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In: Krzysztof Piotr Skowroński and Sami Pihlström (Eds.) (2019).  
*Pragmatist Kant—Pragmatism, Kant, and Kantianism in the Twenty-first Century* (pp. 133–149). Nordic Studies in Pragmatism 4. Helsinki: Nordic Pragmatism Network.


ISSN-L 1799-3954

ISSN 1799-3954

ISBN 978-952-67497-3-0

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Nordic Pragmatism Network,  
Helsinki 2019

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# Does Pragmatism Need a Concept of Autonomy?

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## 1. Introduction

Although the Greek roots of the word autonomy militate against attributing its invention to Immanuel Kant, it would not be a stretch to argue that Kant created a metaphysics and moral philosophy that gave birth to and insisted upon a type of autonomy not seen in prior philosophical systems (Schneewind 1998, 6). The essence of moral action insofar as it is moral for Kant is found in autonomy. For an action to count as within the bounds of morality, a moral agent must act purely out of respect for the moral law and only out of such respect. Similarly, Kant grounds the dignity that humans manifest as rational beings in their ability to employ autonomous reason rather than being subject to the vicissitudes of impulse as are, apparently, non-rational brutes. The Kantian idea of autonomy is probably as important a concept for the development of the concept of the modern human and its requisite demands for dignity as any other we are likely to find (*ibid.*, 4).

And yet such a high and pure standard creates a problem if one is committed to the principles of naturalism and continuity, as pragmatists tend to be. Moreover, the pragmatic maxim cuts against the very idea of “a thing in itself” apart from one’s experience of it, the very notion that Kant invoked in his critical philosophy in order to preserve a domain for autonomy to reside. Birthed in response to the discovery of evolution by natural selection, pragmatism can do naught but see human beings as evolved creatures that must cope in a world of pushes and pulls of

impulse and desire and who, as such, have no access to a domain of pure reason.

The very idea of a separate realm of autonomous reasons or actions violates the pragmatic principle of continuity in several ways. First, it is difficult to see how anything like autonomy could evolve under the pressures of natural selection whose very nature is defined by the concept of fitness, that is, the relevance of a given choice or adaptation for a specific, local end that is conditioned by the needs and interests of the organism. Second, it is difficult to see what difference the existence of a pure reason (even a pure practical reason) or a noumenal self could make in a naturalistically constrained world. Finally, the pragmatic principle of continuity recognizes the evolutionary principle of conservation of means. That is, any higher mechanism of reason must be built out of parts that were evolved for simpler functions, thus rebutting the faculty psychology at the heart of the Kantian system. A final friction between pragmatism and Kantian autonomy lies in the pragmatists' tendency to focus upon the malleability of individual-other/organism-environment relations. For the pragmatists, there doesn't seem to be a simple, concrete, whole, separate self, which Kant's notion of autonomy requires. Pragmatists tend to focus on concepts like transaction at the expense of boundaries, and fluidity and vagueness at the expense of identity and specificity.

Does this mean that pragmatists cannot avail themselves of the ethically salient notion of autonomy and related conceptions? I think that the answer to this question is no. While the pragmatist will have little recourse to a Kantian conception of autonomy, rooted in a non-naturalistic metaphysics replete with discontinuities that conflict with pragmatist commitments, there is another conception of autonomy that is available to pragmatists that might be compatible with pragmatic commitments. What I have in mind is the concept of "biological autonomy" as articulated by Francesco Varela. At the end of the chapter, I will consider the advantages and disadvantages of a pragmatic appropriation of this concept that comes to us from systems theory and theoretical biology.

One background assumption for my proposal is that pragmatism has been fruitfully stimulated by concepts arising from biology, specifically the theory of evolution by natural selection. Dewey (1983) and others (e.g., Popp 2007), of course, have had a lot to say about the influence of Darwinian evolution on the development of pragmatism in general and on Dewey's thought in particular. Even so, it is important to note that evolutionary biology has changed significantly since Darwin's and, in-

deed, Dewey's time. Evolutionary theory alone has undergone at least three major new syntheses: Weismannian germ theory, population genetics, and Franklin, Watson, Wilkins, and Crick's discovery of the structure of DNA. Moreover, biological theory has benefited from developments in other fields such as systems theory and second order cybernetics that did not exist during the heyday of classical pragmatism. The idea here isn't that pragmatism must be "biologized" or limited to concepts deriving from biological inquiry but rather that it is already a biological philosophy that has been and might continue to be fruitfully stimulated by such concepts.

In this chapter, I examine the features of Kantian autonomy that render it problematic for pragmatists. I then argue that, while problematic, pragmatists probably can't simply do without any sort of notion of autonomy. In the third section, I introduce the concept of "biological autonomy" and explore the potential and the difficulties of using this concept to do the kind of work that philosophical autonomy does in the Kantian system. In general, my claim is that the concept of biological autonomy might be useful for situating and updating the naturalistic project of pragmatism so long as one keeps in mind the dangers of biologizing the humanities and/or reducing the unique situated-ness of human beings to the situation of non-human biological organisms.

## 2. Tensions between Kantian autonomy and pragmatism

There are three main areas in which tensions emerge between pragmatism and a Kantian concept of autonomy: differing conceptions of causation and law, differences with respect to Reason and inquiry, and the implications of the findings of evolutionary biology and research into the functioning of human motivational systems.

### 2.1 Differences with respect to causation and law

Kant's conception of autonomy depends on conceptions of causation and lawfulness with which Dewey and other pragmatists were at odds and criticized relentlessly. While not a determinist, Kant accepts the premises of determinism that were given by the then contemporary understanding of Newtonian physics and, as such, must aver a special form of non-natural causation to avoid the unacceptable implications of determinism for morality, i. e., that if our actions are determined by empirical causes, we cannot be held accountable for our actions and morality is illu-

sory. To solve this philosophical conundrum, Kant invokes the faculty of the Will, which interacts with his conception of autonomy in three ways.

First, for Kant, the Will exercises a special form of causality that is peculiar to rational beings. As Thomas Hill explains, "it is a power to cause changes in the world on the basis of a rationale, which if spelled out would include our beliefs, aims, policies, and an implicit idea of a relevant rational principle" (Hill 1998, 18). Now, depending upon what is at issue when it is claimed that this is a *special* form of causation, a pragmatist need not *necessarily* object to this view and might even endorse it. Pragmatists, such as Dewey and James, embrace the notion that our ideas have causal power and that they play a role in human action in a way that is distinctive for the sorts of beings that we are. Pragmatists would, however, take issue with this claim if *special* were taken to mean non-natural, that is, distinct and disconnected from the kinds of processes that make up the rest of the universe.

The second interaction between the Will and autonomy for Kant involves negative freedom. As Hill explains, a person can "act and cause events without the person's choices being causally determined by prior physical and psychological forces" (Hill 1998, 18). On the face of it, a pragmatist would have no problem with this claim either. Insofar as pragmatists are not determinists, they view human choices as not being *determined* by prior physical or psychological forces. However, as Hill points out, there is a dual aspect to this claim regarding negative freedom. For Kant, one is free in the negative sense only if one is (a) "able to act independently of empirical causes and. . . [b] capable of acting independently of empirical motives" (Hill 1998, 19, fn. 3). Now, while a pragmatist might quibble with the wording of (a), there's no fundamental disagreement there because, as previously noted, pragmatists are not, as a rule, determinists. However, a pragmatist will take issue with (b) insofar as pragmatists are (radical) empiricists. Empirical motives are the only ones that we've got and yet, in their view, we can be free in this sense even if we may choose only among empirical motives. This is possible because pragmatists were different sorts of empiricists than Locke or Hume and because they developed a more sophisticated moral psychology than was available to the British empiricists, a difference that I will discuss below.

The third significant interaction between Will and autonomy involves Kant's conception of positive freedom (Kant 1952 [1788], 29). It is here that a pragmatic understanding of free action is most at odds with the Kantian version because of more thoroughgoing differences in ontology and epis-

temology, and a different orientation toward the concepts of “obedience” and “law”. For Kant, even if our actions are free, they must still be subject to some kind of law (Hill 1998, 19). It is for this reason that Kant offers his innovation to the idea of autonomy whereby humans are both bound by law and free because they give the law to themselves and are, as such, and only for this reason, bound by it. But this innovation is necessary only because of the conception of law as necessarily invariant and objectively given that Kant inherited and that pragmatists, such as Dewey, rejected. Where Kant writes, “Laws must completely determine the will as well, even before I ask whether I am capable of achieving a desired effect or what should be done to realize it” (Kant 1956 [1788], 18), a pragmatist will rejoin that laws are regularities we find in experience and, as such, are incapable of determining anything.

For Dewey, determinism—or “the doctrine of necessity”—rests on a misunderstanding about the nature of the idea of necessity. Whereas determinists view necessity as an objective feature of the world, Dewey argues that, in the strong sense, necessity properly occurs in the context of inquiry as a relation between ideas, not things in the world (Dewey EW 4: 20). Specifically, Dewey claims that necessity does not refer to any sort of compulsion whatsoever but rather to the “degree of coherence” among the constituent factors of an affirmation. He writes, “When we say something or other *must* be so and so, the ‘must’ does not indicate anything in the nature of the fact itself, but a trait in our *judgment* of that fact; it indicates the degree with which we have succeeded in making a whole out of the various elements which have to be taken into account in forming the judgment” (Dewey EW 4: 21). Moreover, the idea of necessity represents a halfway stage in inquiry, one that is midway between the initial stage where we have completely unrelated judgments and the final stage where the parts have been so bound into a comprehensive synthesis that they are barely distinguishable. While more time and effort could be spent unpacking and evaluating Dewey’s argument regarding what he termed “The Superstition of Necessity”, what has already been said should be sufficient to show that Dewey’s conception of necessity and therefore also of determination and laws is radically different from Kant’s understanding of these issues. The upshot is that Dewey doesn’t need a special form of non-empirical causality to ensure the possibility of negative and positive freedom because he doesn’t believe that laws, whether scientific, moral, or statutory, constrain us in the ways that Kant thinks that they must. As such, Dewey doesn’t need the strong form of tran-

scendent autonomy that Kant insists upon to avoid the dilemma between “anarchy and submission” (O’Neill 1992, 300) because, for Dewey and the other pragmatists, this is a false dilemma that rests upon a misunderstanding about the nature of necessity and law.

## 2.2 Differences with respect to reason and inquiry

It should be clear from what has just been said that pragmatists reject the notion that human beings have a distinct faculty called Will that is autonomous insofar as it determines itself according to the dictates of another faculty called Reason. In fact, the pragmatists—James and Dewey at any rate—rejected faculty psychology altogether (Johnson 2014, 24). Thus, another tension between pragmatism and Kantian autonomy is that pragmatists don’t believe that there is a faculty called Reason that could command us, or that we could obey, and obedience to which would constitute autonomy. In place of “Reason”, pragmatists substitute inquiry, which is not a faculty but an activity—essentially problem-solving—that includes the interrogation and refinement of impulses, desires, and goals according to the needs of the situation (Dewey 1988 [1922]). This is a different form of self-rule from Kantian autonomy: it is the notion that we may, given the proper conditions, exercise control over the processes of our own habit-formation.

For the pragmatists, morality isn’t a distinctive sphere of experience separate from, e. g., religion, politics, science, art, or engineering. Reality doesn’t come divided into distinct spheres (Johnson 2014). Any problematic situation can have a moral aspect. It is for this reason that the pragmatists didn’t see the need for a distinct faculty whose purview would be morality. We as human beings are faced with problematic situations, and our task when presented with such situations is to rearrange experience by means of inquiry so that those situations are rendered no longer—or at least less—problematic. Now, parts of those situations will be more and less amenable to transformation by our efforts. Moreover, to be effective, we must utilize the results of past inquiries upon the present problematic situation. These two elements are what commonly go by the name of facts and laws (scientific or moral), but resolving morally problematic situations is, in this view, by no means a question of objectively determining a pre-existing truth or obeying the dictates of a law.

### 2.3 The effects of evolutionary theory and the science of motivation

Autonomy emerged as a fundamental concept in morality in the context of a shift away from a moral theory where “obedience”, whether to the divine will or its temporal analogue, divinely sanctioned princely authority, to an understanding of morality in terms of self-governance (Schneedwind 1998, 4–5). It was Descartes’s view that “God sets up laws in nature just as a king sets up laws in his kingdom” (Descartes, to Martin Mersenne, cited in Margulis and Sagan 2000 [1995], 38). As this new morality of self-governance emerged, the idea of a universal (or at least universally accessible) reason emerged to displace the role that punishment and reward had played under the previous regime (Schneedwind 1998, 4–5). Schneewind notes that the currents that gave rise to the new morality in the seventeenth and eighteenth centuries were religious and political rather than scientific. However, later developments that came to challenge the dominant conception of morality based upon transcendent autonomy in the late nineteenth and twentieth centuries were based in scientific discoveries, specifically Darwin’s theory of evolution by natural selection and advances in empirical psychology.

It was thus that autonomy-based moral theory emerged in the more humanistic setting of the Enlightenment to displace the obedience-based moral theory of the preceding theocentric worldview. As Schneewind notes, the development of Enlightenment humanism, at least in the context of moral theory, was by no means primarily anti-religious. He writes, “If I were forced to identify something or other as ‘the Enlightenment project’ for morality, I should say that it was the effort to limit God’s control over earthly life while keeping him essential to morality” (Schneewind 1998, 8). This project did, however, involve displacing God to some extent and ascribing Godlike powers, whether in the form of an imperious will or an unlimited and universal reason, to human beings. The development of evolutionary theory in the nineteenth century, however, posed perhaps as great a challenge to this aspect of Enlightenment humanism as it did to the theological worldview in undermining the argument from design. This is because this humanism ascribed powers to human beings that were not found in the rest of nature and this ascription required the maintenance of not only a difference of degree but also one of kind between human beings and the rest of nature. Evolutionary theory went a long way toward collapsing the rationale underlying the basis for a radical distinction between human beings and other living things.



If, as Darwin claimed, human beings evolved from “lower” forms of life, it becomes harder to see how humans might have access to anything like universal reason or transcendent will. Two features fundamental to evolutionary theory and embraced by pragmatists stand in the way of accepting the moral psychology implied by Kantian autonomy. First, evolution’s principle of continuity, wherein higher functions are performed by repurposing prior adaptations, suggests that the faculty psychology presupposed by Kantian ethics is unlikely to have been an evolutionary product. Second, according to evolutionary theory, cognitive functions—including moral perception and reasoning—evolved to enhance survival and reproduction; hence, even if they do succeed in mirroring the world from time to time, there is no guarantee that they do so unflinchingly, much less that they represent transcendent truths detached from the everyday world and our empirical motives found therein. Cognitive functions, including moral reasoning, could have evolved to function only in terms of empirical, not transcendental content, thus rendering an evolutionary understanding of human psychology incompatible with Kantian autonomy. As such, to the extent that pragmatists embrace an evolutionary account of the development of human psychology, pragmatists will resist an understanding of morality in terms of Kantian autonomy.

Not only evolutionary biology but also advances in neurophysiology and the sciences of human motivations tend to raise doubts about the Kantian account of autonomy. According to Karl Ameriks, “Kant does not refer to an empirical freedom from particular empirical forces, but to transcendental freedom as a will that is a unique cause wholly independent of empirical determination” (Ameriks 1998, 53). Yet recent work in neurophysiology has shown that all cognition is deeply tied to the limbic system, which functions in terms of biochemical reward and inhibition mechanisms (Damasio 1999 and 2003). Thus, according to this research, the human nervous system could not function at all if it were “wholly independent of empirical determination”. Contra Kant, Dewey thought that only an “Immature and undisciplined mind believes in actions which have their seat and source in a particular and separate being, from which they issue” (Dewey LW 1: 324). Moreover, it is worth noting that, as psychologists and philosophers, both James and Dewey anticipated many of these findings regarding the emotional basis of cognition, including moral reasoning, which therefore represent yet another source of tension between pragmatism and Kantian autonomy.

### 3. Why pragmatism needs (something like) autonomy

Given these tensions between pragmatist commitments and the strong and influential conception of autonomy that is at the heart of Kantian moral philosophy, it is tempting to answer “no” to the question in the title of this paper. If pragmatism is so much and in so many ways at odds with autonomy, why not simply abandon the concept altogether and move on? There are (at least) two sets of reasons why simply abandoning autonomy would be problematic.

The first set of reasons involves the role that autonomy plays in the modern, post-Enlightenment discourse of humanism. Put simply, autonomy is at the heart of the modern conception of what it means to be fully human, endowed with rights and responsibilities that bind us together in a common ethical and political project. As such, the notion of autonomy, in principle at least, serves as a bulwark against forces and institutions that would otherwise undermine this project, such as the rise of the total administrative state. The idea of autonomy helps preserve the notion that persons are not (or at least not merely) objects to be administered. Humans, as autonomous entities, deserve to be consulted about what is done to and for them, even when these things are done for their benefit and especially when they are not.

Having emerged from the (religious) principle of freedom of conscience during the Protestant Reformation (Schneewind 1998, 6–7), today the concept of autonomy is part of the philosophical scaffolding for important human rights like the freedom of speech, freedom of assembly, and *habeas corpus* (Normand and Zaidi 2008). It is also fundamental to the dominant conception that we have of ourselves as moral agents who are responsible to and for one another.

The concept of autonomy functions within a larger conception of human beings as bearers of value that serves as an inhibitor to the reduction of all social and political relations to those of pure power. It does this primarily by means of its relationship to the concept of Reason. The notion of autonomous reason shores up the idea that something other than outcomes matters in the settling of disputes. The idea is that there are better and worse forms of persuasion and, in the ideal form of communication, the force of reason holds sway in place of (other) forms of coercion. Autonomy creates a clear relationship between reason and dignity by instituting an ideal of individual sovereignty. This human sovereignty is analogous to and takes its model from divine sovereignty, the two being linked by

mutual—human and divine—access to universal reason. While autonomy has not always been crucial to a robust concept of human dignity, through historical developments that are not easily turned back, it has become so (Schneewind 1998, 5).

The second set of reasons why philosophers in general and pragmatists in particular should not blithely give up on the idea of autonomy has to do with the crucial role it plays in a number of discussions in applied ethics. There are a great many practical ethical situations in which questions of autonomy are at issue, from questions of informed consent and patient's rights to how one must treat human tissues and beyond. Hill (2013) identifies three common themes to the role that autonomy plays in questions of applied ethics. According to Hill, autonomy

1. "is a *right* to make one's own decisions, especially about matters deeply affecting one's own life"
2. "is a *capacity and disposition* to make decisions with *due reflection and independence* of mind" and
3. "is seen as being in control of a life that encompasses a substantial range of activities and relations with others". (Hill 2013, 24)

Hill observes that these notions as applied to individuals mirror those rights that sovereign states generally reserve to themselves, and, while not identical with Kantian principles, Hill argues that a Kantian conception of autonomy might serve to support these principles. Our question, however, having noted definite tensions or perhaps even irreconcilable differences between pragmatism and Kantian autonomy, is whether *only* a Kantian conception of autonomy can serve to undergird "practical autonomy" or, by contrast, we might find a naturalistic and otherwise generally more pragmatically acceptable alternative.

#### 4. Biological autonomy to the rescue?

Francisco Varela articulated the concept of biological autonomy (BA) in the context of theorizing about what is distinctive about living things. Varela notes that autonomy literally means "self-law" and contrasts it with its antonym, allonomy, or external law, which we otherwise understand as "control". Autonomy, he writes,

Represents generation, internal regulation, assertion of one's identity: definition from the inside. [Allonomy] represents consumption, input and output, assertion of the entity of the other: definition from outside. Their interplay spans a broad range, from genetics to psychotherapy. Varela 1979, XII

Living things are autonomous because they are composed of dissipative components and exist in dissipative environments in far-from-equilibrium states. For this reason, they must exert effort to make, unmake, and remake these components and environmental relations to preserve themselves. For Varela, autonomy and control represent two fundamental and distinct paradigms for thinking about information. The fundamental categories for allonomy are instruction and the model is input/process/output. Failure of instruction is conceived as error. By contrast, the fundamental paradigm for autonomy is conversation and failure is conceived in terms of breaches of understanding.

According to Varela, the success of physics, molecular biology, and the evolutionary paradigm have led to the dominance of the allonomous model in how we think about complex systems; however, this model is inappropriate when exclusively applied to living systems. It has led to the dominance of the cognitive paradigm of cognitive processes as representations that are thought to correspond to an external environment. However, he writes, "To take this approach as a general and universal strategy for all aspects of natural systems, including human transactions, seems incredibly limiting" (Varela 1979, XIV). Indeed, he argues,

It is my view that this area of science has been substantially modeled in the image of physics and its technological pathos. One essential difference here however is that *we* and the world that supports us belong to the categories of sentient being and not of atoms and quasars. Consequently, the Promethean approach inherited from physics bounces back at us in a fast and dramatic way. Varela 1979, XIII

Autonomous systems do not operate on an input-output model. Indeed, from their point of view, there is no input and no output of information. Rather, they operate according to their own organizational structure in ongoing ontogenesis. They are perturbed by their own operations and environmental triggers, but they are not controlled by them. Varela explains that (in his sense) autonomy exists "wherever there is a sense of being distinct from a background, together with the capacity to deal with it via cognitive actions" (Varela 1979, XIII).

Moreno and Mossio, who have further developed, articulated, and expanded upon Varela's concept of BA, put the point in this way:

Seen from the perspective of their relations with their environment, individual organisms are systems capable of acting for their own benefit, of constituting an identity that distinguishes them from their environment (at the same time as they continue interacting with it as open, far-from equilibrium systems.

Moreno and Mossio 2015, XXIII

In living (and other autonomous) systems, their being is indistinguishable from their doing (cf., Jonas 2001 [1966]). Living systems, they emphasize, cannot stop their activities without ceasing to be, and, in making this point, they draw a parallel with Spinoza's concept of *conatus*, which appears in his *Ethics*. Unfortunately, there is a great deal that could be said in unpacking the concept of BA, but to do so here would exceed the bounds of space, time, and propriety.

It is worth noting that Kant invoked something like the principle of Biological Autonomy in trying to account for the apparent teleology of living things, the principle of *Bildungstrieb* ("formative impulse"), which Kant borrowed from the naturalist J. F. Blumenbach, as distinct from "that merely mechanical *formative power* universally resident in matter" (Kant 1951 [1790], 274). *Bildungstreib* is used by Kant to account for living beings as "natural purposes". He needs something like this principle because the apparent purposiveness of living beings is otherwise inexplicable by Kant's regulative principle that "all that we assume as belonging to this nature (*phenomenon*) and as its product must be thought as connected with it according to mechanical laws" (ibid., 271). As Jane Bennett explains, "As Kant saw it, one virtue of *Bildungstrieb* as a concept was that it provided a way to affirm the *uniqueness* of the phenomenon of organic growth, which was simultaneously a mechanical and a teleological process" (Bennett 2010, 67).

It is important to note, however, that *Bildungstrieb* differs from BA in one very important way: For Kant, *Bildungstrieb* was merely a regulative principle, useful for biologists in investigating living phenomena but in no way considered to be an actual agency in the world (ibid., 66). (Also, one should note, for Kant *Bildungstrieb* was distinct from the Will, which is found uniquely in "Man".) For pragmatists who might consider adopting the concept of BA, there is no such need for a radical distinction between "real" and "purely heuristic" principles of the sort that Kant routinely invokes. Moreover, owing to their different understanding of the nature

of Law to that of Kant, pragmatists are not, in general, committed to the notion of a purely passive, obedient, and essentially dead matter as Kant was and, as such, have no need to invoke a principle like *Bildungstrieb*. Marcel Quarfood (2006) provides a detailed analysis of this concept in attempting to resolve the conceptual difficulties left by Kant; however, a detailed consideration of these issues lies beyond the scope of this chapter.

There are two main things that BA achieves in the context of philosophical concerns that extend beyond questions limited to the philosophy of biology. First, it allows us to identify entities that have interests, that act upon those interests, and which are defined in terms of the entities themselves rather than by an outside observer. Recalling William James's "The Moral Philosopher and the Moral Life", in a lifeless universe, there is no possible way that one state of affairs is preferable to another (James 1891). Different arrangements of atoms and quarks are equally valueless. Once biological autonomy emerges, however, entities exist that manifest preferences. Thus, according to James, it is through (something like) biological autonomy that value comes to exist at all.

The second thing that BA provides, as Varela points out, is an alternative to control ideology. BA is "a view of participatory knowledge and reality, which we see rooted in the cognitive, informational processes of nature from its most elementary cellular forms" (Varela 1979, XVI). The implications of this view extend far beyond the concerns of cellular biology. Varela writes,

What is basically valid for the understanding of the autonomy of living systems, for cells and frogs, carries over to *our* nervous system and social autonomy, and hence to a naturalized epistemology.

Varela 1979, XVII

The computational model of sentience leads to a worldview in which external control is the only possible factor to consider, a view that reduces all questions to those of design, or manipulation. Biological autonomy, by contrast, in opening the way to a different mode of understanding complex processes, allows for the emergence of value not as opposed to questions of what is the case but as at the very heart of observation.

In addition to these positive features, BA is preferable to Kantian autonomy for what it does not do. Biological autonomy is naturalistic and therefore does not appeal to any sort of thing-in-itself or insist upon a distinct form of causation. BA does not require or suppose that we have access to universal reason. Finally, BA is not dependent upon an outdated and discredited form of faculty psychology.

That said, there are a few concerns that might be raised about BA. One worry is that, insofar as BA is a scientific concept, developed in the context of theoretical biology, it cannot reflect or deal with humanistic concerns in general or more specifically the demands of ethics. There is a serious side to this concern, but one version of it can be eliminated by considering the wider role that Varela sees autonomy plays in terms of broad, humanistic concerns. He writes,

Unless we take into account that there is an autonomous side to many natural and social systems, we run into troubles, not only in the specifics of research and formalizations, but in the wider scale of our dealings with sentient beings, with life, with the environment, and in human communication. In this respect, the problems of biology are a microcosm of the global philosophical questions with which we grapple today. Varela 1979, xv

What's more, considering the pragmatic principle of continuity, it should not be surprising that features that are found in the simplest living systems have analogues that might be helpful for understanding more the more complex relationships among systems that have evolved from similar, simpler systems.

A second, related concern relates to worries about scientism. Since BA is a scientific concept, one might wonder whether its application to areas beyond the physical sciences amounts to a kind of scientism. This concern, too, is easily dealt with insofar as BA is proposed as an alternative to the Promethean, positivistic scientism that is dominated by the control paradigm. It is also worth pointing out that concepts are borrowed and shared back and forth among various discourses all the time. For example, the very idea of a "machine" originated from the observation of living systems long before this concept was reapplied to the understanding of living systems. The borrowing of a concept in biology for use in the humanities should not be a concern as long as one is aware of the possible ideological uses of such borrowings and attuned to the fact that, as Glynn L. L. Isaac puts it, "Scientific theories and information about human origins have been slotted into the same old places in our minds and our cultures that used to be occupied by the myths" (quoted in Wynter 1997). If we are vigilant about the risks of the ideological uses of science, we should not be troubled by the origins of ideas, even if they were developed in the context of scientific investigation.

Two final concerns about using BA in place of Kantian autonomy raise more serious worries. One is that BA doesn't do enough of the work that

Kantian autonomy does in traditional ethics. It's one thing to say that biologically autonomous entities have *conatus* and quite another to argue that this fact implies that they have dignity or deserve respect. This is a serious concern. Clearly, the concept of BA needs to be further articulated and a lot of work would need to be done to make the concept serviceable as a tool for pragmatic ethics. However, the hope is that, once such work has been done, BA might serve as a sort of non-foundational basis for an expansive ecological ethics, one that focuses on the interdependence of autonomous systems in a way that is largely overlooked by current ethical theory while at the same time avoiding the philosophically problematic notion of intrinsic or inherent value that dominates some strands of contemporary environmental ethics.

A final worry about BA is that it does too much. If an ethical theory built upon BA requires that we concern ourselves with the interests of all biologically autonomous entities, the worry is that such a level of concern is unsustainable. By not being able to ignore the interests or valuing and value-seeking character of a seemingly limitless range of beings, the worry goes, we will find ourselves ethically exhausted. This is a genuine concern, but I would suggest that at this point, given the ecological devastation that we humans continue to wreak upon the planet, and the ease with which we allow ourselves so many moral holidays on any number of fronts, an increased level of moral sensitivity to a wide range of sentient beings is probably a risk that is worth taking. So, the tentative answer I want to give to the question posed at the outset, "Does pragmatism need a concept of autonomy?", is "probably", and I suggest that, with continued development, the concept of biological autonomy, with some caveats, just might fit the bill.

As previously noted, William James argues in "The Moral Philosopher and the Moral Life" that no transcendental faculties whatsoever are required for understanding the origins of values and norms. Sentient beings, James argues, have preferences and, once they come upon the scene, a moral dimension is added to the universe—one that did not exist prior to their appearance. What I have tried to show is how Biological Autonomy might serve to provide some more concrete details to the pragmatic account in a way that benefits from and is compatible with important work in the biological and various systems sciences. This is not to say that the simple concept of BA does much work ethically at all. Then again, neither does Kantian autonomy. Rather, I have argued that BA is an important key to a pragmatic and ecological approach to ethics that rests not upon



turning humans into “little Gods outside of nature” (Dewey LW 1: 324) but that rather understands humans and other living creatures as deserving of ethical consideration—albeit different forms appropriate to their distinct forms of life—from a point of view that is consistent with a pragmatic commitment to the principles of naturalism and continuity.

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