appropriate descriptions in our life stories, even as descriptions of the same event.

In contrast, Kermode (1966) suggests that we should see self-narratives as apocalyptic stories, for they show movement, change, and progression instead of being cyclical. As each event is reinterpreted in the present, it sheds light on where we are going and what our end will be like. I am not certain that this is a correct analysis, though, since few of us have any insight into when our ends will come and we rarely anticipate them in any meaningful sense. The one exception I personally know to this claim is Marjorie Grene, who in her mid-90s, will only take on writing assignments that will take her less than three months to complete so that she will leave nothing dangling when she dies. (That she has been following this procedure now for several years is beside the point.) In any event, some psychological data suggest that nonteleological narratives define how we describe ourselves better than any sort of teleological view which claims our stories point to some particular end (Hattingh & van Veuren 1995).

Linde (1993) counters that perhaps it is best to think of our life stories as structurally and interpretively open, similar to episodic tales like the *Odyssey* or the *Illiad*. We tell stories about ourselves in which we appear to be normal, natural; we behave appropriately, even heroically, under the circumstances

(see also Fischer & Jansz 1995). We become Champions, behaving in an exemplary manner under unusual conditions. We see ourselves as on a grand adventure. Our stories about this both define the escapade and define ourselves in the process.

I have the same reaction against Linde as against the others, however; she is being too narrow in her description of what we do when we narrate our selves. If we review all the stories we tell about ourselves, we can find instances of what Kermode, Turner, and Linde all discuss. Sometimes, we tell stories that point to some end. We do this when we muse about the larger patterns we find in our lives. At other times, we do conform rather tightly to social norms and exemplify idiomatic lessons. Stories about courtship, love, and marriage cleave to this pattern. At still other times, we entertain with stories of our adventures, of the things in our lives that are particularly unusual or noteworthy. Stories beginning, "you will never believe what happened to me today..." are examples of such.

Nevertheless, we don't do any of these things to the exclusion of everything else. It is probably wrong and wrongheaded to try to tie the structure of spontaneous life narratives to structures found in traditional fiction too tightly. They are two different beasts and should be treated as such. It is always helpful to compare, contrast and highlight similarities and differences, but probably not too much should be made of this exercise.

As I suggested in the last chapter and shall be arguing in later chapters, we are driven to tell narratives about ourselves. This is something we cannot help but do, for it is the only way we have of understanding ourselves, our world, and the others in it. It is a process that begins when we are very young and continues as long as we are able to interpret events around us meaningfully. We are not driven in the same way to create fictions, I don't think, though I can see how creating and appreciating fiction spins off from our drive to narrative our selves. But narration of self is primary, fundamental. Traditional fictional narratives come later and are stylized and artificial versions of what we all do naturally.

3.4 The function of personal narratives

Certainly, our stories about ourselves tie us to our social communities. They also function in a second way. Our stories give us our sense of continuity over time; they give us the sense of self that Hume was so worried about. This is a very important function from our perspective, for a sense of continuity is the one thing Hume claimed we could not find in ourselves. Insofar as we ascribe consistent character traits to ourselves and hold that these traits are causally responsible for

at least some of our thoughts and behaviors, we can bring our past actions into the present and then project them into the future. The narratives themselves allow us to see ourselves – experience ourselves – as a thing that exists across time. It allows us both to understand ourselves and to experience ourselves as a dynamic entity that is unified from the past and into the future (see also Kuczewski 1994; Rorty 1976).

The view that I am adumbrating contrasts with what John Locke meant by appropriating our past into our present, but it dovetails with what William James wrote on the subject. Locke believed that our past infected our present more or less automatically. Whatever garnered the mark of consciousness was "ours" and we were responsible for it, regardless of whether we later remember the event consciously. By taking responsibility for our past, we appropriate it into our present. But what we appropriate depends on what danced on our consciousness stage, not on what we later do with that information.

On the other hand, James believed that each occurrant thought in consciousness projects its content back through memory, appropriating some of the past, but not all of it. Our current stream of consciousness selectively uses the past to create an on-going and continuously changing sense of self. We project ourselves back into the past based on what we are currently perceiving, thinking, and feeling.[4] (See also Barresi 1999; Martin 1998 for similar views.)

Consider Letty Cottin Pogrebin's description of herself as a young mother in the 1970's:

> When I married, I was the sort of wife who baked my own bread for my turkey stuffing. When my twin daughters were born, I was the sort of mom who quit her job because that's what you were supposed to do, even if you loved your work. I kept busy around the house but went stir-crazy anyway. When the twins were four months old, I returned to work (guiltily but gratefully) and tried to Do It All.
>
> (2000, p. 126)

Pogrebin is only able to see herself as a particular sort of wife in hindsight, for only once has she lived through the events is she able to compare how she behaved with how others behaved around her. She was the sort of person who did these things, and because we share some common history with her, we can understand what sort of person she was in virtue of how she made dressing. She exemplified a type; there were many wives like her back in the 1970's. The implication of the story is that she is no longer quite like this, and that her journey was shared by others, who, like her, tried to Do It All. She is now different from what she was, but she still sees a unity across the experiences. It was *she*, the subject of the narrative and the narrator itself, who changed.

So, what we have as a narrative (or narrated) self isn't a constant container, as someone like Thomas Reid would like to pretend. Instead, we have an amorphous constructed perspective that at each moment can extend itself backwards and forwards though time. Linde compares the self to a "cloud of butterflies moving across a garden" (1993, p. 36). Things drop in and out and the entire formation is moving, but still, we can see the cloud as a thing, an entity.

Clifford Geertz concurs, also likening human events, human lives, to cloud formation. When we look at things around us and try to understand our lives in a programmatic way, the best we are ever going to have are "swirls, confluxions, and inconstant connections; clouds collecting, clouds dispersing." He concludes that there isn't a genuine story there at all, ever. Not even a God could create that sort of somethingness out of the randomness actually present. But setting aside this stronger conclusion and the question of whether this is the correct way to view all of human activity, we can see that he is still right about what it is we mortals can do as we wade into the swirling confluxions. All we can do is "construct … hindsight accounts of the connectedness of things that seem to have happened: pieced-together patternings, after the fact" (1995, p. 2).

Pogrebin uses an experience common across women of a particular generation and place as a way to organize and understand her behavior and feelings as a mother. Is this the only way to understand her past? No, of course not. She concludes her story by saying "now that my daughters are working women, wives, and mothers, I relish watching them rear their kids side by side with their husbands, young moms leading rich, balanced lives largely because of the revolution that my generation set in motion nearly thirty years ago" (2000, p. 126). We could see Pogrebin going back to work when her twins were still infants as an act of rebellion, a political statement about the condition of women, just as easily as we can see it as the behavior of a solitary "stir-crazy" person. Both interpretations fit the facts; indeed, the author herself appreciates both dimensions of this story. But in both cases, she is constructing a "hindsight account of the connectedness of things that seem to have happened." What is happening now, in the lives of her daughters, permits her to read back into her previous experiences the pattern of revolution. If something else had happened, her narrative of her experiences of motherhood might well be different.

The moral you are to draw from this chapter is: despite the fact that our narratives are in large part socially constructed and their shape depends heavily on contingent matters, they still have a definite and recognizable structure and they still play a crucial role in our lives. Though relatively amorphous and constantly changing, they are fundamental to us. They make us who we are. Where they come from and why we narrate are the next topics on my agenda.

CHAPTER 4

The development of self

Thursday, March 26, 1998
Tonight I am going to a march with over 200 people and we are going around streets and sing songs and yell WE'RE NOT AFRAID OF YOU!! We're doing that to show people that we're not afraid of you but you need a flashlight to see and [your] hair pulled back.

Friday, March 27, 1998
The march was great and we walked a mile. We walk through town and we yelled:
We're women
We're angry
We're not going shopping.
And we yell for fair[ness]. Lots of people heard us.

–Diary entries of Kiah, then seven years old.

Perhaps only because I am her mother, I am impressed with Kiah's journal descriptions of the evening I took her and her siblings to a Take Back the Night Rally. But do notice the sophistication in her narrative. In her first entry, she anticipates a forthcoming event, using a future expectation to define her current moment. Not only does she understand the mechanics of the activity she is about to be engaged in, but she also appreciates its social significance. In the next entry, she describes what happened, reacting to her past and judging it worthwhile, appropriating it as now part of her self. She has immortalized this event as one of a string of defining features for Kiah Hardcastle. Kiah is the seven year-old girl who participated in the Take Back the Night rally in Blacksburg, Virginia, 26 March 1998.

We are all engaged in such self-constructive exercises, all the time. What drives us to do so? Where does this narrative self come from?

The dominant research paradigm in developmental psychology answers that the self is one end product of some more-or-less universal developmental stages. Once we master language, understand causal efficacy, interpret our desires, and recognize the intentions of others, then we get a self as a sort of cognitive bonus.

But what if the dominant tradition is wrong about how we unfold? I argue for just this conclusion. It makes more sense – theoretically and empirically – to

hold that a drive for selfhood pushes us along in our linguistic, cognitive, and mnemonic development instead of the other way around. By paying attention to the affective dimensions of children's lives and what it is they are doing outside the laboratory, in their own homes and schools, we can see that they narrate all the time. First and foremost they and we want to understand our world and our selves as meaning something, as stories, as things with plots, with beginnings, middles, and ends. Language and reason are only tacked on at the end as useful additions in completing this enterprise.

4.1 Piaget's legacy

Jean Piaget's constructivist epistemology, the forerunner of modern developmental theory in psychology, holds that all learning is domain-general. As children develop and grow, they repeatedly change the ways they represent the world to themselves. These globally occurring alterations follow a biologically determined step-wise progression. The minds of all human babies develop and grow in the same way: they all assimilate their experiences to the most suitable mental structure or scheme for coping with them and, at the same time, they also accommodate their schemes to the inputs in order to reach cognitive equilibrium. Over time, the schemes become better and better integrated with one another until (ideally) we have only a single complex, coherent mental structure (see discussion in Abrahamsen 1998; Beilin & Pufall 1992 for brief overviews of Piaget's theory).

More important for our purposes, Piaget (1929) believed that children under the age of seven could not distinguish thoughts from the rest of the world. Young children, he believed, confuse thinking, dreaming, and remembering with speaking, sensing, and acting. This "childhood realism," once viewed as gospel in developmental psychology, has now fallen in disfavor, as scientists realized what most parents had already known, that three-year-olds can tell their mental lives apart from the environment and that even infants act differently toward humans and other intentional agents than the rest of their world (Carey 1985; Chandler & Boyes 1982; Estes et al. 1990; Leslie 1984; Premack 1990).

Still, Piagetian theory has far from "collapsed," as Alison Gopnik & Andrew Meltzhoff (1997) have asserted (see also Abrahamsen 1998: p. 155). Piaget's legacy continues to reign strong. His core assumptions that cognitive failure, conflict, and competition push along intellectual development, that development proceeds along a common pathway for normal children, and that there is a rich interaction between child and environment remain as fundamental features in many contemporary developmental theories (see, e.g., Bates & MacWhinney 1987; Gopnik & Melzhoff 1997; Johnson & Morton 1991; Thelen & Smith 1994). In addition, his

view of children as rational agents in the making remains an important background assumption in contemporary developmental psychology (see, e.g., Carey 1985, 1988; Gelman & Wellman 1991; Gopnik & Meltzhoff 1997; Karmiloff-Smith 1992; Keil 1989; Perner, 1991; Wellman 1990; Wellman & Gelman 1992). It is this last assumption that I wish to challenge here.

In his research, Piaget divorced cognitive development from the emotions, understanding them as two completely separate though interrelated systems. He sought only to explain the intellectual side of children, leaving the affective for others to pursue at some other time. This division of labor and the emphasis on rationality continue largely intact today.

Gopnik and Meltzhoff, for example, argue that the best way to understand the evolution of children's cognition is by analogy to (an idealized version of) scientific methodology. For them, children are little scientists. They seek to understand their world by producing hypothesis, making predictions, testing these ideas through observation and experimentation, and then revising their hypotheses to better fit the world. Children occupy themselves by trying to "outline the causal relations among existing abstract conceptual structures, input from the outside world, and new abstract conceptual structures" (1997, pp. 221–222).

Annette Karmiloff-Smith (1992) also sees the child as scientist. In particular

> young children are spontaneous psychologists. They are interested in how the mind can have thoughts and theories and in how representations mediate between the mind and the world. In order to engage in human interaction, … to understand their intentions/beliefs/desires, to interpret their statements/gestures/actions … each of us relies on … a folk theory that enables us to ascribe mental states to ourselves. (p. 117)

According to Karmiloff-Smith, children use proto-scientific theories to understand themselves and others. They develop theories of mind to explain human action just as we developed theories in chemistry to explain the properties of substances.

> It is like other theory-building activities; it involves inferences based on unobservables (mental states, such as belief), a coherent set of explanations and causal links between mental states and behavior which are predictive of future actions…, a growing distinction between evidence and theory …, and a clearly defined mentally represented domain over which the causal explanations operate. (1992, p. 138)

I maintain that these quotations misdescribe children and scientists alike. Perhaps we all do wish to understand the world and our role in it, and we alter our beliefs as a result of what we see and do. But we also live in world rich in meaning and affect, and it is these two aspects of our environment that motivate us to act, explore, describe, and redescribe. Neither children nor scientists would pursue

their activities if they did not *feel* that what they were doing was somehow important, and important in a deeply personal way. As we shall see below, highlighting the meaning-giving aspects of life changes how we should interpret what children are doing when they are creating their selves.

Nor do we pursue these cognitive-affective activities outside of a social context. Science is a shared activity. So is childhood. We explain our world to ourselves and to others as part of a communal pastime. Emphasizing the social aspects of life also changes how we should understand the development of mind. In sum, I claim that the purely cognitive point of view leaves out important components of childhood development, components fundamental to any child developing any sort of self.

4.2 A different interpretation

Though champions of a purely cognitive approach and I disagree about much, we both nevertheless do agree that the beginning of children's understanding of their mental lives starts with proto-declarative statements (see, e.g., Baron-Cohen 1989, 1991; Karmiloff-Smith 1992). It is here on this common ground I shall start building my defense of a meaning-making approach to understanding psychological development.

Preverbal gesturing takes two forms. Children can issue imperatives. "Give me sustenance!" says a glare and a five-fingered point to the bottle. They can also simply assert facts to the world. "That is food over there," says the smile and the gentle hand waving toward the dinner table. These nonverbal assertions or proto-declaratives seem to be the one form of communication that sets humans apart from all other animals. We are not communicating with one another to satisfy some immediate bodily need, nor are we alerting others to danger, food, shelter, or mates. We are talking merely to share the world together.

This drive to talk just to talk shows up as early as infants can begin to express it. (Some would claim that it is therefore an innate or inborn drive. I am not going to worry about that issue here. Suffice to say, for whatever reason, it starts as early we do.) As children become more proficient in communicating, their declaratives, not surprisingly, become more sophisticated as well. Nonetheless, the basic message behind their utterances remains largely the same. And it remains the largely unchanged throughout adulthood, too.

Consider the example of my son Quinn. One of his first words was, "Moke!" which means "milk." He spent a great deal of his first two years of life pointing out to me all instances of "moke" in the world. The refrigerator section in the grocery store was a particular thrill. Milk was an important part of his life, since that was

about all he would consume for his first thirty months, and he took glee in sharing his delight with me or with anyone else who would listen. Then, when he moved from uttering single words to more complex constructions, he would say, "Wook, mommy, moke! See dat?" Even though his sentences were much more complicated, most of what he said was verbal icing on his original message: milk is important to me. By three, he would say, "I like moke. But I don't like beg'tables." He identified his love of milk with who he is and contrasted that with things he didn't like. For Quinn, he is what he eats. At four and quite the chatterbox, he said, "I used to like milk when I was a baby, but I don't like it anymore. I like chocolate milk, but not plain milk. I like Sprite. I like V-8 Splash. But I don't like plain milk."

The message underlying all of Quinn's declarations is the same: Milk is meaningful in my world. It is significant to me. My relationship to milk is part of who I am. Though Quinn can now express his personal preferences more effectively and his preferences have in fact changed over time, the framework in which he emotes remains unaltered. His likes and dislikes are fundamental to how he understands himself and how he presents himself to others. He defines himself in terms of what he cares about, what appeals to him, and what does not.

But children are not just intent on sharing what they prize about themselves to others. They are working just as hard to discern the essential components of others and what those essential components are like. They want to share your life with you as much as they want you to participate in theirs.

It is not by accident that at the same time children begin to express themselves declaratively, they also begin to imitate others. All my children, from the time they could wriggle, would pull books out of the bottom shelf of the nearest bookcase and then flip through the pages intently, pausing only to giggle to themselves every once and a while. Being the offspring of academics, their behavior is transparent. They were doing, to the best of their ability, what their parents do.

From my perspective, children imitating their parents are doing more than practicing self-expression, though they do that as well. But they are also sharing their parents' selves back to them (see also Tomassello et al. 1993; Barresi & Moore 1993, 1996). Their message is, "I understand you. This is what you do. This is who you are." It is their version of my pointing out instances of moke to little Quinn as my way of saying to him, "I understand you and what is important in your life."

Certain things matter to children. These things matter to how they understand the world and their lives in it. These are also the things children spend their time talking about. It isn't quite fair to characterize their conversations, declarations, and imitations as "hypothesis testing." Nor are they merely practicing leading a life just in case they will need to do so for real later. Of course, they do learn about their world and people as a result of their activities, but they are also doing much more; they are already leading emotionally rich and vibrant lives. They are

connecting emotionally with their friends and neighbors. From the time infants start to show preferences, they react to the world in terms of their predilections. What they take to be the good, the bad, and the ugly colors their interactions with others. It affects how and what they think of themselves and then how they describe themselves to the world.

4.3 The importance of emotional attachment

Unlike Piaget and the neo-Piagetians, I hold that we code our experiences in a dual fashion. Our experiences, the ones we remember anyway, are those that have both sensory and affective dimensions. Indeed, our emotions not only color what we do but they also allow us to act in the first place.

Humans delight in pretending that their most prized and most humanly attribute is our forebrain, which houses, we also pretend, our capacity for rational thought. Since Plato at least we have held that subduing our passions to the iron rule of reason is our supreme aspiration; it is the ideal for human cognition. Ironically, we think that the more we are like *Star Trek's* alien Mr. Spock, the more human we really are.

But what would life really be like with an overdeveloped forebrain and without emotion? Witness the aardvark. He is a peculiar creature along many dimensions, but one of the strangest aardvark facts I know is that he has no limbic system (which, if you were a localist, you would say is the seat of our affective system). He is, in essence, all forebrain. Presumably, he must then spend all his time planning, analyzing, articulating goals, and otherwise organizing his thoughts. Needless to say, another fact about the aardvark is that he is pretty stupid. All thinking and no feeling make Jack a dull boy.

In a slightly less facetious vein, let us consider more carefully what it is we really prize about being human. We can rationalize well, it is true, but we do so in the service of personal goals. As Aristotle reminds us, we have practical rationality; we have means-ends reasoning with a point. This is just another way of saying that it is imperative that we identify what is important to us prior to cognizing.

Obviously, you might scoff, we need an end to engage in means-ends reasoning. But often, I think, what having an end entails is not well appreciated. These days it is fashionable to believe that our fundamental ends – survival and reproduction – are set by our biology and that all other ends (or most other ends) derive from them in some fashion. Maybe this story is true, but it obscures how ends – whether they be hardwired in or they come later – function in the human psyche.

At a bare minimum, that we have particular ends tells us that we have to tag our abstractions, interpretations, and matched patterns with valances – some

things are good; some things are bad; and some are indifferent. Tagging our experiences thus is just what it means to have emotions; we are reacting affectively to our world around us. And it is these reactions that determine which inputs we respond to and which we ignore. We literally can't move about in our world without emotion.

To drive home this point, consider a counter-example. Suppose Vulcans really did exist; suppose our universe contained Super-Aardvarks. What would they be like? How would they begin their days? Most of us get out of bed at some point during the morning. We do so because we want to get up and go about our business. We attach "good" or at least "important" to our getting-up-and-doing-something impressions. But if we were Super-Aardvarks, if we had no emotions, then we wouldn't ever make it out of bed. We would have no reason to. Of course, we wouldn't have made it in to bed the previous night either. Actually, we wouldn't have survived long after birth, for we wouldn't have ever felt the need to eat. As an aside, I note that there are a few brain-damaged souls like this around. Victims of akinetic mutism, they lie in their beds, awake and thoughtful, but uninterested in moving and hence unable to.

We could do those things, if we were Vulcan, only if they were innately specified, if eating, sleeping, rising, and going about our day were somehow already programmed in. If Vulcans have those behavioral patterns already laid down in their brains from birth, then they could run through them without emotion, much as we might hiccup.

When we look at human brains, we see that their connectivities bear out this argument. It is not the case that our oh-so-important frontal lobes were just tacked on to the hindbrain as a kind of afterthought. Instead, they are intricately connected to the thalamus, hypothalamus, and other regions of the limbic system. Indeed, evolutionarily speaking, it appears that the cortex is really just overgrown hypothalamic tissue. Furthermore, data from single cell recordings, lesions, and imagining studies all converge around the idea that the orbitofrontal cortex and the limbic system must interact in order for us to act and react flexibly as our environments and our perceived tasks in them change (cf., Hernadi et al. 2003; Ichihara et al. 2003; Rolls et al. 2003; Simmons & Richmond 2003; Ursu et al. 2003).

In many respects, the emotional side of our experiences is the more important, for it allows us to structure our world. It provides the backbone for our ideas, thoughts, and patterns of reasoning (see also Damasio 1994; Greenspan 1997). A sad mood, for example, not only colors how we react emotionally to the world around us, but also affects how we analyze language down to the neural level (Ramel et al. 2003).

We can see the primacy of the emotions in infants as young as only a few days old. They prefer the smell and taste of their mother over other women; they prefer

sweet liquids to sour, bitter, or neutral ones. Once they can track objects with their eyes, they will visually pursue their favorite people. These preferences are highly individual and idiosyncratic, as our emotional reactions to all the world are (see also Greenspan 1989, 1997).

Piaget discusses how an infant learns about causality from sensorimotor interactions with the world. In what is now a standard experimental paradigm in psychology, he showed how an infant can learn to pull a string in order to ring a bell or move a mobile. However, way before infants are physically coordinated enough to perform that task, they understand that smiling at their caregivers results in a hug or a smile back (Greenspan 1997). They routinely manipulate their environment emotionally before they do it physically.

Emotional interaction is the fundamental touchstone for both infants and parents. It is no surprise that crying is contagious in daycare, but clumsiness isn't. Parents are much more aware of whether their children are cranky on a particular day than if they are more forgetful than usual. From a very early age, we are sensitive to the emotional states of our peers. The emotions and moods of those around us affect both how we feel and how we behave around them.

A second and perhaps more revealing way in which we can see how emotions guide our thoughts is through how children learn to classify things in their environment. Again using what are now standard benchmark tests in developmental psychology, Piaget demonstrated how and when children carve up their world using the size, color, shape, or function of objects. However, well before children can sort blocks, they can recognize and classify members of their own family. They understand their family as a unit through emotional affiliation; divvying up the world in terms of other characteristics comes later.

Preschoolers' lives are ruled by who is their friend for the day (or the hour) and who hurt whose feelings. They move with ease in a remarkably complicated social structure that they track with little difficulty. Ask them what they did or learned on some day and the response is invariably some version of "nuthin'." Ask them who got a time-out – who angered the teacher or disturbed another child – and the verbal dam is broken.

These early emotional experiences form a "core" around which we structure our views of ourselves and the world (Eder 1994, p. 180; see also Emde 1983; Stern 1985). We use our emotions cognitively, in other words. Just as Quinn now understands himself in terms of his previous beverage preferences, so too do the rest of us categorize and regiment our perceptions and thoughts in terms of what has moved us. When learning about numbers in preschool, children quite often will cheer the "evens" and boo the "odds" (Coghill 1978, as discussed in Walkerdine 1988). Being odd has negative connotations and children are quite sensitive to this dimension. They use it to learn about and then later remember abstract numeric

properties. In spite of what the followers of Piaget presume, we cannot divorce how we feel about things from how we think about them.

The deep connection between cognition and emotion cannot be glossed over or subtracted out of our psychological equations, for it infects all aspects of our mental lives. Indeed, the deep connection helps explain away some of the more puzzling developmental phenomena. For example, the usual story in development is that children first learn to apply concepts to concrete familiar objects and then later to more abstract and less familiar ones. D.W. Hamlyn is merely reporting folk wisdom when he notes that "the priority of the concrete to the abstract is something that all normal human beings could discover by reflection on what they know about the nature of human development, of human learning" (1973, p. 42, as quoted in Code 1998). However, this pattern of increasing abstraction does not always occur in children. Sometimes we see the reverse.

For example, some children appear to have the comparative concepts of big, medium, and small correct for abstract objects, such as pictures of cups or circles, but will still nonetheless insist that Momma Bear of the Three Bears is bigger than Poppa Bear (cf., Walkerdine 1988). Psychologists usually code this sort of data as concepts not yet mastered and so it is swept under the empirical carpet. However, as Valerie Walkerdine shows, there is more to the story than mere confusion on the part of the children. When she looked at the structure of their individual families, she discovered that the children's real mothers were in fact bigger than their real fathers, usually literally but sometimes figuratively (as some fathers were absent). The way these children understood the relationship of bigger and smaller was entirely correct after all. Indeed, it was quite sophisticated. Important for our purposes, it was their emotional affiliations that keyed their generalizations.

D.W. Hamlyn is wrong. We don't always move from the concrete to the abstract in our generalizations. Affective ties are the most fundamental relationships and we build from there. Development entails learning to perceive the world apart from our emotions. Perhaps, we don't become more abstract thinkers as we age; we just become less emotionally involved.

4.4 Life stories

Given how especially children use emotional reactions to divide up the environment, it is not surprising that they and we would use the same tack in appreciating and remembering ourselves. We understand ourselves in terms of what we like and what we dislike, what was good and what was bad, what was exciting, and what was important. We don't know how else to do it.

Cheshire, my middle child, had a journal in which she just lists everything she loves ("I love Sam. … I love Tyler. … I love Mom. … I love Dad. … I love my house. … I love [the] Spice Girls. … I love bubbles. … I love skeletons. …"), everything she likes ("I like Ceeanna. … I like Maddie. … I like Cece. … I like the book *Box Turtle*. … I like the dinosaurs. … I like Oreo [her pet rat]. …"), and everything she hates ("I hate T.J. … I hate Alex D. … I hate Darrolyn. … I hate Sarah. … I do not like Greta. …") This goes on for about twenty pages; I've only given you the highlights. Admittedly, Cheshire may be a bit extreme here – as she is in everything she does – but her message is certainly unambiguous. Her life consists of her likes and her dislikes.

So much of our time, both as children and as adults, is spent communicating back and forth with our kith and kin who we all are in terms of how we feel and under what circumstances. Children talk about their emotions and those of the people around them almost from the beginning (Bretherton et al. 1986). We impart this information to others by telling stories about ourselves regarding the things in our world that are exciting, different, novel, or otherwise important. Sharing the affective dimension of the experiences is one point of the narrative. Articulating our role in the experience as actor, learner, hero, or mere on-looker is a second point of narrating.

Robyn Fivush (1994) argues that children's narratives about self structure the events in their lives both linearly and causally. She describes them as "emotionally meaningful, causally connected sequences of actions that provide both temporal and evaluative cohesion to life events" (p. 136). This view of child development parallels what we have seen in William James, Clifford Geertz, and Charlotte Linde as described in the last chapter. Telling stories about our lives gives us our sense of self and gives meaning to our activities.

But not only do we share what in our present circumstances is important, we also spend a great deal of time recalling the meaningful events of yore. Children begin talking about their past almost as soon as they begin talking at all (Eisenberg 1985; Hudson 1990; Miller & Sperry 1988; Nelson 1988), and their backward looks continue through adulthood. And it is the evaluative and emotional ingredients of our narratives that link our past experiences to a developing sense of self, for they give a framework in which to appreciate the present and by which to anticipate the future.

It would be another chapter to describe precisely how children learn to create canonical historical narratives. Let me just say briefly here that children are socialized into using particular narrative formulas through adult-guided conversations about the past (Fivush 1994; Miller 1994; Wiley et al. 1998). In other words, they learn by example. Parents spend much of their time talking to and around their children about

what has happened in their lives, giving them templates for how to talk and think about their past history as a chain of significant events (Fivush 1994; Miller 1994; Wiley et al. 1998). In fact, how parents and other significant persons in children's lives talk about events shapes how the children later remember and recount the events, as well as how they understand themselves (cf., Hirst et al. 1997; Reese 1996).

For example, in their stories about their little charges, Chinese caregivers often stress how the children violated some rule or other. In contrast, American caregivers refer to the children's individual strengths, personality, and preferences (Miller et al. 1996). We can see a case of the latter in the following interaction between a mother and her 35-month-old daughter.

> Mother: When Jason hit you, did it make you angry?
> Child: (nods yes)
> Mother: Did you hit him?
> Child: (nods no)
> Mother: Did you try to bite him back?
> Child: No.
> Mother: No, 'cause you're a sweet girl.
>
> (Fivush 1991, pp. 335–336)

The mother explains and justifies her daughter's behavior in terms of her daughter's personality. Over time, the child will absorb these ways of talking and thinking about herself and others and begin to describe herself and her actions as a product of this trait.

As early as two years of age, children began participating in adult versions of self-narratives. Consider the conversation between a mother and her 32-month old daughter recorded by Fivush:

> M: Remember when Mommy and Daddy and Sam [baby brother] went in the car for a long time and we went to Memaw's house?
> C: (nods head yes)
> M: Yeah. What did we see when we were in the car? Remember Daddy was showing you outside the car. What was it?
> C: I don't know.
> M: Do you remember we saw some mountains and we went to that old house, and what did we do? We took off our shoes and we walked on the rocks. What did we do? What was there?
> C: I don't know.
> M: Mommy and Noel [the child] took off our shoes and walked in the water.
> C: (nods head yes)
> M: Yeah, was that fun?
>
> (1994, p. 140)

The mother is providing a model for how the child should interpret her experience; she is giving a personal example of the strategy for how her culture and community would understand the child's life. She picks out from the myriad of events the ones that would be considered important – going to Memaw's house, seeing the mountains, walking in the stream – and she provides the culturally appropriate affective reaction – it was fun.

Children appear naturally responsive to this approach. Miller and her colleagues have shown that toddlers as young as 2 1/2 were four times more likely to contribute successfully to stories that their mothers were telling about them than stories their mothers told that did not have them as a character (Fivush 1990). Children are naturally interested in themselves, what others think about them, and how to use what others think to redescribe their own experiences in narrative form.

For example, William, a 2 1/2 year old, tells and retells a sledding adventure, with each version becoming more sophisticated and more laden with affect. His first rendition is fairly minimal: "Sledding! I hold on! … I hold on to sled." In the second version, his mother steps in to help him elaborate the important event from the adventure. William begins: "I go sled. I go on," and then his mother interrupts with, "Tell Lisa what happened to your face. Who did that." William replies, "I felled on you –. I cut mine." In the third version, William structured the story around his accident, as his mother had wanted him to, and added further evaluative details: "I – I didn't hurt my face. [He] did, Eddie [his brother] – and Eddie said I am fraidy cat. [She] was supposed to catch me, um – … I didn't get catched." His mother then suggested that he had been afraid after all, which he vigorously denied. (This example comes from Miller 1994, pp. 173–174.) William moves from a brief assertion of an event, to an adventure with a point, as modeled by his mother, and then finally to a genuine, action-packed narrative, punctuated by his own evaluation of the episode. This pattern of elaborative affective retelling exemplifies how we construct our self narratives (see also Miller et al. 1990; Sperry & Smiley 1995).

Most of our life stories will be forgotten over time, but some will continue to be told and retold, forming a core around which we can hang our other life events. But at the heart of any story about self is the expression of some emotional reaction of the person talking. Peggy Miller (1994) remarks that "remembering in the service of personal storytelling is inherently evaluative" (p. 175). She is correct. Children's life stories may conform to emblematic patterns defined by their culture, their community, their neighbors, and their families (Bruner 1987; Labov 1982; Spence 1982; Wiley et al. 1998), but their affective responses are all their own.

To call this life activity "theory-building" sells it short. That isn't enough. It is a way of caring about ourselves and others. It is a way of integrating and consolidating our affective reactions to the events around us, a way of making our life

events meaningful, to us and to others. It is a way of living a life as well as a way of understanding it.

4.5 Cognition as narrative instrument

From this perspective, memory and cognition become instrumental processes in service of creating a self. They are the means to that end. We remember emotionally important events so that we can later tell others (or ourselves) about them, and we use these stories as a way of defining and creating our selves.

Actually, the connections between memory and the important events our lives are likely to be complex. Most psychological data converge on a version of an intensity hypothesis for memory, that the more physiologically arousing an event (either as something positive or as something negative), the better our memory for it. When tested for immediate recall in a laboratory, people remember best those items that were the most pleasurable and the most arousing. They remembered the worst events that were neutral (Bradley 1998). Psychologists see the same results when people are retested a year later. In fact, we effectively lose our memories for neutral events within two months of their occurrence. In tests of cued recall, we remember best those events that are the most unpleasant and the most arousing. We remember these items with the greatest amount of detail and with greater confidence. Moreover, when we pay attention to the affective qualities of an experience, we have better memories for that experience (Bradley 1998; see also Levine & Burgess 1997; Sharot & Phelps 2003; Suedfeld & Pennebaker 1997).

Reaction time data show that with visceral arousal, we increase our capacity to recognize the same thing later, but we also decrease our reaction time. One explanation of this fact is that arousal forces attention on the object and so increases the cognitive processing devoted to it. Emotional events are analyzed and then encoded along a greater number of dimensions, which can slow things down a bit. In addition, the neurotransmitter norepinephrin, which is released under stress in the mammalian brain, also increases learning.

All these facts make good evolutionary sense, too, for it is far better to remember those events most salient to our survival, those that are the most important to us. These would be the events that had the greatest emotionality attached to them, either as something exceedingly good that should be repeated or as something exceedingly bad and so should be avoided. Being able to remember these things the best would aid in our ability to survive, reproduce, and raise our young.

At the same time, our folk intuitions tell us that our memories are best for the most aversive events, the so-called flashbulb theory. We all remember exactly

where we were and what we were doing when the Challenger shuttle exploded, for example. We think we do, anyway. In this case, the experiment has been done.

People were quizzed immediately following the space shuttle disaster regarding the circumstances under which they learned of the tragedy. Then, a year later, they were requizzed. It turned out that people maintained a high degree of confidence in their memories, higher than for other events of a year ago, but they were no more accurate in remembering the facts surrounding their lives during the Challenger disaster than they were for facts about other days in their lives around that time (see discussion in Bradley 1998). We are more confident in the truth of our emotionally charged memories, but we aren't really any more accurate with them than with any other garden-variety memory.

This study has been challenged. Some argue that because the explosion was so well televised, memories would be confused and confounded shortly after the event (Edna Olafson, personal conversation). To test the flashbulb hypothesis accurately, one would need a tragedy that wasn't splashed all over the headlines. The jury is still out, in this case.

But regardless of how the flashbulb hypothesis ultimately fares, as we tell and retell stories of ourselves either to ourselves, as part of rehearsing our life events in memory, or to others, as part of our social nature, we are in effect shaping our memories of these events, making them more and more part of who we are. Remember little William and his sled. His story got progressively more elaborate and more laden with emotion with each telling. All of us are the same way. Telling our life stories is a two way street. The more we tell, the greater our emotion attached to the event, and then the greater the memory (whether accurate or not) for that event. The greater the memory, then the more likely we are to retell the story, which means the greater the emotional salience will be. And so it goes.

Talking to one another, telling one another our personal stories, increases the emotions we feel about the happenings. Indeed, any sort of communal sharing increases the emotional impact. Movies seen with fellow humans provoke greater autonomic reactions that the same movies seen alone. Together, we find funny stories funnier, sadder stories sadder, and scary stories scarier (Hess 1998). We truly are social creatures who experience better, who experience more, when in groups.

In short, things aren't remembered just to be remembered, or analyzed just to be understood, but they are remembered and analyzed so that we can later use them in stories about ourselves. Indeed, veridicality has never been particularly important in our conversations. In fact, we are notoriously bad at recording incidents accurately, as the recent spate of literature surrounding false memories attests. Current experiences can contaminate previous memories, and memories of events past can interfere with our current experiences (Touryan & Shimamura 2003). It has always been easy to manipulate memory through leading questions

or guided imagery, as prosecutors know full well. The social performance itself is what counts. For selves aren't static entities to be preserved in our stories. Instead they are created through the narrative process, and then they are revised and reworked as we tell and retell our life story.

Perhaps the best way to appreciate what I am claiming here is to remember the words of Henry James: "Adventures happen to people who know how to tell it that way." I would only add: "And we know how to tell it that way."

CHAPTER 5

Emotional interlude

He could not help but observe in his mother's actions a concealed nervousness, an irresolution as if under the strain of waiting. Unlike the fluent, methodical way in which she habitually moved about the kitchen, her manner now was disjointed, uncertain. In the midst of doing something or saying something, she would suddenly utter a curious, suppressed exclamation like a sudden groan of dismay, or lift her hand in an obscure and hopeless gesture, or open her eyes as though staring at perplexity and brush back her hair. Everything she did seemed insecure and unfinished. She went from the sink to the window and left the water running and then remembered it with an odd overhastiness, turned, missed the handkerchief she was pegging to the clothesline and let it fall into the yard.

–Henry Roth, *Call It Sleep*

Emotional response is obviously at the core of our narrative selves. In order to understand how we construct our narratives, we need to understand our emotional reactions. This is easier said than done. In particular, it is easier to say than to do because we are prone to dismiss the complexity of our emotions in favor of easy glosses over neurotransmitters. I hope this chapter helps stem that tide.

Henry Roth's mother should be on anti-depressants, obviously. At some point or other, we probably all should be (or will be). We are a nation of emotional disorders it seems. It also seems that we are a nation of quick pharmaceutical fixes. Depressed? Take Prozac. Anxious? Take Xanax. Fearful? Take Paxil. It's an anti-depressant, but it also cures some phobias. Sexually inhibited? Try Wellbutrin. That sometimes works.

It is a long story indeed of how we became so fixated on our emotional health and so convinced that slight changes in our brains' chemical balances will lead us out of the long shadows in the valley. I can't tell that story here; actually, I am not even sure that there is a single story to tell. But here are two personal vignettes that illustrate the depth of our fixations.

I have a friend with an adopted pound puppy named Gracie. Gracie has stayed at our house and played with my children and our own dog Maggie. She was both

spoiled and loved – it seemed a perfect ending to what could have been a short and dismal life in a crowded city pound. But then, Gracie started acting odd every time my friend left her alone in her apartment. She tried to throw herself out of a third-story window. She ate wallpaper, the furniture, books, magazines, anything she could get her mouth around. She howled and barked and ran around insanely. The vet couldn't discover any problem. My friend had to cage Gracie every time she left the apartment (and she didn't leave very often). Finally, the doctors hit upon a diagnosis. Gracie has an anxiety disorder. She was put on doggie anti-depressants.

I have no idea whether the medication helped in the least. My point here is merely that it isn't all that odd that doctors would diagnose a pet with a mood disorder and would prescribe medication as a solution. This is how much our views about emotions and how they should be controlled have infected our culture.

In 1998, my personal life hit a snag. Actually, it ran headlong into a brick wall. I did what any child of the sixties would do. I saw a shrink. I was diagnosed with acute depression. As my middle child would say, No, Du-uh! By just about any objective measure, my personal life was falling apart. That is depressing. One suggestion my doctor made was for me to take a particular anti-depressant. It was mild, she said, so I shouldn't have any problems with side effects. It is also fairly slow acting, she cautioned, so I shouldn't expect to see any results for about six to eight weeks. I wondered: Since my depression sprang from particular incidents in my life, if my life were back on track, then I wouldn't feel depressed any more. It isn't all that unreasonable that in a couple of months I would have my life back on track. What exactly was the purpose of the slow acting anti-depressant supposed to be? But I dutifully took the drug. And, sure enough, I felt better in a couple of months. My personal life was better too.

Again, my point here isn't to knock modern pharmaceuticals, nor is it to claim that, in our hurry to find quick fixes, we over-prescribe mood altering drugs. For all I know, the medication helped me as much as the passage of time did. And, certainly, I myself have witnessed veritable miracles with modern psychotropic medication. My point is simply that popular culture sees our emotions as simple brain twitches; to change our feelings, we just change the twitch. Depression and anxiety are analogous to headaches or heartburn; they are all simple bodily responses to various stressors.

It would belabor the obvious to point out that our emotions are much more complicated than acid indigestion. At the same time, wondering how it is we should understand human emotions is a legitimate theoretical question. Popular culture and the popular press don't have it quite right, that is certain, but how far off are they?

In this chapter, I try to address that question. Of course, many others have tried to answer this question before me ... perhaps too many. It used to be that we divided theories of emotions into roughly five categories (see e.g., Calhoun & Solomon). We had things like physiological theories of emotion, intentional theories of emotion, sensory theories of emotion, and so forth. Then, in his most recent edition of *The Psychology of Emotion*, Strongman himself gives up being able to categorize the different approaches and simply hands his readers a laundry list of no less that forty different theories.

I, however, believe that we can divide all the theories into two large traditions: the constructivists and the reductionists. The constructivists hold that human emotions are constructed out of our social interactions with others. In contrast, the reductionists believe that our complex emotions reflect common affective responses found across the animal kingdom. I am not going to argue here that my large division covers all theories of emotion currently or historically in vogue. I am just going to assert that it does. Instead, here I endeavor to show that – perhaps paradoxically – both camps are largely right. I propose a view of emotions that pays homage to their complexity as well as to their basic neurobiological roots.

5.1 The social construction of emotion

For most of our psychological properties, if not all of them, one can find a social-constructivist hypothesis arguing that that property comes more or less directly from our complex social nature. For example, in the late 1920s and early 1930s, the Russian psychologist Lev Vygotsky argued that linguistic meaning comes out of our cultural interactions with others (Vygotsky 1968, 1978). A pointing finger means nothing until it is embedded in a particular cultural-historical environment. Similarly, we do not know what a pointing finger means unless we are embedded as well. Culture teaches us the meanings of all sorts of arbitrary symbols. As it does so, it also teaches us how to think, for meaning per se cannot exist apart from linguistic practices, and linguistic practices cannot exist apart from a social group.

The study of emotion fares no differently. The social-constructivist move is quite popular these days in anthropology, sociology, and all manner of cross-cultural studies. For example, we have learned through these studies that Chinese infants do not express their emotions facially as much or in the same manner as either Anglo American or Japanese babies. Japanese infants are more expressive than Chinese, but less than Anglo Americans. The differences manifest themselves in quite specific ways; minute differences in facial actions across the three cultures have been identified (Camras et al. 1998).

In addition, there is cultural variability in reading facial expressions, even the expressions of the supposed universal emotions of anger, contempt, disgust, fear, happiness, sadness, and surprise. Japanese subjects misrecognize facial expressions in standard photo arrays. Interestingly, neither the ethnicity nor the gender of the models has any impact on how well Japanese do (Shioriri et al. 1999).

Moreover, we have learned that different cultures not only express their emotions differently, but they apparently feel different emotions as well. The Japanese experience a familial shame quite foreign to Westerners. The Ifulak experience a grieving love entirely foreign to Westerners. I am less sanguine about these claims, though, because it is very difficult to separate genuinely different emotions from different ways of describing the same or similar emotions. As long as we believe that different cultures can have embedded in them different ways of defining, expressing, and understanding emotions (and we believe that we really only have good access to one another's complex conscious states via self reports), then we will not be able to differentiate different descriptions of the one thing from different descriptions of different things. Koreans manifest depression in terms of somatic symptoms instead of psychological ones (Pang 1998). Do the somatic symptoms that Koreans exhibit reflect the same underlying depression that Westerners experience, even though the linguistic descriptions of the feelings, their behavioral manifestations, and their psychosocial historical stories differ? We don't know how to answer that question in a serious way.

Nevertheless, the differences among cultures we can identify apparently begin quite early. Chinese toddlers show different affective responses than Anglo Canadians. In particular, Chinese toddlers are more inhibited than Canadian. How these differences get embedded in the psyches of the infants is no mystery, for Chinese mothers reward behavioral inhibition with acceptance and encouragement, while Canadians reward extroversion (Chen et al. 1998). One implication of these facts is that the affective behavior itself is assigned different meanings across cultures. What counts as "good" conduct in China is "bad" in Canada.

One can see parallels between the view that emotions are fundamentally social constructions and the view William James advocated historically. James hypothesizes that

> *The bodily changes follow directly the perception of the exciting fact, and … our feelings of the same changes as they occur IS the emotion.* Commonsense says, we lose our fortune, are sorry and weep; we meet a bear, are frightened and run; we are insulted by a rival, are angry and strike. [T]his order of sequence is incorrect. … [W]e feel sorry *because* we cry, angry *because* we strike, afraid *because* we tremble. (1890)

We feel what we do because we interpret our bodily states in a particular way. That is, the environment triggers a certain physiological response. We then

feel an emotion as a psychological response to the alterations in our body. Like contemporary social-constructivists, James believes that we can only feel an emotion as a cognitive reaction to physiological changes. Social-constructivists go one step farther than James and claim that the physiological reaction itself is a learned reaction. In both cases, though, feelings follow bodily behavior. With James, the feelings follow as our brains' response to changes in our viscera. With the social-constructivists, the feelings follow as we learn the appropriate psychology to manifest in our particular cultural environment.

James's views are not without merit. We do need some autonomic arousal in order to feel full-blown emotions. George Hohmann has discovered that patients with spinal cord injuries simply do not experience the full range or depth of emotion that the uninjured do (1966). Moreover, the higher up the spinal cord the injury occurred, the more sympathetic arousal is disrupted, and the more attenuated the emotional response becomes. We need visceral reactions in order have feelings.

At the same time, physiological changes are not enough. A shot of epinephrine promotes sympathetic arousal, but most do not feel any particular emotion associated with the changes (Marañon 1924). We need both an internal bodily change and some triggering cognitive event.

Our visceral reactions influence our affective responses. We can also, to a certain extent, detach our visceral reactions from our cognitive interpretations of what they might mean. Both of these claims dovetail with a social-constructivist's view. In both cases, how we interpret something determines what we feel. And how we interpret something turns on how we have learned to interpret the world through our interactions with others.

5.2 Appraisal theories of emotion

In other words, there is something right about psychologists' appraisal theories of emotion. Appraisal theories began with Magna Arnold's theory of emotion (e.g., Arnold 1945, 1960; as discussed in Strongman 1996). She claims that (excepting taste, pleasure, and pain) we always and immediately evaluate incoming stimuli with respect to memories of our past experiences. We appraise the things in our world as either good, bad, or indifferent, seeking what is good, avoiding what is bad, and ignoring what is indifferent. Our current experiences later become our memories; hence our current emotional reactions will taint future experiences and our judgments about them.

Stanley Schacter (1959, 1964, 1970) is perhaps the best-known advocate of an appraisal theory of emotion. On the basis of several ingenious but highly contentious experiments, he concluded that we label physiological arousal depending

upon what we happen to be thinking about at the moment. Any one state could be labeled and thus experienced in many different ways, depending on the context. Our emotional states, he believes, are determined mainly or entirely by higher level cognitive interpretations.

We do know that humans are designed to assign singular meanings to incoming sensory data. Gestalt psychology trades heavily on this fact. We see the pair of Necker cubes in Figure 5.1 as both pointing in or out, but never both ways at the same time or no direction at all. We can't help but see rows and columns in the dots in Figure 5.2.

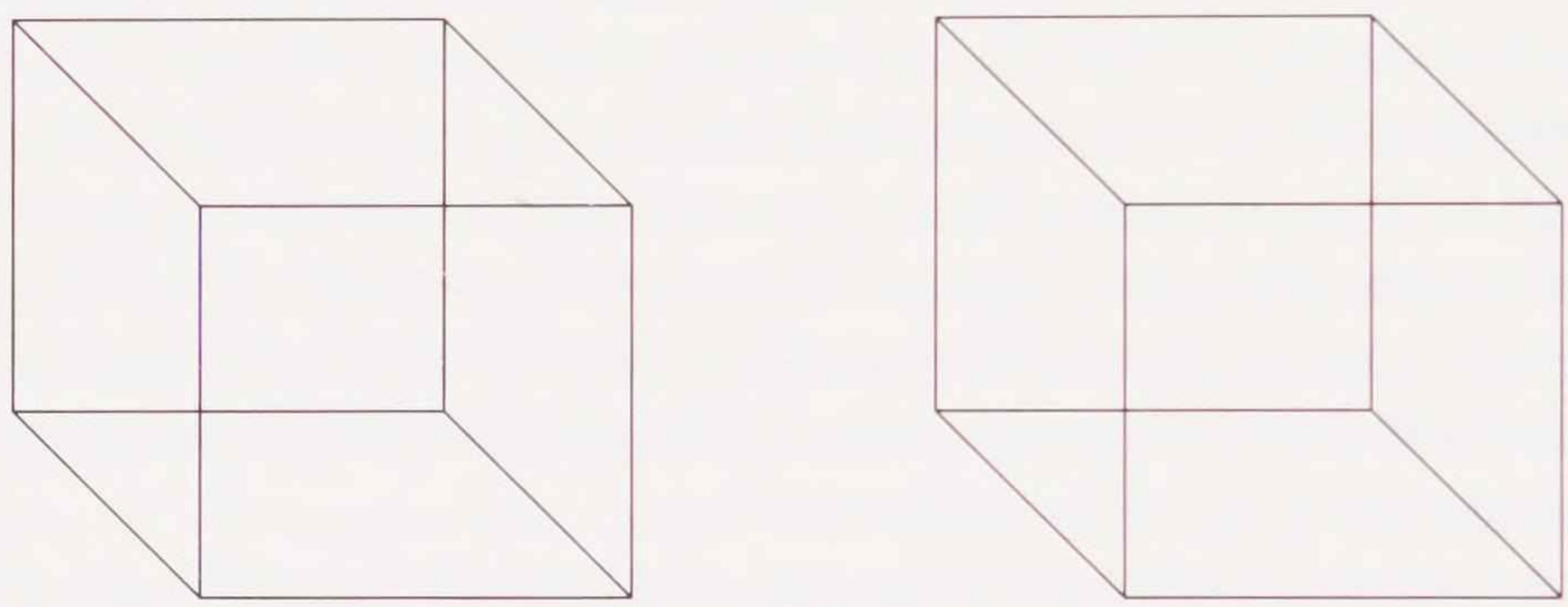


Figure 5.1 Necker cubes.

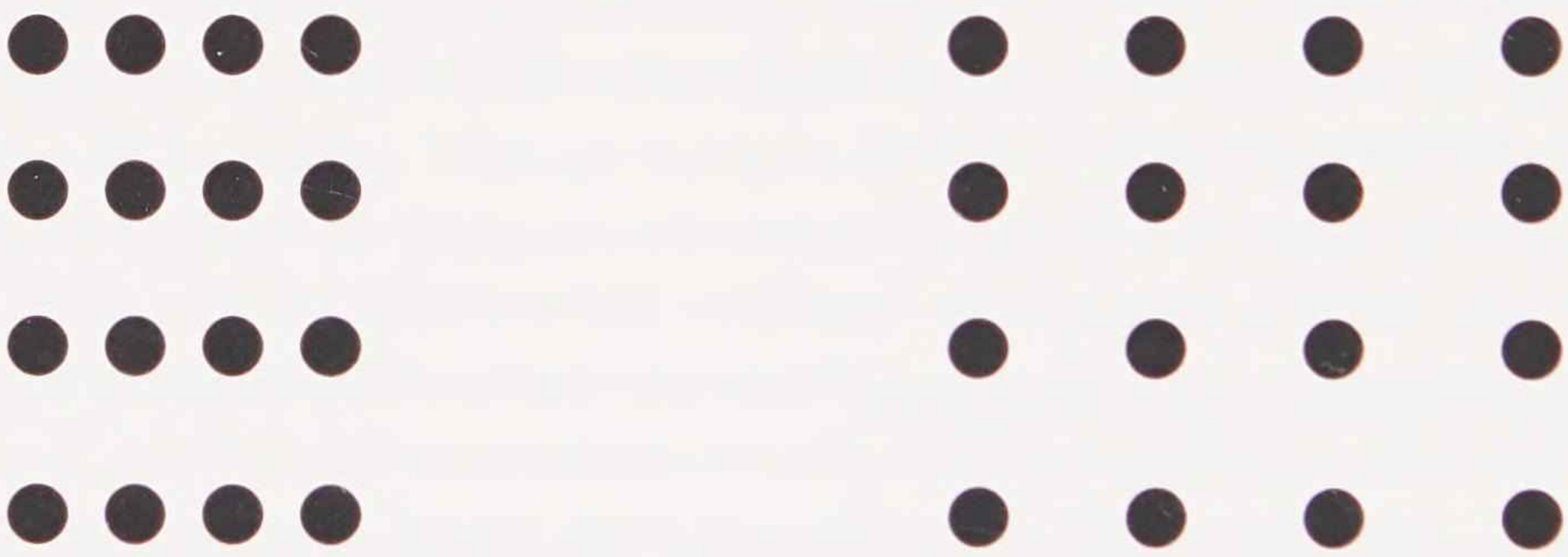


Figure 5.2 Rows and columns of dots.

But our interpretive skills are not limited to filling out, or filling in, visual space. We group these "meanings" together internally into schemas which we use to parse our world. Which interpretation of some set of incoming stimuli we chose or use depends upon our particular cognitive histories, which individualize and personalize our schemas, and the particular environmental circumstances surrounding the event. In my house, because I have lots of small children, there is often a pitcher of apple juice in the refrigerator. I don't like apple juice; I like iced tea. Unfortunately, apple juice and iced tea look very similar to one another in

opaque containers. Sometimes, when I am in a hurry, I grab a pitcher out of the fridge, thinking that it is tea, when it is in fact apple juice. After I pour myself a glassful and take a swallow, my immediate reaction is not, "Ewwww, apple juice." It is, "Ewww, I didn't know tea could go bad." My expectation of drinking tea shaped how I experienced the world.

And I am not alone in this capacity. If male college students look at pictures of beautiful women after exercising, they will interpret their increased heart rate, etc., as sexual arousal. If they exercise without the benefit of the pictures, they will interpret the same changes in heart rate and their autonomic system as physical exertion (Cantor, Zillman, & Bryant 1975). Similarly, if male subjects happen upon a woman while crossing an unsteady bridge, they will rank her as more attractive than the same woman met while crossing a quiet street. The subjects interpret the arousal brought on by the instability of the bridge and consequent danger as sexual attraction.

People selectively look for evidence to confirm their active schemas or current beliefs about the world (Snyder 1979). Undergraduate subjects who signed consent forms that suggested they might feel pain reported a neutral vibration as "stinging" or "burning" and indicated that the sensation was indeed painful. Many believed that they had been shocked electrically. Subjects who signed consent forms intimating pleasure reported that the same neutral vibration was "tingling" and ranked their sensations as pleasurable. Subjects who received no indication of what the experience might be like reported the sensation accurately as "vibrating," and ranked the experience as neutral (Pennebaker 1975). The subjects' responses differed significantly, varying as their expectations did. If we believe that pain is eminent, then we are more likely to feel pain and report stimuli as painful (Blitz & Dinnerstein 1971; Gelfand 1964; McKenna 1958; Neufield & Davidson 1971). If we are expecting something pleasurable, then we are more likely to experience pleasure.

The converse is also true. Expectations of having a particular feeling can override bodily reactions. For example, Nisbett & Schachter gave subjects a placebo pill and told half of them that possible side effects include hand tremors, heart palpitations, butterflies in the stomach and other symptoms of arousal. The other half they told the pill would cause itching, slight numbness, and other symptoms not associated with arousal. They then asked these subjects to report how much pain they experienced with a series of mild electric shocks. Of course, being shocked produces arousal in all of us. The question being investigated was how the subjects who believed that their autonomic response might be caused by a pill would interpret their pain. It turns out that these subjects were willing to tolerate shocks four times as intense as the subjects who believed that their pill resulted in no changes in arousal or in normal subjects who had not taken

any pill whatsoever (Nisbett & Schachter 1966). Subjects suppressed otherwise normal emotional responses to electric shock if they could attribute their bodily reactions to other causes.

Psychologists argue that we interpret emotional changes in our bodies in the same way. We need to analyze and interpret putative affective stimuli before we get a full-blown emotion. In its most extreme versions, appraisal theories would mean that the arousal we experience under circumstances of duress could be interpreted, and hence experienced, as either fear or anger or even as surprise or joy, depending upon which cognitive schema was active at the time.

5.3 The continuum hypothesis

In contrast to the cognitive/constructivist views of emotion, which stress complicated social reactions and interpretations, reductionist approaches focus almost exclusively on the seven basic emotions of anger, contempt, disgust, fear, happiness, sadness, and surprise. The guiding hypothesis is that our emotions are but human manifestations of these seven primitive affective reactions. All emotions exist on a continuum; we humans don't bring anything particularly new to the mix. We might be more complicated, but we aren't different in kind.

The West's current love affair with selective serotonin re-uptake inhibitors is one demonstration of the reductionistic continuum hypothesis. Things like depression and anxiety are just imbalances in a few (maybe even one) neurotransmitters. Increase the amount or the effectiveness of the neurotransmitter and you will thereby eliminate the feeling. (That we have hundreds of different types of neurotransmitters in the brain and that we have currently isolated only a score or so seem to bother no one.)

Since at least the time of Darwin, we have recognized that our human emotional life is very similar to the emotional life of other creatures. We all react in characteristic ways to emotionally valenced stimuli. Though other animals may not blush or cry, we all have prototypical ways of expressing anger, disgust, fear, sadness, happiness, and curiosity. In assuming that the neural circuits underlying these reactions are homologous or at least analogous across species, neurophysiologists and neuropsychologists have been able to construct impressive and substantial research programs studying the neural correlates for emotion. They are to be applauded, for we now know quite a lot about where and how basic emotions are processed in the brain.

At the same time, there is a dangerous trend developing in the study of emotion in neurophysiology and neuropsychology, a trend toward oversimplifying and reducing emotional responses to the point of distortion. We all know that scientists

must abstract away from much of what is going on in order to produce quantitative and unambiguous data. We also know that scientists operate using several basic methodological, technological, and theoretical assumptions. I wonder, though, whether scientists haven't gone too far in their tendency to modularize brain processes and to reduce reactions down to their simplest components.

Obviously, our emotions are not stereotypical by any means. Popular culture gets a lot wrong. Elizabeth Kübler-Ross's five stages of dying are one case in point (1969). Kübler-Ross and the popular press have it that we all pass through the same steps when grieving. In the beginning, we deny our tragedy, then are angry about it. Next we bargain with our god for another chance and become depressed when we have to accept the inevitable. Finally, we accept our lot with grace. These stages are now so ingrained in our world-view that we discuss the bereaved in those terms: "Don't bring up her loss; she's in denial." "Joe went very quickly and peacefully after he accepted his condition."

In the first place, we all do not react to crises in the same manner. Some show extreme emotions; others show very little (Burgess & Holstrom 1974; Natterson & Knudson 1960). Secondly and more importantly, we do not all pass through the five stages, even under our own schedule (Lawson 1976). Third, and maybe most important from a therapeutic point of view, we do not all "accept" our lot, even after considerable time (Burgess & Holstrom 1978; Parkes 1970, 1975). A significant number of women who have undergone mastectomies to remove malignant breast tumors still feel anxious and depressed over their loss a full year after the operation. Almost half of bereaved individuals are still anxious two to four years after their loved one died. A quarter of rape victims still do not feel "recovered" four to six years after their assault.

Many of us do not go gentle into that good night, no matter what our culture expects of us. Many of us do. There aren't clear generalizations we can make about the "natural" stages of grief and sadness, even within a single social context. Our complexities translate into a variety of individual reactions, even when the triggering events are culturally recognized and anticipated.

At the same time, it is hard to claim that our emotions are merely products of our environment. Studies in rats, monkeys, and people are coalescing around the idea that the anatomical circuits for emotion are relatively straightforward: prefrontal cortex, ventral striatum, and, most importantly, the amygdala (cf., Mlot 1998). Imaging studies confirm that the amygdala lights up when we feel stress, fear, disgust, or happiness (Breiter et al., 1996; LeBar et al. 1998; Phillips et al. 1997; though see Reiman et al. 1997 for complications to this story). Those with lesions in the amygdala cannot process negative expressions on the faces of others or verbally expressed fear and anger, and they experience no fear conditioning (Adolph et al. 1995; LeBar et al. 1995; Scott et al. 1997). In addition,

mood disorders show abnormalities in the amygdala as well as prefrontal and cingulate cortex (cf., Kennedy et al. 1997).

The amygdala lies at the heart of our limbic system, our so-called "emotional brain" (see Sitoh & Tien 1997 for review). This system has been actively investigated since James Papez (1937, 1939) first recognized it in the late 1930's. Though our understanding of the emotional circuitry has changed since then, the fundamental hypothesis has remained intact. In brief, subcortical areas are exquisitely sensitive to emotion-laden stimuli. They tag incoming data with a valence and then send a message explaining what they have done to the rest of the brain (cf., LeDoux 1996). More specifically, sensory information comes in via whatever sensory pathway is appropriate. This information then feeds into the thalamus, which processes the stimuli in a rough and ready way. The thalamus projects to the lateral nucleus of the amygdala, which distributes the information to other regions of the amygdala, including the central nucleus. Information then travels out of the amygdala via the central nucleus to various subcortical areas. Each area controls a different autonomic response (e.g., freezing, changes in blood pressure, releasing hormones) (see LeDoux, chapter 6, for a good summary).

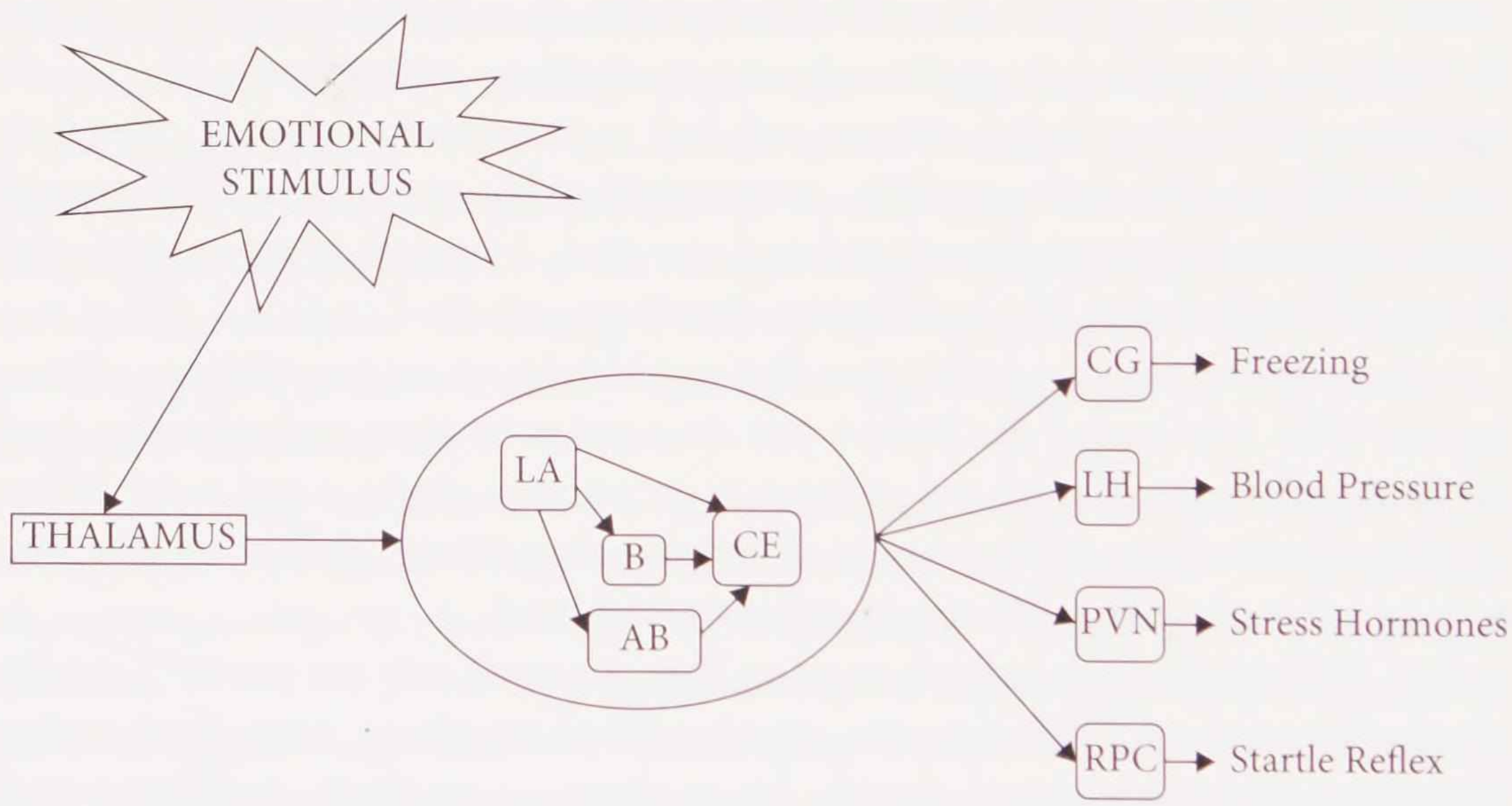


Figure 5.3 Sensory information travels to the lateral nucleus (LA) in the amygdala via the thalamus. LA then sends the information it has processed to other regions in the amygdala, including the basal nucleus (B), the accessory basal nucleus (AB), and the central nucleus (CE). The central nucleus then forwards the information to the central gray (CG), the lateral hypothalamus (LH), the paraventricular hypothalamus (PVN), and the reticulopontis caudalis (RPC), among other areas. These regions then initiate individual behavioral responses, such as freezing by CG, changes in blood pressure by LH, hormonal release by PVN, and a startle reflex by RPC. [derived from LeDoux 1996]

Many hold that this early and primitive valence tagging forms the core of our emotional responses. Whatever happens later in cortex is merely in reaction to what the amygdala and other lower areas are doing. "The neocortex can come to be influenced by emotions and influences them through various appraisal processes, but it is not a fundamental neural substrate for the generation of affective experience" (Panksepp 1998, p. 42; see also Watt 1998). Moreover, our emotional amygdala-thalamic pathway is fundamentally different from our higher level cortical processors. Joe LeDoux puts this position starkly: "Emotion and cognition are ... separate but interacting mental functions mediated by separate but interacting brain systems" (LeDoux 1996, p. 69).

Perhaps the best sort of evidence for this view is data showing that the amygdala can be activated apart from cortical responses. For example, the amygdala is activated during implicit priming tasks containing affective stimuli (Whalen et al. 1998). It responds to emotionally salient inputs, regardless of whether we are aware of them or can consciously respond to them. (We can and do show autonomic responses with amygdala activation; these occur outside awareness.) Even if we completely decorticate an animal, we can still elicit emotional reactions and learning (Kaada 1960, 1967). It appears that we do not need our higher order thought processes in order to have a rich emotional life.

Conversely, if the amygdala and surrounding areas are damaged, we lose any emotional significance we would normally attach to stimuli. Henrich Klüver & Paul Bucy first described this blindness to the emotional world at the same time Papez outlined what he took to be the limbic system (Klüver & Bucy 1937, 1939; see also LeDoux 1996, chapter 6, for discussion and further references). People with Klüver-Bucy syndrome, as it is now known, show little fear, anger, or anxiety. Apparently, without our amygdala, we can still perceive and understand our world; we simply no longer have any particular feelings associated with it.

What most humans typically fear makes sense only in an evolutionary context. Humans react strongly to snakes, for example. Many people fear snakes outright. Yet the chance of the average citizen in the Western world being bitten by a snake or having any other sort of unpleasant interaction with one is exceedingly slim. Most of us live significant portions of our lives without ever even seeing a snake in the wild.

If we were to form fears based solely on previous experiences and what we have learned about the experiences of others, it would make much more sense that we not worry so much about snakes, but be very afraid of guns, automobiles, and perhaps knives and other sharp objects. But we don't and we aren't. Phobias associated with any sort of human artifact are in fact quite rare. Most are of things we might have encountered long ago, things it would have been wise to fear back in the Pleistocene era. Human phobias concern things like snakes and spiders, open

spaces and high places. Some take these facts as an indication that our affective system is hard-wired and slowly evolved by natural selection over evolutionary time. Indeed, it is now clear that selective lesions to the amygdala can disrupt the fear and avoidance of snakes without impacting other fearful responses (Kalin et al. 2001; Meunier et al. 1999), telling us that we have fear circuits dedicated to detecting historical dangers.

5.4 Cortical emotions

But even though the subcortical fear responses have been largely isolated, that doesn't tell us too much about our other emotions. Fear could be special, since it would have played such a distinctive role in our evolutionary history. The difficult question is how to go from these sorts of facts to understanding human emotions in all their complexity. Most studies, in both rats and humans, concern very simple and basic emotional responses. Most, in fact, concern fear and stress. Our emotional life, however, is quite complicated, subtle, and nuanced. Many of our human emotions have obvious developmental and cognitive components – shame and guilt are two commonly studied examples of our "self-conscious" emotional reactions. Though there is much to say about such states, and much has been said in the psychological and anthropological literature, I focus here on the so-called basic emotions. I do this for simplicity's sake, but I also do it for rhetorical purposes, because even if we leave aside the more complex feelings, such as righteous indignation or guilty pleasure, we still experience a wide range of emotional phenomena.

Certainly, what we do know about the other basic emotions tell us that they are housed in different circuits in the brain. We don't have a single emotion center, despite all the fanfare our limbic system receives. And what properties these different streams have are still unknown. Even if our fear system is largely innate, our other affective responses might not be.

We already know that different emotions are instantiated in different ways in the brain so that we actually have several affective systems instead of just one (LeDoux 1996; Panksepp 1998). For example, happiness elicits greater activity in the ventral mesial frontal cortex than sadness (Lane et al. 1997). This fact would seem to suggest that the appraisal view must be wrong, at least in its strongest versions. Insofar as different parts of the brain are concerned with processing different emotions, then it seems that we should be able to tell our emotions apart. At the least, our brains would register the difference implicitly, even if we could not experience the difference consciously. Is there any evidence at all that indicates that some strong version of the appraisal view is correct?

Interestingly enough, Joe LeDoux himself provides some in his extended discussion of conditioned fear (1996). He reports an interesting heart conditioning study in rabbits from the mid-1970's (Schneidermann et al. 1974). When rabbits were exposed to two tones, only one of which was paired with an electrical shock, they eventually learned which tone preceded the shock and exhibited fear conditioning to that tone. However, if the auditory cortex were lesioned, then the rabbits exhibited fear to *both* tones. Without cortex, they could not distinguish the tones, though they still remembered that they should be afraid of them.

LeDoux (1996) argues that the subcortical system from the thalamus to the amygdala is the central pathway for fear conditioning. According to him, the advantage in keeping things out of cortex is one of time. It takes only 12 msec for information to travel from our auditory transducers to our amygdala via the thalamus; it also takes about that long for the information to reach auditory cortex. Hence, it would take about twice as long for the information to travel up to cortex and then back down to the amygdala. By that time, the organism could already be reacting and avoiding a potentially deadly situation. The thalamic-amygdala connection can deliver only crude interpretations of stimuli compared to what our cortex can do, but it can do it much faster.

However, his interpretation does not fit all the facts. If the thalamic-amygdala pathway were the primary source for our affective reactions, then the intact rabbits should have exhibited some sort of fear response to both tones first, and then have one of the responses (the one to the unconditioned sound) be damped down by later cortical input. That didn't happen. The intact rabbits reacted only to the appropriate sound. Moreover, electrodes implanted in the amgydala in human subjects indicate that the amygdala fear response starts 200 msec after stimuli presentation, slightly longer than what LeDoux might have predicted (Krolak-Salmon 2003b) (though the latency is shorter than for other emotions (Krolak-Salmon et al. 2003a).) The thalamic-amygdala tract may be crude and fast, but it also must be tied somehow into cortical activity more strongly that LeDoux suggests.

Preliminary research suggests that the orbital frontal cortex and the hippocampus are two spots in which additional preliminary affective processing takes place (Krolak-Salmon 2003b; Machada & Bachevalier 2003). Indeed, when these other areas are lesioned, subjective emotional states are significantly altered (Rolls 1999; Rolls et al. 2003). And it is these areas that are active when we expect something bad to happen (Ueda et al. 2003). Most importantly, functional imaging studies in humans show that the frontal cortex mediates retrieval of fear conditioned stimuli (Richards et al 2003). (In addition, this area is most important for our purposes, for it is this area that is tightly connected with our personal evaluations of what emotion we are feeling (Oschsner 2003).)

It takes both the cortex and the amygdala, working together, to create fear in intact rabbits. The amygdala might be able to do it alone in lesioned animals, but that doesn't show that it can do it alone in whole ones. When I bench press weights in the gym, I don't engage my leg muscles. However, when I pick up my son to greet him after I have been away, I do use muscles in my legs. In the gym, I lay such that I prevent certain muscles from contracting. At home, I do not take such precautions. If given the chance, I will use more muscles rather than fewer when lifting something heavy. That I don't use my leg muscles in the gym doesn't show that they aren't important for picking items up; they are. Moreover, when I can use my legs, the entire structure of my movement changes; it isn't the same lift anymore.

I maintain rabbit emotions work the same way. Without cortex you get one neuronal configuration; with cortex you get another. It is unlikely that humans function all that differently. Relative to other animals, our neocortex is quite large and it has more and stronger connections with the subcortical areas. I would expect, therefore, that (if given the chance) our cortex has much influence over what the amygdala does and which emotions are present.

We do know that essentially the whole brain lights up with emotion in fMRI studies (Lang et al. 1998); both cortical and subcortical areas are strongly active. PET and fMRI studies have shown that happiness, sadness, and disgust are all associated with increases in activity in the thalamus and prefrontal cortex, as well as with activation of anterior and posterior temporal structures (Goldin et al. 2003). Emotional visual stimuli also activate the visual pathways, including primary and secondary visual cortex, especially the regions tied to object and spatial recognition. Richard Lane and his colleagues conclude, and I concur, that even though different specific emotions can activate different subcortical areas, emotional responses still require complex sensory, association, and mnemonic circuitry (Lane et al. 1997; see also Paradiso et al. 1997).

Certainly, emotions associated with joy and happiness have large cortical components. It has been standard procedure during brain operations to stimulate the areas surrounding the region being lesioned to make sure that the least amount of damage is done to cognitive processing. Since individual brains vary considerably, surgeons have to map out the processing areas for each brain separately. In a recent procedure, neurosurgeons stimulated the region of a patient's brain that was obviously associated with laughter (this in itself was interesting, since the region being stimulated was in motor cortex and not in any of the more "cognitive" regions). The patient laughed, which is not too surprising. But she also confabulated explanations for why she was so amused – she claimed the doctor had told a joke (when he hadn't) or that her situation was funny (which it wasn't). The patient was not only physically laughing, but she felt

genuine amusement and justified her reactions by analyzing her environment (Fried et al. 1998). (This reaction stands in stark contrast to other patients who experience various reactions when having their brains stimulated. Quite often, they are only too aware that they are seeing the spots or hearing the music because a surgeon was poking about in their cranium (e.g., Penfield 1975; though see Delgado 1969).)

My point with this example is not that we can locate centers outside of the amygdala that index emotions, but that the patient felt amusement with only her cortex being stimulated. In this sense, amusement is much more "cognitive" than something like fear. Hence, amusement should be much more sensitive to environmental influences. We learn what is funny from our social surroundings. Few human attributes are more culturally specific than humor.

At the same time, things like SSRI's and other anti-depressants do work well. All we have to do is enhance the response of a single neurotransmitter and we can change our entire affective outlook. Even if our emotions are cognitive in a deep sense, changing our neural firing patterns can still alter them, and these patterns can be traced to homologous circuits in other animals.

Moreover, we can find striking commonalities across our most cognitive of emotions. Even though the contents of depressive thoughts are culturally influenced, the basic symptoms of depression aren't (Ebert et al. 1995). Depressed people are disinterested in life and find it difficult to move through their day. Similarly, even though society determines what amuses us, we all express joy in more-or-less the same way. All humans laugh. There is much variation in the details of our emotional responses, but just as much remains common across folk.

So we have different processing streams and these streams vary in terms of how biologically hard-wired they are. Some affective reactions are heavily cognitive; others aren't. None of this is surprising. It might seem that we should divide our emotions along a continuum of hard-wiredness. Things like amusement and perhaps depression can stay at the more soft-wired, socially determined end and things like fear and phobias would remain at the genetically determined, hard-wired end. The simpler, more primitive emotions come fully formed in all humans; the more complex emotions develop during socialization.

This is a nice idea; it would make understanding emotions and the conflict between the two approaches easier if it were true. But it is false. For some of our most "complex" and "social" emotions are in us from the get-go. For example, empathy, our capacity to experience other's pain or pleasure as our own, looks to be inborn. It is "part of our native endowment" as William Damon claims (Damon 1999, p. 72). Even young infants cry when they hear others crying or coo when they see the happiness of others. Small children hug and otherwise try to comfort their loved ones. Alison Gopnik tells a delightful story about her daughter's

drive to console. Gopnik had had a hard and frustrating day and sat sobbing in frustration on her sofa one evening. Her daughter happened upon her and did the only thing she knew to help dry someone else's tears – she covered Gopnik in band aids (Gopnik, personal communication).

Gopnik's daughter isn't unique; we all start out feeling one another's pain, though we do not all retain this characteristic. One legitimate social concern is that we are raising children to lose their empathy. A teen-age boy interviewed after the had just savagely beat an 83-year-old woman replied, "What do I care? I am not her," when asked how he could do that to someone else (as reported in Damon 1999, p. 72). These sorts of incidents are not uncommon and have become more frequent over the past decades (Achenback & Howell 1993).

At the same time, it is clear that children from widely divergent cultures and backgrounds all start out the same with respect to certain core reactions. Some of these emotions are fairly non-cognitive and "primitive," such as fear of predators; others are extremely socially dependent and complex, such as empathy. The long and the short of it is that we can't divide our emotions along a simple/complex continuum that parallels the innate/acquired continuum. It might be that all our emotions, no matter how complex or socially constructed they seem, stem from our genetic heritage. We see individual variations in how these emotions are expressed or the cognitive contents associated with them, but there are distinctive cores around which we can group all our feelings (see also Griffiths 1997).

5.5 Multiple processing systems

There are two large views of emotions on the table. Cognitive appraisal-like theories claim that cognitive interpretations are an integral part of emotion and either precede or co-occur with physiological responses. In contrast, the basic emotion reductive theorists propose that physiological arousal precedes cognitive appraisal and is the more fundamental process. Definitive data regarding which view is correct are not yet forthcoming. At best, the waters are murky here (see, e.g., Tomaka et al. 1997), with some studies showing that appraisal precedes arousal and others indicating that events occur the other way round. We are confronted with two apparently incompatible alternatives when understanding emotions. Which approach is the correct one?

I would like to make a radical suggestion: they both are. I shall have to digress a bit and talk about something else to explain what I mean.

Facial recognition in humans appears to be a specialized process. I am going to duck all the complicated questions here concerning whether this processor is modular or informationally encapsulated, for the answers don't matter to our

purposes. Suffice it to say that we are good at recognizing faces in a way that we aren't at recognizing brands of washers and dryers, or even the faces of other animals.

Tradition had it that we develop our talent and preference for face-gazing at around two to four months of age, when we start to prefer looking at faces over looking at line drawings of faces or at empty ovals. (I take my account of the development of facial recognition from Johnson & Morton 1991. See also my 1995.) Some experiments, though, did not support tradition. In particular, some experiments showed that infants as young as nine minutes prefer to look at faces (Goren et al 1975; Ellis & Young 1989). At first one could claim that such results were anomalous or perhaps reflected greater sensitivity to infant desires. Then it became known that infants one month old had little inclination to prefer faces (Johnson & Morton 1991). Infants are born wanting to look at faces, then lose that impulse, then regain it again at two months, never to lose it again.

What could possibly be going on here? The obvious answer is that we have more than one facial recognition device that follow more than one time-course for development. As Johnson and Morton point out, "it [is] difficult for theories which assume a single mechanism to account for developmental U-shaped curves. ... It is difficult to see how to account for the pattern of data observed in terms of graduate increases in perceptual abilities or learning" (1991, pp. 36–37).

Several face processors have been isolated now, but only two large divisions need to concern us here. We have first a primitive sub-cortical processing circuit, available from birth, sensitive to the visual features of human faces. It is hard to know exactly what this circuit can process, since a newborn's visual system is still quite shaky. It can distinguish faces from other objects, but maybe not the individual features of particular faces, and it prefers to look at faces over other things. This system is later supplanted or enhanced by a cortical circuit, which comes on-line a few months after birth, and is probably trained up by the output of the more primitive system.

So we have two interacting systems, one of which affects how the other develops. This would explain the strange U-shaped learning curve. We start out being interested in faces and knowing a bit about how to recognize them. Then, as our cortex comes more on-line in our first few months of life, it suppresses and replaces some of the sub-cortical processes. However, this system doesn't quite know what it is doing yet, so we lose our competence at recognizing faces. But it learns quickly and pretty soon we are better than before at this task.

I submit that our affective systems might work in the same way. We are born with some basic affective circuits. Fear processing in the amygdala is one example; empathy might be another. However, several other circuits come on-line as our

brain matures. Pride, shame, and indignation might be examples of these. These cortical circuits learn their trade and are sensitive to social and cultural norms.

This hypothesis would explain why some of our emotions seem so "hard-wired," such as a fear of heights, while other affective reactions mature over time, such as a sense of humor. It would also explain why some affective reactions are hard to get rid of and why others can be altered fairly easily through talking therapies. Some emotions are grounded in sub-cortical processes and so are difficult to affect directly through cortical interventions. Others are housed more centrally in cortex and so are less resistant to brain changes. Finally, it explains how it could be that we could start out with the same primitive emotions, yet end up in such different places as adolescents and adults. We do begin with a basic core, but that core is very small, compared to what we get when we have our entire brain trained up and running. Nevertheless, even though our inborn emotions form a small core, they remain quite powerful, for they remain largely non-cognitive.

My hypothesis is that we have two sorts of affective systems, one sub-cortical and non-cognitive and the other cortical and cognitive. (These are not to be understood as absolute distinctions between the systems, but rather as differences in emphasis. Even our most primitive system has to react to some interpretation it has assigned to the world, no matter how crude. And even our most cognitive of emotions still has some affective flavor, else it would not be an emotion in the first place.) This would explain how those interested in the social construction of emotions and those fascinated by their reduction to primitive circuits can seem to be at once correct yet talking about incompatible things. They are; each is focusing on a different type of affective processing in the human head.

If I am correct, and we have at least two different fundamental types of affective processors in the brain, then our emotions are even more complex than either perspective assumes alone. It is not just that each has only half the story, though each does. It is that both sides leave out how these two different processors can interact with one another. Just as in the case of facial recognition, how one system influences and teaches the other to behave is crucially important.

5.6 Dynamic dual systems: A speculative hypothesis

Should we think of these affective states merely as extensions or elaborations of some more primitive unit? Is it correct to say that the amygdala sets the valence prior to higher level interpretation or adjudication? I hold that the answer to both of these questions is no. Cortical activity not only extends and expands our feelings, but it also can determine them in the first place. Better: subcortical and cortical areas working together as a complex dynamical system produce our emotions.

To focus on one area at the exclusion of the other is a mistake, both conceptually and empirically. Though I appreciate Douglas Watt's charge that neuroscientists often are "cortico-centric" (personal communication), I believe that in the case of studying emotion, the trend runs in the opposite direction and that not enough attention is being paid to what cortex does for us emotionally. We are being amygdaloid-centric. More to the point: we are ignoring the complex feedback loops in affective processing, and we are doing this at our peril.

What should we take away from this discussion? How should we understand our emotions? Paul Griffiths (1998) argues for a dynamical systems view of emotion (see also Lewis 1996, 2004; Lewis & Granic 1999; Scherer 2000). He believes that we do have several basic "affect programs" with stereotypical response profiles (Griffiths 1997). These are complimented by social and psychological variables, which can alter or expand our more innate reactions. In this way, he does not differ very much from LeDoux, Panksepp, or Watt, who also hold that we have several primitive affective modules which react apart from cortical influences (see also Damasio 1994). However, he also thinks that a model of epigenetic inheritance best describes our emotional development. Genes and culture acting together determine our emotional phenotypes; there is a many-many relationship between genetics and neurology, with lots of external factors contributing. Our emotions depend upon a psychoneural development that requires a social and cultural environment. We might have a genetic blueprint laid down for some affect programs, but the context in which we are raised determines our emotional outcome. He concludes that organisms embedded in an environment form a complex dynamical system with great sensitivity to initial conditions.

I am sensitive to his metaphor. However, he also believes that underlying the multifarious emotional responses humans have, we can still find some common core of properties attached to a set of differences. In other words, basic emotions, the affect programs, are homologous across cultures and closely related species. These various emotions have a common evolutionary origin, and we can use that fact to pick out underlying identities for each of them. Cultural influences entail nonlinear models, but the basic affect programs remain more or less intact across all creatures with a common ancestor.

Here I diverge from the way he understands emotional categories. Neurophysiologists and neuropsychologists have traditionally individuated their natural kind categories *functionally* and not evolutionarily. Structures that perform the same duty across humans or primates or mammals or whatever are grouped together as one sort of thing, regardless of whether these structures are homologous or analogous or completely unrelated to each other. Conversely, even if some anatomical structures are homologous across whatever domain interests the scientists, this does not entail that the structures should be thought of as a single kind of

thing from the perspective of neuroscience. Though Griffiths believes otherwise, individuating physiological and psychological categories functionally does strike me as an appropriate way to proceed, given that neurophysiology and neuropsychology are both fields interested in studying functional units. They want to know what various structures are doing now in an organism, not what led to its being there over evolutionary time. (Both, of course, are entirely legitimate questions. One set just happens to interest one group; the other set, another group.) Neurophysiologists and neuropsychologists want to know what roles and responsibilities isolated brain structures have, and not so much why we have them in the first place. Though an evolutionary story can certainly be useful in thinking about functions and in individuating psychological categories, the buck doesn't stop there.

I grant that not all physiological or psychological categories are well formed. Indeed, many of them probably should be seriously revised or outright eliminated. Nevertheless, this fact does not entail that the general approach to individuation in neurophysiology or neuropsychology is incorrect. Insofar as these fields remain primarily interested in the role a structure plays, it does not make methodological sense to seek to alter their program of functional individuation in favor of an historically-minded genetic approach.

Though I do not have the space to develop a complete argument for my position over Griffith's, for the purposes of this chapter, let us assume my perspective on this matter. That contemporary neuroscience has already (rightly or wrongly) decreed that neurophysiology and neuropsychology are functional sciences surely puts the theoretical presumption in my favor. Let us agree that if we have two different inputs passing through two different neural pathways in two different organisms resulting in two different sets of responses, we have little reason to assume that the two neural pathways are both token instances that fall under a single natural kind category. Consequently, that we have (or might have) a genetic specification for certain affect programs does not mean that we can isolate those programs in the organism functionally, nor does it mean that they exist phenotypically in any interesting sense (even from the perspective of evolutionary biology).

It is true that anger or grief or happiness does result in similar physiological changes across humans, regardless of their individualized schemas or their cultural backgrounds. It is also true that we can relate these changes to those seen in other primates. I do not want to claim that our emotions spring *sui generis* from nowhere. Certainly our biological heritage explains much about our affective reactions. Nevertheless, we should categorize these emotions based on their physiological similarities and not on their common ancestors.

Still, I think a dynamical systems approach gives us a useful metaphor for thinking about our emotions. Perhaps, it is best, if I am right, to think of our affective brains as a set of complex resonating circuits, constantly active as we are

always reacting to our early rough and ready impressions of the world as well as interpreting and predicting the world around us in a more sophisticated fashion. We have both innate reactions and learned ones and they constantly interact and affect one another. Subcortical neural firing patterns form one part of our overall affective activity, as do firing patterns in cortex. Different affective processors, each operating according to its own rules of engagement, but each interacting with the others (and with other regions in the brain) comprise our emotional self.

The set of circuits will naturally differ across individuals and within the same individual over time, as we each mature and change in different communities and cultures. We start with a common core of affective reactors, just as we all start with a common face recognizer. Then each brain overlays this core with its own specialized reactors, winnowed and honed by individual experience and expectation, just as each brain overlays the common face recognizer with a specialized one, tuned to the faces in its life. The end products are affective brains very different from one another, each highly idiosyncratic, yet each maintaining a family resemblance with the others.

Without pushing this line too heavily here, I believe a dynamical systems approach gives us a useful approach in theorizing about the complexity of our emotions. When the brain receives some valenced stimuli, it will seek to interpret that, just as it would any other stimulus. Subcortical activation is part of the meaning-making activity; so is what the cortex does. That is, both the subcortical and cortical areas are part of a larger resonating brain circuit relevant to emotion. These two regions work together to establish a larger coherent and cohesive responses to input. Stimuli drop in, so to speak, onto on-going interpretive efforts in a brain shaped by experience and genetic endowment. How the brain has carved up its own circuitry will shape how the emotional stimuli are perceived and reacted to.

No two emotional responses are ever going to be exactly the same, since they are determined by the brain's current resonating activity. Still, family resemblances will exist among them, perhaps as seen in the established "attractor basins." Even though strict identify criteria do not hold, our emotions do partake in related activity configurations. Perhaps we can map the firing patterns of our emotional circuits to a trajectory in a multi-dimensional phase space. (Each dimension would represent each variable that determines how the firing pattern might go; the phase space then would be a region that includes all and only the possible activity patterns in the circuit.) If we could create a phase space of possible affective responses by the brain, we should be able to use it to identify regions corresponding to our various emotional categories.

My final highly speculative conjecture is that, given the dependence of the firing patterns on previous activity and the dependence of previous activity on

the organisms' complicated and unique environmental history, the trajectories in phase space will most likely be well behaved but chaotic. That is, no activity pattern will precisely duplicate any other pattern, but the patterns will settle into attractor basins in the phase space. (I believe that we will find attractor basins instead of virtually random trajectories because organisms are relatively predictable. The behavioral regularities have to be caused by something other than near random events.)

These chaotic attractors give us a natural way to individuate our physiological or psychological events, for they identify common trends across firing patterns without entailing that these trends contain isolable defining properties. Assuming we have identified the relevant variables for physiology or psychology, they will indicate how, speaking broadly, the brain interprets incoming stimuli emotionally. The chaotic attractors will show how the brain, in all its complexity, appreciates and understands its world.

As an analogy and perhaps a simplistic example for what I am describing, consider Margaret Bradley and Peter Lang's marvelous work in plotting physiological response to affective stimuli along the dimensions of arousal and valence (Bradley 1998; Lang 1998). The first thing one should notice when looking at the data is that the physiological, linguistic, and behavioral responses do not correlate well with one another. There is tremendous individual variation for each stimulus. At the same time, we can still see general trends developing across groups, though what these trends mean exactly is unclear.

In normal male adults, we find negative valence and significant arousal in response to unpleasant stimuli. In contrast, psychopaths show little arousal toward the same stimuli. One might be tempted to conclude that negative valence and significant arousal are two of the core reactions in negative emotion (as Griffiths argues we should) and that psychopaths present an abnormal case. However, normal little boys also show little arousal in response to unpleasant stimuli. Instead of concluding that little boys are psychopaths, or – probably more accurately – that psychopaths are little boys, we should be sensitive to the range of possible reactions to the same inputs. Our model of emotion should seek family resemblances, basins of attraction, instead of a list of necessary or sufficient conditions.

Anxiety patients and older women show little arousal to pleasant stimuli, and both show increased arousal to unpleasant ones. We can see with these simple measures that a whole range of responses – ranging from significant arousal down to no arousal at all – are possible given the same stimuli. Our models of emotion should recognize that fact. Trying to find a common core of responses distorts the data, even when we are plotting along two dimensions. Imagine the distortion if we included many more variables. *Pace* Griffiths, I conclude that a dynamical

systems approach will be useful when thinking about our emotions, for we need a way to model human emotions in all their complexity.

Most neurophysiologists operate under the reductionist assumptions that if they probe deeply and carefully enough into the brain, then they will be able to isolate anatomical or physiological differences delineating the different emotional states. In contrast, appraisal theorists claim that this sort of reductionist approach cannot work, for part of what determines what the emotion is is a higher-order cognitive interpretation. The "feel" of the feeling depends upon what we believe our emotional state should be. Any complete theory of emotion should reflect our best theories of cognition as well as our best neurophysiological data.

For now, it appears that both sides are at least partially correct. The best data suggest that the emotions of humans, and most likely other creatures as well, are fundamentally and inescapably tied to our interpretive abilities. Hence, a purely reductive approach that focuses on single areas in the brain to analyze them will miss important aspects of our emotional experiences and will be less well suited to predict behavior than a more encompassing dynamic model. Nevertheless, claiming that emotions are partially interpretive does not make them mysterious or exempt from detailed neuroscientific scrutiny. As our appreciation for brains being complex dynamical systems embedded in a world increases and we are better able to connect activation patterns in neural circuits with meaningful attractor basins, then our theories of emotions will become better as well.

In sum: emotions are wonderfully recursive and complicated phenomena, and it is okay to devise theories that reflect this fact. Our emotions are fundamentally tied to our cognitive processing (and vice versa) and both shape future reactions. And these affective reactions, as complex and poorly understood as they are, are the things that pick out what in our world is important to us, what we remember, and what we tell our friends and neighbors. They drive our story-telling and they, in conjunction with our primitive need to share our world with our conspecifics, guarantee that we narrate a self.

CHAPTER 6

Unconscious mental life

Facts do not cease to exist because they are ignored.

–Aldous Huxley

Psychoanalysis has taught us that the essence of the process of repression lies, not in abrogating or annihilating the ideational presentation of an instinct, but in withholding it from becoming conscious. We then say of the idea that it is in a state of "unconsciousness," of being not apprehended by the conscious mind, and we can produce convincing proofs to show that unconsciously it can also produce effects, even of a kind that finally penetrate to consciousness.

–Sigmund Freud

Human emotions are fabulously complicated recursive processes, fraught with cognitive interpretations. Nevertheless, they are the machinery we use to pick out the important – meaningful – things in our environment. Of all the myriad of events in our lives, we choose only some as being somehow crucial. We tell stories to others and to ourselves about these. The impetus to show-and-tell is deep and fundamental to our human existence. It drives our memory, our language, and our intelligence. It also gives birth to our selves. In telling meaning-making and meaningful stories about our thoughts and behavior, we draw past experiences into our present deliberations and then use them both to predict our future. Our narratives are about a subject, us, who existed before, continues to exist now, and will exist later. From this maneuver we get our sense of self, our belief in an intentional agent that exists more-or-less unchanged over time. This constructed self is what we care about in ourselves and in others; it is what we are interested in having continue indefinitely.

The shape of our narratives is set by our cultural milieu. Though our affective reactions are all our own and emerge from a horrifyingly complex interplay between cortical and sub-cortical brain circuits, the environment, our genes, and our unique cognitive histories, our stories about them are sieved through and by the norms of our individual communities. These guiding – more accurately, coercing – norms are so powerful that we will revise, edit, and alter our personal

reactions and concomitant stories to force them to meet social expectations. We tell our life stories so that we exemplify the norms of our group, so that we behave as anyone else would under the same circumstances.

One question that leaps out is whether the construction of the narrative self is under conscious control at all. If our need to narrate is fundamental to being human and begins in infancy, if we must tweak our stories so that they conform to group standards, so that they always show us as doing the right thing, then perhaps self construction isn't consciously controlled. On the other hand, if we have to winnow events, edit them, and then place them in a coherent and meaningful order, if we have to work to make them conform to what others hold true about the world, then it seems that building selves must be a deliberate conscious process.

The question whether constructing selves is under conscious control really splits into two. (1) Is self construction purely conscious, or do we build our selves at least partially unconsciously? (2) Are we somehow in charge of what we construct, or are the forces that constrain self construction too strong for us to counteract and our selves form at the mercy of larger powers? This chapter addresses the first question; the final three chapters tackle the second. The short answer to the first question is that we don't really know whether self construction is a conscious enterprise because we don't know enough about what the unconscious can do. However, it does look as though significant chunks of self have crucial ties to the unconscious. There isn't a short answer to the second question.

Let us start our investigation by looking at what properties separate conscious processing from what happens in the head outside of conscious awareness. We can then inquire whether any properties of unconscious processing map onto what happens when we narrate a self and whether these properties are useful in explaining or understanding the narrative selves we have created.

6.1 Mental content

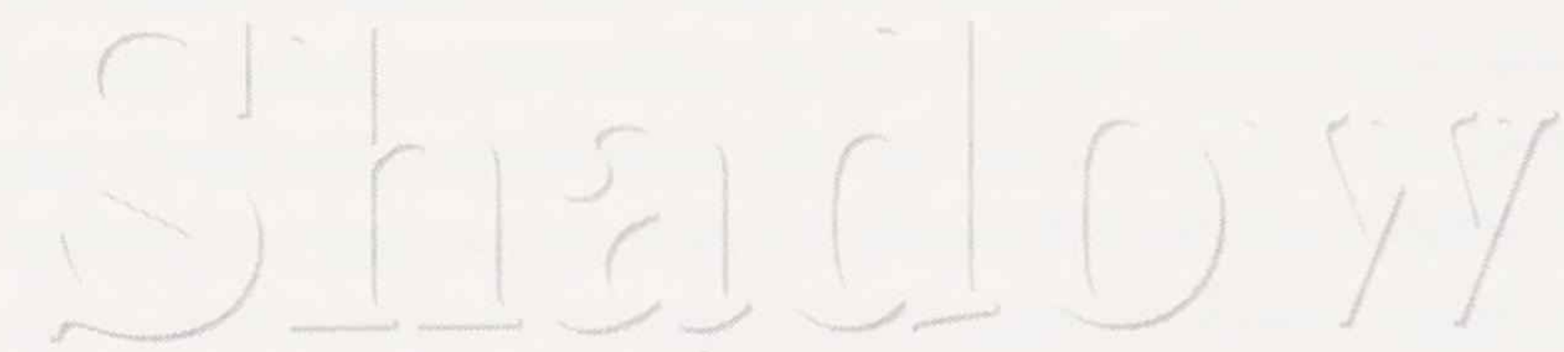
In 1874, in his *Psychologie vom Empirischen Standpunkt*, Franz Brentano marked the beginning of contemporary philosophy of mind when he distinguished between mental states and all other states. He held that what is common and peculiar to the mental is "intentional inexistence." This might have been an unfortunate choice of words, for he did not mean that mental states are goal-directed or associated with our will. Instead, he noted that they have "reference to a content;" they are "directed upon an object." To put it most opaquely, they "include an object intentionally within [itself]." Though we have now rejected Brentano's dualism in favor of some form of materialism, his distinction between the mental as something that has content intrinsically and everything else, which only has content derivatively, if at all, still stands.

We care about these mental states qua content-bearing items because they guide our behavior *in virtue of* their content. What the states are about determines how they affect our behavior. Philosophers take this perspective very seriously. As Jerry Fodor (1990) remarks, "If it isn't true that my wanting is causally responsible for my reaching .... and my believing is causally responsible for my saying, ... then it's the end of the world." In a more reasonable assessment of the situation, Fred Dretske (1988) notes that "if reasons aren't causes, one of the chief – indeed (for certain people) the only – motive for including them in one's inventory of the mind vanishes."

Psychologists also care about these states. From their detour through behaviorism, they realized that we need contentful internal states in order to account for our behavior. It is difficult to account for even operant conditioning without referring to something inside the organism that indicates an incoming stimulus (e.g., a bell sounding) and associates it with a memory of some other stimulus (e.g., a foot shock). And more complicated types of learning require more complicated internal indicators. Any completed science of the mind looks as though it is going to have to include some version of Brentano's intentionality. In what follows, I take this claim as given.

A subset of these intentional states are presumed to be conscious. Conscious states have been variously described as "interpreted," "aspectual," "meaningful," "contextual." If we experience something consciously, then we can only experience it *as* something. Our conscious experiences are always meaningful. For example, we see Figure 6.1a as the raised word "shadow," even though really all that is before us are some brief lines that we interpret as the shadow of letters. We see the lines below the word as nonsense shapes as our brains try to force the squiggles into something meaningful. Similarly, the illustration in Figure 6.2 looks like lines until one mentions buckets and pails, and then suddenly, we add a layer of interpretation to our experience. We can't help but to do this, and doing this is part of what consciousness is about.

Once we get to this point in the story, though, philosophers and psychologists (and others) diverge from one another. The disagreement is over how to understand *unconscious* mental states. Some believe that unconscious mental states are not aspectual, though they do carry information about the external world. Others believe that unconscious mental states are just like conscious ones, only without the phenomenological feel. This is an important debate for it highlights a still unsolved dilemma in the mind sciences. If unconscious states are just like conscious ones, only without the phenomenological feel, then that raises the question of what it is that distinguishes conscious mental processing from unconscious. If the answer is nothing, then consciousness becomes epiphenomenal; it serves no causal role in our psychological economies. On the other hand, if content is what separates conscious from unconscious states, then we no longer have a clear answer for what it is that distinguishes unconscious mental states from other presumably non-mental states. What about our unconscious would be truly psychological?



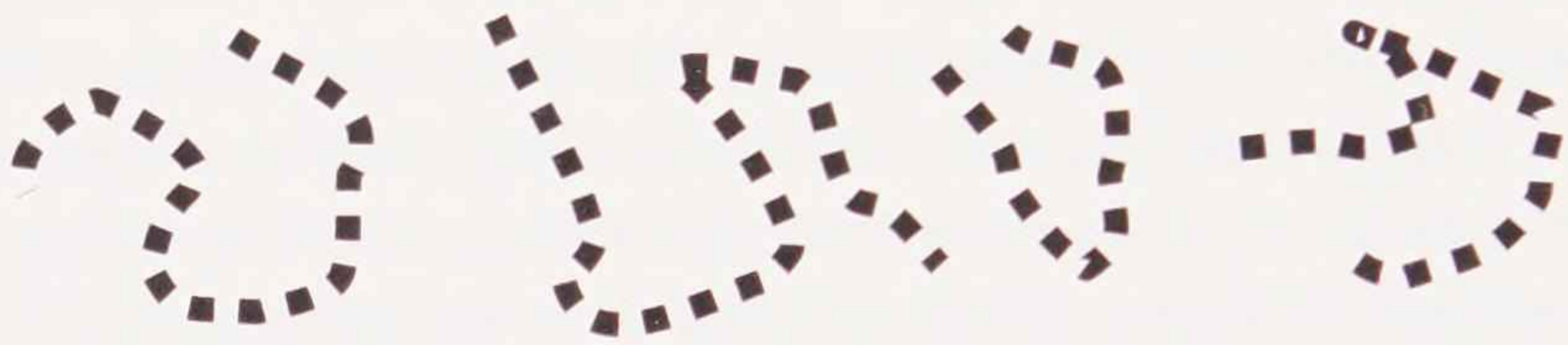


Figure 6.1 a. We cannot help but interpret these lines as shadow "letters." b. Without a more detailed semantic interpretation possible, we see these lines as mere squiggles.

Figure 6.2 These three lines appear as meaningless lines until one mentions the possibility of interpreting them as a bucket. Once that interpretation is made, then we cannot go back and see the lines as mere lines anymore.

6.2 An "intelligent" unconscious?

Believing that our unconscious mental lives are analogous to our conscious ones has a distinguished history that dates back to the very beginnings of experimental psychology (e.g., Peirce & Jastrow 1884). Noting that subjects who could not report the contents of letters or numbers printed on cards held out of their visual range could nonetheless guess the characters at above chance levels, an early proponent of this view concluded that there must be "the presence within us of a secondary subwaking self that perceives things which the primary waking self is unable to get at" (Sidis 1898, p. 171, as quoted in Merikle 1992). Getting a handle on our unconsciousness has been a cottage industry in some corner of psychology ever since.

Outside of experimental psychology, however, knowing what unconsciousness is like is most commonly identified with Sigmund Freud and his followers (1900/1961). Freud took our unconscious Id to be a boiling caldron of desires that do their best to gain access to, or at least influence, the Ego, our conscious workspace. Desires, along with beliefs, are prototypical contentful states, for there is no way to have a desire without having a desire *for* something. Though we cannot become aware of what is in the Id directly – we can only be conscious of what has been moved to the Ego – it is clear that Freud and others in the psychoanalytic tradition hold that unconscious desires and beliefs function in the same way as conscious ones. "On being submitted to a certain method of operation … [unconscious mental processes] may be transformed into or replaced by conscious processes, and all the categories which we employ to describe conscious mental acts, such as ideas, purposes, resolutions, and so forth, can be applied to them" (Freud 1915/1963: p. 118).

Psychoanalytic therapists impute unconscious desires and beliefs to patients to explain their behavior, and these unconscious desires and beliefs are just like their conscious neighbors, except that they are not directly accessible to the patient. They operate in concert to fulfill our wishes, to achieve what is desired. In Freud's case, for example, he hypothesizes that Dora, one of his hysterical patients, has digestive problems because she unconsciously wanted Herr K's attention, even though when Herr K had propositioned her, she reacted quickly, decisively, and negatively (Freud 1953). She consciously believed that Herr K's advance was inappropriate (and it was; he was a married friend of her father, who was having an affair with K's wife, and she was but 14 years old at the time), but her conscious beliefs and reactions do not explain all her behavioral symptoms. Imputing sophisticated (but morally repugnant) unconscious beliefs do.

Perhaps this is the most natural way to understand the unconscious; certainly this is how popular culture presents it. In the late 1950's, a marketing executive allegedly flashed the words "Eat popcorn" and "Drink Coke" subliminally to moviegoers in New Jersey ("Persuaders Get Deeply 'Hidden' Tool," 1957, as discussed in Loftus & Klinger 1992). He supposedly superimposed these words on select individual frames in the movie filmstrip so that they appeared too briefly to be seen consciously. Other sales managers tried similar tricks (cf., Wortman & Loftus 1992). Whether any of these ploys actually worked is doubtful (Loftus & Klinger 1992). Nevertheless, the idea that we can manipulate our behavior by presenting unconscious semantically interpretable messages worked its way into the public arena. In 1990, two families sued the rock band Judas Priest, alleging that subliminal messages in their 1978 album had caused their sons to commit suicide. Though the judge ruled in favor of the band, the question of whether our unconscious is a semantic engine remains unanswered.

Philosophers such as Daniel Dennett, William Lycan, and John Searle maintain that unconscious beliefs and desires are isomorphic to conscious ones (Dennett 1991; Lycan 1996; Searle 1992). Unconscious mental states could always become conscious; they merely lack the requisite phenomenological feel. The philosophers might have the advantage of conceptual clarity here, for this difference makes it easy to maintain a distinction between mental states and other states. Mental states have content and organisms use that content in shaping their behavior; other states of the body don't have content and affect organisms differently.

However, as is well known, this view suffers tremendous problems with empirical testing, for it amounts to little more than "as if" behavior: According to the way we interpret the present situation, subjects are acting as if they have some particular set of beliefs and desires. While assigning mental states to subjects solely on the basis of their behavior might allow for extremely rich unconscious beliefs and desires, it also permits an indefinite number of incompatible interpretations of a series of actions, depending who is doing the interpretation and what events she is focused upon. Very little empirical support could ever be garnered for favoring one hypothesized set of unconscious states over another, as long as they are both adequate to the behavioral data.

Clearly Freud's Dora behaves as if more is going on with her psychologically than merely being repelled by an inappropriate sexual proposition. But without additional corroborating evidence, we cannot determine whether her bizarre symptoms stem from her unconscious desire for Herr K, despite it being inappropriate, her attraction to Herr K's wife, her anger at her father's affair, or, perhaps, the result of her father abusing her sexually. It could be any of these things, or none of them. If we can't access the unconscious except very indirectly through its influence on conscious behavior, then we are cursed with multitudinous interpretations. All are adequate as explanations of the sparse data; none can be tested satisfactorily.

This limitation to psychoanalysis and to positing a richly intentional unconscious is one reason cognitive scientists of all stripes have eschewed discussing the unconscious except in most oblique and minimalistic ways. At the same time, they cannot escape the fact that much of what happens in our cognitive economy isn't conscious. A compromise position is to resist as strongly as possible making unconscious processes richly cognitive.

6.3 A "dumb" unconscious

Many cognitive psychologists advocate that we should think of our unconscious states as being merely structural, and not semantic or intentional. The classic experiment associated with this perspective is Anthony Marcel's (1983a, b) subliminal

priming task. If two semantically related words are flashed to a subject one at a time, then the subject is faster to recognize the second word. Psychologists say that the subjects was "primed" by the meaning of the first word. For example, if we see CAT followed by DOG, then we are faster to recognize DOG as a word than if we see PIN followed by DOG. Marcel showed that if we are flashed FOOT and then PALM and then TREE, there is no priming effect for TREE, presumably because FOOT primes us to read PALM as a body part and not as a plant. However, if FOOT and PALM are flashed so quickly that we do not consciously register them, then TREE is primed. Most take this sort of evidence to support the conclusion that only the structure P-A-L-M is activated in unconscious memory and so it would then be free to prime all its associates, including TREE (as well as HAND). (Interestingly, though, Marcel himself offers a different interpretation. He thinks that when words are accessed subliminally, all their semantic interpretations are activated instead of none.)

Marcel's results (so far as I know) have not been replicated. Anthony Greenwald believes he knows why. We can think of Greenwald as the most recent vocal champion of the more structural view of unconsciousness. He claims that "unconscious cognition is capable of only simple mental operations compared to the powers of conscious thought" (1996a).

Greenwald tried to measure the response window of influence for subliminal primes. He presented words that were either pleasant (happy, kiss) or unpleasant (kill, vomit) or male or female (Brian, Kate). Subjects were to categorize the word as quickly as possible. The target word was preceded by a masked prime that was presented for 17, 33, or 50 msec and with a stimulus onset asynchrony that ranged from 67–400 msec. Greenwald found that in order to get any appreciable priming effect, the target word has to occur within 100 msec of the subliminal prime. In addition, he found that subliminal primes leave no mnemonic trace; hence, their influence is limited to the immediate target (1996b). On the basis of this experiment, Greenwald concludes that unconscious processing "is limited to some very simple achievements" for example, "being able to analyze the meaning of a single word and to retain that word's meaning for just a tenth of a second" (1996c).

However, one reason our unconscious seems so stupid could be that, in Marcel's and Greenwald's experiments, it is only given relatively degraded stimuli to process. Of course it is going to appear dumb relative to consciousness if it only gets to process its targets for 17 msec while consciousness gets to luxuriate with unmasked stimuli presentation. That our unconsciousness seems feeble might be an artifact of the task given.

In any event, many psychologists have searched for evidence that stimuli processed unconsciously are somehow processed differently than stimuli that become conscious. Figure 6.3 summarizes some of the processing differences

found between the two. (See my 1995 for specific references and a more detailed discussion.)

UNCONSCIOUS PROCESSES	CONSCIOUS PROCESSES
No attentional effects	Attentional effects
No directed forgetting	Directed forgetting
Little decay over time	Effects decay over time
Levels of processing effects	No levels of processing effects
No data available	Need fewer cues for recall than for priming
Multiple "structural" interpretations possible	Only one interpretation active at a time
No AB, AC interference	Shows AB, AC interference
Requires minimal processing for storage in memory	Requires elaborative processing for storage in memory
Affective priming	Little affective priming
Automatic and rapid	Slower and contolled
Exposure duration effects	Few exposure duration effects
No storage of environmental contexts	Storage of environmental contexts

Figure 6.3 Some differences in effects alleged between how items that remain unconscious are processed and how items that become conscious are processed.

Additional data for the differences between conscious and unconscious processes come from neuropsychology's exploration of the P300 wave in the EEG. When we record EEG waves from the scalp of a subject while the subject is performing some cognitive task, the electrical waves that are picked up reflect whatever activity the subject's brain is engaged in to solve the problem. Of course, the EEG wave also contains all sorts of noise, too, since our brains do more than one thing at a time. Indeed, the EEG contains so much noise that we cannot isolate the activity relevant to the task from everything else. But if we make lots of EEG traces of the subject performing the same, or similar, tasks over time and then average the EEG waves together, the noise drops out (because it cancels itself out over several trials) and the waveform reflecting the task is left over (because it is the same over the trials). Neurophysiologists can measure these left-over cognitive waveforms, known as "event-related potentials" or ERPs, in terms of whether the wave is negative or positive and when it peaks relative to when the task began. A P300 wave is a positive waveform that peaks about 300 msec after target onset. Figure 6.4 illustrates what a P300 waveform looks like, after the EEG wave has been averaged and the noise removed.

Experiments using an "oddball" paradigm from the mid 1970's showed that our brains try to predict the next in a sequence of events and that they register

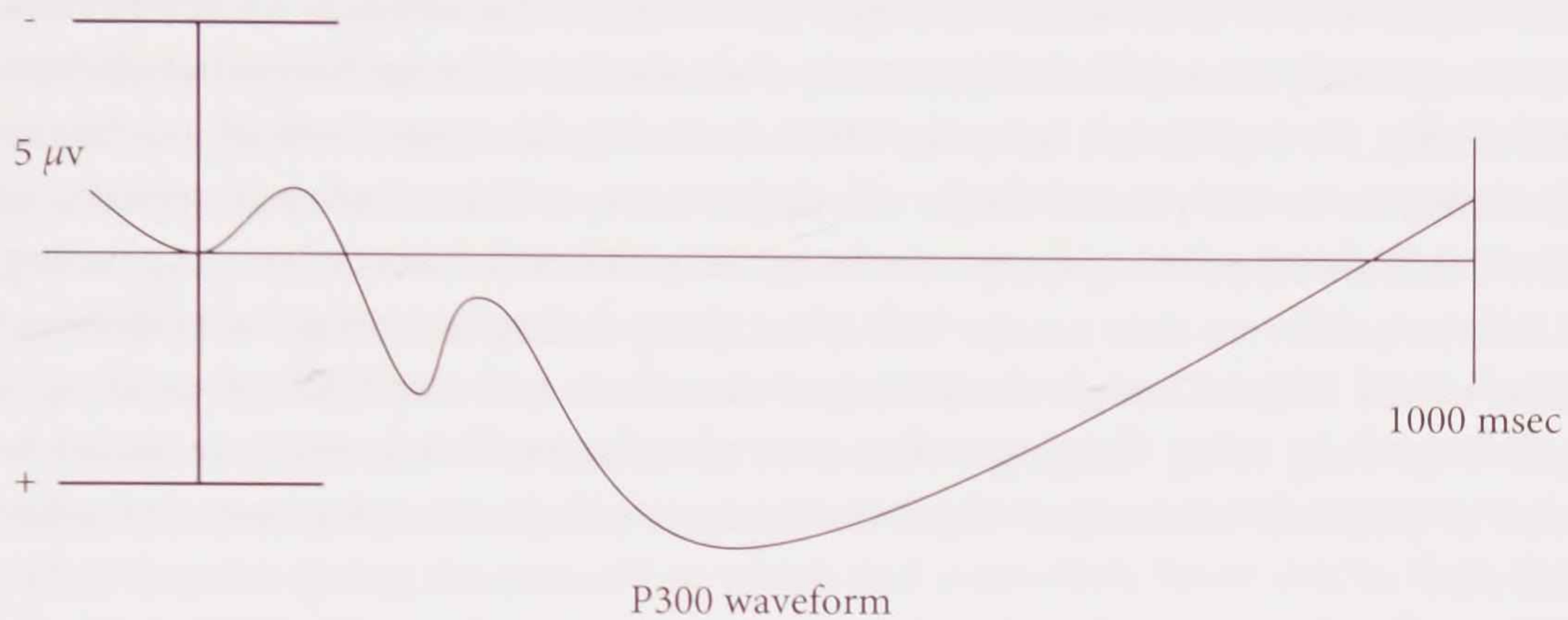


Figure 6.4 A schematic for a P300 waveform in a grand mean set of EEGs, averaged to stimulus onset (the calibration bar). In the Northern hemisphere, the tradition is to record negativity up and positivity down. (Australians reverse this convention.)

"surprise" when the world does not conform to their expectations. When a high tone is heard following a sequence of low tones, we can measure an enhanced positive waveform peaking at about 300 msec after target presentation. When the same tone is heard following a sequence of like tones, there is no such waveform.

This expectancy wave, as the P300 is sometimes called, is tied to subjective probability. Subjects show a much larger P300 when they discover that they are wrong in guessing the next tone than if they discover they are right. Similarly, they show a large P300 effect when they are told they are right when they believed that they were wrong. From a neuropsychological point of view, being aspectual or meaningful or interpreted could be cashed out in terms of fitting stimuli into a local, subjectively determined, context. A conscious state is one that is highly context-relative, among other things.

The P300 expectancy wave can also be used to index semantic mismatch; we get a bigger P300 waveform when a sentence or some other word string ends in a manner we did not expect. Conversely, the absence of a P300 indicates conscious semantic priming – we were primed to expect whatever came next and so we weren't surprised (Bentin et al. 1985; Holcomb 1988; Holcomb & Neville 1990; Rugg 1985). Interestingly enough, however, when the words are primed subliminally, outside of awareness, we do not see any P300 effects at all. Instead we see a negative effect at about 100 msec after target presentation. Moreover, this early negative effect is larger over different parts of the brain than the conscious priming effects (Neville & Weber-Fox 1994).

If the above analysis of consciousness being tied to context-relativity is correct, then the ERP data are telling us that the P300 expectancy waveform reflects at least some aspect of conscious processing. If we are consciously primed to expect a particular semantic item to occur and it does not, then we exhibit prototypical brain

activity about 300 msec after the target presentation. However, if we are primed, not consciously but subliminally, outside of awareness, then our brains behave very differently. We register no "surprise" 300 msec after the event. Instead, our brains are sensitive to the primed target starting a mere 100 msec after it appears. In short, subliminal priming appears to be entirely different from conscious priming. It follows a different time course than conscious priming and occurs over different parts of the brain. Though research into conscious and unconscious priming is only beginning using imaging techniques, these sorts of data might someday be used to pinpoint where and when the brain is conscious and where and when it is not.

Though the weight of empirical data appears to be on the psychologists' side, assuming that conscious mental states are fundamentally different from unconscious ones has equally serious difficulties, both from a methodological point of view and from a conceptual one. The first difficulty with things like subliminal priming tasks is that the subliminal prime is shown for a very short time (usually less than 50 msec) relative to conscious primes (500 msec or more). It could be the case that the differences we see between subliminal and conscious priming are differences that only reflect the length of time subjects are exposed to the prime. Maybe one reason the unconscious appears "dumb" in comparison to consciousness is that it is working with severely degraded data. That is, maybe the effects we are seeing are merely artifacts of the tests given. (We can run similar arguments against all the different tests for unconscious processing: the tasks used to get at our unconscious differs in an important way from the way we purport to examine conscious processing; hence, the results could be a product of the task difference and not of any inherent differences in the way we process information in the brain.)

One mystery of the ERP data just mentioned is why we do not see the early 100 msec negativity under both the conscious and the subliminal priming conditions. (This mystery parallels the problems with LeDoux's interpretation of the rabbit fear conditioning data from the last chapter.) If unconscious priming works automatically, then when we consciously see a prime, we should also be primed unconsciously as well. Hence, we should get a mix of both the N100 and the P300 effects under the conscious condition. We don't. Perhaps the difference in waveforms under the two priming conditions reflects merely differences in the time allowed to process the information and not any differences in awareness. Perhaps extremely rapid processing, the sort subliminal processing forces on our brains, results in early ERP negativities, and the more relaxed processing that conscious priming allows gives us later ERP positivities. The study cannot rule out this possibility.

Even worse: Philip Merikle (1992), one of the pioneers in studying the differences between conscious and unconscious processing, rightly points out that every psychological test that is supposed to be measuring unconscious processing

also has some conscious component. The subject sees a target word consciously and then reacts, regardless of whether it was preceded by a consciously experienced or an unconsciously perceived prime. Hence, the data must reflect both conscious and unconscious processing. The challenge is how to separate the conscious contribution from the unconscious one. The tasks psychologists and neuropsychologists use are too crude to do that.

Take the ERP priming studies just mentioned as an example. Even though subjects are primed subliminally, they are still very much aware of the targets to which they are responding. If we are measuring how quickly subjects respond to what they are seeing consciously or where and when their brain reacts, then these measures will reflect whatever conscious processing went on so that the subject could consciously respond. Of course, it will also reflect the subliminal priming and everything else that happens outside of awareness, but it is unclear how one is supposed to separate the two factors using the single measure. For the waveform that contains the early 100 msec negativity, how can we distinguish which ERP factors reflect the unconscious priming and which reflect the conscious response? Noting that the conscious condition also gives us a P300 component does not really answer the question, especially given the differences in processing time between the two conditions. Current experiments simply cannot distinguish which processes are conscious and which are not.

Should we just throw out all the data from all those experiments as contaminated? We would be left with close to nothing in support of the structural view of unconscious processing. Merikle believes that we should not. "The important findings in these and other recent studies ... are that performance differs qualitatively across the aware and nonaware conditions" (1992, p. 795). Something is going on. The results aren't the same across the different conditions, even if they are contaminated. We now need to devise tests that would get at exactly what it is that is going on and whether this something distinguishes conscious processing from unconscious. But for now, according to Merikle, we just don't know enough: "At this time, how sophisticated unconscious perceptual processes may be is unknown" (1992, p. 795).

Larry Jacoby (1992) advocates a method of opposition that might eliminate any contamination. We need to look for tasks in which our conscious and unconscious processes are presumably working together for some end and tasks in which they are presumably working in opposition to one another. The difference in performance between these two sets of tasks would be a difference that we could attribute to the difference between conscious and unconscious processing.

For example, Debner and Jacoby (1992) briefly presented words before presenting a target word stem. (They might present RESPOND first followed by RES___.) In the opposition condition in which unconscious processing is

supposed to be working against conscious processing, subjects were told not to use the presented word in suggesting a word that would complete the stem. (They could not give RESPOND as an answer to the query RES___; instead, they would have to give something like RESTORE.) However, subjects would presumably be primed unconsciously to give the flashed word as an answer, even though they were instructed to disregard that information. As a result, subjects make more mistakes in the queries for which they had just been primed with an word that they could not use. In the in-concert condition in which unconscious and conscious processing are supposed to be working together, subjects were told to use the completed word. (They were supposed to give the answer RESPOND to the query RES___.) In this case, the unconscious priming would work to the advantage of the subject, for they would be more ready to give the flashed word as they correct answer. In this case, the error rate was lower. By comparing the error rates for subjects under the opposition condition with the error rate under the in-concert condition and with the error rate in purely neutral conditions (where the completed word does not match the stem), we can get an idea of the influence unconscious perception has on the conscious production of the answers.

In addition, we need to look at what happens when something is consciously processed versus when it is not consciously processed *under the same experimental conditions*. Most experiments concerning implicit memory, subliminal priming or unconscious processing compare and contrast trials in which the stimuli are presented for different exposure durations, stimuli are either attended or unattended, and so forth. In these cases, we cannot tell whether the differential effects we see result from the different experimental conditions or from differences in awareness brought on by the different conditions. We need to try to manipulate awareness without manipulating any other experimental variables. We can to that if we are willing to take subject's verbal reports seriously.

For example, Merikle uses a focused attention paradigm popularized in Mack and Rock's recent book (1998). On trials 1 and 2, the subjects see a fixation display for 1500 msec. Next, a large cross appears in one quadrant of the display for 200 msec. The display and cross then disappear and subjects see a blank screen for 500 msec. One "arm" of the cross is longer than the other, and subjects are instructed to report whether it was the horizontal or vertical arm. Trial 3 is the critical one for our purposes. On this trial, the same sequence of events occurs as in trials 1 and 2, except that when cross appears in one quadrant, a word simultaneously appears in the center of the display as well. Following this trial, subjects are asked whether they saw anything on the screen other than the cross. Mack and Rock's original finding was that approximately 60% of the participants in these studies are "blind" to the presentation of the word. When asked whether they had seen

anything other than the cross, they claim that the third trial was structurally identical to the first two.

Merikle uses the fact that 40% of the subjects do see the word to learn what the subjects who see the word can do with the information presented, beyond merely reporting their experiences, and to compare their capabilities with those who do not. He follows the cross presentation trials with a stem-completion task, in which subjects are told not to use the word that they have just seen – if they had seen any at all – to complete the word. The first three letters of the word just presented are presented again and subjects are told to complete the word stem with the first word that came to mind except the word that has just been presented. For example, if CARPET was the word presented on trial 3, then immediately following the third trail, participants are shown the letter stem CAR___ and are told to use any word other than the word that might have just been presented to complete the word stem. For example, the participants could complete the word stem with CARE, CARP, CARROT, or even CARTOON but not with CARPET.

He finds that when subjects report seeing a word, they are able to exclude the word from their stem completions when tested immediately afterwards. But, if they claim that they do not see a word, they are unable to exclude the word from a stem completion exercise when tested immediately after target presentation. Interestingly, when there is a delay of thirty minutes or so between presentation of the displays and the test, the difference between being able to report the word and not being able to disappears. In both cases, subjects are unable to exclude the words from their stem completion exercises.

What is important is that in this experiment, subjects' subjective reports are taken seriously and these subjective reports are what Merikle manipulates. Subjective reports of consciousness compose the experimental variable. Trials in which subjects report seeing the word are compared with trials in which they could not see the word, and the only item that is varied in all the trials is whether subjects could report the word. Everything else remains constant. Unfortunately, these sorts of carefully controlled experiments are the exception rather than the rule in priming studies.

However, even if psychologists do have some empirical results in support of their position, they still lack conceptual underpinnings. As I have mentioned before, if we buy that unconscious mental states are merely structural and not semantic, then we have lost the marker for distinguishing mental states from any other kind of state. What is it about the unconscious states that make them *mental*? Claiming that they can track information is not enough, for all sorts of bodily states do that. Fluctuations in arousal index the time of day; the contents of my stomach reflect my eating habits; bone density correlates with aging. Indeed, all sorts of non-bodily states are correlated with other events. Just about any complex system will track

some sort of information. No criterion will separate unconscious mental states from non-conscious ones, once we rule out intentionality as a defining aspect. From a philosophical point of view, the view that unconscious processing is purely structural is rather hopeless.

6.4 Philosophers' redux

Such was the state of affairs until very recently. Even if we set the methodological and philosophical concerns aside, very few studies have been directed at testing exactly what the unconscious can do. Part of the difficulty here stems from the methodological limitations of subliminal priming and other related tasks I have already discussed. Part also comes from psychology's focus on non-semantic tasks; stem completion, identity priming, and predicting tones are all purely structural tasks. Finally, part comes from the desire to prove that unconscious processing is there at all. So much of psychology's energy has been devoted to an existence proof for unconscious processing that they have neglected to try to see exactly what the unconscious might be doing for us and how it might be different from consciousness.

However, a few experiments offer a modicum of support to the psychoanalytic perspective. The first concerns work done on unconscious biasing (Bechara et al. 1997). Hanna and Antonio Damasio are interested in differences in rule-following between normal subjects and frontal lobe patients (Bechara et al. 1997). What interests me about their research, though, is the task itself, for what counts as advantageous behavior in a game is highly context-relative. Subjects are given four decks of cards and are instructed to pick a card from any deck. They are "rewarded" or "punished" (using Monopoly money) according to which deck the card came from and the face value of the card. Subjects, however, are not told what the reward strategy is. They are simply allowed to chose as they see fit. What we learn from experiments like this is that we chose advantageously before we are aware of our strategy for choice. Moreover, we generate anticipatory skin conductance responses when we chose incorrectly, even though it consciously feels as though we are choosing randomly.

Notice that to understand what counts as a correct choice in the Damasios' experiment requires some semantic interpretation of the face value of the cards vis-à-vis the instructions given concerning the fake money. If we respond unconsciously to the rules of the game, then our unconscious must be processing more than merely structural information. It has to be sensitive to the context in which choices have to be made.

Previous studies have led to the claim that our unconscious is in fact sensitive to patterns in stimuli much more complex than what we could ever recognize consciously (see discussion in Lewicki et al. 1992). For example, subjects can unconsciously recognize a stimulus pattern resulting from a four-way interaction, which is much too intricate for us to recognize consciously without some sort of external aid, like a pen and a pad of paper (Lewicki et al. 1987; Stadler 1989). We can also identify brain structures involved in these tasks, which correspond to whether we are conscious of the patterns (Reber et al. 2003; Schendan et al. 2003). However, by and large, these tasks measure how sophisticated our unconscious is in recognizing structural patterns, not whether the unconscious is concerned with any semantic information. In contrast, the Damasios' study forces subjects to use semantic information of a sort, since the reward schedule depends on the arbitrary value assigned to Monopoly money, a very context-relative criterion.

Notice, however, that the Damasios' experiment does fall prey to the methodological concerns listed previously (as do the other studies that purport to measure unconscious procedural learning). In order for us to get a clear idea of the real contribution of the unconscious to figuring out a reward strategy, we would need to pit this task against one in which subjects were told to respond randomly, even though there was a pattern there that their unconscious would presumably recognize and bias responses to. Nevertheless, I take their experiment as a first step toward seeing how sophisticated the unconscious can be.

Now consider work done on measuring unconscious novelty responses, as pioneered by Art Reber in the late 1960s. He and others have demonstrated that we can learn very complicated sequences of stimuli, such as finite state grammars, entirely unconsciously. Over time, we become faster at responding to the sequence, showing that we have in some sense learned it, even though we are not consciously aware of any pattern. If the pattern is suddenly switched during the trial, then our reaction times slow down and then speed up again as we learn the second grammar. However, we are never aware of any change in pattern, nor are we aware of the second pattern as such. (We are also not aware that our reaction time changes.)

In this case too what is learned is context dependent. Subjects are instructed to react only to the current stimulus; they are not told to predict what was coming next and they have no reason to expect any sort of pattern embedded in the stimuli at all. In addition, the grammars are too complicated to be comprehended in small chunks, and they deliver only probabilistic predictions anyway. Nevertheless, as reaction times indicate, subjects clearly do learn to predict the stimuli, albeit unconsciously. These data tell us that subjects retain entire patterns across many trials and use this information to guide their behavior. They kept the pattern, the context,

in mind as they reacted to the stimuli, even though, according to the task instructions, they had no reason to. Recent fMRI studies looking at fear conditioning and contextual hierarchical learning with and without awareness find similar patterns of learning as well (Cheng et al. 2003; Gille et al. 2003; Thomas et al. 2003).

Berns, Cohen, and Mintun (1997) conclude that, contrary to what was previously believed, the active maintenance of information does not require consciousness. Information that is seemingly meaningful, interpreted, and aspectual can be held in mind without entering conscious awareness. Moreover, we can monitor the reliability of our predictions unconsciously, and these predictions are also relative to the task at hand, hence, also contextual, meaningful, interpreted, aspectual.

Perhaps the psychoanalysts are right: unconscious states mirror conscious ones. There is more to our unconscious mental life than merely providing the building blocks for conscious awareness. At least, these recent results should force us to re-analyze our conclusions regarding subliminal priming. The differences we see in processing could be an artifact of the experiment and not a real difference in cognition. Our unconscious may not be simpler than our consciousness; it may just be harder to access alone.

Of course, if they are right, then we are left with the difficult question of what consciousness is doing in our cognitive economies in the first place. If nothing differentiates the causal powers of conscious states from unconscious ones, then it is not clear why some states are conscious at all. From the perspective of psychology, it is not clear even what it means to be conscious, since we cannot attach any further attributes to such states. Though we can keep Brentano's way of differentiating between what is mental and what is not, we now have no interesting way of thinking about consciousness and what it does. I am going to set this difficulty to the side for now, for I have no deep answer for this puzzle.

6.5 Unconscious narratives and unconscious selves

Suppose the Freudians are right and unconscious processing is aspectual at least up to a point. What might this have to do with narrating selves, if anything? I think it has a lot to do with it. Until now, we have been pretending that our narratives consist in our looking around our environment, culling out the emotionally salient events, and then describing those events to others using the patterns and schemata culture has deemed appropriate. But what happens when what we consciously believe about a situation, how we consciously interpret its worth and its emotional valence, is at odds with our unconscious reactions? As we shall see, these tensions greatly influence both what we do and the stories we tell about ourselves.

Here is a simple example of what I am talking about. My friend Jerry graduated from high school in Ohio. After fumbling around for a bit, he went to college at Ohio State. His first serious girlfriend Jenny graduated the year after he did and went to Carnegie Mellon University to study art. As soon as she arrived in Pittsburgh, their relationship started to fall apart. After a semester at Ohio State, Jerry transferred to the University of Pittsburgh. It seemed pretty clear to everyone around Jerry and Jenny at the time that he moved to Pittsburgh to be closer to her. That seems pretty clear to Jerry too now, almost twenty years after the fact. However, at the time, Jerry justified his move by claiming that he preferred to live in Pittsburgh over Columbus, that the University of Pittsburgh's undergraduate program in psychology was superior to Ohio State's, and that, because his parents had moved to Connecticut, it would in fact now be cheaper for him to attend college at a Pennsylvania state school than it would for him to continue going to college in the Ohio state system. Moreover, Jerry *believed* his justifications. He never entertained the thought that he was moving to try to save his relationship with Jenny. And if he had entertained the thought, he would have denied it.

We are regularly confronted with this sort of denial in commerce with others. As most in the modern world unfortunately know, it comes out particularly strongly when dealing with addicts of various stripes. But it is important to recognize that the denials of addicts and others of hard and uncomfortable truths are quite often sincere denials. The addict sincerely believes that he will stop abusing his drug of choice tomorrow because *now* he is *really committed* to stopping and, of course, being sincerely committed is all that it should take. (More on these sorts of cognitive errors in chapter 8.) Jerry sincerely believed that his moving to Pittsburgh was completely independent of his relationship with Jenny. And the stories they tell of their lives reflect both the facts they are denying and the facts they wish were true.

In the mid-1980s, a great many people arrived in Houston looking for work. They came from the American Midwest, trying to escape closed steel mills, automobile factories, and coal mines, dying towns, empty streets, and decaying houses. For a time the Houston *Post* and *Chronicle*, with their seemingly endless pages of want-ads, sold more copies in Detroit than any local newspaper there. People came in search of a new and different life; they brought their families and their dreams. Though willing to work hard, they were largely unskilled and uneducated, and in Houston the new life they found was dreary and difficult.

Housing was at a premium. Southeastern Texas had no way to prepare for the tremendous onslaught of humanity it experienced. Tent cities were hastily erected and people who had just the year before been proud owners of their own homes were reduced to raising their families with only canvas walls to protect them from the blistering Texas heat.

In 1983, two journalists, Dale Maharidge and Michael Williamson, interviewed some of the displaced tent dwellers. They sat with Cindi, John, Bonnie, and Jim and recorded their comments. Cindi crowed, "This [living in a tent] is great. I never want to live in a house again. Look, we got fresh air. No hassles. I'm sorry we didn't start living like this years ago" (Maharidge 1996, p. 114). John, Bonnie, and Jim all agreed.

However, it surely isn't the case that they in fact prefer living largely unprotected from the elements with little-to-no income over living in their own apartments, as they were doing less than a year before. As Maharidge notes: "Their voices ring hollow. Pride is the genesis of many lies" (1996, p. 114).

Perhaps, though, they are not intentionally lying. Perhaps believing that they prefer their lives now is one way of coping with their tragic situation. Perhaps Freud was right that sometimes we don't or can't consciously acknowledge events in our lives, even though our brain still picks them out as emotionally salient, important things. In these cases, the story we tell is affected by our emotional reactions, but it doesn't reflect what we actually believe, all things considered.

Jim continued the discussion:

> Material possessions are meaning less and less to me. The way the whole economy is going, it's a good time to be highly mobile. There's an undercurrent in this country. An undercurrent people in power are not aware of. They don't realize the bitterness and anger they are stirring up. There's a bitterness seething that will erupt. There's going to be rioting in the streets. ... I'm not a philosopher. But when the middle class erupts, they're going to be sorry. Uncle Sugar hasn't learned that better-educated people will be out to change something that is their right to change.
>
> (Maharidge 1996, p. 118)

Notice how Jim discusses his plight in impersonal terms. He is embroiled in a life completely beyond his control and obviously feels very frustrated by that, but masks his own frustrations by making the rage impersonal and collective. He is angry, but can't acknowledge the anger as his own.

However, as he continues, his conversation grows more autobiographical and personal:

> I never thought this would happen to me. I never thought this could happen in America. I've gone from the land of plenty to nothing. And we're living in the lap of luxury compared to a lot of people. ...They won't let you use that land to survive [gesturing to a nearby, privately owned, field]. I could go out there and grow a lot of food. If you try that, they'll arrest you and put you in jail. This is America! There was a time when all we had to eat was one potato between all four of us [his wife Bonnie, his two children and himself]. ... The kids went to bed *hungry* that night. ... I'm never going to let that happen again. I'm trying my damnest as an

> upright citizen. First, I'll go hunting for food. If that doesn't work, I hit a 7–eleven. I'll hold up a store. I won't take money. But I'll take food. My kids won't starve.
> (Maharidge 1996, p. 118)

We learn a lot about Jim from these few sentences. His helplessness and anger are now apparent, as are his love and devotion to his children. He believes that he has been dealt an unfair hand; at the same time, he recognizes that as bad as things are for his family, they are still worse for many others. He wants a chance to fulfill his familial responsibilities, but is all too aware that he may not get that chance, ever. These aren't the words of someone content to live in a tent, barely subsisting on what he can scrabble together.

And yet, it is hard to say that Cindi, John, Bonnie, and Jim are deliberately trying to put a smiley face on their situation or are trying to appear happy for their guests. In all likelihood, they are sincere in their confession of liking their lifestyle. They are sincere, but they are also misguided about their own judgments.

If our unconscious can issue semantic interpretations of events, then it could judge (perhaps just implicitly) that Jerry needed to be closer to Jenny and that life in a tent city is pretty awful. These judgments then influence how we perceive ourselves and our own behaviors, just as unconscious "judgments" of letter shape in a laboratory influence subjects' reaction time and error rates. Whether we intend it or not, our stories reflect both what we consciously believe about a situation and how we have reacted to the situation unconsciously. Our stories are not only a product of what we consciously perceive and believe about our world, but also of how we react to information outside of awareness. Our stories are interestingly self-revealing in ways I am sure we never intend.

Usually this shouldn't be a problem, since our self narratives are often amorphous, ambiguous, and malleable anyway. But sometimes if our unconscious interpretations run deeply orthogonal to our conscious ones, then our self narratives become problematic. Our discussion of narrative selves can help us to understand how and why some people break. And examining how and why people break clarifies what exactly we can control in our story-telling, our self-construction, and our sense of unity and what we cannot.

CHAPTER 7

Multiplex and multiple selves

> *M: Damn you, damn you, damn you to hell.*
> *Dr. W: Why? …*
> *M: … For not telling me. … That I've had it all wrong, thinking I'm alone with this weird organization of my mind, being in different places in it, different compartments; being different aspects of me so unpredictably, and thinking – almost my whole life – that that's what sets me apart. …*
> *Dr. W: And now you think – what? …*
> *M: That they're just dishonest. That I'm not different at all – just honest about it. That they're not continuous, either. That everyone is organized the same way I am, with the compartments and differences, all that weirdness, but that they can't admit it! That they have this fiction that they're both continuous and immutable. Because that's all it is – a fiction. What would Ibsen have called it? A saving lie – that's it! People are not the same today, tomorrow, any day, ever! When they go to sleep, they wake up different! When they change activities, they're different, too. Just look. Observe. It's true! The sense of continuity, of sameness – that's a fiction.*
>
> –Conversation between a thirty-year old MPD patient and her doctor (Wells 1997)

Thus far, I have argued that we are driven to narrate our lives as part of being human. We react affectively to our environment, culling the important from the unimportant, and then we tell others about what we have done. Our narratives, though, reflect social conventions as well as our own beliefs and desires. We are explicitly aware of some of these beliefs and desires; others may reside outside consciousness and influence our story-telling in ways we cannot control. We are all this way. It is a complex balancing act we participate in, trying to track all we feel about our world, record it accurately, and then put these reactions into stories we might share with judgmental others. Upon occasion, we simply can't monitor well enough and we fail to build coherent or effective narratives. When this happens, we break down as people. In this chapter, we look at the continuum of break-downs, focusing on what we know about narrative selves can tell us about how to understand mental disorders, and what, in turn, these disorders can tell us about how we narrate.

Our constructed narratives are important, both to who we are and to our own mental health. David Stern argues quite forcefully that we need this sense of self, this sense of continuity through time, in order to maintain our sanity. We not only narrate our selves into existence, but these narrations in turn become fundamentally important not only to who we are, but also to how we are. We can only understand ourselves, be ourselves, if we tell stories about who we are.

Figure 7.1 lists some of the psychological disturbances that result if we lose different aspects of our self. However, it is important to realize that personality disorders rest on a sliding scale. It has now become common parlance to say that we are all dysfunctional in our own ways. There is more than a grain of truth to this platitude. No one is perfect in constructing coherent, descriptive, honest narratives at all times. Sometimes we stretch and distort more than others. And sometimes we are bothered by stretching and distorting more than others. So, we all suffer the ailments listed in Figure 7.1 to some degree or other at some point or other. Such is the nature of being imperfectly human.

Senses of Self	Corresponding Psychological Disturbances if Lacking
Agency	Paralysis Sense non-ownership of self-action Feeling of loss of control to external objects
Physical cohesion	Fragmentation of bodily experience Depersonalization Out-of-body experiences Derealization
Continuity	Temporal dissociation Fugue states Amnesia
Affectivity	Anhedonia Dissociated states
Achieving intersubjectivity with others	Cosmic loneliness Psychic transparency
Creating organization	Psychic chaos
Transmitting meaning	Exclusion from culture No socialization No personal validation

Figure 7.1. Data are drawn from Stern 1985, pp. 7–8.

Nevertheless, it is the case that sometimes these difficulties interfere with our ability to live our lives well. When this occurs, the multiple constraints we try to satisfy in our story-telling are simply untenable, sometimes for reasons external to our selves and sometimes for reasons internal to our personalities. The worst breakdown in personality that can happen is so-called Multiple Personality Disorder (MPD), now also known as Dissociative Identity Disorder (DID). But we all dissociate to some degree or other – someone says something hurtful and we pretend not to hear.

Psychiatrists are beginning to realize that not as much as originally thought differentiates multiples from normals. Perhaps MPD represents more a difference in degree rather than different in kind from normal behavior and reactions. Perhaps Multiple Personality Disorder is one extreme along a continuum of dissociative phenomena, ranging from children's pretend play and dreams at one end, through Borderline Personality Disorder (BPD), Post-Traumatic Stress Syndrome (PTSS), Dissociative Disorders Not Originally Specified (DDNOS) to a severe and complete personality fragmentation (MPD) at the other (cf., Barrett 1995; Boon & Draijer 1993; Branscomb 1991; Brenner 1994; Franklin 1990; Jaschke & Spiegel 1992; Loewenstein & Ross 1992; McDougle & Southwick 1990; Putnam 1991; Ross et al. 1992; Young 1988; though see Marmer & Fink 1994).

Here, I address questions of whether a continuum view is correct and how to characterize the differences among the various disorders by distinguishing multiplex from multiple selves.[1] Normal adult selves are *multiplex*; fractured selves are *multiple*. What this means exactly is explained below. I believe this analysis has important implications for how the symptoms of MPD should be characterized and treated as well as sheds some light on the relation between conscious control and selfhood.

7.1 Questioning the continuum view of dissociative disorders

There are at least two obvious reasons for suspecting that the continuum view might be wrong. First, diagnoses often proceed using insensitive or inadequate tests. The *Diagnostic and Statistical Manual of Mental Disorders III* (*DSM-III*) (1986) criteria for MPD and Borderline Personality Disorder (BPD) overlap, even though substantial differences in "dynamics, structure, and process" exist between the two (Marmer & Fink 1994, p. 743; see also Fink 1991; Kemp et al. 1988; though see Lauer et al. 1993). Indeed, no significant differences have been found between MPD patients and BPD patients on the Shipley Institute of Living Scale, the Minnesota Multiphasic Personality Inventory (MMPI), Millon Clinical Multiaxial Inventory (MCMI), and the Brief Psychiatric Rating Scale (Fink & Golinkoff 1990; Kemp et al. 1988), even though the patients differ along many clinical dimensions, including measures of severity of childhood abuse and various dissociative symptoms.

The wording for Dissociative Identity Disorder (DID) diagnostic criteria were altered for *DSM-IV*; however, the marker of "the presence of two or more distinct identities or personality states ... that recurrently take control of behavior" (1994, p. 484) is still quite open-ended and the manual is careful to note that "controversy exists concerning the differential diagnosis between ... [DID] and a variety of other mental disorders, including Schizophrenia and other Psychotic Disorders, Bipolar Disorder with Rapid Cycling, Anxiety Disorders, Somatization Disorders, and Personality Disorders" (p. 487). The *DSM-IV Guidebook* carries the warning that "the symptoms listed ... [for Dissociative Disorders] are common associated features of other disorders (e.g., Panic Disorder, Major Depressive Disorder, Dementia)" (p. 307). (We should perhaps also add Munchausen's Syndrome to that list (Goodwin 1988).)

It is clear that current diagnostics are too crude to distinguish MPD/DID reliably from other disorders. But, if our tests permit too much overlap among various maladies, then we cannot use the results of our diagnostic tools as a reason to categorize dissociative disorders along a continuum, for that could merely be an artifact of insensitive criteria. MPD/DID may appear to be similar to BPD or PTSS because we have no way to separate them definitively. However, that we cannot always tell them apart could be saying more about the psychiatric measures we are using and less about the disorders themselves. Drywall and PCV plumbing may seem the same to a wrecking ball, but the capacity to be smashed by a four-ton weight is not a good way to distinguish building materials.

Part of the difficulty here may stem from the heavy emphasis on phenomenological criteria for diagnosing dissociative (and other) disorders, for many conditions may feel the same, or similar, at various stages in their development. But how things feel from the "inside" is a notoriously poor way to diagnose illnesses. Given our discussion in chapter 6 regarding the unconscious influences on consciousness, we should be all the more dubious about believing that our conscious experiences give us deep insight into the truth, the whole truth, and nothing but the truth. The common cold, influenza, and pneumonia all feel the same at the beginning. Without a germ theory of disease, we would have little reason to distinguish among them. They would all be respiratory disorders of varying severity – a continuum view of the sniffles.

From the perspective of psychiatry, with our current tenuous grasp of the biology behind mental illness, it is difficult to know what to replace the phenomenological criteria with, though. We don't yet have a "germ theory" of mental illness. We have no idea what the "germs" that induce dissociation are. We don't even have a clear idea what they might look like, or if there are any particular, isolatable causes at all.

Second, and more important, many psychiatrists focus on the etiology of MPD instead of its symptomology when characterizing it. In general, the disorder

is billed as a coping mechanism against severe trauma run wild and is usually tied to repeated sexual abuse in early childhood (e.g., Braun 1990; Lowenstein & Ross 1992; Murray 1993, 1994; Young 1992). The hypothesis is that children dissociate to protect themselves from their ordeal psychologically and then continue to use this coping strategy as they grow older. (Perhaps the tendency to dissociate stems from the child's ability to fantasize or dream about mastering or overcoming painful situations (Barrett 1995; Franklin 1990; Young 1988).)

However, *why* some patients develop MPD often gets confused with diagnosing *that* they have it (see Claussen et al. 1993; Glod 1993). For example, Albini and Pease suggest that "MPD is related to the processes that lead to the formation in children of a distinct and cohesive self" and conclude that "MPD should be seen as a childhood disorder" (1989, p. 144). Marmer & Fink (1994) argue that the defining characteristic of MPD – as opposed to BPD – is dissociation in order to create a barrier against extreme trauma. Boon & Draijer (1993) and Ross (1992) hold that the severity of childhood abuse differentiates MPD from BPD and DDNOS.

Nevertheless, when diagnosing organic disease or psychiatric disorders, we should not understand distal or proximal causes as part of malady itself. The common cold is defined by the presence of a particular virus, and it is the same cold regardless of whether the virus was passed on by a handshake, a sneeze, or a kiss. Similarly, depression is individuated in terms of inappropriate affect, and it is still depression regardless of whether its cause is the death of a loved one, Alzheimer's disease, or decreased serotonin uptake. Of course, understanding a disorder's origins may help us identify and treat the malfunction, but they cannot be criteria for individuating it. (Furthermore, the tight connection between early trauma and MPD now appears questionable. A few adult-onset cases have been identified and the veracity of patients' recollections of childhood is a matter of some debate (Frankel 1993; Ganaway 1995; Piper 1994).)

But if this perspective is correct, then we lose the second reason commonly given for categorizing various psychiatric disorders along a continuum: *viz.*, they represent reactions to increasing amounts of (childhood) trauma. Even if this claim were true – which is unlikely – it is not clear how that fact should influence how we conceptualize dissociations *per se*. What the continuum view supposes is that dreaming, fantasies, BPD, PTSS, DDNOS, and MPD/DID share some interesting *structural* features, not some historical or relational ones. It holds that the various dissociations are similar in their essence, that their natures contain important common elements. That early trauma leads to some dissociation phenomenon or other would be an interesting fact – indeed, it would be strikingly useful information – but it would not tell us that the structures, processes, or symptoms of, e.g., fantasy-play and PTSS, are relevantly the same.

In order to preserve the continuum view, we need to outline some commonality among dreams, fantasies, BPD, PTSS, DDNOS, and MPD/DID. To the extent possible, these attributes should be nonphenomenological, ahistorical, and nonrelational. Thus far, the psychiatric community disagrees severely over what the marker for dissociation could be; possibilities include something cultural or sociological, a genetic predisposition, the capacity for self-hypnotism, or some other psychological factor yet unknown. However, in distinction to psychiatry's focus on what makes dissociation a disorder – what makes it something abnormal – I seek an explanation for why and how dissociation is a product of natural psychological tendencies. I believe that the distinction between multiplex and multiple selves can explain the continuum of dissociation phenomena from dreaming and fantasy play on up to PTSS and MPD as well as characterize MPD itself.

7.2 Multiplex selves

Daniel Dennett conceives of a person as an unconsciously generated center of narrative gravity: "Like spider webs our tales are spun by us; our human consciousness, and our narrative selfhood, is their product, not their source.... [T]heir effect on any audience... is to encourage them to (try to) posit a unified agent whose words they are: in short to posit... a center of narrative gravity" (1989). The self is an unconscious disposition in the brain that structures and influences first-person experiences. It can recast our representational and cognitive structures as well as influence our motivations and behavior. Dennett also believes that those self-narrations are entirely fictive; they are merely interpretations we make of our behavior in order to make sense of it at the time, given our current social or personal goals. The self becomes a "theorist's fiction" (1995, p. 103), a useful falsehood that makes understanding, explaining, and predicting our behavior much easier. Justin Leiber agrees. He writes: "In a sense, my consciousness is just as much or even more a narrative fiction than Sally Forth [a character in his novel *Beyond Rejection*]" (1989, p. 138).

In particular, until the self-narrative is told, or retold, there is no fact of the matter, just as there is no fact of the matter regarding whether Sherlock Holmes owned a red tricycle as a child. In both cases, the story is undetermined until the author decides how the plot should go. Our selves are "fictional objects... [which] have only the properties that the theory that constitutes them endowed them with" (Dennett 1988, p. 1016). Consequently, according to Dennett's and Leiber's way of viewing persons, we are in some sense free to decide what our life history is and how our life is going from moment to moment.

I diverge from them in holding that our personal narratives are not entirely confabulated. They are constrained by the world around us and from corrections

by others. Both endogenous and exogenous selection-type pressures keep the story revealed to one's self and to others in harmony with the way life is actually going. Our selves are fiction in the sense of always being constructed, subject to constant revision, hung on narrative "hooks," and holding certain unrealized ideals (cf., Flanagan 1991b; Riches & Dawson 1996). But they are not fictional through and through in that we appropriate our past (as we understand it) and draw it into the present narrative as we simultaneously look to the future and plan for it based on past and current desires (Bratman 1987).

Moreover, and maybe most importantly for understanding the role of narratives in self-construction, we do not present ourselves as fictional entities. We do not take our selves to be merely created on the spur of the moment to suit situational needs. We intend to our self-narratives to reflect our lives accurately, even if we sometimes – often times – fail. And, as I shall argue below, when our personal stories are not accurate, we get into psychical trouble. So, even if our personal stories are not always true, we mean for them to be, and there are grave consequences if they do not approximate reality.

Of course, our personal narratives are complex, with different strands of our stories fitting only uneasily with one another, just as our lives are complex with our different personal roles fitting only uneasily with one another. We are complicated creatures with multifarious plans, projects, and desires in tension, both synchronically and diachronically. Susie Bright recites the different roles she plays:

> The most unusual aspect of my life isn't being a single mother or a radical sex activist. It's being a writer. I recently spoke on a panel where a fellow speaker railed against academics and artists who think they can change the world by sending our finely-crafted communiqués from their tower windows.
>
> I'm not an academic, but I have been an artist who sat alone in my room for long periods of time. I have also been on the ground protesting, before a judge who called me "a menace to society," and on the phone talking quietly to strangers [whom] I've tried to seduce into action as passionately as I would a lover. In between those times, I often read.
>
> (1992, p. 15)

Aside from being a lesbian cultural heroine, Bright's descriptions aren't that different from the rest of us. We do lots of different things – are lots of different things – and often our various characters don't blend easily one into the other.

But, at the same time, we are unified in important ways. We display different parts of our narrative in different ecological niches and to different audiences, getting them (or ourselves) to posit one or the other as the center of narrative gravity. Our many different tales can stand independently of one another, resting upon our nascent views about what it means to be *that* sort of person.

Bright describes her interactions with her daughter: "Every night before I go to bed, I do a little *Star Trek* dance. Actually it's every night when my toddler goes to bed that this space age tribal stomp begins. But these days, our bedtime hour is practically the same. ... We fly around the room, arms outstretched, one moment an eagle, the next a rocket ship. Then there are the ballerina moves, the coronation postures, and last but not least, spinning like a top" (1992, p. 9).

Contrast this very traditional picture of Bright as a devoted and loving mother playing innocently with her child with her description of what she does for a living. "When I speak in public about my appreciation of pornography, I look very much like a woman – long hair, lipstick, and a pretty dress. But the words coming out of my mouth express a frankness and confidence about sex traditionally associated with masculinity. Sometimes men tell me, 'You get away with murder because you're a woman. If *I* stood up and said the same things you say about sex, I'd be crucified'" (1992, p. 55). Susie Bright the lesbian pornographer conjures up quite a different image of the sort of person she is – tough, defiant, maybe a bit confused about human sexuality, but perhaps not the sort of person who is suited to love and nurture a child.

The dichotomies we see in the selves we posit in our stories taken individually are, however, a sort of illusion. From the first person perspective the different aspects of selves are a subset of an integrated and unified narrative that contains, as proper parts, the different "selves" we display in isolation. We draw our "selves" together, through the force of narrative gravity, and we comprehend ourselves in terms of single, centered narratives in which all the strands fit together – though not without some tension, various confusions, and much second-guessing. Taken together and consciously interwoven, they give our lives their unique qualitative characters. In brief, we are *multiplex*.

There is nothing in Bright's stories that prevent her from being a devoted and caring mother, a radical feminist, and a pornographer. It is more that our prejudices find such a combination troubling. But we are all like Susie Bright. The way I present myself in a job interview is quite different from what I might confess to my best friend – the hypothesized "mini-selves" I author fall under different stereotypes. But I am still a single unified person, one with a complex story that only emerges in fits, stumbles, and starts across the many facets of my life.

Beginning with our teenage years, we find multifarious self-attributions across different contexts. Teenagers can detect opposing attributions, but not resolve them easily into a single overarching story. Studies indicate that for teenagers, the more conflicts among and between attributes, the lower their self-esteem and the greater their depression. In adulthood, however, we hold multiple self-attributions as desirable. By then, we have learned how to integrate across contexts using higher-level abstractions in our self narratives (Harter et al. 1997).

As we reinterpret our histories in light of current situational demands, and drop and add descriptions of events in our lives, our accounts can become incoherent.

Being multiplex is not without its dangers. But as normal adults, we develop meta-accounts to explain any discrepancies (Turner 1980).

In general, we are distressed to find incoherence and we work to get rid of it. It is psychologically important to us that we maintain continuity, so we have to devise ways to explain away sheer accidents or narrative discontinuities. We do so by showing that they are either not as they might seem at first blush, or that it isn't a problem if they are. Susie Bright does so by integrating her account of parenting with her political and sexual views: "In Dallas, I was invited by a lesbian social group to speak at a lakeside country club, following a leather and fur fashion show. … My babysitter for the evening was a young man in leather chaps, vest and cap, who crooned to Aretha [her daughter] all night long" (p. 14). Here, our ability to retell our narratives from a different point of view is a virtue.

Because self stories aren't merely chronicles of facts but construct a persona that might be only loosely tied to historical truth, some theorists conclude that they must be fictions. The current popular constructionist perspectives from anthropology, literary theory, and sociology also support this conclusion. However, connection to actual events should not be the only criterion for whether we should read self narratives as fictions. Our stories do tell us how a self should function in a particular circumstance (cf., Herman 1995), but they also tell us how we understand our world and what it is like to be us in that world. We mean to speak the truth and that fact needs to be remembered as well.

7.3 Unconstrained storytelling

In some people the constraints on veridical storytelling increasingly fail as their plans, projects, and desires become increasingly in conflict with one another (cf. MacIntyre 1981). The strands of our life stories become unwoven and we can no longer fit them together as a whole. In these cases, we are aware of the local discrepancies, but cannot find any larger patterns into which they fit as parts of a whole.

Jorge Louis Borges (1962) provides us with a glimpse of what an unraveled (but normal) life looks like.

> The other one, the one called Borges, is the one things happen to … I know of Borges from the mail and see his name on a list of professors or in a biographical dictionary. I like hourglasses, maps, eighteenth-century typography, the taste of coffee, and the prose of Stevenson; he shares these preferences, but in a vain way that turns them into the attributes of an actor. It would be an exaggeration to say ours is a hostile relationship; I live, let myself go on living, so that Borges may contrive his literature, and this literature justifies me. … Little by little, I am giving over

> everything to him, though I am quite aware of his perverse custom of falsifying and magnifying things. Spinoza knew that all things long to persist in their being; the stone eternally wants to be a stone and the tiger a tiger. I shall remain in Borges, not in myself (if it is true that I am someone), but I recognize myself less in his books than in many others or in the laborious strumming of a guitar. Years ago I tried to free myself from him and went from the mythologies of the suburbs to the games with time and infinity, but those games belong to Borges now and I shall have to imagine other things. Thus my life is a flight and I lose everything and everything belongs to oblivion, or to him.
>
> I do not know which of us has written this page.

Walter Mitty with his spectacular and spectacularly vivid fantasy life is also an example of when integrating our plans and desires becomes problematic. When it becomes difficult to distinguish a waking life from a fantasy life or when one prefers the fantasy life to waking life is when the normal challenges in weaving a coherent story become abnormal. And when the normal mechanisms we have for spinning our selves fail is when we start to get into trouble.

Walter Mitty, and others like him, mark the starting point on the continuum of disordered dissociations. Having one's fantasies intrude upon one's lived life as more than daydreams normally do result in a person with only a fragile connection to the actual world and its daunting demands. These are people who are unable to cope well with the constraints that their environment engenders. With increased stress, narratives from past or from elsewhere interrupt normal self narratives. Disconnected from the present narrative, these interrupting stories feel more automated, less under our control, than our efforts to account for the current situation (Meares 1995). As our ability to tell coherent stories breaks down, we feel as though we no longer have the ability to sort events and find meaning-making structures as we see fit.

Traveling further down the continuum of dissociations, we find PTSS. Patients with this disorder find that the past intrudes upon their present existence as though it were part of the present itself. They cannot keep the past as part of their narrative past, as part of who they were and what happened to them. The strands of their stories are jumbled and disjointed. As a result, their present experiences become abbreviated and their future seems cloudy and uncertain. They are caught in the past, though (unlike amnesics or in some cases of dementia) they are forced to live in the present as well.

At some point along the continuum of failing constraints, it is no longer possible to grasp the connections among the narratives or narrative segments at all. When this occurs, we move from being *multiplex* to being *multiple*. We begin to tell more than one story about more than one self instead of complicated and rather incoherent

stories about solitary individuals. The narrative unity falls apart entirely and we no longer have a single series of pictures of ourselves. We have MPD/DID.

This means that MPD, though at the top of the continuum of disorders, is also fundamentally different from the rest, for there is no single unified self struggling to maintain its coherence in the face of increasing endogenous or exogenous pressure. Instead the intense pressure creates a new psychological order and divides what would have been one self into multiple selves in a single body, just as intense heat causes erstwhile calm liquids to roll in new and discrete convection patterns. Each of the selves is less than what a single whole would be, for each is formed from a subset of the whole or what could have been whole. Yet each is distinct and retains its identity over time.

M struggles to articulate what it is like to be so disjointed: "I feel as if I'm a different person, but I'm not. It's not that I can't remember – it's that, in this particular compartment, I have no past. ... I don't have to deal with anger and sadness, depending on which compartment I'm in" (Wells 1997).

To be a whole person is to have narrative connectedness over time, connectedness caused by the authorial work of the agent. When we dream, fantasize, or dissociate we lose this connection by deliberately or unconsciously ceasing our authorial work and the weaving of the narrative strands together into a whole. Patients with MPD fail altogether in this project. Their narratives do not systematically permeate each other as multiplex narratives do, and there is great loss in being less than whole. "I've been cheated," *M* says. "Almost eighteen years have gone by since my son was born, and I haven't even had the opportunity to live most of it. Somebody else got my f–ing time, and I don't care which part of me it was – I feel cheated" (Wells 1997).

Using multiplex and multiple selves to understand the continuum view has the advantage of being nonphenomenological, ahistorical, and nonrelational (cf., Sarbin 1992). How well we can actually integrate narrative character nuances does not depend on how well we feel we are doing. Indeed, there is some impetus to understand dissociation and other failures in authorship as skill-based and not as states of mind (Sarbin 1994). In addition, though our stories of ourselves are forward and backward looking, our narratives are ahistorical in the sense that they are always from the present perspective and are always being revised. Nevertheless, the constraints of fact and what actually happened are important. We cannot be freewheeling Dennettian writers, where almost anything goes. Finally, self-narratives can be construed as nonrelational, though we can only construct our stories embedded in a community. Using plots and practices accepted by our society, and as taught to us by our extended families, the narratives themselves are our own creation. They depend on our own memories and future expectations.

Type of narrative self provides the sort of marker for dissociative disorders we are seeking, for it picks out the structural features of BPD, PTSS, or MPD. It is not particularly tied to how a patient feels (though that is important too); how well one's various narrative strands are unified is as much a social judgment as it is an individual one. It is not tied to particular traumatic events in the past. One needs only to fail at narrative coherence to dissociate and there are many paths to achieving that unhappy state. Finally, our self narratives cannot be reduced to mere social or linguistic structures, as some constructivists would have it. As Alasdair MacIntyre remarks, "I am the subject of a history that is my own and no one else's" (1981, p. 202). Though context-driven and context-embedded, our stories, and hence, our selves, exist apart from these things.

7.4 Implications

Treatment, then, of dissociative patients should perhaps focus in part on helping them develop their skills in personal storytelling, helping them find appropriate metaphors for their distress (cf., Palambo 1994). These patients need to learn how to integrate their past with their present or how to use the present as a springboard for the future. There are better and worse ways of doing this and therapy can aid in underscoring the healthier ways of building a unified life.

We can think of psychotherapy, among other things, as providing a way for the therapist and patient to construct the patient's life stories together (Kripper & Winkler 1995). Rediscovering a coherent structure (or finding it for the first time) gives life greater meaning as well as helps promote human connections (Lichtenstein & Baruch 1996). Being able to tell ourselves a meaningful story about how our lives are going gives our lives meaning in the process (see also Blanchowitz 1997). We can interact with others in ways they expect and appreciate if we can cleave to the larger meaning-making structures.

A second focus on treatment should perhaps be on uncovering and appreciating historical truth (Sarbin 1995), for one theme of dissociative disorders is that the normal constraints in storytelling cease to operate. A consequence of this is that patients create their life stories willy-nilly instead of autobiographically. As *M* explains, there is value in a directional autobiography: "I think I get cheated even from aging because of the way time is for me. It's bi-directional." MPD lives do not have beginnings, middles, and ends. *M* never finishes being any particular age: she can be "three or eighty," depending on her perceived circumstances (Wells 1997).

It is true that most therapy today operates under the assumption that the therapist must non-judgmentally accept all statements made by the patient.

Therapists are to deal with the "psychological reality" of the patient, not with the historical truth. However, if the aim of the therapy is to help the patient, then sometimes this advice is counter-productive. Patients who have suffered traumas may not have a deep understanding of what has happened to them and so cannot create coherent narratives until they have some clear notion of how to understand their past.

Ruth, a patient of Lloyd Wells, illustrates my point. Ruth told Wells one day about "a terrible memory which she had, which she said was both recurrent and intrusive, and which bothered her a great deal. … It was completely visual and affective. In it, she was completely terrified, a young child lying naked on a table. Her mother was with her and seemed very angry at her. Six other people were there, wearing masks and strange costumes. They were inserting things into her body, and it was intensely painful and sexual. She was restrained and felt terrified and violated" (Wells 1998). Ruth was all too aware of tales of recovered memories of ritual childhood abuse, which is very much what this memory sounds like. But she also knew her mother and could not believe her capable of such things.

How could a therapist help in this situation? Wells reviewed her medical records and learned that when she was two, Ruth had a ureteral stricture, which had required two separate operations using a local anesthetic. Not surprisingly, she was very afraid during the procedures and her mother had been asked to attend the operations to help ally her fears. When asked about the events, her mother remembered that she had been embarrassed and angry because Ruth was being uncooperative. Hospital notes indicated that six people attended one operation and five the other. Wells hypothesizes that over time Ruth condensed the two memories into one and had a completely valid memory from her childhood, but one for which she had no context to understand it. Learning something about the historical truth provided a context for Ruth's memory. If he had just accepted what she was saying as a "psychological truth," it is not clear how effective he would have been in helping her cope with the intrusive thoughts.

Other data too indicate that coming to understand what really happened to the best of our ability helps us cope with stress and trauma. Telling stories of death helps the grieving process, for example. The bereaved need to "tell it like it is" to sympathetic audiences in order to heal their wounds and to reestablish a sense of control over their lives (Riches & Dawson 1996).

It is true that self-narratives can be rewritten in dramatic ways (Riches & Dawson 1996) – I am not suggesting that they can't – but still, self-narratives have to remain faithful to the larger meaning-making facts (Holma & Aaltonen 1995). Furthermore, in weaving or reweaving personal self-narratives, patients cannot merely adopt the story told to them by their friends, family, or therapist. (Holma & Aaltonen 1995). They must at least feel as though they are the primary authors of

their selves. As patient *M* notes, she takes pride in her psychical creations, as do we all: "I have a very good sense of the development of it all, you know. I built it. I find the expression of opposites, the belief in both, the knowledge that neither is true, at the same time, strangely comforting, very comforting" (Wells 1997). Our personal stories and pictures cannot be borrowed or appropriated from others; they must be our own.

If this analysis is correct, then there are at least two further implications that warrant mentioning. First, if MPD is in fact fundamentally different from the remaining dissociative disorders in that it permits no single narrative strand, cohesive or otherwise, then amnesia and repression cannot be used to describe MPD symptoms, since these phenomena require a single self there to do the forgetting or repressing. Each independent narrative story has its own memories, interpretation of present events, and future expectations.

The internal life of an MPD patient is a busy one:

> Nothing dies. Parts do go off for a time, but they're always somewhere on the circle. The circle is so large that I can't see the whole thing from any one spot, but it's all there, you know, actually. My position in relation to it changes – that's all. … You can't imagine how beautiful it can be – noisy at times, though. But it's like an incredible, beautiful dance, at its best, with parts popping up, whirring around, sitting down, all in great cadence and intimacy. It can seem overwhelming, but it's highly orchestrated.
>
> (Patient *M*, as quoted in Wells 1997)

It is probably a mistake to describe MPD in terms of other disorders of self or memory, since a body with multiple personalities is qualitatively different from a body with a single identity.

In the process of therapy, when the multiple selves are collapsed into one, much is lost. Under treatment, MPD patients do not regain memories once forgotten or repressed; instead they discard many of their on-going drafts of personhood. The final product may be more cohesive and better constrained by actual events, but it is also narratively smaller. This is not always a good thing, as Chris Costner Sizemore (the Eve of the three faces of Eve) makes clear in her preface to *I'm Eve* as she tries to describe what it is like to be "cured."

> I am frightened, just a little frightened. … Where are they? Where did they go? Before, they have always come when I needed them. I was we; now I am I. "I" is so cold, so alone. Who am I? Where are we? O, my God, is this sanity .. ? … How can something that has always been true become false just because they say it is? But it did become false; even as they were saying it, it became false. And I knew that

> it did. With all my being struggling to hold it, it vanished. My place, my world, my selves – vanished.
>
> They tell me that *I* am real, that I have always been here and been real – the only real one. But how can it be? I knew them, saw them, touch the work they produced, kept the possessions they left, felt their parting agonies. I have notes they wrote in their diaries, paintings …
>
> I was Eve, I know I was Eve – and now I am not Eve. They say I was Eve and that I am still Eve, but she is gone – she left, she died, *they* died. If I were Eve, did I die, too? My mind closes, it shuts it out. Can you die and still live?
>
> (Sizemore & Pittillo 1977, preface).

However, this analysis also means that insofar as conscious experience is connected to and determined by our personal stories, the conscious experiences of patients with MPD differ radically from normals. They are not simply disjoint, but are fundamentally lessened as well. None of the self-narratives in MPD patients taken individually are as rich or complete as a true multiplex one. A multiplex self is different from one of the multiple selves for it (one of the multiple selves) lacks the complexity and subtlety of modern Western life. The hypothesis is that our self-narrative affects how we experience our present life by anchoring it in an interpreted past and tying it to an idealized future. Multiple self-narratives in a single body are each missing important constraining and enriching data and that influences how the various selves experience today. Though taken *en toto*, a multiple self has more to it than a multiplex one, as lived moment by moment, a multiple life is diminished.

Dennett is right: we turn the intentional stance inward, as it were, and direct it toward ourselves, constructing a self-model which aims to capture the world-organizing and action-guiding features of our identities through time. These self-models are the pictures (or a series of pictures) that we have of ourselves, of who we are, how we got there, and where we are going. The self then is actually a self-representation, a particular perspective or point of view regarding our life events that we use to predict, control, and explain ourselves to ourselves and to others.

As I have argued, how we end up representing ourselves depends on accepted community hermeneutic strategies. The larger meaning-bestowing structures, including linguistic, familial, and community relations, embed the "emplotment" of our selves (Bamberg 1991; Palombo 1991; Shoemaker 1991). We are socially constructed to some extent; we build ourselves over time as a community project. We adapt our cultural myths to the particularities of our own lives in order to create emblematic autobiographies that incorporate the vicissitudes and accidents of our day-to-day existence (Polkinghorne 1990). Consequently, our self-narratives are remarkably similar in structure and style (Pillemer et al. 1991).

However, none of these claims implies that we are free to create as we see fit. The world constrains us in how we can author ourselves. And if the constraints fail in some way – either the environment does not respond appropriately to us or we don't listen appropriately to our environment – we run into psychological trouble of all sorts. Our stories are controlled to a significant extent by actual historical fact. Even though we may feel as though we are free agents in authorship, we really aren't. We must "write" what our world dictates.

CHAPTER 8

Life at the borders

Borders are set up to define the places that are safe and unsafe, to distinguish us from them. A border is a dividing line, a narrow strip along a steep edge. A borderland is a vague and undetermined place created by the emotional residue of an unnatural boundary. It is in a constant state of transition. The prohibited and forbidden are its inhabitants. Los atravesados live here: the squint-eyed, the perverse, the queer, the troublesome, the mongrel, the mulatto, the half-breed, the half-dead; in short, those who cross over, pass over, or go through the confines of the "normal."

–Gloria Anzaldüa, *Borderlands*

Then I came to realize that men build themselves personalities as they build houses – to protect themselves from the world. But once they have built a house, they are forced to live in it. They become its prisoners.

–Colin Wilson, *The Outsider*

Like millions of other Americans, I brush my teeth every night before I retire for the evening. If, for some reason, I skip brushing, I feel strange when I climb into bed. Upon these occasions, I have lain awake, exhausted, yet unable to sleep, because I am too aware of feeling my unbrushed teeth. If I am to sleep on those nights, I have to drag myself out of bed and then downstairs, to go stand in my cold bathroom and clean my teeth. At which point all is right with my world and sleep comes easily.

My nightly ritual of teeth-brushing is a deeply ingrained habit, instilled long ago by my hygiene-conscious mother. We all have habits. They help regulate our lives. They help us maintain our groove. Some habits are bigger than others, but they all provide a familiar and comforting rhythm to our days.

My friend Jim lost his dog Little Guy. He used to walk with Little Guy every morning and every night down by the New River. After Little Guy's death, Jim's life was thrown out of balance. "I am such a creature of habit," he lamented, "What am I supposed to do now?".

The bigger habits give us a backdrop for our life stories. Except when trying to give simple examples of habits, I don't talk too much about my teeth-brushing behavior. I don't think about it much either. Even though the habit regulates my behavior fairly

strongly, I can't say I identify with it. I don't think of myself as a Teeth-Brusher in the same way that I think of myself as a Mother or a Philosopher.

But Little Guy's place in Jim's life is quite different. Jim thinks of himself as Little Guy's caretaker and companion. His life stories include stories about his adventures with his dog. When Little Guy died, part of Jim stopped as well, for part of what makes him who he is suddenly ceased to exist.

It is fairly easy to see how it can be that some of our habits become integrated into our selves as we integrate the habits into our life stories, as we make them an important part of how we express who we are. But not all behaviors are like this, obviously. At perhaps the other end of the behavioral spectrum are things like uncontrolled and uncontrollable tics and convulsions. These are behaviors that disrupt our daily routine instead of regimenting it. We work around things like hiccups and seizures instead of working with and through them. They function as obstacles instead of signposts in our lives.

But, contrary to first appearances, from the perspective of life stories, tics, compulsions, and habits exist together. They are all variations on a single cognitive-behavioral theme. This chapter explores how these things are similar, how they affect our self narratives, and finally, what they tell us about self-control and the freedom of our will. Understanding how we "story" behaviors we cannot or do not easily control tells us much about the behaviors we believe we are robustly initiating, and understanding both of these tells us about how much of our personal narratives we actually command.

8.1 Weak wills

The problem of *akrasia* or weakness of the will has a long and venerable history in philosophy. Plato discusses it in *Protagoras* where Socrates argues that no one does wrong deliberately. We only freely choose to do those things that bring the greater good. These themes are echoed in Aristotle as well as in the contemporary writings of Donald Davidson, R.M. Hare and others (Pugmire 1982; Watson 1977; see also Dupuy 1998). If we are behaving against our best interest, then we must somehow be acting unfreely.

Being weak-willed is also a practical problem in most people's lives – just consider how many diets are begun on 1 January and then over by mid-February. It is also a deep philosophical conundrum, as Socrates' denial that it could even exist might suggest. How is it that we can do things, fully aware of what we are doing, when we know, even as we are doing them, that we are not doing what we truly want to do, all things considered? How is it that we can act against our own better judgment?

Having a weak will is quite odd, for not only are we behaving irrationally when we do X anyway, even though refraining from doing X is in our best interest, but we are behaving irrationally from our own point of view. We can judge ourselves as being irrational as we are performing the action. We reach for that last piece of pie, even though we know full well that eating it will give us heartburn, that we are supposed to be consuming fewer calories, that we don't even like pumpkin pie all that much anyway. But still, we go ahead and eat the dessert. How exactly are we supposed to explain our actions?

Myles Brand (1984) and Alfred Mele (1987, 1998) both point out that an important ingredient in understanding human action and behavior is motivation. We can at times see quite clearly a particular course of action and even recognize that it would be a good thing for us to do, but if we aren't motivated to do this thing, then we likely don't. If we could understand human motivation, then perhaps we might be able to understand how it is we can do irrational things. Or, more pointedly, if we could understand what it was about some desires that made them irresistible, then we could understand how we could deliberately chose to do things that we are all too aware are not in our best interest.

Amelie Rorty (1980a, 1980b) suggests three ways in which other aspects of our psychology shape human motivation. First, our attention might be drawn to aspects of the akratic action at the expense of the more "rational" behavior. The rich visual yumminess of the pie might shut out or damp down the more removed and abstract thought that each slice contains over 1,500 calories. Second, habits of thought and behavior might prevent one from weighing fully each possible alternative. If we generally eat two helpings of dessert each night, then we might again, even if tonight the dessert already is twice as much as it normally is. Third, social pressures of various sorts may make certain options more attractive. If everyone else is taking a second piece and presumes you are going to as well, then it might be more difficult for you to act against that expectation.[1] We just go with the emotional, cognitive, or social flow.

To put her points in another way: irrational behavior might be irrational per se, but still nonetheless make intelligible sense when considered in the context of whatever else we are thinking about and feeling. Rarely do we take the time (or do we have the time) to abstract ourselves from our particular situation and evaluate our actions all-things-considered. We are always and already deciding what to do next, where to go from here (see also Bach 1998). We have to be, if we want to get on with the business of daily life. Pure rationality has always been a philosopher's pipe dream anyway.

We find certain experiences more attractive than others by nature, because of what we are paying attention to at the moment, because of what has occurred in our past, or because of what others around us are doing. If we are focused on that

attractiveness, then we are much more inclined to do something that brings about those experiences. Behaving thusly gives us a short-handed heuristic for getting around in the world. We are moved to act in certain ways because our psychologies winnow choices for us, before we have a chance to analyze them fully and "rationally."

This approach to the problem of so-called weak wills highlights what I have already argued in this book, that we can't understand human thought and behavior without appreciating how our emotions are coupled with our thoughts. Emotion is a biological highlighter that lets us choose certain objects and activities over others (and over none at all). Sometimes these choices – even though well highlighted – are not wise.

8.2 Addictions

To understand how emotions can highlight certain behaviors even when it is to the overall detriment of the individual, it is best to look to cases in which our emotional highlighting system breaks down. Perhaps the clearest and cleanest examples come from cases of addiction.

I choose to discuss addiction not because it is well-understood – it isn't – but because it is so common. It is difficult to find some life today that has not been touched in some way by addiction. Yet, both for those who know addicts and for those addicted, the magical pull of the addiction can seem mysterious, frustrating, completely irrational and self-destructive. And still, at the same time, completely overwhelming.

Let me begin with a brief and admittedly selective overview of what we do know about brain chemistry and addiction. In short, addictive substances like ethanol, the opioids, various stimulants, and nicotine, "commandeer" the brain circuits tied to personal motivation; they commandeer one of our affective tagging systems. These alterations in brain chemistry promote the formation of deeply ingrained and highly emotional memories (Institute of Medicine 1997, p. 38). As a result, we get people who simultaneously crave the addictive substance and are highly motivated to seek it. This is, quite simply, a recipe for personal disaster.

Since the 1950s, when research in rats first showed that we have discrete areas in the brain keyed to significant stimuli or behaviors (Olds & Milner 1954), we have learned a lot about the structure and function of these areas. We originally characterized these circuits as "pleasure centers" in the brain, but probably more apt descriptions are of reward centers. When these areas light up or become flooded with the neurotransmitter dopamine, our brains pay significant attention to certain events. These events include not only those things

we find pleasurable, like consuming food or having sex, but also those things that predict personal rewards, like smelling dinner cooking or seeing one's lover. Highlighting these events as important allows us to recognize and repeat them (cf., Wickelgren 1997).

But regardless of whether our dopaminergic systems are tied to pleasure or to attention, they go into overdrive when we anticipate or experience especially salient events. In addition, the specific reward circuit indicted in promoting pleasurable activities, the pathway running from the nucleus accumbens (NAc) to the ventral tegmental area (VTA), is sensitive to the substances of addiction (Cooper et al. 1996) (cf., Figure 8.1). Each addictive substance works on this circuit in a different way. While cocaine directly affects dopamine production, for example, ethanol facilitates our GABA-receptors, which then disinhibit dopamine release in the NAc-VTA stream (Tabakoff & Hoffman 1996). In contrast, methamphetamines affect dopamine transportation (Volkow 2003).

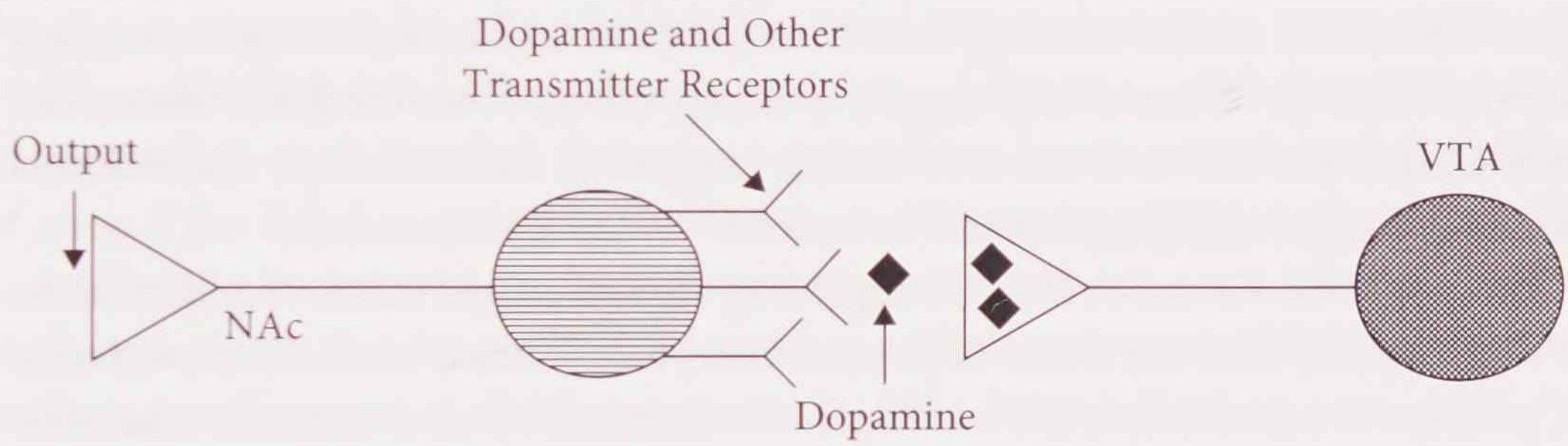


Figure 8.1 A cartoon of our brain's reward circuit, which runs from the nucleus accumbens (NAc) to the ventral tegmental area (VTA).

More importantly for our purposes, the NAc-VTA pathway is directly tied to the circuits that underwrite our memories. Hence, drugs of abuse indirectly commandeer the circuits that create and maintain our emotionally-laden thoughts (Koob 1996). As is now commonly known, memories of especially salient events are likely to be more vivid, more emotional, and more easily triggered. When addicts return to the sights and sounds of where they typically used, the memory of what they did can literally flood their brains.

It is this connection to emotions and memory that makes addiction so confounding and makes the all-too-popular disease model of addiction inappropriate. First articulated by E.M. Jellinek in 1960, the disease model claims that addiction is a "genetically based progressive disease that results in the inability to control one's consumption of [some substance]" (Singer 1997, p. 10; see also Jellinek 1960, 1962; Levine 1978; Wallace 1982). Once it reaches an advanced stage, victims are no longer able to regulate their own addictive behaviors. If not treated and treated aggressively, victims will continue to indulge until their eventual death.

It would be nice if addiction were a straightforward bodily affliction, something akin to heart disease or diabetes. In these cases, after diagnosis of the chronic condition, and in addition perhaps to prescribing some medication or operating, doctors recommend that the patients alter their lifestyles to help prevent further decline. Sometimes patients find these suggestions difficult to follow, especially if they have been leading unhealthy lifestyles for many decades. Still, with practice and encouragement, most manage to shift what they do to promote their own health.

We feel comfortable assigning patients responsibility for the progress of their diseases. We expect people to be able to control their behaviors such that they at least do not encourage further decline. My reading of AA and other assorted addiction treatment programs is that they try to place addictions into this sort of disease model: Addiction is like heart disease of the brain. With enough encouragement and support, addicts should be able to alter their behavior to halt their own decline. Indeed, by attending meetings, recognizing their powerlessness in the face of their addiction, and by turning their lives over to a higher authority, recovering addicts can emerge better, stronger, and personally more successful than before. And if they can't, well, like severe heart disease triggering defibrillation, the sickness was simply too far along for anyone to control.

There is some neural evidence suggesting that we might think of addiction in this way. Addicts have far fewer dopamine receptors in their brains than normals and, perhaps as a result, they are no longer as influenced by what normals take to be salient events (food, sex, and so forth), though they are more influenced by their drugs of choice. They also have altered glucose metabolism, especially in prefrontal cortex and temporal areas. (Interestingly, and relevant later in this chapter, we see the same sorts of brain alterations in patients with Obsessive-Compulsive Disorder (Volkow 2003).)

However, time and again, the facts weigh against such easy comparisons. All too often, we try to assign people "responsibility" for their behaviors regarding their addictions and are as a result bitterly disappointed. All you have to do, we say, is stop drinking or stop smoking or stop injecting or whatever. How hard can that be? We don't believe addicted people are ga-ga. We see them performing responsibly in all other aspects of their lives. Excepting their addiction, they appear competent, sane, and in control. Why can't they manage to regulate their addictive behaviors as well?

I have a friend Joe who has a serious addiction to alcohol. I've asked him to describe the phenomenology of drinking or wanting to drink. Although otherwise extremely articulate and self-aware, he can't really. He will say that he will be driving home from work and then just suddenly find himself in a Seven-Eleven buying beer. I wonder: but even if he finds himself standing in a Seven-Eleven

buying beer, why drink it? Drinking has cost Joe his marriage; it's seriously affected his relationships with his children and his friends; it's impinged on his job. With all this evidence that drinking is not a good idea, even if he does wind up with a drink in his hand out of some sort of weird unbreakable habit, why not stop as soon as he realizes what he is doing? Why not react with the same horror that the rest of us do when we discover that he is drinking yet again? He doesn't have a good answer at this point. A long uncomfortable silence followed by an "I don't know" is about as good as it gets. Most of us have had or will probably experience similar exchanges at some point in our lives, either with an addicted friend or with ourselves.

It is here that simple brain-based explanations of addiction, habit, and controlled behavior break down (see also Fingarette 1988; Pele 1989; Singer 1997; and Thombs 1994 for different arguments for the same conclusion). Along many dimensions, addiction goes way beyond simple cravings and the NAc-VTA reward circuit. Smokers can fly across the Atlantic without needing to light up, even though they cannot normally go eight to ten hours without smoking. Patients who receive morphine in a hospital and feel withdrawal upon release will not also crave the drug unless they already understand the cause of their symptoms. Most alcoholics won't drink if there is an immediate heavy price to pay for doing so, even if the drink is sitting in front of them (Fingarette 1988). And yet over 75% of addicted patients who go through an inpatient rehab program relapse within their first year out, and no method for treating addiction appears to be more successful than no treatment at all (Ouimette et al. 1997). Why is this?

Addiction is not a purely natural phenomenon. There are no cases of animal addiction occurring in the wild, even among the higher primates. It requires our peculiar emotional/cognitive constructions and our peculiar social milieu in order to exist. Even then, addictions and addictive behaviors vary widely across cultures and across time. Bulimia was unheard of in the 19th century; it is still unheard of outside the West.

We and we alone are the sorts of creatures who become spontaneously addicted to things. What sets us apart? The connection between our motivational system and emotionally tainted memories holds the key – the same memories and feelings we use to create our selves. Something turns off the normal horror reactions to self-destructive behavior if one is caught in a cycle of addiction. An AA recovery assumes that addicts are motivated to stop using, that they are willing and able to share their life stories with a room full of people, and that being sober is better for the addict than using. None of these assumptions may be true.

Addictive behaviors seem very normal for the addict; they also give the addict a sense of regularity and organization about life. In a word, addiction is a habit. Apart from the cravings and the physical dependence, addicts also have integrated their drug-taking behaviors deeply into their lives and their life stories.

8.3 Addiction as a life-habit

Is addiction really like me brushing my teeth before bed? Is addiction really just a habit, a device to regulate our behaviors, writ large? The answer is a strong yes, as long as we keep in mind how habits function in our lives. Some habits are simple things like picking our toes or cracking our knuckles, and they don't serve any larger purposes. We do these things because they feel momentarily good or they relieve a momentary urge, but we do them for the most part automatically and we see those behaviors as largely inconsequential. Other habits we use to define our very being. We do these things because they express who we are fundamentally. They might feel good as we do them, but they do much more than scratch a momentary itch. Because we've highlighted them as so important, they give us a way to define ourselves, to explain ourselves to others, to locate ourselves in our social and cultural environment. Through their emotional significance, they provide the psychological framing for each of us to live a daily life.

Addictions are such life-defining habits, habits perhaps encouraged and underlined by particular brain chemistries, but habits nonetheless. Chronic addicts don't stop their addictive behaviors because to do so would mean that a significant part of who they are would cease to be. It would mean that they could no longer be who they are. Genuine addictions tap into and feed off of the basic scaffolding of our psychologies. Addicts can't stop because they can't genuinely imagine their lives – their particular lives – without the addiction. To stop means to become someone else, someone unknown. And for most of us, that is a scary thought.

One of the puzzles in brain studies of addiction is that normal subjects experience the same neural reinforcements as addicts do when they take drugs of abuse. What is it that separates the addict from a causal user? It can't be differences in D2 receptors or prefrontal glucose metabolism, for those changes occur only *after* the addiction is established. Something has to be going on to make an addict before the brain is permanently affected. I hypothesize that that something is how addicts weave their stories of substance use and abuse into their own narratives.

Here is Doug's narrative of addiction. He was a man who, by any traditional standards, had been immensely successful in his life. He was a self-made millionaire, had friends, a wife, and a child. And yet, he can't think of himself as someone existing apart from drinking.

> There was a time when alcohol was fun, and I did have fun with it. And there was time that it did me well, and now it doesn't, but it still has a very important part in my life, and it still, I'm not afraid of it, I'm not ready today to say that I'm going to stop either, even with … [the most recent suicide attempt]. I mean the Theme is that what you may call consequences, I just call them part of my story, part of my life

> as an alcoholic. And me being here is part of the story and I don't know where it's going to go and where it's going to end, and I'm not afraid to die, I'm not afraid of it, I'm not afraid. I used to think, maybe you have too much fun, you have it all at once, then it's all over with, that's the way it was for me. I lived my life the way I should … Before all this happened, I was going to meetings, and doing all that stuff, so that's not the answer. I mean drinking is just so much a part of my life and now that it's different, it doesn't make it any less a part of my life. And when I get depressed and that anger comes, all that anger inside of me that I have had all those years, it still works to take a drink for me to get rid of it.
>
> (as quoted in Singer 1997, p. 147)

We can see the same themes echoed in the story told by Clark, a chronic alcoholic who lives on the street, who has never had very much in terms of money, responsibility, or fellowship:

> Using alcohol has been my personality. Taking it away is like taking away my personality, 'cause I have always conducted myself behind drinking. … When it's raining out, get under an umbrella. Whenever I had anxiety or fear, I would go out and get a drink and that would be my umbrella. I call the regular people out there earth people. They're on the earth and living off the earth. I'm on some far-off land drinking and hiding. I'm not an earth person. …
>
> (as quoted in Singer 1997, p. 256)

In a nutshell, the problem for addicts isn't abusing a substance; it is sobriety itself. Some addicts can re-invent themselves as someone recovering or someone sober. These individuals manufacture entirely new life stories, but some, many, cannot. Becoming someone else is hard to do, and most of us simply can't do it. We can't do it in particular when we feel no kinship with the world of recovery or the world of sobriety, the worlds in which the rest of us inhabit. Clark, for example, doesn't know how to live a life without alcohol:

> I feel, without alcohol, my life is empty. You know, I feel empty. … I'd wake up in the morning to a bowl of cereal. I'd make my bed. I'd take a shave and shower. I'd look over at the clock and it's twenty after seven in the morning. So I'd get dressed and I'd go get a paper and I'd read the paper from page one to the end and, look up at the clock, it's ten minutes to nine. I had nothing to do. It lasted three weeks. Then one Saturday, I said I gotta get a drink. I gotta do something and I did and I drank for a year and four months….
>
> (as quoted in Singer 1997, pp. 255–258)

Jon Elster (1999) talks about the lure of addiction in terms of a belief trap. If the costs associated with testing the veracity of a belief is assumed to be too high, then that belief will simply be accepted without test. Addicts believe that the costs of staying sober are too high; therefore, they never seriously test the prospect. We can compare his analysis with Gerry Mackie's discussion of the practice of female genital mutilation:

> The Bambara of Mali believe that the clitoris will kill a man if it comes in contact with the penis during intercourse. In Nigeria, some groups believe that if a baby's head touches the clitoris during delivery, the baby will die.
>
> (1996, p. 1009, as quoted in Elster 1999, p. 147)

Mackie calls these beliefs "self-enforcing beliefs," that is, "a belief that cannot be revised, because the believed costs of testing the belief are too high"(1996, p. 1009, as quoted in Elster 1999, p. 147). Elster thinks that addicts, lost in the haze of their addiction, see being sober as too scary an option. The personal risks associated with being sober are too great.

I think that this is only part of the story, however. Addicts might be afraid to be sober; it is true. They cling to their memories of what their pet substance did to their personalities and are unwilling to give up the chance at keeping those traits. So, for example, as Doug explains:

> I was a very shy, withdrawn person and when I started to drink, that changed. It seemed like I belonged to the world all of a sudden. I became a part of what was going on, and that was, it was like black and white for me. From that point before, being the skinny little runt of a kid with crew cut haircuts, and not really having a lot of luck with girls and even with men relationships, and all of a sudden being the camp clown when I drank, and being very outgoing, and willing to take any kind of risk, and being one of the crowd for a change, instead of being a geek.
>
> (as quoted in Singer 1997, p. 134)

Clark concurs with these sentiments:

> When I drank a couple quarts of beer, or a half pint of vodka, that was not drunk, but that was just not feeling normal either. … I just knew I somehow had to get out of the way I was feeling at the time. That was the priority over anything. … I was uncertain about everything, from going out on dates to job interviews. And alcohol provided me with, not gumption, but it provided me with a little backbone.
>
> (as quoted in Singer 1997, pp. 255–256)

Certainly we can understand how hard it might be to give up all confidence and to go back to being the geeky, unpopular runt with perpetual bad hair. Those enamored with brain-based explanations of addiction are quick to point out that understanding the dopamine circuits as aids to learning (instead of as pleasure producers) explains why addicts will continue to use even though they are no longer getting any sort of pleasure in the activity.[2] Addicts' brains highlight as salient the events that lead to their getting to use. Their brains also recall in vivid Technicolor detail what using does for them, or did them, at any rate. The alternative – not using and not feeling as they remember feeling – seems too awful to contemplate. Couple these facts with decreased activity in the cortical areas and the concomitant increased impulsivity and you get uncontrolled addictive behaviors.

My plaint is that these explanations don't go far enough. They don't explain why, even when sober, even when the addicts can experience for themselves the alleged advantages to recovering from their addiction, even when they go out of their way to avoid any triggering stimuli, even when they consciously believe that using does them no good any more, they will still use.

Addicts use because they define themselves as Addict. They regulate their lives in terms of their addictive behaviors. Addiction provides the background for their life stories, the stories they use to create their sense of self. Addicts remain addicted because they don't know, in a profound and fundamental way, how else to be. They cannot conceptually and emotionally bridge the internal gap between seeing oneself as a user and seeing oneself as not a user. Just as I cannot envision my life, *my* life, without my children, they cannot envision their lives without their addictions. And unless and until they can, they will remain caught in the cycle of addiction.

8.4 Self-control

What does addiction teach us about weak wills, habits, and self-control? And what do these things tell us about our own personal narratives?

First, habits are not simply the "narrowing of our cognitive horizons," as Jon Elster puts it. In fact, they don't restrict our contemplating rich alternatives at all. Habits are fundamentally regulatory devices for our psyches. We need them to get through our day as humans. We use them to explain ourselves, to justify ourselves, to create ourselves, to behave ourselves.

Second, our so-called wills and methods of control are subservient to our habits. Meaningful behaviors spring in a deep way from our selves. As I have already discussed, our actions are those actions of the creatures we understand ourselves to be. And who we understand our selves to be is highly emotionally driven. We are who we feel ourselves to be. To understand and appreciate how and why addicts act as they do, we need to understand first how they mentally place ourselves in their environment, how they think of themselves as relating to others, and how they have storied their life events. In short: in order to understand human addictive behavior, we have to understand it as human first.

8.5 Tourette's syndrome and other assorted tics

Now, if we look to other extremes of biologically highlighted and apparently uncontrolled behavior, we end up looking at things like tics and compulsions. Probably the most extreme sort of repetitive tics are found in Tourette's syndrome. People with Tourette's repeat fragments of otherwise normal motor or vocal behaviors over and over again. These fragments range from a very simple motor

twitch to complex and seemingly purposive behavior (cf. Figure 8.2) (Leckman et al. 1999). Deeply encoded thoughts and behaviors erupt into consciousness that aren't normally in consciousness, things like sexual fantasies, cleaning, checking, doing, undoing, as well as the tiny sensations we all have that signal a need for action, but are normally below threshold.

What is interesting about Tourette's syndrome for our purposes is that particular mental states are associated with even the most basic of motor tics. Generally speaking, Touretters feel an explicit urge to perform some behavior, as well as feel conflicted over whether they should give into the urge, and they experience a deep sense of relief when the tic is finally performed. As Bliss explains:

> There is really no adequate description of the sensations that signal the onset of the actions. The first one seems irresistible, calling for an almost inevitable response.... Tourette's syndrome movements are intentional body movements....The end of a Tourette's syndrome is the "feel" at the terminal site of the movement, a feel that is frequently accompanied by a fleeting and incomplete sense of relief.
>
> (1980, p. 1334)

From the patients' point of view, the tics are theirs; they did them. A vast majority of tiquers report that their tics are wholly or partially voluntary in character (Leckman et al. 1993). Abe, a Tourette's patient, describes the experience as being locked in an internal "bullfight" with himself: "One of the bulls is my mind and the other bull is the body. They are charging each other with their horns, inside my mind. I can see them banging against each other, and I am both of them. They keep attaching until they get caught in each other, their horns are locked. And then I can stop" (as quoted in Cohen & Leckman 1999, p. 12).

Yet at the same time, we can clearly see that the tics, or at least the urges to perform them, are not under the patients' control. They are easily triggered by external events. Tourette patients quite often copy the behavior and speech of others (and themselves) in their tics. In a very real sense, Touretters' thoughts and actions are alien. Their selves are described as being "under siege from forces within and yet out of [their] own sphere of autonomy" (Cohen & Leckman 1999, p. 17).

The symptoms of Tourette's in many ways resemble the symptoms of Obsessive-Compulsive Disorder. In both cases, the abnormal behavior appears to be triggered by particular sights or sounds. In both cases, the patients are easily distracted and distressed by unusual stimuli, like the tags in new clothing. OCD patients have to repeat things over and over, like arranging their books or cleaning their walls, until they get it just right, until they execute the action perfectly. When they do that, then their need to arrange or clean or count or check is momentarily fulfilled. These experiences, too, resemble how Touretters describe their world.

Tic Symptoms	Examples
Simple Motor Tics (sudden, brief, meaningless movements)	Abdominal tensing Arm jerks Eye blinking Eye movements Finger movements Grimacing Head jerks Jaw snaps Kicks Mouth movements Nose twitching Pouting Rapid jerking of any body part Shoulder shrugs Tooth clicking
Complex Motor Tics (slower, longer, more purposeful movements)	Banging Biting Copropraxia (obscene gestures) Dystonic postures Facial gestures Gyrating or bending Hand gestures Sustained looks Throwing Thrusting arms Touching objects or self
Simple Phonetic Tics (sudden, meaningless sounds or noises)	Barking Clacking Coughing Grunting Gurgling Hissing Screeching Sniffling Spitting Sucking Throat clearing
Complex Phonetic Tics (sudden, meaningful utterances)	Accents or Tone Coprolalia (obscene words) Echolalia Phrases Statements Syllables Words

Figure 8.2 Examples of simple and complex tics (derived from Leckman et al. 1999).

Here is one man's description of what it is like to have lived with OCD:

> I cannot really describe the torturous pain of the anxiety brought on by an Obsessive-Compulsive Disorder attack.... My symptoms were typical of obsessive-compulsives. I would check the gas oven and door locks, sometimes 20 times before I could go to bed at night. I would worry about poisoning myself and others with insecticides or cleaning fluids I may have touched. I would drive home from work, thinking that I left the light on in my office and drive all the way back to see if it was off: "It could start a fire." Sometimes I did this more than once in a day.... Each obsessive incident was accompanied by the fantasy that if I *didn't* act on it, something terrible would happen to me or someone else.... Making *sure* these outcomes would not occur drives my compulsive behaviors.
>
> (as quoted in Rapoport 1989, pp. 27–29)

From this description, it is clear that he believes that his desire to control his anxiety causes his bizarre behaviors. He feels as though he is acting voluntarily. In this way, the OCD patient sounds just like the Tourette's patient. Both the compulsive behaviors in OCD and the tics in Tourette's syndrome are preceded by the strong feeling that something is not right. In both cases, it feels increasingly unpleasant if patients suppress their behavior voluntarily. Tensions mount until they perform their action, at which point they both feel a sense of relief, satisfaction, and completion. In both cases, though, the reprieve does not last long; the sensation that things aren't right returns and the cycle begins again.

In fact, OCD is common in people with Tourette's (King et al. 1999). As we can see from comparing Figure 8.2 with Figure 8.4, the list of what counts as a tic in Tourette's syndrome fades into what counts as a compulsion in OCD. It is not clear where a simple compulsion leaves off and a complex tic begins. Perhaps we can think of OCD's compulsive behaviors as a sort of mental tic. As one 35-year old OCD and Tourette's patient describes it: "The urge to tic is a release of a buildup of physical energy; the compulsive urge is a buildup of emotional energy" (reported in Leckman et al. 1994, p. 678).

What interests me about both OCD and Tourette's are the patients' introspective reports regarding what it feels like to have a compulsion to behave in a particular way. From a first person point of view, the behaviors feel more like habits than anything else. My teeth-brushing seems just a very mild version of what OCD patients experience when they feel the need to wash or count or check and what Tourette patients experience before they tic. In all cases, we feel the need to scratch some internal itch and we are uncomfortable until we do.

Through their internal emotional significance, these feelings, these needs to act in a certain way, regulate our waking lives. They tell us what to do, when to do it, and then we in turn make them part of who we are, reinforcing their control over

Obsessions

Aggressive Obsessions (commonly associated with Tourette's Syndrome)	Fear might harm others. Fear might harm self. Fear of blurting out obscenities or insults. Fear will act to unwanted impulses. Fear will be responsible for something else terrible happening. Fear will harm others because not careful enough. Fear will steal things. Violent or horrific images.
Contamination Obsessions (not commonly associated with Tourette's Syndrome)	Bothered by sticky substances or residues. Concerned will get ill because of contaminant. Concerned will get others ill by spreading contaminent. Concerns or disgust with bodily waste or secretions. Concerns with dirt or germs. Excessive concern with environmental contaminants. Excessive concerns with animals. Excessive concerns with household items.
Sexual Obsessions (commonly associated with Tourette's Syndrome)	Content involves children or incest. Forbidden or aggressive sexual thoughts, images, or impulses.
Somatic Obsessions (may not be associated with Obsessive-Compulsive Disorder)	Concern with illness or disease. Excessive concern with body part or aspect of appearance.
Symmetry Obsessions (commonly associated with Tourette's Syndrome)	Accompanied by magical thinking. Not accompanied by magical thinking.
Other Obsessions (may or may not be associated with Obsessive-Compulsive Disorder or Tourette's Syndrome)	Colors with special significance. Concerned with need to collect or hoard items. Concerned with sacrilege or blasphemy. Fear of losing things. Fear of not saying just the right thing. Fear or saying certain things. Intrusive (nonviolent) images. Intrusive nonsense sounds, words, or music. Loss or injury to significant attachment figures. Lucky/unlucky numbers. Need to know or remember.

Figure 8.3 *DSM-IV* diagnostic criteria for Obsessive-Compulsive Disorder (from the American Psychiatric Association, 1994).

Compulsions

Checking Compulsions	Check that did not or will not harm others. Checking locks, stove, appliances, etc. Checking that did not make mistake. Checking that did not or will not harm self. Checking that nothing terrible did or will happen. Checking tied to somatic obsession.
Cleaning/Washing Compulsions (not commonly associated with Tourette's Syndrome)	Cleaning of household items or other inanimate objects. Excessive or ritualized handwashing. Excessive or ritualized showering, bathing, toothbrushing, grooming, or toilet routine. Other measures to prevent or remove contact with contaminants.
Repeating Rituals (commonly associated with Tourette's Syndrome)	Need to repeat routine activities. Re-reading or re-writing.
Other Compulsions (may or may not be associated with Obsessive-Compulsive Disorder or Tourette's Syndrome)	Arranging closets, rooms, cabinets, or other items in excessive or idiosyncratic manner. Excessive list making. Hoarding items of monetary or sentimental value. Measures to prevent harm. Mental rituals. Need to tell, ask, or confess. Need to touch, tap, or rub. Repeating actions or counting items in special sets.
	Ritualized eating behaviors. Rituals involving blinking or staring. Superstitious behaviors. Symmetrical or counted touching or tapping. Trichotillomania, skin or scab picking.

Figure 8.4 Examples of obsessions and compulsions (derived from King et al. 1999).

our lives. Psychologists and psychiatrists believe that obsessions and compulsions might reflect fragments of biopsychological behaviors that we normally engage in to maintain a secure environment. Obsessions and compulsions are simply life habits that have, for whatever reason, gotten out of control. They are like a needle being stuck in some psychological LP recording – they keep getting played over and over without reprieve. Regardless, we use obsessions, compulsions, and habits to order how we live our lives. It would be difficult, if not impossible, to live a human life without them.

Notice too the incongruity between the first person reports and how it seems to those on the outside. From the internal perspective, the behaviors feel under

conscious control, but from an external point of view, they seem just as clearly beyond the ability of the agents to control, or least beyond their ability to control very much. I get up and go clean my teeth at night, regardless of tired I am, regardless of whether I actually want to. Jim walked his dog, regardless of whether there was sun, rain, driving snow, or hail, regardless of whether Little Guy would have been just fine being let out by himself. Touretters tic, regardless of whether they get stared at or offend people. And people with OCD will wash, regardless of whether their skin is already rubbed raw.

I do not wish to adjudicate the dispute between internal and external perspectives in any detail. It suffices to say that introspective alone is not the best avenue to discerning the actual mechanisms driving action, though neither are purely so-called objective measures of behavior. For we can all control these behaviors up to a point. I may not like going to bed with dirty teeth, but I can do it. Jim has found replacements for his twice-daily walks. Surgeons with Tourette's can spend several hours in an operating theater without tiquing. Patients with OCD can often find work-arounds that get them out of performing their nearly endless routines. (In one particularly striking case, a graduate student who felt compelled to clean his apartment for hours on end took to living on a park bench so that he could get his studies done. As long as he wasn't in the apartment, then his need to clean wasn't triggered.) Addicts too won't use if they have a compelling and immediate reason not to. The truth is surely more complicated than either perspective allows.

At the same time, it is safe to say that self-control is at least partially illusory. We can see in the similarities among OCD, Tourette's syndrome, addiction, habits, and the philosophical analyses of akrasia that our feelings both motivate and justify our behavior. We use our sense of relief or satiation or whatever to justify later what we did, but that is a reading back onto our behavior. It is our habits of behavior that structure our daily lives. We use them as borders to hang our other actions and interpretations in and around. Sometimes, we use them as defining features in our life narratives themselves.

The not-too-surprising point is that lots of what we do really isn't under our immediate and rational control. Instead, we live at the mercy and whims of our feelings. Most of the time this is okay; it gives us a short-handed way of getting around in the world. It is only when these heuristics push us too far that our illusions of rationality and control disappear, that our lives and our stories about our lives become unhealthy, that we are forced to live in the psychological house our feelings have built for us. We really aren't as in charge of ourselves and our life stories as we would perhaps like to think.

CHAPTER 9

Death, violence, and the myth of autonomy

> *A dialogue preserves the differences but creates a zone in which one and others coexist and interweave. Dialogue excludes ultimatums and renounces the absolute and its despotic pretensions of totality: We are relative and what we say and hear is relative. But this relativism is not a negation: For a dialogue to be effective we have to affirm what we are and, simultaneously, recognize the other in his or her irreducible differences. Dialogue forbids us to negate ourselves and to negate the humanity of our adversary. Marcus Aurelius spent most of his life on a horse making war against Rome's foes. He knew of fighting not of hatred, and left us these words about which we should continuously meditate: "From the very time in which the sun breaks into the day I tell to myself: 'I will meet an indiscreet, an ingrate, a mean or a violent man. I know his nature: He is from my race, not because of blood or family but because the two of us partake in reason and the two are parcels of divinity. We were born to collaborate like the feet and the hands, the eyes and the eyelids, the upper and the lower teeth.'" Dialogue is but one of the forms of cosmic empathy, perhaps the highest one.*
>
> –Translated from Octavio Paz, Pequeña Crónica de Grandes Días

I have spent some time arguing that we are really not in rational control of ourselves, of our thoughts, or perhaps even of our behavior in ways that we might normally assume. Who we are, how we behave, how we define ourselves, and what we identify with can be affected and modified by our unconscious and it can be straight jacketed by our other physical and mental attributes. We exist as the people we are only by being embedded in a social environment that constrains, corrects, and, to a large extent, controls our self narratives. That is, I have spent some time explaining how it is humans are not free be whatever it is they want to be.

At the same time, one of the fundamental assumptions underlying modern Western society – if not *the* fundamental assumption – is that people are in fact autonomous. We believe that most people can reflect critically upon themselves and then use that critical reflection to change their values, their behavior, their beliefs, or their intellectual commitments, if they want to. The self that our liberal traditions assume to

exist is rational, reflective, individualistic, and free. Many of the ruminations in the last several chapters have challenged this traditional assumption in one way or another.

Of course, this assumption has not gone unchallenged by many others as well, particularly those who believe that such a view of the self denigrates people who strongly identify with community or who are not interested in rational self-reflection (see, for example, Sandel 1998). I am interested in such criticisms, though not from the usual critical theorist, post-modern, or feminist perspectives. I am interested in what the narrative view of self I have been exploring in the previous chapters can tell us about how our liberal view of autonomy does, can, and should function in our lives, especially in our scientific lives. That is, if what I have said is true, what effect might this have on how we do science of the mind/brain?

As I shall discuss in this final chapter, I believe these essentially political values have infected hypothesis construction in the mind/brain sciences. In particular, the larger theoretical frameworks regarding self into which brain data become integrated assume individual autonomy. And this, I believe, is so much the worse for science.

Psychologists and neurologists would do well to pay attention to what we know about the self, its underpinnings, and its development. They of all people should know better than to assume a particular view of human nature with out adequate supporting data. This chapter gives two examples in which theory does not take into account basic facts about self-construction but instead blithely accepts personal autonomy as foundational.

I choose these examples because they tie into principles and results that connect deeply with how most of us will live our lives. Understanding the self as a developing narrative is more than simply an academic exercise; it has real implications for real people – probably more than we care to realize.

9.1 The assumption of autonomy

First, though, let me give some indication of how thorough our cultural commitment is to the value of autonomy. Here are some easy examples of what I mean.

1. Our court systems and systems of punishment/reform are predicated on the idea that each of us is free to decide how to behave. We hold people responsible for the acts they commit (*modulo* obvious external coercion). That is, we believe that each of us could do otherwise, if we so choose, and that our decisions to act as we do are decisions entirely of our own making. If any of us choose poorly, then punishment accrues only to those who do so. We do acts individually, with forethought, and with the ability to have done something else. It is our ability to reason about ourselves and about our circumstances that permits us to assign individual responsibility for behavior and to expect corrections with the proper motivation. Because we believe we are autonomous, we conclude that we are each personally responsible for our actions.

2. We assign rights and liberties to people based on their ability to reason and reflect about themselves. We see this fact especially clearly in the medical arenas, where debates over informed consent loom large. We think that we can consent to medical procedures or experiments only when we fully appreciate the risks we are undertaking and decide to go ahead anyway. Recent cases in the public eye concern whether people with schizophrenia or other mental disabilities are fully able to understand what might happen if they undergo an experimental trial. These cases have come to light as patients with documented mental illnesses have died while undergoing experimental therapy. Indeed, whether any volunteers have genuine understanding is becoming an increasing concern with all cases of informed consent. Doctors are alleged to bury statements of risk in techno-jargon and small print, while at the same time playing on the unrealistic hopes for a cure by the desperately ill. These debates presume autonomy and then ask how much we have and under what conditions.

3. We argue about whether animals might also judge themselves or their keepers as we judge others. Perhaps chimpanzees understand that they are being held in captivity and, some believe, that is one reason why they should not be confined. If animals are able to think about their predicament and wish that it were otherwise, then, perhaps, they deserve the same rights, liberties, and considerations that we give to our fellow humans. These discussions turn on how much other animals resemble us with respect to autonomy and in what ways.

4. We believe that someone is mentally incompetent if he or she cannot reason clearly and, when this happens, we believe that it is okay to substitute someone else's judgment for that person's when making life-determining decisions. Alzheimer's patients progressively lose their rights to independent decision-making as the disease takes away more and more of their abilities to engage in higher-ordered reasoning. To forestall what is seen as a horrible loss, they can use advance directives to substitute their own presumably competent judgment now for when they become mentally incompetent later. Worries about how to treat Alzheimer's patients concern what we view as a tragedy – the gradual erosion of autonomy.

5. We react in horror when we hear of women wearing Burkhas in Afghanistan, for we believe the cultural traditions underlying women covering their faces and bodies in public do not respect women's fundamental capacity for autonomy. We believe, for example, that the Taliban wrongly views women as less than human because its conservative traditions deny women the ability to choose who and what to be. We simply refuse to accept that some women might very well choose to cover themselves with Burkhas and to submit to what are in our view degrading traditional practices. No one in her right mind would choose not to be autonomous, we think.

6. We have similar reactions when we hear of female genital mutilation. Our very name for the practice connotes our feeling on the matter. We believe children

haven't developed enough intellectually or emotionally to be able to reflect upon whom they are and what they want to become. Hence, young girls just hitting puberty wouldn't be able to choose freely in any meaningful sense of the term to have their sexual organs sliced away. The concern is that girls are not yet autonomous.

We agitate for minority rights, for welfare-to-work programs, for mass education, because we believe that inside each of us is an autonomous agent, and that we as a society have an obligation to foster that agent, to help it emerge, to channel and develop it properly, and to set conditions so that if and when we do decide to change somehow, we have the resources available at our disposal to do so. We think that each of us should be autonomous and that if for some reason we happen not to be, then that fact justifies some sort of paternalistic intervention.

In each of these examples, the guiding assumption is that under normal circumstances human adults are autonomous and that that is a good thing. Even if philosophers and I have been spending time of late arguing over whether personal autonomy is actually possible, our social and cultural institutions by and large presume developed capacities for self-reflection, self-governance, and self-correction. Our legal, medical, and ethical systems require these in order to function.

Moreover, just as the assumption of autonomy pervades our social and cultural worlds, our mind and brain sciences are suffused with it as well. We interpret neuroscientific, psychiatric, and psychological data in terms of personal autonomy. I take both of the following cases to be exemplars of the trend in the mind/brain sciences to accept first and without argument prevailing popular assumptions regarding how humans work and then to try to force experimental data fit to into these background suppositions. Though I recognize it is impossible to have free-floating data without some sort of concomitant theoretical structure, I also believe that the mind/brain sciences would be better served if we all remained more skeptical about cultural assumptions about our natures. We need to recognize that we can have a science of self just as grounded – and just as useful – as our other sciences. And that this science can and should inform hypothesis-formation, interpretations of observations and other data, and theory-building.

9.2 Rational suicide

Contemporary Western society values life almost to the exclusion of all else and so maintains a very high standard for ever seeking its cessation. We have very stringent criteria for the circumstances under which ending it voluntarily are permissible. Only in cases of immanent death coupled with severe and chronic suffering does

suicide even appear to be socially permissible. It is true that physicians often do in fact hasten the demise of their terminally ill patients, but (except in rare cases) they do so surreptitiously and without the support or approval from the general medical community or from society at large. It is only considered morally acceptable to withdraw fluids or nutrition or to fail to treat bacterial infections under certain extreme conditions.

Most advocates of some form of rational suicide use a utilitarian argument to justify their position (Richard Brandt is perhaps the best known (1975)). One should compare the course of the world with one's demise hastened with the course of nearby possible worlds in which one continues to live a bit longer, they claim. If the utility of the world in which one commits suicide is greater than the one in which one does not, then suicide can be rational. However, Brandt and others are quick to point out that one must be capable of a certain level of detached rational thought in order to justify suicidal behavior. In order to be able to evaluate a proposed suicide at all, one must be able to assess probabilities accurately, as well as recognize all likely possibilities; that is, one must be autonomous (see also Battin 1982).

Notice that these criteria rule out of court suicides by depressed, psychotic, or otherwise disturbed individuals. This too fits with the mores of contemporary Western culture and the premium we place on deliberative thought and reasoned action. Having (or letting) rage, sorrow, embarrassment, or humiliation propel one into action is morally suspect. If nothing else, it is not dignified. Powell and Kornfeld articulate the dominant view in medicine these days quite well: It is, as they simply and baldly state, that "adequate evaluation and treatment of a patient's depression, pain, and emotional and physical needs must precede any consideration of rational suicide" (1993, p. 334). In order to fulfill one's duty as a mental health professional, one is expected to take whatever precautions are necessary to prevent a suicide, including the involuntary commitment of someone terminally ill (cf., Byer et al. 1993).

How to treat emotional distress and other forms of suffering lives in an odd space in our culture. Much of the discussion surrounding the question of rational suicide concerns treating physical pain. Indeed, former Attorney General John Ashcroft recently remarked that even federal drug agents could draw "important medical, ethical and legal distinctions between intentionally causing a patient's death and providing sufficient dosages of pain medication necessary to eliminate or alleviate pain" (Verhovek 2001). Disregarding for the moment that Ashcroft's statement is completely at odds with the truth, his underlying assumption is clear: the question of rational suicide hinges on how and whether the medical establishment can minimize or eliminate physical pain.

These sorts of comments ignore the fact that most terminal patients fear suffering and loss of control much more than physical pain itself. They also ignore the fact that controlling human suffering is quite difficult. Though we can control acute physical pain up to a point (cf., Hardcastle 1999), we have little capacity to help with other problems contributing to overt suffering, such as, for example, difficulty in swallowing (Battin 1982).

Nevertheless, despite Ashcroft's recent proclamation that all assisted suicides are illegal, the general sentiment appears to be that suicide makes sense only when one is terminally ill and in severe and uncontrollable physical pain. So: even though we have much less success in controlling basic human misery, and it is what we dread the most, emotional distress is never, or is almost never, a mitigating factor when debating policies regarding suicide.

Why is this? People assume that suffering distorts one's ability to reason. To be justified, a suicide at least requires rationality on the part of whomever is taking his or her life. Mental anguish can prevent one from being rational, and hence, prevent one from reasoning clearly about whether to commit suicide. If one irrationally wants to commit suicide, then that desire isn't genuine; it doesn't reflect what one *really* wants, all things considered. Further, if one does attempt suicide while under mental duress, then we have a paternalistic moral obligation to interfere with the attempt.

In other words, suffering and distress interfere with autonomy. And autonomy is required before a suicide can be justified. Just as we assign the rights and responsibilities of a liberal society to those able to reflect on their beliefs and desires rationally, we too maintain that justifying taking one's own life requires the same abilities. Moreover, if one is not autonomous with respect to one's life in general, then one cannot reason clearly about suicide in particular. Autonomy is the criterion we use for deciding who gets to decide whether to commit suicide.

However, this criterion does not fit well with what we know to be true about the mentally ill, nor does it fit well with the role suicide and death play in our psychologies. Indeed, when we push this discussion into the realm of mental illness, the irony of our sentiments becomes tragic. Society believes that mental suffering alone cannot justify suicide, especially when that suffering results from mental illness. But many psychotics are in continual agony and have no reasonable hope for a cure. And their agony is purely mental; hence, any attempt at suicide on their part is considered a further indication of their illness and not a rational response to the prospect of indefinite and unrelenting suffering.

Moreover, we quite often hear those with fatal illnesses claim just knowing that they could take their own life if they wanted to is comforting, even if they never intend actually to commit suicide. Finding comfort in knowing that you could die at your own hand might seem paradoxical. On the one hand, terminal

patients are typically very anxious over the prospect of dying. Yet, at the same time, they like knowing that they have the ability to die sooner rather than later. Patients feel as though they have small measure of power over their lives because they can pick their deaths.

Psychologists and psychiatrists explain these reactions in terms of control. From the patients' point of view, everything feels beyond their power to command: their bodies, their health, the medical profession, time. Humans do not like to feel powerless or helpless, and we take pride and comfort in being able to manipulate what we can. Many terminal patients have only their time and manner of death as things remaining under their sway. In those circumstances, being able to control one's life, even to that minor degree, and even if it means the end of one's life, can be extremely important.

When we stop and think about how humans react to impending death from an objective perspective, we can see that we behave rather strangely. If we value life above all, then being able to shorten our life in exchange for choosing the time and manner of our death does not add much value. We must somehow value death as well. Better: we value the act of dying as well as life itself. Death is a process that has meaning to us and it is important that we undertake this process correctly, that we die well.

One reason thinking about suicide gets so muddled is that we have little clarity in thinking about death in the first place. Under dire and extreme circumstances, we often see death as a release:

> Life is a constant struggle against extinction, a violent yet fleeting deliverance from every-lurking night. This death is no external enemy, it is [our]...own inner longing for the stillness and profound peace of all-knowing non-existence, for all-seeing sleep in the ocean of coming-to-be and passing away.
>
> (Jung 1956)

And yet at the same time, as Joyce Carol Oates points out, this is purely metaphorical talk. It is but one way of interpreting some action or event. Oates advocates "[pushing] aside metaphor" and "no longer even [speaking]... in a reverential tone of Death, but instead of Deadness – mere, brute, blunt, flat, distinctively unseductive Deadness" (1980, pp. 161–162). In her opinion, some seek suicide because they have analogized death incorrectly. They believe that they are being artistic and poetic and communicating to the world some deep truth when in fact they are being merely biological. If we could rid ourselves of "false metaphors" for death, then we could see that death is really "brute, inarticulate Deadness," and we would not seek it (p. 162).

But I am not sure we can do this, even if we wanted to. As humans, we are driven to seek meanings. We cannot help but interpret. It is both our blessing and our curse. We cannot see death as just another chemical process, no matter

how hard we try to. Oates argues, as with many philosophers, that we cannot ever freely or rationally choose something we cannot understand (see, e.g., Devine 1978). And we cannot understand death in the sense that we cannot imagine it. We cannot understand death because we cannot imagine nothingness.

But of course, death as nothingness is merely how Oates and others analogize it. They are no more – and no less – justified in their metaphor than those who see death as something else, as an escape to peace, perhaps. Contrast Oates with Sylvia Plath, who opines that "Dying / Is an art, like everything else" (1981). Or Anne Sexton, who notes that "… suicides have a special language. / Like carpenters they want to know *which tools*. / They never ask *why build*" (1966). Insofar as Plath and Sexton are right, then death is more than a biological event. It is meaningful to both the dying and the living.

What does this discussion have to do with narrative selves, autonomy, and the practice of science and medicine? I believe two things. First, we "reason" about death and dying metaphorically, narratively, and first-personally. That is, we can't think about suicide except in terms of what it means to us individually, how it makes us feel, and what role it plays in our own personal life stories. We cannot think about death without also interpreting the death in some fashion. This is exactly the sort of scenario one would expect if in fact narration is at the heart of our selves.

However, reflecting upon death aside from personal interpretations is what autonomy demands of us. If we are to reflect rationally upon some proposed action, then we need to be able to divorce that action from our psyches. This, I maintain, we simply cannot do with respect to dying. And requiring that we do so anyway before we can justify a suicide is a mistake, for it does not reflect how we as people actually function. We are always and already embedded in our life interpretations and stories. It makes no sense to ask how we are or how we value something apart from those interpretations.

Doctors, counselors, and other health care professionals are often quite comfortable using autonomy as the measure for life decisions. That standard is built into medical guidelines and health practitioners are expected to follow it. But, it also runs counter to what mental suffering does to a person. While sophisticated theories of autonomy do maintain that one could be autonomous with respect to some aspects of one's psychology yet not with respect to others, in practice most hold that evidence of irrationality in one domain of thought indicates irrationality in others. This is especially true when the cases of irrationality are egregious. So, for example, if you were psychotic, we would presume that you are not capable of deciding whether your life is worth living. And yet, at the same time, those with active psychoses and other serious mental illnesses are often all too aware both that they are not well and that they are suffering horribly. In addition, most also believe – quite reasonably – that little can be done to help them.

A piece-meal approach to human reasoning might be more humane and better reflect actual psychiatric and psychological experiences. To be blunt: being crazy-in-the-head is not the same thing as being stupid. Traditional approaches to autonomy appear to conflate the two, treating the mentally ill as though they are mentally deficient. If we could understand the deep connections between thought, feeling, and behavior, and understand these connections in terms of how we interpret and story our world around us, then we would be able to approach issues surrounding the end of life more compassionately, and perhaps paradoxically, more rationally as well.

9.3 Violence and the prefrontal cortex

We know that we live in a violent culture. Most of the time, we figure that that is simply the price we pay for having a free and open society, and, most of the time, we are willing to pay this price. We had blithely assumed that deprived environments and poor parenting were largely to blame for any specific instance of violence.

Now however the alleged biological roots for violence are wending themselves into public awareness (e.g., Foreman 2002). The story is a simple one. Impulses to violence originate in our limbic system, the deep and primitive brain centers for emotion. Our prefrontal cortex, the executive seat for rational planning, then decides whether to act upon the impulses. Damage to the prefrontal cortex, not surprisingly, might prevent it from checking our baser tendencies and so we could then lash out in rage, pain, or frustration.

There are some data to support this story. PET scans comparing the brains of murderers convicted of killing someone impulsively, murderers convicted of a premeditated crime, and those with no history of violence show that the impulsive criminals had lower glucose metabolism, and hence, lower activity, in the prefrontal region. At the same time, the limbic system consumed more glucose than normal and hence was more active than in controls (Raines et al. 1997, 1998; see also Davidson 2000). Lowered activity is presumably tied to a decreased capacity for inhibition and therefore increased impulsivity. In addition, structural MRI scans indicate that the gray matter of the prefrontal cortex in violent offenders with a diagnosed antisocial personality disorder is 11% smaller by volume than those of control groups (Raines et al. 2000). These individuals also have less autonomic reaction to social stressors and to life in general.

We can tie the attenuated inhibition to serotonin production in the brain. Serotonin, among other things, functions to inhibit aggressive tendencies (Volavka 1999). Cerebrospinal measures of presynaptic serotonergic activity show reduced

amounts in aggressive psychiatric patients, impulsive and violent men, and people who committed suicide using violent means (Linnoila et al. 1989; Mann 1998; Roy et al. 1988; Virkkunen et al. 1994). The prefrontal cortex contains a disproportionate number of serotonin receptors (Biver et al. 1996) and some studies indicate that the brain site tied to the abnormal levels of serotonin in aggressive individuals is in fact the prefrontal cortex (cf., Davidson 2000).

All of this research dovetails with what we have known about brain injuries to the prefrontal region since the unfortunate 1848 accident of railway worker Phineas Gage: lesions in that area affect moral reasoning, impulsiveness, and the ability to follow plans and otherwise regulate behavior. Case after case since then has shown us that without an intact prefrontal cortex, we have poor impulse control. Without it, we become promiscuous, obnoxious, flighty, angry, and aggressive.

And all of this too fits with our assumptions about autonomy: we innately have the propensity to be autonomous and if we aren't, then it is for some good physical reason beyond our immediate control. Our brains are broken, or our psyches are damaged. Just as we have adopted the disease model of addiction, we carry around a disease model of autonomy. If we aren't autonomous, then we are essentially afflicted with some sort of psychological or biological disease. If we cannot control our aggressive impulses, then that is because our brains won't let us. If we are unreasonably violent, then we have holes in our gray matter, not enough neurotransmitters, over-active nuclei – something physical we can identify and isolate as the culprit.

We have a neat story that corresponds to our liberal Western social/cultural conjectures: We are naturally rational and self-reflective animals who deliberate about who we are and what we want to be and then use those deliberations to control our beliefs, desires, and behaviors. And if we fail in this enterprise, we are obviously damaged in some way. But like most neat stories in the mind/brain sciences, this one – depending on your perspective – either gets really complicated really quickly or just falls apart completely as soon as we start pushing on it. In either case, this perspective on violent tendencies in humans falls short of the facts.

The first and most striking fact about human violence is that it is almost exclusively a male pastime. Men commit 90% of the murders, 80% of the muggings, and virtually 100% of all the rapes (Angier 1999). It appears that if we want to understand the roots of violence we need first to understand the differences between men and women. What is it, about us or about our cultures, that makes men so much more violent than women?

The first item most point to when confronted with this question is the hormone testosterone (Bear 1991, 1997; Mazur 1998). Normal women have between 20 and 70 nanograms per deciliter in their blood. Normal men, by contrast, have between

300 and 700 nanograms per deciliter, ten times as much. This difference allegedly makes itself felt right from the beginning as the gonads of a developing male fetus release testosterone that affects brain development from then on. The male brain organized in the womb is then activated during puberty as boy brains once again get fed spurts of testosterone.

None of this happens with girls. Female gonads don't produce testosterone and so female brains become the default case. They are what you get when human brains aren't jolted by the big T. Women's brains are nursed along with the various estrogens and progesterone, eventually being formed into something softer and more nurturing. Their brains aren't created to be the aggressive fighters, as men's brains obviously are. Instead, they are created to raise children, gather fruits and nuts, and gossip.

Men are more violent than women; they have lots more testosterone than women; testosterone therefore causes violence in men. End of story. … Except, of course, this isn't the end of the story. The first and most glaring difficulty with this story – which, I am sorry to say, is found in popular culture everywhere and the recent writings by alleged evolutionary psychologists haven't helped matters in the least – is that testosterone is largely converted into estradiol when it reaches the brain. The brain literally can't tell the difference between estrogen and testosterone. Hence, it isn't going to care whether it is being bathed in what the male gonads have produced or what the female gonads have produced. It is all the same from the brain's perspective. So whatever testosterone is doing in shaping neural development is complicated and subtle and we don't understand the half of it yet.

Second, beyond the obvious difference between men and women, there is no clear correlation between testosterone and violence or aggression. Certainly violent criminals don't have higher levels of testosterone than many of their non-violent law-abiding counterparts (Booth & Osgood 1993; Dabbs et al. 1995; Pretky 1985). Men's testosterone levels generally spike after they win a contest – a lawyer wins a big case or a wrestler wins a big match – and they plummet if they lose a contest. But they don't always. The testosterone levels of parachutists decline before and after a jump; they don't increase as expected. The testosterone levels of video gamers remain constant, regardless of whether they are winning or losing. Moreover, men who are most successful at winning in whatever their "contests" are not more violent. In fact, they are calmer, more focused and intellectually collected than those who are not winning. (Women, by contrast, do not have testosterone spikes, regardless of how much they are "winning" or "losing".)

In addition, men who lose their testosterone infusion through castration or disease do not all suddenly become docile. Some in fact become more aggressive and violent; this is why eunuchs were created to protect harems (and many eunuchs were sexually active as well) (cf., Aucoin & Wassersug 2006).

Men also have a natural cycle of testosterone production during the day. Testosterone levels peak in the morning, decline in the afternoon, and then go back up in the evening. Testosterone levels in men drop when they get married, drop again when they have children, and then go back up if they become single and unattached again. These cycles don't appear to correspond in any interesting way to when most violent acts are committed. In short, it is not clear that we can correlate testosterone with much of anything deep at this point, except male sexual desire.

This same lesson is echoed with most chemicals we find in the human body. Serotonin, the alleged culprit in both aggression and depression, doesn't paint a clear picture either. While violent murderers do have decreased blood levels of serotonin, rapists and wife-beaters do not. With over sixteen different types of serotonin receptors identified in the brain, it is not too surprising that we don't have the full story yet (Blum 1999).

Other neurotransmitters, too, have been associated with violence. Finnish prisoners arrested for assault, U.S. Marines dishonorably discharged for abusive behavior, and the bloodiest of suicides all have increased levels of noradrenalin (Blum 1999). The most aggressive non-human animals have increased levels of the androgen androstenedione (Angier 1999). If we looked further, I am sure we could find more correlations are well. Suffice it to say that we really don't know what is going on and we aren't even really sure where to look at this point.

Two facts stand out to me when looking at gender differences in violence. First is that psychological studies show that men and women get angry the same number of times per week, about 6 or 7 (Campbell & Richardson 1996). Moreover, a review of studies focusing on aggressive behavior in heterosexual couples found that during arguments with their partners, women were equally or more likely to slap, kick, bite, choke, or use a weapon than men (Archer 1998). Male violence has more devastating effects: women account for 65 to 70 percent of those seeking medical attention due to injuries sustained in a quarrel (Hales 1999). But the actual tendency to violence belies our intuitions regarding gender differences.

Second, when we consider who is actually committing the violent crimes, we see that these crimes are committed "largely by men at the height of their physical strength and athletic prowess, who prey on those they perceive as weaker and more vulnerable. … The forcible rapist (who is also the burglar, the robber, the mugger) retires from the field when his legs give out" (Brownmiller 1992). Violence is done by those who can get away with it. The rest of us are too small or too weak even to bother trying.

We've now come full circle. Perhaps men commit more violent crimes because they are bigger and stronger and there simply aren't any other interesting explanations for the differences. But it is now clear that whatever the truth is about human

violence, it is going to be much more complicated than merely a hole in the prefrontal cortex or an overactive limbic system. Perhaps we are naturally violent. Perhaps impulse control is best correlated with body size and strength, which means we can't have a disease model for violence any more than we can have one for addiction.

How violence connects with autonomy and the self, if it does at all, is surely going to be a complicated story as well. If we have learned anything through this foray into the neuroscience and neurochemistry of violence, it is that we don't really know much about how humans are "supposed" to behave, what our natural tendencies are, and what we have to do to overcome them. We really don't know whether any of us could decide to change whatever impulse to violence we have if we wanted to. We don't even know why we have these impulses, if we do, how they are connected to our biology, or how our culture influences them.

If we cannot change them, though, we should not be allowed to point to some neural hiccup acting as an exogenous force to prevent us from behaving autonomously. As I've argued, our emotions and our cognition are tightly bound up with one another and it is well nigh impossible to separate the two. We simply can't think apart from how we feel, and this is especially true when we are talking about deep and primitive emotional reactions.

9.4 Whither autonomy?

We are complicated machines, that much is clear. But this fact isn't going to be enough to defeat any assumptions of autonomy and give primacy to a different view of human nature, either in science or in politics. The two examples I give here aren't going to be enough either. One could argue, if one wanted, that these examples are special cases and that there is enough room left over in the human psyche to allow autonomy in other domains. The worst that might happen is that autonomy is more restricted than we once believed.

Still, I think that there are some important lessons to be gleaned from these examples. First is that we shouldn't assume from the outset that we have a handle on what human nature is like. We shouldn't assume that we are or can be critically self-reflective or critically self-correcting, nor should we assume that it is even a good idea for humans to be this way. We do know that we aren't reasoning tools; we are biological animals, the product of evolution's trial and error. Our biology helps us survive; it may or may not help human culture in general and Western values in particular thrive. It would be better at this point to bracket questions regarding our capacity for abstracted thought until we understand better how we operate as biological creatures.

Second, from the material discussed in this book, we can see that cognition, emotion, memory, and experience are all tightly bound up with one another. As a result, there are not going to be simple answers to difficult psychological questions. When does an Alzheimer's patient lose her personhood? When have I changed sufficiently that I am no longer the same person? When should the mentally ill be denied the ability to choose death over life? Under what circumstances should we punish the violent or attempt to reform them? From the perspective of one trying to give a scientific answer, these questions raise very tough and very complicated issues. We don't have good answers to these questions, and we likely won't for a very long time.

Hume is right; we don't have a clear idea about what it means to be a person. He is wrong in that being a person is illusory – we are people and being a person is tied to our narratives of self. At the same time, exactly what it means to narrate a self – what parts of the brain and the psyche are involved, how these develop over time, and how they interact with one another and with the rest of the human body – is still very much under discussion and investigation. But I think starting with a narrative view of self is the right way to begin, and I hope this book has articulated some reasons why I might be right.

Finally, and perhaps surprisingly, I don't think the message of this chapter or book is that we should conclude so much the worse for our liberal traditions, or that our social leaders are being intellectually irresponsible. The standard line to take here is to point out that our best mind/brain data indicate that we aren't autonomous in the ways we have presumed we should be, and so we need to fix our presumptions. "Ought implies can" and all that. But I'm not so sure. Perhaps I am just too well imbued with the liberal traditions myself, but it seems to me that we can hold autonomy out as a personal ideal. Just as I believe that I should not ever let anger get the best of me, knowing full well that at some points over the course of my life it has and that it probably will again, I hold that being able to understand myself and being able to think critically about my beliefs and choices are good things. I won't always be able to do them. I might never be able to do them. But still, the person who results from trying to do so is a better person than one who does not. A society organized to promote these things is a better society than one that does not. And perhaps, in the end, this is really all that matters.

Notes

Notes to chapter 1

1. Some believe there are more than three (e.g., Rorty 1976); others fewer (e.g., Wilkes 1988).

2. I should note that this is a point about importance of language relative to having a self. It is not a claim about how language evolved. It is entirely possible, indeed, it is highly likely, that we originally developed language because doing so promoted our reproductive fitness. Since then, however, it has taken on a life of its own.

3. I actually think that this view of the mind is false (cf., Buller & Hardcastle 2000), but I need not get bogged down in this debate here. If I am right and the mind isn't terribly modularized, then the point that losing language changes how we think and what we can think about follows immediately from that fact.

4. One reviewer suggested that it might be the case that this test is a weak test for self-consciousness in that if you pass the test, then perhaps you are self-conscious. However, I am still not convinced that knowing what you look like and being able to recognize your body is generally what we mean by self-consciousness.

5. Common wisdom has it that our brain cells aren't replaced if they die, so we may not need a relational notion of the brain. As so often happens, common wisdom is wrong. Scientists have now tracked the birth of brain cells in adult organisms (Lowenstein & Parent 1999). They have also come close to making functional artificial neurons so that (at some point in the distant future) we may not have to rely on what Mother Nature originally gave us for a brain. Both these developments argue for a relational view of the brain.

Notes to chapter 3

1. Most of my knowledge of these things come from Ryan 1991.

2. I should note that not all narratologists are tightly wedded to structuralism. Genette, for one, thinks of narratology as the study of narrative discourse, which includes the study of mood, tense, and voice, among other things.

3. I don't know where this joke began; it has been floating around for several years. The first published English version I am aware of is Margaret Boden's (Boden 1977, p. 299).

4. I take it that this is what Dick Neisser (1988) means by his notion of the "extended self."

Notes to chapter 7

1. This terms comes from Flanagan (1995).

Notes to chapter 8

1. As Mele discusses, there is some empirical evidence to suggest that attention and motivation, at least, are tightly coupled (cf., Mischel & Ebbesen 1970; Mischel et al. 1972). It turns out, not surprisingly, that it is easier for us to resist behaviors and delay gratification if the rewards are out of sight and out of mind. In particular, it is easier for us to resist if we are not paying attention to the rewards qua reward (Mischel & Moore 1973, 1980).

2. This also would help explain schizophrenia and ADD, both of which are tied to abnormal dopamine production or transmission. People with schizophrenia or ADD become distracted by all sorts of sensory (and internal) stimuli which normal brains generally filter out; hence, they can't pay attention to what is really important or significant in their lives.

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