

Self-, Social-, or Neural-Determination?

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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. 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 self-determination that nevertheless 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. Taking my lead from social psychology and neuroscience, I will sidestep many deep issues about self. 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 an individual person and what is hers, “self” as a noun 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 Larry Cahoone. At the same time Western modernity 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 requires also making fallible guesses about multiple controversial issues, like the nature of consciousness and mental causation. My eccentric 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. But I reject physicalism because by any reasonable definition physicalism implies that no unique object of biology can causally affect an object of physics, which is false. Physical events can have biological causes. Second, determinism is unacceptable on fallibilist grounds: how could we ever know that every event is precisely determined by antecedents and law, that there is no objective chance? Third, 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.. Fourth, since emergence merely accepts that something *other than* interactions among micro-components are necessary to explain *some* of a system's properties, reductive and emergent explanation can be combined.(Wimsatt 2007) Fifth, I doubt the existence of simples, including simple mental states. There are "qualia," like pain or redness, but we shouldn't expect them to be unanalyzable or independent of relations. Last, philosophy of mind is not about humans. Mind is an animal capacity. Our concept of mind must not presupposes language or propositional attitudes or selves.

1. Damasio, Mind, and Consciousness

We will begin with neurologist Antonio Damasio's distinction of types of consciousness. Damasio proposes that everything we call consciousness and/or mind is an extension of an animal's monitoring of its body's internal states in relation to environmental changes, to augment the organism's automatic 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. Consciousness is cognitive in that to be conscious is to "know" something, but what is known most fundamentally is feelings, intero- and proprio-ceptions, and emotions.

Damasio postulates 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. Below we will find it useful to regard proto-consciousness as simply the intero- and proprio-ceptive part of core consciousness. 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.

Now to define mind and consciousness. 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 (has no mass or volume, for example). Brentano makes feelings or what today are called phenomenal qualities or qualia, like pain or redness, intentional. 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.

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 the mental and neurological act; if a neural process is mental, it has intentional content.

What about consciousness? In post-war analytic philosophy, functionalism changed the definition of the mental to mean those 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. They thereby excluded, and made mysterious, the sheer having of “qualia,” “subjective experience,” or even the “first-person point of view.” Thomas Nagel, John Searle, and later David Chalmers objected that this will not do. Consciousness and mind are connected; we don’t know what it would be to ascribe mind to a creature that *never feels anything*. Once we accept nonlinguistic animals have consciousness or mind, the analysis of “propositional attitudes” must become a peripheral topic in philosophy of mind.

Consciousness is intentional, but I think it is a state or condition of mind or mental acts, not an act. Consciousness is the unified, present-tense availability of the mental contents of mental acts to the organism. 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). There are of course degrees of consciousness and attention. Experience is the process of having conscious intentional contents.

Intentional states typically “represent” something; that is, their intentional object typically represent something other than themselves. This is to say they *function as representations* – we don’t have to *experience them as* representations. The mental act targets an intentional object that indicates or represents something other than itself. The feelings of hunger or pain represent something about my organism, my sensation of red represents something about the world, when veridical. This does *not* imply a representationalist theory of perception. When I look at a house I am *seeing the house*, not a representation of a house. Intentional objects are adverbial, *how* I see or am visually related to the house.

Now we may notice something unexpected about Damasio's (and hence my) account. He makes consciousness and mind coextensive, which implies that there are *no unconscious mental states*. That can't be right, can it? Freud knew better, and so does contemporary neuroscience.

Damasio's theory implies that most of what we call "unconscious" mental states are unavailable to *extended* consciousness, but available to proto- or core consciousness. We have evidence for this: self-consciousness can be turned off by disease or injury, leaving core consciousness intact. An agnostic or 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 they did. What do we call this? We can either say there was: a) *brain functioning* but no mental functioning at all, or b) brain-supported mental functioning *without any consciousness*, or c) brain-supported mental functioning with *consciousness of an abnormal kind*. I think the last is right. 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, it makes sense to say the mental activities of perception, short-term memory, emotion, etc. are proceeding, but without being attached to the self-conscious "I know that." For deer, it seems there is no dividing line between seeing and *knowing that* it sees, because there isn't an enhanced self-consciousness which can be turned off. In short, it seems that the mental activities of perception, memory, emotion, etc., may indeed always be conscious in the sense of "proto" or "core" consciousness. *Completely* unconscious activity would just be *non-mental* brain or somatic activity, like my brain's electrical control of my heart rhythm. Neural firing is after all as unconscious and non-mental as the activity of my kidneys right now.

2. Evolution of Mind

Who has a mind? We don't know, but we can make guesses. It is important to remember that 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? I doubt it. 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. We don't know what "pain" would be for a creature lacking both A-delta- and C-fibers. I will make the fallible guess that mind/experience/consciousness require at least three conditions, one straightforward, two more speculative. 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, 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. If there can only be one field of experience per soma, then modular organisms, like a hydra, any piece of which can grow into a new hydra, or organisms with multiple ganglia of similar size, may not be capable of mind. Identifiable centralized brains arise with arthropods -- crustaceans, spiders, and insects -- then

cephalopods, the largest brained invertebrate, and finally vertebrates, among whom mammals alone have the cerebral cortices.

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. The panorama produced by smell, hearing, sight, and echolocation, may well require mind to selectively perceive targets, and feelings to motivate action over a prolonged searching process.

The last speculative criterion is trial and error/success learning, also called operant conditioning. 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, non-reflexive behavior. Some call it blind variation and selective retention. It requires some memory retention. Konrad Lorenz analyzed it as a feedback loop whereby impulsive behavior is modified by retained results. While anything with neurons can be classically conditioned, operant conditioning hasn't been found below the level of arthropods. The fruit fly, at 150,000 neurons and lobsters with about 100,000 neurons, have operant learning. But not leeches, snails, and slugs, at 10-20,000 neurons, jellies with 1,000 or roundworms (*C.elegans*) with 300. Operant learning and a brain capable of mental representation may have emerged together.

So my guess is that, sometime *after* the Cambrian explosion, encephalized nervous systems evolved, with around 100-150,000 neurons, among arthropods with distal perception and the possibility of operant conditioning. I think such nervous systems achieved conscious intentional mental contents. 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 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 distally-targeted, learned action sequences.

3. The Hard Problems

Now, the so-called hard problem of consciousness is: how can several ounces or pounds of physical tissue produce intentional contents that have no mass or volume, 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 don't know the answers, but neither do I regard these as a uniquely difficult "explanatory gap" in nature. But 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*. In this sense I 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 feels or look to a creature capable of feeling and seeing. Conscious mentality is how the relevant neuro-

electrical-chemical patterns feel to a living central nervous system sophisticated enough to produce and feel them. In effect, I suggest 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: one is a caused monitoring of soma or world, and a second or third pattern “reads” the first. Nick Humphrey, for example, regards consciousness as the state of a re-entrant feedback loop, in which one efferent neural pattern, caused by stimulus either from environment or soma, is responded to, in effect “read” or monitored by, a second pattern which in turn affects the earlier phase. This monitoring phase is part of a “subjective” present, which for the organism is affectivity or feeling. (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 semantics of neurological reading activity of certain neural processes.

This engages the equally thorny problem of mental causation: 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. I believe the mental properties generated by neural activity are capable of providing “top-down” 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. Biological systems often exert downward causation on their components.

Alicia Juarrero employed nonlinear dynamics to model this possibility. (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 achieve stabilization around a pattern defined by its

unique intentional content. 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.

Fred Dretske came to a similar conclusion from a different direction. 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 intentional content can then play a role in guiding or controlling behavior. The brain constructs an intentional monitoring of soma and world. Some of these mental contents, the brain learns, 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 dynamically, 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 property* (e.g. a feeling or image), then the mental property supervening on a neural pattern *has made a causal difference* to subsequent firings, by being the

reason for the brain's production of its subvenient neural state. Somewhere between Juarrero's and Dretske's approaches, I believe we will find the key to mental causation.

4. The Social Self

Many things make humans distinctive. I will focus on one: we are uniquely social. Dennett himself argues that the human brain evolved because of and through human social communication. This is no discovery; a century ago G.H.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 gestures, communicative behaviors, in the process of "mutual adjustment" – e.g. growling rather than biting. But only humans use gesture *as sign*, significant gesture; 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, hence 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 for Mead.

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. Hobson calls it 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 *socialize* animal intentionality. The human individual’s very thought process and self *are* social. 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 myself, a self which emerges 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. Self-consciousness is social and cannot be otherwise.

5. How can a neuro-social organism have self-determination?

But what does this do to 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 must also accept 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, that is, uncontrolled by my conscious awareness. Some reflexes are inborn, others learned. A myriad of stimuli in any social environment trip neural wires, setting off my 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. This triggered neurons coding for triumphalism in *his* head.

The most direct neuroscientific assault on free will 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 it 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 all this, and Dennett made it. 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, and so could not have any effect. 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 notion that Velmans calls “preconscious free will.”(Velmans 2003)

Determination of behavior by self-consciousness can 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”). (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 reflex, 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 walks into my view: my conscious perception lags behind the neural state that recognizes the bear, which itself lags behind the bear’s movement. But as the bear stands there 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 of the emotions that our behavioral emotional response can be initiated before the feeling of fear. But that doesn’t mean the fear and pain aren’t causal; just 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. As a reflex I may begin to remove my hand from the hot stove 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 the reflexes, dispositions and habits, my conscious self can incline towards one or another, or “take sides” as Vellman suggests. I *am* partly constituted by mechanisms that handle input automatically, and I depend on and even train such mechanisms consciously. They are part of me, as are the executive functions that depend on them.

6. Self-Determination and the I

Let us finally bring all this together and try to address our question. 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 are humans with selves, that is, 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 that we can take up, providing us with rationality. 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 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, and have no self-consciousness of the movements of my tongue and larynx. 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 as monitor and memoirist, not a 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 is entirely appropriate to, and 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. The self-conscious social agent named Larry Cahoon did my acts, even if not by choice. That is even what my self does NOT cause remains within what in everyday social and legal life we call responsible agency, because (even Libet) believes that my self can veto the habit of the moment. I didn’t have to drive onto the sidewalk and kill those people. 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

vetoed acts. Dennett calls this self an ambassador or public relations agent, rather than a CEO. But a manager of a group 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 a self: a) recognizes a relatively higher percentage of the totality of core consciousness and its organism; b) makes a decision that certifies a single perspective as dominant, one which renders coherent a multiplicity of that recognized material; and c) thereby guides action. This means rejecting other parts and perspectives of self. Self-determination in this sense would mean a selective affirmation of parts of the self, and this can only happen if many parts are known. The self only knows some things about its individual, organism, and core conscious contents. Self can be wider or narrower, be aware of more or less of its organism and core consciousness. It can occasionally expand its reach, its monitoring, and select. Self-determination in the full sense requires an assertion of perspectival decisiveness based in a self-consciousness of the complexity of the individual (and, of course, its social-environmental position).

I am not talking here about deliberation, or intellect, only self-determining choice. In these cases, 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 alternative paths, 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 summing, remaking or reorienting themselves around some perspective which guides action. In the latter case we could say the self *simplifies itself* into an *I*, the *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. It can be understood in an egoic or non-egoic way. The crystallizing, simplifying decision can affirm some unique content of self-consciousness, or instead involve an identification with something supra-personal: family, movement, institution, idea, or project. The *I* asserts itself but *as contentless except for its identification*. I think in such cases we can begin to talk about something spiritual arising in human self-determination.

References

- Brentano, Franz. 1973. *Psychology from an Empirical Standpoint*. trans. A.C. Rancurello, D.B. Terrell, and L. McAlister. London: Routledge.
- Chalmers, David J. 1995. "Facing up to the Problem of Consciousness." *Journal of Consciousness Studies*. 2 (3): 200-19.
- Damasio, Antonio. 2012. *Self Comes to Mind: Constructing the Conscious Brain*. New York: Vintage.
- Dennett, David. 1997. *Kinds of Minds: Toward an Understanding of Consciousness*. New York: Basic.
- 2004. *Freedom Evolves*. New York: Penguin.
- Dretske, Fred. 1988. *Explaining Behavior: Reasons in a World of Causes*. Cambridge, MA: MIT.
- Globus, Gordon, G. Maxwell and I. Savodnik. 1967. *Consciousness and the Brain: A Scientific and Philosophical Inquiry*. New York: Basic Books.

Hobson, R. Peter. 2004. *The Cradle of Thought: Exploring the Origins of Thinking*. London: Pan Macmillan.

Hinton, Geoffrey E. and Tim Shallice. 1991. "Lesioning an Attractor Network: Investigations of Acquired Dyslexia." *Psychological Review*. 98, 1: 74-95

Humphrey, Nick. 1999. *A History of the Mind: Evolution and the Birth of Consciousness* Copernicus.

----- 2006. *Seeing Red: A Study in Consciousness*. Cambridge, MA: Harvard University.

Juarrero, Alicia. 1999. *Dynamics in Action: Intentional Behavior as a Complex System*. Cambridge: MIT.

Libet, Benjamin. 1985. "Unconscious cerebral initiative and the role of conscious will in voluntary action." *The Behavioral and Brain Sciences*. 8: 529-66.

----- 1999. "Do We Have Free Will?" *Journal of Consciousness Studies*. 6. No.8-9: 47-57

Lorenz, Konrad. 1973. *Behind the Mirror: A Search for a Natural History of Human Knowledge*. New York and London: Harcourt Brace Janovich.

Mead, George Herbert. 1962. *Mind, Self, and Society: From the Standpoint of a Social Behaviorist. Vol.I*. Ed. Charles Morris. Chicago: University of Chicago.

Searle, John. 1992. *The Rediscovery of Mind*. Cambridge: Bradford.

Sperry, R.W. 1976. "Mental Phenomena as Causal Determinants in Brain Function." In Globus et al. 1976. pp.163-77.

Taylor, Charles. 1989. *Sources of the Self: The Making of the Modern Identity*. Cambridge, MA: Harvard University.

Tomasello, Michael. 1999. *The Cultural Origins of Human Cognition*. Cambridge, MA: Harvard University.

Tomasello, Michael and Josep Call. 1997. *Primate Cognition*. Oxford: Oxford University.

Velmans, Max. "Preconscious Free Will." *Journal of Consciousness Studies*. (10) 12: 42-61.

Warnock, Mary. 1978. *Imagination*. Berkeley: University of California.

Wimsatt, William. 1976. "Reductionism, Levels of Organization, and the Mind-Body Problem." in Globus et al. pp.199-267.

----- 2007. *Re-Engineering Philosophy for Limited Beings: Piecewise Approximations to Reality*. Cambridge: Harvard.