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MORALITY IN SPITE OF INTEREST: ABSOLUTE PRINCIPLES GROUNDED IN SKEPTICISM'S NECESSITIES OR RE-EXAMINING EVOLUTION AND EPIGENESIS

Abstract

The issue of the relationship between mind and matter (morals and biology) did not commence with Darwin's (mis-titled) *Origin of the Species* (more accurate: *Origin of Species from Other Species*). In the 18th century alone, one only need recall the British/Scottish Rationalist/Moral Sense school, d'Holbach's and Bonnet's materialist reductionism, Leibniz' pre-established harmony between consciousness and matter, or Lessing's ugly ditch. Johnann Nicolaus Tetens' (1777) *Philosophische Versuche über die menschliche Natur und ihre Entwicklung* was on Kant's desk as he wrote the *Kritik der reinen Vernunft*. The issues (not the technology, to be sure) of today's morality and neurobiological reductionism are at the core of Tetens' debate with Charles Bonnet. Teten's project on the nature and development of humanity is a defense of the complementarity of "evolution" (preformation) and "epigenesis" (novelty) that is engaged by Kant in his discussion of teleology and morals later in the *Kritik der Urteilskraft*. At issue is the character of causal explanation. Is causal explanation analytic or synthetic? This paper engages Kant's synthetic (as *compositio*!! not *nexus*) argument for understanding order in nature (physical necessity) as well as order in the novelty of creative freedom (self-legislated moral necessity) when it comes to humanity's capacity to initiate a sequence of events that nature cannot accomplish on its own. Humans are moral beings because they can be, not because they must be -- and that makes all the difference.

Preface

Experience teaches that, before launching into a Kantian project, it is valuable to identify at least some of the misleading and downright erroneous prejudices that have currency among Kant readings. For all of the following, there is a legitimate Kantian response – although you may not accept it, of course:

1) There is a direct line from Kant to Nazism (see Bergson's "Two Kinds of Morality and Religion" in the on-line Stanford Encyclopedia of Philosophy and Michael Mark's *German Idealism and the Jew* [Chicago, 2003]).
2) Science: Kant is trapped in a Newtonian and Euclidean worldview (Alasdair MacIntyre)
3) Autonomy: Western Individualism
4) A prior synthetic judgments are illusions (Vienna Circle)
5) Dualism: Transcendental consciousness and empirical world (not the dualism identified by Heidegger between "empirical intuition" and "pure intuition" though Heidegger's assertion of a Kantian dualism is also erroneous
6) Constructivism (laws of nature are merely our construction) and Violation of the "Principle of Significance" (= empiricism) (Strawson)
7) Absolute Morality: Only cultural relativism (Habermas)
8) Freedom = only freedom of choice rather than creativity (Searle)
9) Ethics are compromised by self-interest (Schelling)
10) Absolute moral principles compromised by cultural relativism, as well.
11) Ethics requires that you betray your best friend
12) Kant succumbed to doctrine of original sin in *Religion within the Boundaries of mere Reason* by his claim for "radical evil" (Goethe)

Introduction

The Western tradition can be viewed as a drunken sailor staggering back and forth between Rationalism and Materialism. The 18th century was no exception. Descartes' 17th century proposal of two substances (mind and matter) framed the discussion of the 18th century with Rationalism represented by the British Earl of Shaftesbury[1] and Scottish "moral sense" philosophers such as Francis Hutcheson[2] and Adam Smith[3] and with Materialism represented by the French-German Paul-Henri Thiry, Baron d'Holbach, and the Swiss Charles Bonnet.[4] The

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1. See Anthony Ashley Cooper Earl of Shaftesbury, *The Moralists, a Philosophical Rhapsody*, vol. II of *Characteristicks* (London, 1733 (1711)), 181–443.

2. See Francis Hutcheson, *An Inquiry Into the Original of Our Ideas of Beauty and Virtue; In Two Treatises: I. Concerning Beauty, Order, Harmony, Design; II. Concerning Moral Good and Evil* (London: J. Darby, A. Bettesworth, F. Fayram, J. Pemberton, C. Rivington, J. Hooke, F. Clay, J. Batley, and E. Symon, 1726).

3. See Adam Smith, *The Theory of Moral Semtiments* (Indianapolis: Liberty Fund, 1982).

4. For a discussion of d'Holbach and Bonnet, see Johann Nicolas Tetens, *Philosophische Versuche über die menschliche Natur und ihre Entwickelung* (Leipzig: M.G. Weidmanns Erben und Reich, 1777).

middle terrain was occupied by Leibniz who defended the notion of a pre-established harmony,[5] which held that God preserved the incessant correspondence between the mental and the material worlds in a parallel complementarity. In his *Über den Beweis des Geistes und der Kraft* (1777), however, Lessing spoke of the "ugly ditch" that remained for which "accidental truths of history can never become the proof of necessary truths of reason,[6]" which formulated the problem in a manner that privileged Rationalism, but the distinction between accidental and necessary truths opened the door for Immanuel Kant to provide an ingenious solution to the relationship between the phenomenal (material) and the transcendental (including the moral) dimensions of experience.

However, Kant may not have accomplished his Copernican Turn were it not for the work of Johann Nicolaus Tetens, whose *Philosophische Versuche über die menschliche Natur und ihre Entwicklung* (1777) shifted the focus from substances (mental or material) to capacities. Tetens went beyond the Lockean notion that ideas are derived from experience to stress that *the mind had to contribute something* to the formulation of ideas more than merely observing an aggregate of particulars.[7] If not a trigger, than Tetens' discussion of what consciousness must *add to* the phenomena in order to judge what they are,[8] constituted a confirmation for Kant of his notion of *a priori* synthetic judgment. However, synthetic judgment here does not consist in identifying a

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5. See G.W.V. Leibniz, *Monadology and Other Philosophical Essays* (Indianapolis: Bobbs-Merrill, 1965).

6. Gotthold Lessing, *Lessing's Theological Writings*, Henry (trans) Chadwick (Stanford, CA: Stanford University Press, 1967), 53.

7. See Tetens, *Philosophische Versuche I*, 322–23. Tetens' discussion of the impossibility of getting from an aggregate to a universal is exactly the theme one finds ubiquitously in Ernst Cassirer's work. See Cassirer's *Substanzbegriff und Funktionsbegriff* (Berlin: Bruno Cassirer, 1910) and *Das Erkenntnisproblem in der Philosophie und Wissenschaft der neueren Zeit*, 4 vols. (Darmstadt: Wissenschaftliche Buchgesellschaft, 1994).

8. See *Philosophische Versuche I*, 136, 139, 156, 162, 164, 220, 224, 226, 235, 299, 303, 305, 321, 325–27, 437, 512–13.

"synthesis" in common to a thesis and antithesis. Such synthetic judgments Kant called a *nexus* in contrast to synthesis as *compositio*, which consist of an *adding to* the phenomena something that is not present in the phenomena (See KdrV B201*).

Furthermore, in addition to the mind's capacity to *add something to* the phenomena in order to understand them, Tetens confirmed another cornerstone for Kant's sobering of our sailor: The second volume of Tetens' work is devoted to the notion of humanity's *creative freedom* above, but never separate from, nature. This form of efficient causality is anticipated in Descartes' distinction between eminent and formal causality, and it had been praised by Kant already in his *Vorlesung zur Moralphilosophie* of 1774/5 so that one cannot suggest that Kant has the notion from Tetens, but Tetens, again, is a valuable ally for Kant's defense of this "second" causality over against Ferdinand Christian Wolff's monistic Materialism that claimed there can be only "one" causality governing the world.[9] These two themes (*a priori* synthetic judgment and two kinds of efficient causality) provide the framework for an understanding of the relationship between evolution as preformation (the emergence of a form out of the already given elements in the seed/embryo; we would say DNA) and epigensis (the development of *a new form* out of a seed/embryo; we would say as a consequence of genetic mutation). Although Tetens is not talking about the emergence of a new species from a given species, he does emphasize that there is more involved in organisms, particularly with the occurrence of consciousness, than a merely inorganic process. He argued for the necessity of combining evolution and epigenesis,[10] which is not far from what Darwin meant by "evolution" of species based on the givenness of a species *plus* species variation, in order to properly account for the development of organisms,

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9. Tetens, *Philosophische Versuche I*, 136, 139, 156, 162, 164, 220, 224, 226, 235, 299, 303, 305, 321, 325–27, 437, 512–13.

10. See *Philosophische Versuche über die menschliche Natur und ihre Entwickelung* (Leipzig: M.G. Weidmanns Erben und Reich, 1777), II:445, 465, 497, 479, 500, 512, 515, 519, 521, 526, 535, 536, 537, 548, 549.

and Kant agrees with Tetens especially when it comes to understanding all that is added to physical phenomena by consciousness.[11] Tetens' thesis with respect to the development of organic phenomena is entirely compatible with his insistence that mental experience and personal creativity both involve capacities "above" inorganic nature and that it is what is more than mere inorganic nature that makes us moral beings.

It was Immanuel Kant, however, who turned skepticism with respect to these issues into a strategy of hypothetical and categorical *necessity* by arguing 1) that there is no experience without appearances (empirical intuition); 2) that causal explanations are *a priori* synthetic judgments; 3) that all causal systems have an order to which they must conform; and 4) that just as we must presuppose an order of natural law that governs physical nature so, too, we must presuppose an order of moral law that governs humanity's creativity. Although he agrees with Francis Hutcheson that morality brackets personal interest, he shifted the focus of morality from Hutcheson's concern for utilitarian consequences (over which, Kant argued, we have no control[12] and which would require possession of omniscience to calculate them[13]) to concentrate on those things over which we *do have* control: the selection of moral principles to govern our actions.[14] This moral capacity is something that, it appears, only humanity is capable of adding to its

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11. This is the central theme of the "Second Part: Critique of the Teleological Power of Judgment" that concludes Kant's *Critique of the Power of Judgment* and leads to a further formulation of the "moral argument for God" on the basis of human creative freedom and the moral order that it presupposes.

12. See *Groundwork of the Metaphysics of Morals*, Mary Gregor (Cambridge: Cambridge University Press, 2008), 13. Kant proposes in the first preface to *Die Religion innerhalb der Grenzen der bloßen Vernunft*, vol. IV of *Immanuel Kant. Werke in sechs Bänden*, ed. Wilhelm Weischedel (Darmstadt: Wissenschaftliche Buchgesellschaft, 1998), 645–879, that it can only be our hope that there is a connection between the categorical and the contingent, and it is precisely this connection, which, among other elements, requires belief in (but no proof of!) God.

13. See *Groundwork*, 29 and 12.

14. See *Kritik der praktischen Vernunft* (Hamburg: Felix Meiner Verlag, 1974), 95, and *Groundwork*, 44–45.

experience of the physical conditions of life. It is no more reducible to the physical conditions of life alone than is our grasp of concepts or of beauty[15] in nature.

Appearances and Hypothetical Necessity

The lesson of the Copernican Revolution is that the appearances are not what establish the truth of a judgment through their mere confirmation or contradiction of our claim about those appearances, but, rather, our claim must conform to the invisible order that governs those appearances because our judgment can require (as with the case of the CR) the very denial of our sense experience. In short, the significance of the CR is not that we've been displaced from the center of the physical universe but that *humanity is at the center of the epistemological universe*.[16] We are the species capable of "seeing things that are not there" in the phenomena, the invisible orders of the physical and the moral, so that everything depends upon what it is that we "see."

Without having to invoke the twelve categories of the understanding sketched by Kant in the *Kritik der reinen Vernunft*, one can illustrate the ubiquitous invocation of imperceptible elements in understanding by observing everyday pragmatic activities. *If I wish to* build a house (the hypothetical starting point of my activity), then there are certain steps that I must *necessarily* follow if I am to be successful. Not only must I know what materials are appropriate to the enterprise, I must also possess the appropriate skills and tools, and I must follow a certain

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15. Experience of what Kant calls "free" beauty in nature is extraordinary because it involves a universal judgment without a concept that we hold, nevertheless, to be normative. See *Critique of the Power of Judgment*, trans. Paul Guyer and Eric Matthews, The Cambridge Edition of the Works of Immanuel Kant (Cambridge: Cambridge University Press, 2001), 100, 101, 104, 109, 113, 116, 120, 122–23, 128, 160, 166–68, 193–94, 214, 217. This capacity is what makes our experience of free beauty a symbol for the moral because it enobles and elevates us and encourages our esteem of others. See *Ibid*., 227.

16. See Ernst Cassirer, *An Essay on Man: An Introduction to a Philosophy of Human Culture*, reprint, 1944 (New Haven: Yale University Press, 1962), 15.

sequence (e.g., I can't begin by hanging the roof in the air). All of these elements to the project are anchored in the imperceptible that, in turn, governs the perceptible (e.g., the imperceptible mathematics governing the construction of the Parthenon; the superior gift by Athena of the horse harness in contrast to Poseidon's gift of a well that constitutes the scene of the west pediment).

The fact that we experience only appearances, then, is no hindrance to our discernment of the understanding of materials, skills, tools, and sequences necessary for us to accomplish a hypothetical task. Most education is concerned with such technical necessity. However, the intangible plays an equally significant role when it comes to preparing ourselves for a particular career. I chose a career, hopefully, not only because it will bring me financial security (tangible things like houses and food) but also because it will bring me personal satisfaction (intangible things like meaning and purpose). However, selection of a career is also a submission to hypothetical necessities. *If I want to* become a truck driver (the hypothetical starting point of my career), I don't go to medical school. It is necessary that I go to truck driving school.

The world of appearances is no chaotic realm of confusion, but it is a world governed by hypothetical necessities that we must learn to "see even if they are not there in the appearances." The heart of the pragmatic world view is imperceptible hypothetical necessity.

Affects and Causes

One of the few occasions where Kant explicitly identified his indebtedness to a fellow philosopher was his acknowledgement that David Hume woke him from his dogmatic

slumbers.[17] Hume's observation that we only experience effects, not causes, is a crucial step further along the pathway of the Copernican Revolution because it forces the recognition that our causal explanations are our constructions for explaining how events occur as they do. The test for one's causal explanation is *not merely the appearances* and certainly not merely the pragmatic successes that our causal explanation brings in the phenomena, but, rather, the internal coherence and totality of the system of causal explanation itself. Once again, it is in the imperceptible that governs our investigations, not merely the perceptible.

Causes and Dreams

In his First Meditation, Descartes grounded his skeptical methodology, in part, on the basis of the claim that we experience the same "clarity and distinctness" of perception in dreams as we do when we are awake. Again, Kant's Copernican Turn reverses the focus away from the *content* of the perception to an investigation of its *conditions of possibility*.

What distinguishes the dream from our waking state, Kant insists, is that the dream does not and the waking state does *conform to a system of predictable causality*.[18] The *necessary* presupposition of all understanding is that every system of causality is anchored in an order or rules/maxims. If we give up this presupposition, then we have no basis for our continued search for understanding. If we embrace this presupposition, then our ever-expanding development of

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17. See *Prolegomena zu einer jeden künftigen Metaphysik, die als Wissenschaft wird auftreten können*, vol. III of *Immanuel Kant. Werke in sechs Bänden*, ed. Wilhelm Weischedel (Darmstadt: Wissenschaftliche Buchgesellschaft, 1998), 118, although he criticized Hume for never having considered that causal explanations are not derived from experience but are the condition of possibility for experience: "... nicht ..., daß sie [causal explanations] sich von Erfahrung, sondern daß Erfahrung sich von ihnen ableitet, welche ganz umgekehrte Art der Verknüpfung Hume sich niemals einfallen ließ." (*Ibid*., 181)

18. See KdrV B 247, B 479, *Prolegomena*, 154–55 [English 34], and "Metaphysik Mrongovius," in *Kant's Vorlesungen von der Akademie der Wissenschaften zu Göttingen*, vol. VI, Ergänzungen II (Berlin: Walter de Gruyter & Co., 1983), VI, Ergänzungen II:860–61.

the invisible, coherent system of causal explanation will reward us with ever thorough and richer understanding of our experience.

Creativity and Categorical Necessity

Extraordinary about humanity is its ability to initiate a sequence of events that nature cannot accomplish on its own. As with physical causality, this form of efficient causality must be assumed to have its own set of rules. No more than the appearances of the physical world are encountered as a chaotic whirl of disorderliness, creativity is not a rule-less, blind spontaneity. However, the rules governing the efficient causality of creativity are not (entirely) the same as those governing physical events. The latter function blindly and mechanically to determine their events. In contrast, the only system of order compatible with creativity would have to be a self-imposed order. That is precisely what distinguishes the moral from the physical order.

In other words, unlike the *hypothetical necessities* that shape our technical and pragmatic goals, our creative freedom consists of a system of *categorical necessities* that we must impose upon ourselves if we are to appropriately exercise this extraordinary efficient causality.[19] These are categorical necessities because they are *not driven by a goal or interest established by any particular situation*. One might respond that one can only exercise one's creative freedom in a particular situation, which is entirely correct. However, the rules governing one's creative freedom are not derived from one's particular situation as are the rules/laws one must follow to construct a house or pursue a career.

Decisive, though, is that because both are systems of causal explanation, we are no more in a position to *prove* one or the other because we cannot experience these causes directly, only indirectly through their effects. Although it appears to be the case, the physical order has no priority in this regard over the moral order because here we are not concerned with appearances

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19. On the difference between hypothetical and categorical imperatives, see *Groundwork,* 25.

but the *conditions of possibility* for the appearances. In both cases, if we approach our experience as if it is not a dream but governed by these two complementary systems of order, we will not only be more successful in our efforts, but also we will experience a kind of satisfaction that can only be experienced by *doing the right thing because it is right* and not because it satisfies some interest. This is the central theme that Kant obtained from (or applauded in) Francis Hutcheson[20] although Hutcheson applies in "Treatise I" his rejection of self-interest by means of a utilitarian calculus[21] (consequentialism) and Kant, again, turned the spy glass around to emphasize the rightness of moral principles (deontology), not the calculation of consequences.[22]

Morality in Spite of Interest

Kant's categorical ethic, though, must be appreciated in light of the Copernican Turn, as well. Succinctly, it is not that we must know in order to act, but, rather, we know *because* we act. In other words, the three criteria of the Categorical Imperative (act on the basis of a maxim "as if" a universal law, treat others and self as an ends and not mere means, and recognize each individual as an autonomous self-legislator of moral principles[23]) do not sketch out what would be an impossible set of requirements for the individual to satisfy *before being able to apply a moral maxim to one's actions* -- what Jennifer Uleman calls John Rawls', Christine

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20. See *An Inquiry Into the Original of Our Ideas of Beauty and Virtue; In Two Treatises: I. Concerning Beauty, Order, Harmony, Design; II. Concerning Moral Good and Evi*.

21. See *An Inquiry Into the Original of Our Ideas of Beauty and Virtue; In Two Treatises: I. Concerning Beauty, Order, Harmony, Design; II. Concerning Moral Good and Evi*, 182f, 288f.

22. This the thesis of Section I of the *Groundwork.*

23. Described in Section II of the *Groundwork.*

Korsegaard's, and Onora O'Neil's "cold fish" view of the categorical imperative.[24] Rather, given the fact that we *cannot not act*, the three forms of the CI are imposed by the individual upon her-/himself by the very condition of our action. The "universal law" criterion is required to rein in personal interest in one's actions, which is required if one is to act on the basis of a maxim merely because it is right; the "ends not means" criterion is required because of the dignity of each individual as a unique source of efficient causality; and the "self-legislating" criterion is required because no form of causality is independent of a system of rules. In other words, the conditions and capacities that require us to act also provide us with categorical criteria for the exercising of those conditions and capacities.

The elephant in the room here is dualism. Rawls and company insist in a categorical "purism" that maintains that there can be no contamination of interest in the selection of one's moral principles. If that were possible, creative freedom and its categorical imperatives would belong to a purely "transcendental," intelligible world that was independent of the empirical world of empirical intuition. This reading is by no means novel; it stands at the core of Schiller's critique of Kant's moral theory.[25] However it is nonetheless already explicitly dismissed by Kant.[26] *Morality without any interest is analogous to objectivity without subjectivity*. As we have seen, the Copernican Revolution instructs us that objectivity is not established by our explanation conforming to the empirical appearances but, rather, by our explanation conforming to a coherent imperceptible system of causal explanation in principle capable of development

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24. See Jennifer K. Uleman, *An Introduction to Kant's Moral Philosophy* (Cambridge: Cambridge University Press, 2010).

25. See Otfried Höffe, "'Gern dien ich den Freunden, doch tue ich es leider mit Neigung..'-- Überwindet Schillers Gedanke der schönen Seele Kants Gegensatz von Pflicht und Neigung?" *Zeitschrift für philosophische Forschung* 60, no. 1 (Januar-März 2006): 1–20.

26. See in particular the opening of Section II of Immanuel Kant, *Grundlegung zur Metaphysik der Sitten*, vol. IV of *Immanuel Kant. Werke in sechs Bänden*, ed. Wilhelm Weischedel (Darmstadt: Wissenschaftliche Buchgesellschaft, 1998), 9–102.

into a totality of causal explanations for all experience – to be sure, not independent of appearances! Morality can no more separate itself from interest than the Copernican Revolution can separate itself from the appearances that contradict it. However, the objectivity of the CR is anchored in an invisible physical order. The same is true of morality: it is anchored in an invisible moral order -- different, to be sure, from the invisible physical order.[27] "Pure" interest would be our interest in the reality of these two invisible orders -- yet, note: these are both invisible orders that we can experience only because we are in a physical world. Without such a "pure" interest in invisible orders, we could neither understand the physical world nor hold ourselves accountable to moral principles. However, such "pure" interest is corrupted by the senses. To that degree, we delude ourselves into holding the opinion that objectivity is anchored in the senses and moral principles are independent of the senses. However, we can experience neither objectivity nor morality without both the "intelligible" and the "physical" worlds. *There is no dualism here*! *There is one world viewed from two different perspectives* (i.e., two invisible orders). The issue is not how do we anchor theoretical reason exclusively in the external world and how do we anchor practical reason exclusively in the internal world, but, rather, what does the fact that we cannot not act teach us about capacities, conditions, and responsibilities that we must *necessarily* possess in order to be the species that we are?

Morality and Evolution: A Matter of Faith not Knowledge

The *assumption* of Materialists is that *there must be a causal monism* that can explain all events both material and immaterial. John Searle is among the most vociferous defenders of such a monism.[28] He allows us to maintain the illusion of free will by arguing that, when it comes to our sense of free will, we experience a "causal gap" in our monistic causal explanation.

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27. On physical and moral teleology see §87 of *Kritik der Urteilskraft*.

28. See John R. Searle, *Freedom & Neurobiology: Reflections on Free Will, Language, and Political Power* (New York: Columbia University Press, 2007).

There are two serious problems with his account: 1) it presumes that other causal explanations besides free will are provable; and 2) he does not distinguish carefully enough between free will and creative freedom.

To 1): As certain as we may be about our causal explanations, the lesson from Hume is still valid: we do not experience causes, we only experience effects. Furthermore, the "proof" of a causal explanation is nothing that one can establish by sense experience alone as Copernicus teaches us. The senses deceive, and objectivity is a matter of coherence within an invisible physical order. Causal explanations cannot be "proved" in the senses. Hence, they are explanatory wagers (a version of non-epistemic faith), not absolute knowledge. To 2): Free will must be distinguished from creative freedom to the extent that free will is meant to be the liberty to choose between and among existing options whereas creative freedom is an efficient causality that can initiate a sequence of events that nature cannot accomplish on its own.[29] One can surely apply the label "free will" to creative freedom independent of the blind mechanisms of physical causality (and Kant does use "free will" in this fashion), but, to the extent that the difference between liberty and freedom is blurred, one introduces confusion into the discussion of freedom and autonomy. My ability to choose between an SUV and a hybrid can be manipulated by corporate advertising and public opinion so that my belief that I freely chose the hybrid might be an illusion. However, my ability to initiate a sequence of events out of my own causal initiative is as close as one can get to what Kant calls a "fact of reason,[30]" although the ideas of reason

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29. An example of the failure to make this distinction, which results in a complete distortion of Kant, is Ralf Stoecker's analysis of Kant's notion of autonomy. Since Stoecker only considers the notion of "liberty" rather than "creative freedom," he can conclude that children, the mentally handicapped, comatose, and elderly suffering from Alzheimer's are not autonomous beings. See Ralf Stoecker, "Die philosophischen Schwierigkeiten mit der Menschenwürde -- und wie sie sich vielleicht lösen lassen," *Information Philosophie* 1 (March 2011): 13.

30. See *Kritik der praktischen Vernunft*, 36–37, 122, and *Kritik der Urteilskraft* (Hamburg: Felix Meiner Verlag, 1974), 353.

(God, Freedom, and the Soul), Kant tells us, as with causality are inaccessible to the senses (i.e., cannot be empirical facts). If we deny our creative freedom, then we are mere automatons of physical processes or marionettes.[31] To the extent that freedom is something far more profound than mere choice, it is not to be confused with liberty. One can be robbed of one's liberty, but one's freedom one can never lose as long as one lives. The difference has empowered individuals to survive hardly comprehensible traumas and injustices.

Causal monism insists that morality must emerge as a strategy of species adaptation and survival.[32] As if causes were substances, the thought that there could be two kinds of efficient causality has been viewed by monists as the horror of dualism. Yet, we can invoke mutually interacting causes to account for a situation without fragmenting the world into multiple, metaphysical orders. The interaction of multiple medications in the treatment of a patient is an example.

Johann Tetens proposed that the physical development of an organism can be governed by two processes: evolution and epigenesis. The former under the rubric of preformation (like DNA) programmed the development of the physical form of the organism; the latter acknowledged that the occurrence of new forms required a causal dynamic that consisted of more than the original evolutionary program and, at the least with the emergence of consciousness, one must take into consideration all that consciousness *adds to* its processing of data as well as its creative freedom if one wishes to properly account for the organism.

Kant shares Tetens championing of "preformation" and "epigenesis" over divine "occasionalism" [Intelligent Design] in which God would have decided what each creature was

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31. See *Kritik der praktischen Vernunft*, 117, 169.

32. See Richard Dawkins, *The Selfish Gene* (New York: Oxford University Press, 1976) and Michael and Dawkins Poole, Richard, *Science and Christian Belief* 7, no. 1 (1995): 45–50; 51–58*The Poole-Dawkins Debate*.

to be by a special act.[33] What could be taken as a (rare) dogmatic claim by Kant is his famous assertion that "... it would be absurd ... to hope that there may yet arise a Newton who could make comprehensible even the generation of a blade of grass according to natural laws that no intention has ordered; rather, we must absolutely deny this insight to human beings.[34]" However, he curtails his dogmatism in the usual manner by observing, as well:

> We can by no means prove the impossibility of the generation of organized products of nature through the mere mechanism of nature because since the infinite manifold of particular laws of nature that are contingent for us are only cognized empirically, we have no insight into their primary internal ground, and thus we cannot reach the internal and completely sufficient principle of the possibility of a nature (which lies in the supersensible) at all.[35]

Not only have we no insight "into their primary internal ground," but also the assumption of such a teleological causality in nature would undermine our very capacity to seek explanatory grounds in nature

> It is of infinite importance to reason that it not allow the mechanism of nature in its productions to drop out of sight and be bypassed in its explanations [by a divine teleological intentionality]; for without this no insight into the nature of things can be attained.[36]

In fact the introduction of Intelligent Design destroys science:

> ... if one brings the concept of God into natural science and its context in order to make purposiveness in nature explicable, and subsequently uses this purposiveness in turn to prove that there is a God, then there is nothing of

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33. See §81 of *Kritik der Urteilskraft* and Kant's discussion of *generatio aequivoca*, *generatio univoca*, *generatio homonyma* [epigenesis], and *generatio heteronyma* [special creation] in *Ibid*., 296*.

34. *Critique of the Power of Judgment*, trans. Paul Guyer and Eric Matthews, The Cambridge Edition of the Works of Immanuel Kant (Cambridge: Cambridge University Press, 2001), 271 He repeats this assertion on page 279, and in *Vorlesungen über die philosophische Religionslehre* (Leipzig: Bei Carl Friedrich Franz, 1817), 115, he makes the same claim with respect to a moth.

35. Kant, *Critique of the Power of Judgment*, 260.

36. Kant, *Critique of the Power of Judgment*, 279.

> substance in either of the sciences, and a deceptive fallacy casts each into uncertainty by letting them cross each other's borders.[37]

Blind commitment to causal monism is as destructive to the understanding of the human condition and, particularly, morality as is the Special Creation of Intelligent Design. These conclusions do not come from our ability to disprove either causal monism or Intelligent Design. *Because both are concerned with causal explanations, there is and can be no proof or disproof of either*. However, what is decisive is not an external proof or disproof but the consequences of both causal claims for our capacities and the conditions under which it is possible for us to experience the world as we do. Causal monism reduces humanity down to a product of the blind, mechanical causality of the physical world. Intelligent design not only undermines our confidence in the coherence and consistency of physical causality by insisting upon a causal agency entirely independent of that physical order, but it also completely undermines our moral efforts demanded by our creative freedom above, but never independent of, nature. Instead of acting on the basis of a moral principle merely because it is right, we transform our moral efforts into seeking to please this supersensible divine agent, and we develop sophisticated strategies by which we believe we are able to manipulate this divine agent. Personal interests trump moral effort.

When it comes to determining origins, we have two options: we can speak of temporal origin or of an origin of reason.[38] To seek a temporal origin for our creative freedom is a

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37. *Critique of the Power of Judgment*, 253 See further, page 267: "The concept of a causality through ends (of art) certainly has objective reality, as does that of a causality in accordance with the mechanism of nature. But the concept of a causality of nature in accordance with the rule of ends, even more the concept of a being the likes of which is not given to us in experience at all, namely that of a original ground of nature, can of course be thought without contradiction, but is not good for any dogmatic determinations, because since it cannot be drawn from experience and is not requisite for the possibility of experience its objective reality cannot be guaranteed by anything. But even if it could be, how could I count things that are definitely supposed to be products of divine art among the products of nature, whose incapacity for producing such things in accordance with its laws is precisely that which has made necessary the appeal to a cause that is distinct from it?"

contradiction because its very categorical nature is beyond temporality. An origin in reason, given the limits to our reason, can at best consist of an assumption. One adjudicates among assumptions on the basis of their consequences for the conditions of possibility of our experience, whatsoever, and our capacities. Kant has turned our exclusive dependence upon appearances for our theoretical understanding into a virtue because the very condition of possibility of our creative freedom (and moral responsibility) would be compromised were we to have direct access to the things themselves.

Here we have the suggestion that experience requires that we invoke both *nature* and *more than nature* if we are to adequately understand. This is true of causal explanations in general and of our experience of creative freedom and morality in particular. Furthermore, material monism will never be able to be proved, and if it were it would eliminate what we must *assume in order to be human beings*. In the absence of either proof or disproof, we must engage in a wager of faith that we are creative beings and that we are, thereby, responsible for those capacities and sequences of events that nature cannot accomplish on its own.

Evolution is not an exception to the necessity of invoking natural processes and more than nature to account for organic development. Tetens and Kant recognized that the preformations of organic phenomena needed the novelties of epigenesis for there to be species development – without pre-given order and "species variation" there can be no organic development (i.e., no evolution). Darwin presupposed the givenness of species as the condition for natural selection, and one can describe (similar to Tetens) the process of natural selection as the product of given species (preformation) and species variation (novelty) that make it possible for adaptations to occur that result in the generation of new species. As a consequence, one can claim an analogy between evolution and our moral capacity: species variation (epigenesis) : evolution (preformation) :: creativity (moral responsibility) : nature.

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38. See *Religion Within the Boundaries of Mere Reason*, ed. and trans. Allan Wood and George Di Giovanni (Cambridge: Cambridge University Press, 2004), 61f.

The contemporary debate over evolution and morality is framed by a debate between two metaphorical contexts (one sociological, the other mathematical): 1) between Hamilton/Dawkins/Dennet (selfish genes) and Midgley (social importance) that is in the headlines most recently as 2) between "kin selection" theory (Hamilton/Dawkins/Dennet) and "eusociality" theory (Nowak/Tarnita/Wilson).[39] Dawkins and Dennet follow the materialist explanation of the evolution of morality proposed initially by William Hamilton that views altruism as the life-enhancing strategy of kinship genes seeking to preserve themselves in contrast to Midgley's thesis that morality involves a far more complex social system than mere genetic individualism. Midgley recognizes that the social factor adds something to the evolutionary mix of humanity that she defends in an almost Durkheimian sense: the condition of possibility of humanity is society.[40] The Nowak/Tarnita/Wilson "eusociality" theory is a mathematical modeling of gene function that suggests that genes are not so much influenced by other genes of the same kind as by the "context" (Midgley would say "social system") in which the gene is embedded.

For the purposes of this project, two observations are significant: 1) Given the ambiguities of the relationship between DNA and RNA (the latter once having been dismissed as mere "junk"), one must observe that what is taken in genetic theory to be an explanatory is in fact a descriptive science. Metaphors (e.g., "transcription" and "translation") are too easily turned into literal terms that conceal the fact that the novel, causal moment of variation is a profound mystery. In fact, the terminology of "epigenesist" continues to be used in evolutionary theory as a metaphor for novelty.[41] 2) Genetics is a mathematical discipline clearly confirmed

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39. Reported in the *Boston Globe* (April 17, 2011); Wilson/Nowak/Tarnita, "The Evolution of Eusociality" in *Nature* 466 (26 August 2010): 1057-1062.

40. See Mary Midgley, *The Solitary Self: Darwin and the Selfish Gene* (Dublin: Acumen Press, 2010).

41. See Tim R. Mercer, Marcel E. Dinger, and John S. Mttick, "Long Non-Coding RNAs: Insights Into Functions," *Nature Reviews Genetics* 10, no. 3 (2009): 156–57.

by Nowak, Tarnita, and Wilson's article on eusociality. This is not only a confirmation of Koyré's thesis[42] that the scientific revolution of the 16th and 17th centuries is a crossing of Aristotelian metaphysics (form in matter) and Platonic physics (mathematics) in place of Platonic physics (form without matter) and Aristotelian physics (the combination of perceptible elements), but it is also a confirmation of Kant's claim that theoretical reason (i.e., the natural sciences) is primarily an *a priori* synthetic reason because mathematics is *by definition an a priori* synthetic form of knowledge.[43] Mathematics are not given with the phenomena that they are meant to describe.

The two perspectives of kin selectin and eusociality are capable of being united by Kant's theoretical reason and practical reason. The selfish gene may well explain some of the phenomena of species development as theoretical reason can argue, but it cannot account for all that in development that must be *added to* the phenomena for us to be who we are as a species. If we are to have an account of evolution that is adequate, we must include both preformation and novelty; material conditions and creativity. In other words, evolution presupposes novelty, and in humanity we encounter novelty of an extraordinary kind: a novelty that is "above" but "not inseparable" from nature's blind causality.

Kant encourages us to reject mere blind, mechanical evolution and the speculations of Intelligent Design to embrace an understanding of the human condition that includes both evolution (preformation) and epigenesis (novelty): *nature and more than nature*. When it comes to humanity, then, evolution presupposes a moral capacity, not vice versa, and we must

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42. See Alexander Koyré, "Galileo and Plato," *Journal of the History of Ideas* IV (1943): 400–28.

43. See *KdrV* B 746, 758; *Prolegomena*, 145; "Metaphysik Mrongovius," 973; *Über die von der königl. Akademie der Wissenschaften Preisfrage: Welches sind die wirklichen Fortschritte, die die Metaphysik seit Leibnizens und Wolffs Zeiten in Deutschland gemacht hat?* vol. III of *Immanuel Kant. Werke in sechs Bänden*, ed. Wilhelm Weischedel (Darmstadt: Wissenschaftliche Buchgesellschaft, 1998), 665.

each yet *become* human through the exercise of this higher creative capacity. It is the key to human dignity: We are moral beings not because we must be but because we can be.

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