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Self-, Social-, or Neural-Determination?*

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Abstract

Human "free will" has been made problematic by several recent arguments against mental causation, the unity of the I or "self," and the possibility that conscious decision-making could be temporally prior to action. This paper suggests a pathway through this thicket for free will or self-determination. Doing so requires an account of mind as an emergent process in the context of animal psychology and mental causation. Consciousness, a palpable but theoretically more obscure property of some minds, is likely to derive from complex animals' real-time monitoring of internal state in relation to environment. Following Antonio Damasio, human mind appears to add to nonhuman "core consciousness" an additional narrative "self-consciousness." The neurological argument against free will, most famously from Benjamin Libet, can be avoided as long as "free will" means, not an impossible event devoid of prior causation, but an occasional causal role played by narrative self-consciousness in behavioral determination. There is no necessary incompatibility between the scientific and evolutionary exploration of mind and consciousness and the uniquely self-determining capabilities of human mentality which are based on the former.

Keywords: mind, free will, self-determination, Damasio, Libet, Dennett

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Introduction

Among other meanings, "self-determination" is a way of conceiving an individual human's freedom. Rather than implying that a free will must be uncaused or unconditioned, self-determination accepts causation or conditioning of free acts, as long as they are caused or conditioned by the self. "Free" means a certain kind of causality, not absence of causality. But self-determination is undermined by cognitive scientists who insist that it is epiphenomenal, and from sociocultural approaches to personality which make the self-other-constituted. I will try to formulate a naturalistic, neurologically and socially informed notion of self-determination that preserves it while agreeing with critics that self-determination in a full sense plays a limited role in our lives.

Defining self-determination requires defining the self, which is a life's work. I will have to sidestep many deep issues, but basic questions of terminology are unavoidable. Is my self *me* as a human individual, my "person"? Is everything that is a property of me a property of my self? What is the difference between my self and my mind or consciousness, on the one hand, and all my behaviors and bodily states, on the other? Charles Taylor pointed out long ago that while all cultures seem to have designations for an individual person and what is hers, "self" as a noun distinct from "soul" or "spirit" seems to be a modern Western notion, implying that the core identity of the individual is *unique*, hence relatively independent of social role, and *interior*, distinct from body and behavior.(Taylor 1989) That means my self cannot be all of my person, all the properties attached to Lawrence Cahoone. At the same time Western modernity, starting with Descartes, made mind equivalent to consciousness. If self were consciousness, then nothing in the self could be unconscious, contradicting both Freud and neuroscience. We shall have to clarify all these questions on our way to self-determination.

Unfortunately, the topic also requires making fallible guesses about multiple controversial issues, like the nature of consciousness and mental causation. Some of my background views on these issues must be stated at the outset. As a naturalist I accept that all mental states, and what we call the human self, depend on and must be caused by neurological states, among other things. Some think mental states "emergent" upon neural states. I agree, but for me emergence merely accepts that something *other than* interactions among micro-components are necessary to explain *some* of a system's properties; consequently, reductive and emergent explanation can be combined.(Wimsatt 2007) Also in considering mental causation, I hold that causation is not merely efficient; in biology there is downward causation of systems on their micro-components. Organisms may not be teleological, but they are teleonomic and purposive: the wood thrush is designed to fly south to escape the winter, regardless of what is in its mind.(Mayr 1974) Last, philosophy of mind is not solely about humans. Mind is an animal capacity. Our concept of mind must not presuppose language or selves.

1. Mind and Consciousness

Now to define mind. In Franz Brentano's classic notion of intentionality a mental act by definition contains "something as object within itself," as an "intentional inexistence."(Brentano 1973, pp. 88-89) Seeing must include an image of the something seen. This means two things: the intentional act targets or is directed toward an object; and that object is itself intentional, or belongs to the act, so it is not physical (it has no mass or volume, for example). The intentional content is possessed by, is a property of, the act. Intentionality is typically parsed today as "aboutness," a property possessed by mental states and cultural signs (e.g. words, sentences, pictures), but nothing else. However that preposition is a bit too strong. Some intentional states are "about" something but many are not. My feeling of pain is *of* pain, not about it (we will return to this).

I suggest that mind is best thought of as a suite of intentional activities with intentional content. These activities are sometimes divided into the cognitive (perception, memory, imagination, thinking, problem-solving); the affective (feeling and emotion); and the conative (desire, motivation, or will). *A* mind is an integrated *subset* of those activities performed by an organism; not all of them are required for a mind to be active or present (i.e. nonhuman minds have only some of these abilities.) These activities are intrinsically intentional; that is, without the intentional content we could speak of a neurological act but not a *mental* act. This holds independent of the question of the relation of mental and neurological acts; if a neural process is mental, it has intentional content. Intentional acts are representational in some sense, and some, for example perceptions, are subject to accuracy conditions.(Burge 2010) But notice that this is *not* to say that the objects of mind or experience *are* representations. The coyote perceives the rabbit, not an image of a rabbit. Representation is a function performed by mental acts and states.

What about consciousness? In post-1970 analytic philosophy, functionalism analyzed mental states to mean representational mental acts that embodied propositional attitudes – attitudes toward abstract propositions or properties, like "I believe that" or "I hope that" – which could be defined in terms of causal relations or a transformation of input into output. Such philosophy of mind made mysterious the simplest mental contents, the sheer having of "qualia" or "subjective experiences" – like redness, pain, or hunger – and with them the "first-person point of view." Thomas Nagel, John Searle, Frank Jackson, and David Chalmers objected that such "phenomenal" consciousness could not be dispensed with. However, they continued to think of phenomenal qualia as non-representational, "what it is like to be" states (Nagel 1974).

But phenomenal consciousness can still be understood as intentional. Brentano considered feelings intentional. The feelings of hunger or pain or sensing of redness are still "of" something, and provide information either about the world or about the soma of the experiencing organism. But rather than acts of mind, consciousness is best conceived as a state or condition of those acts. Consciousness is the type of unified, present-tense availability of the mental contents of mental acts to the agent-organism which has them. I say "unified" because while there can be many mental acts at the same time, there

is only one continuous contemporaneous field of intentional contents at one time for an organism (with rare pathological exceptions). While an organism has only one continuous field of consciousness at a time there is a distinction among types of consciousness.

Antonio Damasio proposed that everything we call consciousness is an extension of an animal's monitoring of its body's internal states in relation to environmental changes, to augment the organism's forms of auto-regulation and behavior control.(Damasio 2000, 2010) This enhanced somatic and environmental monitoring endows possessors with naturally selectable advantages. Consciousness is based on modifications of drives and feelings produced by internal hormonal signaling and immune reflexes.

Damasio postulated three different levels or types of consciousness. First is a minimal or "proto" consciousness that grows out of and accompanies the automatic neurological and chemical monitoring of the body's internal state, issuing in feelings, like hunger, heat and cold, pain, fear. Second is "core consciousness," a second-order mapping of the feelings of proto-consciousness in relation to images of environmental objects and processes that cause those feelings. Last is extended or enhanced consciousness. This is a third-order representation *of* core consciousness as "owned" by the self, yielding an autobiographical narrative. It is this which humans usually call consciousness, the "self-in-the-act-of-knowing," where language, inference or reasoning, episodic memory and imagination reside. While proto and core consciousness presumably are shared by many animals, extended consciousness seems to be uniquely human.

An example may help to distinguish the neurological, the mental, and the types of consciousness. An epileptic patient, negotiating a crowded lobby during a seizure, walks, perceives, and may non-verbally express emotional preferences *without knowing it*, without the ability to report it, and later deny that he or she did so. What do we call this? We can either say there was: a) *brain functioning* but no mental functioning at all (like my brain's control of my lung or kidney function); b) brain-supported mental functioning *without any consciousness* (like my sensation and removal of my hand from a hot stove before I feel the pain); or c) brain-supported mental functioning with *consciousness* of *an abnormal kind*. I think the last is right: there is perceptual consciousness of a kind without the episodic memory and reporting ability of full "self" consciousness. What about other species? Can a deer wandering through the lobby be perceiving the lobby *without knowing it*? My guess is no. In the case of the diseased human, perception, short-term memory, and emotion are proceeding, but without being attached to the historical, self-conscious "I know that." For the deer, it seems there is no dividing line between seeing and *knowing that* it sees, because there is no enhanced self-consciousness which can be turned off. The kind of "knowing" characteristic of the deer is fully present.

2. Evolution of Mind

Who has a mind? We don't know, but we can make guesses. It is important to remember than all life is sensitive and capable of responding to irritation by movement. This is true of bacteria, protists, fungi, and plants. Do they have

minds? That is very dubious. It is no virtue to try to subsume life with mind, to make mind essential to all life's achievements. Life is more basic than mind. There was more than three billion years of life on earth before multicellularity.

We may as well admit our ignorance and say we don't know what experience, mind or consciousness could mean outside the context of complex neurology. I will make the fallible guess that mind/experience/consciousness require at least four conditions, the last two of which are connected.

First there must be not only neurons, those specialized animal cells whose function is transmission of information, but *neural complexity and centralization*. There must be complex intersections or ganglia of neurons, hence interneurons which enable cross-talk between neurons. The Cambrian explosion created the major phyla of animal life 565 million years ago, including creatures with small nervous systems like jellies, worms, mollusks, and sea urchins. Some simple animals have very simple receptor-effector neuronal connections, others have nets of neurons without any centralization, yet others have single or multiple ganglia of neurons. I imagine mind requires a single, sufficiently large, encephalic centralization or brain and/or central nervous system managing a centralized non-modular soma. Identifiable centralized brains arise with arthropods -- crustaceans, spiders, and insects.

A more speculative criterion is that mind may be correlated with distal perception and targeted action. Feeding in jellies, corals, slugs, and mollusks is mostly a matter of opening the mouth or protruding feelers at the right time or siphoning sea water. Even worms eat whatever medium they are in, and just void whatever isn't useful. But crustaceans and insects must search, pursue, target, flee specific entities, find mates, and learn clues as to their likely presence. That is, they are foragers.

The third and fourth criterion are a two-sided coin, that is, two mutually dependent facts: behavioral flexibility and trial and error/success learning, also called operant conditioning (Dennett calls such animals "Skinnerian" creatures). Flexibility is what permits learning in the first place. If all action patterns are fixed from birth, no learning can, or should, take place. All organisms have the capacity for short-term acquisition of information through irritability. Simple organisms can become habituated or sensitized through repeated stimuli. Classical conditioning pairs an innate reflex with a conditioned stimulus. But operant conditioning does more; it is the reinforcement or punishment of spontaneous behavior. Some call it blind variation and selective retention. It requires some memory. While anything with neurons can be classically conditioned, operant conditioning has not been found below the level of arthropods. The fruit fly, at 150,000 neurons and lobsters with about 100,000 neurons, seem to have operant learning. Operant learning and a brain capable of mental representation may have emerged together. The philosopher Tyler Burge ascribes the dawn of mind to arthropods as well (Burge 2010).

Thus my guess is that mind begins with arthropods, including insects and crustaceans, organisms with encephalized nervous systems with around 100-150,000 neurons. The flower turns toward the sun, the protist reflexively withdraws from touch or heat or the wrong chemical gradient, cnidaria digest what falls into their tentacles. They are not robots; they are need-driven,

homeostatic, living, teleonomic agents, but without mind. The minded animal can do more: it can *feel* hunger and *image* objects in the environment in relation to its own body, permitting the acquisition of distally-targeted, operantly conditionaed action sequences.

But what about consciousness? This is a more difficult question. Here we may follow the view of Jaak Panksepp, who like Damasio worked on the development of affectivity and its relation to consciousness. Like Damasio he argues that consciousness is grounded in affectivity, which is itself a value-laden monitoring of somatic state. He differs in emphasizing that affectivity is inherently motivational. Primitive feeling or affective states, including interoceptive feelings from the viscera (e.g. nausea), simple somatosensory feelings (e.g. pain), motivational states (e.g. hunger), and primary emotions (e.g. fear), are rooted in the somatic monitoring of soma by the upper brain stem of vertebrates. This may be the source of pulses of what Damasio called "proto" consciousness. But it may also be that continuous waking core consciousness is only found in more advanced, warm-blooded ones, mammals and perhaps birds, due to communication between the brain stem and their more complex higher brain regions. (We cannot say anything about those uniquely large-brained and intelligent invertebrates, the cephalopods.) The implication is that phenomenal consciousness, "what it is like to be" in a state, is a fundamentally affective or value-laden and motivational kind of intentionality, and develops only among some vertebrates. That is it may that intentional, mental activity, including perception, memory, and cognition are older, but that the affective capacity of mind is the root of the state of contents we call "core consciousness" and "self-consciousness" and phylogenetically more recent. At any rate, humans appear to have evolved from animals possessing full core consciousness.

3. The Hard Problems

Now we can turn to the so-called hard problems of mind: how can several ounces or pounds of physical tissue produce intentional contents that have no mass or volume, and that are not directly third-person observable, like a feeling of pain or an image of red? But this is actually only one side of a two-sided problem, the other being mental causation. The hard problem cuts two ways: how can biological material cause intentional contents, and how can intentional acts and contents cause neurons to fire?

We need not regard this as a uniquely difficult "explanatory gap" in nature. It is true we will never explain how the feelings of pain or sensations of red arise from cellular or electrical activity, *if* "explain" means finding all the *explanandum*'s properties in the events or parts of a lower level *explanans*. But if we accept an "emergent" theory of mental properties, as did pioneering neuroscientist Roger Sperry (Sperry 1976), the feelings of hunger and pain, and the sensation of red, are how certain neural states feel or look to a creature capable of feeling and seeing; the feelings and sensations emerge for an environmentally-transacting living creature at a certain level of neural complexity. One may say the mental content is the *semantics* produced by the neuro-electro-chemical *syntax* of the living central nervous system or CNS. I say

"semantic" because one neural pattern must *represent* a somatic or environmental state *for* another neural pattern which "reads" it. Nick Humphrey regards consciousness as the state of a re-entrant feedback loop, in which one efferent neural pattern, caused by stimulus from environment or soma, is monitored by, read by, a second pattern which then affects the earlier phase (Humphrey 1999, 2006). The nervous system is so constructed that a change in a neural signal is read *as* the *qualē* we call "cold," or "pain," or "hunger." Mind is the emergent semantics of neurological feedback.

Now, how can intentional content, a feeling or image, causally affect the firing of a neuron or release of a chemical? Mental properties depend on neural events, but, by Leibniz's law, are not identical to them: they do not have all the same properties. Even if you want to say mental states are physical, they are very unusual "physical properties," without almost all the traits of the neural processes they depend on. Lacking those, can they make a causal difference to neural processes? I suggest that the mental properties are capable of providing "top-down" informational controls on other neural activity, just as cellular activity imposes constraints on molecular activity. (This too was Sperry's idea.) We must remember, the brain is not a mechanical set of electrical circuits: it is alive, in fact, an enormous colony of living cells. Mind is after all a biological phenomenon.

Alicia Juarrero employed nonlinear dynamics to model mental causation.(Juarrero 1999) In her account, the intentional mental content acts as an attractor for the dynamic production of neural states; that is, the neural firings that produce the relevant mental content, attract and stabilize neural activity. This may indeed work through back-propagating neural networks. She cites a revealing piece of work by Hinton and Shallice (1991), who modeled types of dyslexia with neural networks. With mild or surface dyslexia, their model correctly produced syntactic errors, like reading "cat" for cot." But more severe damage, modeling "deep" dyslexia, generated *semantic* errors, reading "bed" for "cot." That is, the learning rules of the network generated errors that converged on *meaning identity* regardless of syntactic difference.

Mental causation requires that meanings matter to subsequent neural firing. Fred Dretske came to a similar conclusion. A rat may be trained to press a bar M that releases food F upon hearing a tone C. C is thereby recruited as an F-indicator. It "acquires the function of indicating" F.(Dretske 1988, pp.84) The rat has learned and neurologically stored C's representation of F. C's *representation of* F has taken on a causal role. As Dretske puts it, "Learning of this sort mobilized information-carrying structures for control duties *in virtue of the information they carry*."(Dretske 1988, p.99, his emphasis) If so, then it may be that the animal's prior learning acts as a "structuring cause" such that the brain next time produces a neural content in response to a stimulus *because* its produced neural pattern codes for, represents, an intentional content. The brain, in its construction of an intentional monitoring of soma and world, learns that some phenomena serve as indicators of success or failure, so the brain selectively produces the neural patterns which code for them in response to similar stimuli in the future, and these act as attractors for ensembles of neural units. If it is the case that neural activity is a dynamic self-organizing

system, with downward causation, such that the brain learns to respond to stimulation (from inside or outside) by generating neural patterns *because they code for some mental, semantic property* (e.g. a feeling or image), then the mental property *has made a causal difference* to subsequent firings. Somewhere between Juarrero's and Dretske's approaches, I believe, there lies the key to mental causation.

4. The Social Self

Many things make humans distinctive. I will focus on one: we are uniquely social. Daniel Dennett himself argues that the human brain evolved because of and through human social communication. This is no discovery; a century ago George Herbert Mead argued the same thing. For Mead communication is logically and temporally prior to mind; mind emerges through social interaction, rather than the other way round. Mead's famous innovation was "significant gesture." Nonhuman animals make communicative behaviors or gestures in the process of "mutual adjustment" – e.g. growling rather than biting. But only humans use gesture *as sign*, significant gesture. Here the gesture acquires objective meaning. This requires that A respond to its *own* gesture *from the perspective of B*. To do so, A must regard herself *as an object* from the viewpoint of B. (Mead 1962, p.47) Mead went on to analyze play and games as the venues in which we are trained to occupy the roles and standpoints of others, hence to shift among gestural positions. For Mead, mind is the process of significant gestures, and self is the organization of a human organism's set of attitudes toward environment, and toward itself from others, as expressed in significant gesture. The self is a dialogue between the *me* – my social roles, what I am for others – and the *I*, which is the individual's spontaneous contribution to the self.

Referring to Mead, the comparative psychologist Michael Tomasello, in his studies on nonhuman and human primates, and psychiatrist Peter Hobson, in his studies on human autism, separately track the development of the ability to take the perspective of others in the form of the early childhood phenomenon of "joint attention." Infants come to internalize the attitude of the caretaker through joint manipulation of an object, like a monkey doll which initially frightens the child, but after the caretaker handles it in an amused, pleased way, the child does too. From this, the human child comes to *recognize single entities (self, other, and objects) as capable of multiple jointly recognized meanings*. The doll can be scary in one perspective, friendly in another. In play, self can be mom or dad or doctor, while yet remaining the same object. All this is based on taking the attitude of the other, which. Hobson calls the "Copernican Revolution" of human mentality (Hobson 2002, p.73).

It appears the human mind does not merely involve or require communication in the coordination of activity, but is *itself communicative*. Nonhumans communicate, of course, and are often social. Certainly maternal care before weaning carries social learning with it, and often involves recognition of individuals. Eusocial insects are almost part of a collective organism. Dogs and primates negotiate elaborate status hierarchies. But the combination of the human brain, infant-caretaker interaction and culturally inherited language has managed to do something more, to *socialize* animal

intentionality. The human individual's very thought process *are* social. For Tomasello humans have a special kind of intentionality or mind: *joint intentionality*. For *the others are in my head*, part of the constitution of my psyche, as well as present in my public practices. My mind represents them, I incorporate and think from their perspectives, take on their roles, converse with them internally, exchange signs with them that arouse the same response in my self, a self which emerges *from* my organism but *out of* my relations to them.

Both Hobson and Mead regard thinking as an internalized conversation. But a conversation among what? Among *perspectives*. Mary Warnock suggested that "the possibility of taking up different perspectives is essential…to having a thought about something."(Warnock 1976, p.171) Thought is a time-traveling conversation among socially acquired and imaginatively recombined perspectives. What we call self-consciousness, which I think only humans have, is the platform for regarding oneself as one historical-agent-among-others in never-ending communicative interaction, deciphering social, objective meanings of one's environment and one's acts. The narrative self-consciousness ascribed to humans by Damasio is intrinsically social. As Mead put it, "this requires the appearance of the other in the self, the identification of the other with the self, the reaching of self-consciousness through the other"(Mead 1962 p.253).

5. How Can a Neuro-Social Organism Have Self-determination?

But what does this mean for self-determination? If the self is chock full of others, or to invoke a phrase, internal relations to others, where is the "I"? Indeed, Mead's socialization of the self led him to say that the I, the spontaneous, non-social part of the self, is *unknowable*. Mead had to posit the I, or else the self would be devoid of individuality and spontaneity, would be *purely* social. But he accepted that once the I acts, that act and its consequences are part of the *me*. So I cannot know my I, and neither can you; any knowledge would be of a content that is, as soon as it is manifest, by definition part of the me.

A similar problem has been raised more famously by recent neuroscience. Certainly much of my behavior is reflexive in the sense of being reflex-like, very fast and uncontrolled by conscious awareness. A myriad of stimuli in any social environment trip neural wires, setting off responses. A neuroscientist colleague once asked me, to make a point, "What are those little worms that make that beautiful thread?" "Silk worms," I answered. He immediately asked, "What do cows drink?" "Milk" I answered. His point was I was not in charge of my own head. Neurons coding for triumphalism then fired in *his* head.

The most direct neuroscientific critique of self-determination began in 1985 when Benjamin Libet asked subjects to, without planning, flick their wrists while simultaneously noting the precise moment when they felt the impulse to do so.(Libet 1985) The reported impulse preceded the flick by about half a second. But he also found that a "readiness potential" in the cortex (or RP) preceded the reported impulse by another third of a second. It appears that when I voluntarily act, even before the brain activity that is my *knowing I am about to act*, my brain has already *begun* preparing the act. My brain starts the act before I am aware of what I am about to do. Libet's work and that of many

subsequent researchers appear to put "you" or your conscious self "out of the loop" of decision making, as an epiphenomenal accompaniment.

But this shouldn't have been surprising. Doesn't the mere fact of supervenience of mental events and contents on neural events mean that a mental content, like a decision, must be the product of a *temporally prior* neural state? A mental act and the neural event its supervenes on must each take time. The earliest stages of that neural activity likely precedes the complete appearance of the mental content belonging to it. If you accept that mental states supervene on neural states, then we probably can't make decisions, or follow a felt impulse, unless that decision and impulse emerges into consciousness after the neural state has already begun to evolve.

There is a very sensible answer to this, and Dennett made it. It is about time. If we, like Zeno, try to locate one unanalyzable instantaneous moment of decision as the sole precursor or cause of an act, we will never get to it – or if we do, it will not be integrable into either our neural or mental life. Such a simple moment could not be causally related to the continuous activity of the central nervous system. The RP is the initial neural registration of a wish that reaches the threshold of conscious experience *after* that, and then eventually produces an act. Dennett writes, "we can see that our free will, like all our other mental powers, has to be smeared out over time, not measured at instants…. You are not out of the loop; you *are* the loop…. You are not an extensionless point."(Dennett 2003, p.242) This is the same thing that Velmans has called "preconscious free will" (Velmans 2003).

Determination of behavior by self-consciousness can after all occur in multiple ways. Libet himself later recognized that while RP initiation of an act starts before the conscious impulse, the act can be consciously "vetoed" just a couple hundred milliseconds before motor neurons are fired. (This has been called, instead of free will, "free won't" in Libet 1999.) Many acts based on prior learning, habit, and discipline cannot be initiated by a conscious act because it would be too slow. Dennett points out that the tennis player consciously decides beforehand how to respond to a later possible shot. Such "pre-commitment" makes a great difference in reaction time, in effect creating a reflexive or reflex-like respoonse, so that a later conscious decision will be unnecessary. Is such an act not consciously planned? As Damasio puts it, "nonconscious control is a welcome reality," indeed, indispensable, and "can be partly shaped by the conscious variety" of control.(2010, p.269) We must download control of many activities to unconscious processes to "save workspace" for conscious processing.

And while a mental state can only arise after the beginning of the neural process that creates it, it can be maintained simultaneous with it and be causal thereby. A grizzly bear walks into my view: my conscious perception lags behind my initial sensory response to the bear, which itself lags behind the bear's movement. But as the bear stands staring at me staring at her for seconds that feel like hours, the neural state and the mental state are contemporaneous. It has been known since the James-Lange theory that our behavioral emotional response can be initiated before the feeling. But that doesn't mean the fear and

pain play no causal role in the process, only that they are not causal *at the initiation*. They can be causal for maintaining or curtailing the response. I may start running from the bear before I feel fear, but the continuing fear may *keep* me running. I may begin to remove my hand from the hot stove as a reflex before I feel the pain; but it is the pain afterwards, the phenomenal feeling, that motivates me to plunge my hand in ice water. Without that feeling I would do nothing to staunch the tissue damage. Among reflex-like behaviors, dispositions and habits, my conscious self can incline towards one or another, or "take sides" as Vellman suggests. I *am* indeed partly constituted by mechanisms that handle input automatically. In fact I depend on and even train such mechanisms consciously. They are *part of the I*. But the very fact I train them means they are not *all* of the I.

We must also not understand the "unity" or "identity" of the self on the wrong model. Even material and nonhuman biological systems differ in their degrees of unity or "entification." Compare a material ensemble (e.g. a cloud) or an ecosystem, to a modular organism (e.g. a plant) or a colonial "organism" (slime mold), to a sea squirt that digests its own brain versus a dog whose centralized nervous system is essential to life. The relation of whole to part and the dictation of boundary conditions are different in each. The human self appears to be a process, not an entity, particular an historical process, whose ensemble of mental contents, constructed by embodied neurology, can have varying degrees of unity or multiplicity. That the self is a social process means we should not expect it to have the unity of a stone or a tree.

6. Self-Determination and the I

Let us finally bring all this together and try to address our question. We can say all organisms are *auto-determining* in the sense that they maintain their bodies and manipulate their relations with environment to achieve ends. They are *teleonomic* agents. Psychologically endowed animals – arthropods, cephalopods, and vertebrates, in my hypothesis -- are agents in yet another sense, that they have a stream of core conscious intentional contents that can play a causal role in determining and sustaining their actions. This is *teleological* agency, or *mental auto-determination*. Lastly, we haves selves, that is, a narrative consciousness of the proceedings of our minded organisms, capable of long term episodic memory and imagination of the future, and locating our own perspective within a vast number of other, social perspectives. Notice that this looks a lot like Aristotle's tripartite notion of the soul, or *psyche*: at the lowest level, characteristic of all organisms, there is growth, metabolism, and sensitivity, where he put plants, but we could add bacteria, protists, fungi, and unencephalized animals; at the next level there are animals with desire, perception, and action, to which I would add core consciousness. Last is the human social self-consciousness, which emerges from the former.

Right now, my organism, through its brain, is maintaining its homeostatic parameters, and my conscious mentality has nothing to do with it. Some of my behavior is guided by core consciousness without self-consciousness; I shift from one foot to another, or change my posture, maybe even scratch an itch; I have no *self*-consciousness of the movements of my tongue and larynx as I

speak. Once I have learned a complex behavior which has become habitual for me, like driving to work, my organism and core consciousness carry it out, with my self consciousness acting only as *monitor* and *memoirist*, not as *motor*. The activities of organism and core conscious mind continue to feed information to self-consciousness, their contents are read by, taken up into, historical consciousness, which incorporates some of them into its narrative of agency, but the self-consciousness is not functioning as the driver *most of the time*.

It would be bizarre not to label all the activities in the preceding paragraph "mine." In everyday life there is no reason to deny that what is mine, me, or my person, belongs to my self. Self functions as the communicative social agent of the human organism, which understands itself as the possessor of all experience or intentionality of the body. The self of self-consciousness, while monitoring, also occasionally intervenes to skew, interrupt, alter, encourage or veto actions. We can legitimately say the self-conscious social agent named Lawrence Cahoone *did* my acts, even if it was not the motor driving them. That is, even what my self does not cause remains within what in everyday social and legal life we call responsible agency, because my self can *veto* the habit of the moment. I could have stopped speaking. *THERE*. I just did. For social, legal, civic and moral purposes, we may say that to be self-determining means to have self-consciousness *turned on*, as it monitors, records, adjusts and occasionally vetoes acts. Dennett calls this self an ambassador or public relations agent, rather than a CEO. A manager of groups of ambitious professionals, or a coach of independent athletes, like a Davis Cup team, might be a better analogue.

But philosophically and morally, we are looking for something more. What would self-determination in a *fuller* normative sense mean? It would have to mean *more than* the monitoring/adjusting/narrative self just described. It would have to mean that the self of self-consciousness: a) recognizes a relatively higher percentage of the totality of core consciousness and its organism, or knows a lot more of its person; b) makes a decision that certifies a single perspective as dominant; and c) thereby guides action. That means rejecting other parts and perspectives of self in the act. The self only knows some things about its organism and mental contents; it can be wider or narrower, be aware of more or less. It can occasionally expand its reach, its monitoring, and select. Self-determination in the fuller sense requires an assertion of perspectival decisiveness based in a self-consciousness of the complexity of the individual and its social-environmental position. I am not talking here about deliberation or intellect, only self-determining choice. In these choices, the self, which never ceases to be organismic, psychic, and social, *creates or discovers a position or stance* that it certifies and enforces. This may occur in moments of great stress and struggle between alternatives, or quietly in a realization of one's right direction, or even, in a different form, in the unquestioned simplicity of one's character. The self is deciding or selecting what the self is to be. Such moments are probably rare.

So we are self-determining agents in two ways: a) we autobiographically monitor, anticipate, review, and edit our actions; and, b) our selves are *capable* of recognizing, remaking or reorienting themselves around some perspective

which guides action. In the latter case we could say the self *reconstructs* and *simplifies itself* into the executive I that Mead believed could not be characterized. He was partly right: for this I is a doing or making, not something to be known except in retrospect. This I is probably best understood as a special state that self-consciousness can enter into, changing its relation to core consciousness and organism. Its rhetoric need not be egoic. The crystallizing, simplifying decision can affirm an identification with something supra-personal, like family, institution, collective, idea, or project. The I thereby asserts itself *as contentless except for* its identification. I think it is in such cases that we can begin to talk about something spiritual arising in the human process.

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