

NATURALISM IN THE CONTINENTAL TRADITION

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DRAFT of 15 May 2014

While the term "naturalism" is more in use in contemporary analytic philosophy (hereafter, AP) than in contemporary continental philosophy (CP), the issues denoted by the term have been, and continue to be, of great concern to philosophers in the CP tradition. Without wishing to be definitive, we will use the following rough-and-ready terminology; following standard practice, we begin by distinguishing methodological and ontological naturalism. Methodological naturalism (MN) varies in strength. Weak MN asserts a compatibility between the goals and methods of philosophy and natural science, so that they can and should mutually inform each other, even though philosophy maintains its specificity and independence from science; strong MN asserts a continuity between philosophy and natural science, so that philosophy has no real independence (that is, there are no specifically philosophical questions in continuity MN); super-strong MN, aka scientism, asserts that only natural science produces meaningful statements, credence-worthy beliefs and so on. Ontological naturalism (ON) also varies in strength. Weak ON merely denies the existence and explanatory power of super-natural entities, but allows that of entities and states emergent from and irreducible to the physical, such as organisms; irreducible to the biological, such as social institutions; and irreducible to the neurological, such as mental states. Strong ON is non-reductive physicalism, allowing vital, social, or mental properties of physical events, but not vital, social, or mental states, thereby asserting a property dualism linked to a substance monism; super-strong ON, aka (reductive) physicalism, asserts that only physical entities exist (thereby asserting the identity of vital, social, and mental states with physical states and, in its eliminative posture, the ultimate dispensability of the notion of the vital, social, or mental properties).

Although we will discuss MN and ON, we will not divide our essay along those lines; rather we will discuss anti-naturalism in phenomenology and critical social theory as bookends to a discussion of affirmative naturalism. The phenomenologists are anti-MN and anti-ON. For them, that which allows for the meaningful appearance of the world (e.g., transcendental consciousness for Husserl) is not a thing of the natural world, not even an emergent thing (anti-ON); it is not accessible by any natural science (biology or psychology even, let alone physics), but is the ground of any and all sciences, and therefore its philosophical articulation is independent of the natural sciences (anti-MN). Critical social theory is anti-naturalist in refusing to countenance claims that race, gender, or disability can be discussed in natural scientific terms (anti-MN) or that race, gender, or disability is a biological category (anti-strong ON), though it is possible to say they have a weak-ON position in recognizing race, gender, and disability as social realities. The affirmative naturalists

hold to a weak MN and a weak-to-strong ON. For them, consciousness is a natural occurrence (weak ON), though it may not carry much explanatory weight (many of the affirmative naturalists are thus close to if not outright epiphenomenalists, a strong ON position); what is important to them is an affirmative naturalist ethics that would be compatible, though perhaps not totally continuous, with natural science (weak MN).

To forecast the paper: we will treat phenomenology and critical social theory somewhat briefly in order to have room to discuss the affirmative naturalists. It seems defensible to us in a volume on naturalism to stress the positive uptake of naturalism in CP. We will treat the following topics: the anti-naturalism of Edmund Husserl's phenomenology, followed by the (weak MN) challenge of "naturalizing phenomenology." As a transitional figure, we will treat Hans Jonas and the weak ON status he allows organismic life. In affirmative naturalism, we will treat Friedrich Nietzsche, Henri Bergson, and Gilles Deleuze. We will conclude by considering the anti-naturalism of CP positions in critical race theory, gender theory, and disability studies.

PHENOMENOLOGICAL ANTI-NATURALISM

Strong (continuity) and super-strong (scientism) MN is little represented in CP, though many of our affirmative naturalists will accept a version of weak (compatibility) MN in which they discuss and indeed incorporate scientific findings into their philosophy. With the exception of the weak MN position of Maurice Merleau-Ponty (Zahavi 2010), the phenomenologists are actively hostile to all versions of MN and ON; the prime example of this hostility is Edmund Husserl, the founder of phenomenology as a philosophical school. Phenomenology in this sense is not simply the description of first person experience (which is how the term is used in AP), but is instead the methodologically self-aware analysis of the conditions of meaningful appearance of the world.

A. Husserl's anti-naturalism

To understand Husserl's anti-naturalism we must see him in the context of post-Kantianism. There were three main responses to Kant's critical project: German Idealism; naturalization via scientific psychology; and neo-Kantianism. Space limits of our essay prevent us from considering German Idealism other than to say opposition to it propelled the naturalizers and the neo-Kantians. Among the naturalizing psychologists, Helmholtz was the most celebrated; for him and the others, the Kantian transcendental subjective conditions of knowledge (space and time as the a priori forms of intuition and the categories as the a priori concepts of the understanding) are naturalized by being treated physiologically, so that sensations are signs or symbols that are translated by the brain into experience (Hatfield 2012; Friedman 2000; Luft and Capeillères 2010). F. A. Lange, author of an influential *History of Materialism* (1974 [1866]), adds an evolutionary perspective:

the subjective conditions of possibility of experience are species-specific adaptations (see Stack 1991 and Cox 1999 for considerations of the influence of Lange on Nietzsche).

The neo-Kantians were the dominant school of German philosophy at the time of Husserl's training and early publications (Makkreel and Luft 2010). Neo-Kantians shared with the naturalizers the rejection of German Idealism; they were however anti-naturalist qua anti-psychologist, as for them ideal, universally valid, scientific fact cannot depend upon empirical psychological processes. Hermann Cohen of the Marburg School of Neo-Kantians went so far as to claim that the a priori laws of human knowledge qua conditions of objectivity are ultimately the laws of physics (and the faculties of cognition are the methods of mathematics and physics); for Cohen an object of experience is not the star a person sees but the orbit an astronomer calculates (Luft and Capeillères 2010).

Following Frege's criticism of his early work, Husserl was staunchly anti-psychologistic in his breakthrough work, the *Logical Investigations* (Husserl 1973; Kusch 2014; Mohanty 1984), but in his mature work affirmed transcendental subjectivity as world-constituting. The key Husserlian term then is "transcendental," which for him retains a Kantian sense as providing the conditions for experience without itself being empirical. Transcendental phenomenology is nonetheless more closely related to the empirical than is the case in Kant, given that phenomenology begins with describing and analyzing the concrete ego's experience, rather than sketching the sheer conditions for any rational experience, as in Kant (Zahavi 2010; see Lawlor 2002 for Derrida's radicalization of the "zig-zag" relation of transcendental and empirical). Whatever the complications his descendants develop, Kant himself was anti-MN in distinguishing transcendental philosophy from natural science; transcendental philosophy was a form of knowledge irreducible to, and providing conditions of possibility for, natural science. For Husserl, then, transcendental phenomenology retains the connection to subjectivity but must rescue it from empirical psychology.

For the Husserl of the 1910s, we need to bracket the "natural attitude" –roughly speaking, a realist position taking for granted the existence of worldly objects – that underlies both everyday life and natural science. So Husserl is anti-MN in that phenomenology is not a natural science nor can its results ever be arrived at via natural science. However, phenomenology is itself a science of consciousness grounding the natural sciences; it thus a more fundamental science than the natural sciences (Husserl 1965; Moran 2008). In classical Husserlian transcendental phenomenology, we cannot see the subject as just another object, as we would in the natural attitude. Thus we need to distinguish the transcendental from the empirical subject; with regard to its anti-ON position, phenomenology sees transcendental consciousness as not a thing in the world, but not super-natural in any mysterious, divine, spooky, or ghostly sense. Rather it is the condition of meaning of the world as it appears; it is accessed by a change in perspective, not by a flight into the heavens (Zahavi 2004).

In the 1930s, the time of the *Crisis* and "life world," Husserl's anti-MN position crystallizes around what he calls vague essences. Vague essences (e.g., "roundness") are midway between round things ("wheels") and geometrical objects ("circle"). They are oriented toward scientific objectivity, which they reach by a passage to the limit, but they are not proper objects of geometry; they could never be quantified as would be required, on Husserl's understanding, for their naturalization as scientific objects (anti-MN). They are encountered in the life-world, a purification of which is needed to reach scientific objects; the life-world can only be explored by phenomenology (Moran 2008; Lawlor 2010). So natural science – in this case, psychology – could never exhaust the realm of objects revealed by phenomenology (anti-ON).

B. The *Naturalizing Phenomenology* challenge.

As is clear from its title, the essay collection *Naturalizing Phenomenology* (NP) challenged phenomenology's anti-naturalism (Petitot et al 1999; see also Varela 1996 for the term "neurophenomenology"). The volume proposes that the state of mathematics at the time drove Husserl to his anti-naturalism.

what Husserl called 'inexact morphological essences', essences foreign to fundamental classical physics, are indeed amenable to a physical account, provided that we rely upon the qualitative macrophysics of complex systems (and no longer upon the microphysics of elementary systems). (Petitot, et al. 1999: 55)

It is true, the editors of the NP volume concede, that one can never get precise quantitative predictions of micro-state models of massively complex systems like the brain or the "brain-body-world" system. But with dynamic systems models, they claim, one can get qualitative predictions of meso-state models.

Reaction to the NP volume by those sympathetic to phenomenology was mixed, with some (e.g., Zahavi 2004) taking issue with the details of the NP volume's approach, but allowing for some ways in which the project could be useful, and others (e.g., Lawlor 2010), rejecting the project entirely. Both Zahavi and Lawlor emphasize Husserl's principled philosophical antagonism to naturalism, which they insist was not simply a contingent opposition based on the empirical state of mathematics of his time. Nonetheless, Zahavi mentions "a way out," noting that Husserl had thematized "phenomenological psychology" as a preliminary approach to transcendental phenomenology. According to Zahavi, "Phenomenological psychology is ... a form of descriptive, eidetic, and intentional psychology which takes the first-person perspective seriously, but which ... remains within the natural attitude. [It] might be described as a local regional-ontological investigation, which investigates consciousness for its own sake" (Zahavi 2004: 339). Thus phenomenological psychology, while it is not as fully philosophical as transcendental phenomenology, can nevertheless aid cognitive science by providing it exact descriptions of the target phenomena it tries to explain. As Overgaard (2004) puts it:

Contemporary consciousness research seems to be in the strange situation of not having very sophisticated descriptions of its object of research. Terms like "conscious state" or "experience" are quite imprecise and have several different meanings. For example, "being conscious" could mean anything from "knowing" or "being aware of," to "having a phenomenal experience," to "being awake." For that reason alone, it seems reasonable to turn to phenomenology, which, since the writings of Husserl, has tried to give precise and coherent descriptions of events and structures in consciousness. (Overgaard 2004, 365)

C. Jonas

Let us consider Hans Jonas as a transition from the anti-naturalism of the phenomenologists. Working in the phenomenological tradition, he nonetheless proposes a phenomenology of the organism that is in the neighborhood of weak ON; Jonas wants to specify a biological yet non-reductive physicalist and hence emergent status for organismic life.

In his essay "Is God a Mathematician?: The Meaning of Metabolism" (Jonas 2003, 64-92), Jonas proposes to test, against the case of the organism, the modern claim that God is a mathematician (65). For Jonas, modern mathematical physics gives us time as a series of instants, such that the physical states of a process are externalized, one to the other: "each of them determined anew by the component factors operative at that very instant" (Jonas 2003, 68). Such fragmentation means that analysis meets no resistance; in other terms, there is no wholeness, only an aggregation of moments, and so ontological emergence is denied (69).

Testing the reduction of biology to physics, Jonas proposes the wave as the physicist's model of complex physical form, a form that is wholly reducible to an aggregate. The wave, as an "integrated event-structure" has no ontologically emergent status, and what is true of the wave must be true of the organism as object of divine intellection. Without need of the "fusing summation of sense," for God, "the life process will then present itself as a series, or a web of many series, of consecutive events concerning these single, persisting units of general substance" (77). For Jonas, however, such a reductive account misses the ontological emergence that makes of life an "ontological surprise," and the organism a system, a "unity of a manifold." The organism is "whole" as "self-integrating in active performance," an "active self-integration of life" (79). The "functional identity" of organisms relative to the materials it metabolizes is constituted "in a dialectical relation of *needful freedom* to matter" (80; emphasis in original). Both elements, need and freedom, constitute the "transcendence" of life, and this transcendence constitutes a living present, a metabolically founded transcendental aesthetic or a priori form of organic time: "self-concern, actuated by want, throws open ... a horizon of time ... the imminence of that future into which organic continuity is each moment about to extend by the satisfaction of that moment's want" (85).

Jonas then draws the consequences for the question of the adequacy of purely mathematical physics for the phenomenon of life: "with respect to the organic sphere, the external linear time-pattern of antecedent and sequent, involving the causal dominance of the past, is inadequate." With life on the scene, "the extensive order of past and future is intensively reversed," so that the determination of "mere externality" by the past has to be supplemented by the recognition that "life is essentially also what is going to be and just becoming" (86).

Jonas is anti-strong or super-strong ON in resisting the reduction of life to physics (his position is not physicalism), but he embraces a weak ON in that his discussion of the organism revealed in a phenomenology of life does not rely upon a supernatural "life force" or even a substantive vitalism of the Driesch entelechy school (Wolfe 2010).

AFFIRMATIVE NATURALISM

A weak ON, one that denies the existence of supernatural entities but affirms that of emergent entities and states, is well represented in CP. Among the lines of thought here would be the Spinozist / Nietzschean / Deleuzean one. Although these thinkers are monists, Spinoza is not strictly speaking a reductive materialist, but rather a property dualist who also allows composite or emergent entities ("corporate" bodies); while Nietzsche and Deleuze are materialists, they are not physicalists or mechanists; in his terms, Deleuze is a "machinic" materialist. We will emphasize not just the metaphysics here but also the ethical component. This has little to do with "ethical naturalism" as it is understood in AP; rather it is an ethics of joy in the Spinozist tradition.

A. Nietzsche and Bergson

Recent works explore Nietzsche as a naturalist (Cox 1999; Moore 2002; Richardson 2004; Leiter 2002; Hatab 2004). Nietzsche's commitment to weak ON is clear: "*My purpose*: to demonstrate the absolute homogeneity of all events" (Nietzsche 1968, # 272; italics in original). Nietzsche's brand of naturalism makes him an enemy of the mechanistic worldview that he thinks stands victorious for us. For Nietzsche, mechanism leaves notions of "reason" and "purpose" out of the picture as far as possible, showing that given sufficient time anything can evolve out of anything else; we can, for example, account for life in terms of pressure and stress. But then he notes that from this position we are unable to "explain" pressure and stress themselves and we cannot get rid of "action at a distance" (1968, # 618). This leads Nietzsche to argue that the victorious concept "force" needs to be completed by ascribing an inner world to it (1968, # 619). In *Beyond Good and Evil* he appeals to a "conscience of method" to justify his claim that the world seen from inside is "will to power" (Nietzsche 1966, # 36); in *Will to Power* he writes: "...one is obliged to understand all motion, all "appearances", all "laws", only as symptoms of an inner event and to employ man as an analogy to this end" (1968, # 619).

In the case of "life" Nietzsche notes that mere variations of power could not feel themselves to be such and thus, "there must be present something that wants to grow and interprets the value of whatever else wants to grow" (1968, # 643). Although this re-admits a limited teleology into our understanding – one that is necessary to our understanding the world in terms of phenomena of "life" such as growth and expansion – Nietzsche advises us to beware of "*superfluous* teleological principles," such as positing as the cardinal drive the instinct of preservation (he holds that a living thing desires above all to discharge its force) (1968, # 650). On this model, then, mechanism and matter are to be construed as expressions of lower stages of life, as "the most despiritualized form of affect (of "will to power")" (1968, # 712).

Nietzsche thinks that this dynamic interpretation of the world, with its denial of empty space and little clumps of atoms, will come to dominate physics; it is in this context that his interest in the example of music needs to be appreciated. In a note entitled "Against the physical atom" he writes:

The calculability of the world, the expressibility of all events in formulas –is this really 'comprehension'? How much of a piece of music has been understood when that which in it is calculable and can be reduced to formulas has been reckoned up? And 'constant causes,' things, substances, something 'unconditioned' *invented* – what has one achieved? (1968, # 624; see also 1974, # 373).

Nietzsche's concern, then, is not simply phenomenological in the sense of what something feels like to me as subject of experience, but an ontological one about the need for a dynamic principle to account for "life." Nietzsche's commitment to monism means that he does not need to operate with a distinction between MN and ON. Instead his focus is on degrees and kinds of difference amongst material and spiritual forms of life (e.g. differences of complexity in the organization of living systems).

Nietzsche has often been read as a naturalist; Bergson's case is more complex. He is often seen as part of the French "spiritualist" tradition, which emerged as an attack on French positivism of Comte, Taine, and Renan. But the approach he adopts in *The Two Sources of Morality and Religion* is eminently naturalistic, looking at morality and religion on the basis of the "closed" and "open" tendencies of social life (Bergson 1977 [1935]; see also Lefebvre and White 2012).

As we have indicated above, we will discuss the ethics as well as the metaphysics of our affirmative naturalists. To that end, a comparison of Nietzsche and Bergson's naturalist ethics is in order. We begin with the criticisms they make of a rationalist and intellectualist approach. One could argue that the primary category for both, and what links them together, is life. Nietzsche accords ontological and ethical primacy to the will-to-power (for him this is what life is) and Bergson does the same with his notion of the *élan vital* (vital impetus). The naturalistic status of will-to-

power and *élan vital* are doubtless controversial, but we can at least note Bergson's refusal to assimilate his notion to Driesch's entelechy or individualized life force (Bergson 1998, 42-43; see also Ansell Pearson 2005 for a possible influence of Bergson on Canguilhem); on the possibility of articulating at least some deflationary senses of will-to-power with Darwin, see Ansell Pearson 1997 and Richardson 2004.

There are important influences on both Nietzsche and Bergson from within the tradition of philosophical naturalism, Spinoza and Hume in particular. In the summer of 1881, on the eve of the experience of eternal recurrence, Nietzsche wrote to a friend that he has discovered he has a precursor, namely, Spinoza, and enumerates the points on which he feels this affinity: the denial of free will as absence of conditions, the denial of evil and a moral world order, and the commitment to making of knowledge the most powerful passion (cited at Deleuze 1988, 129). What both Bergson and Nietzsche admire in Spinoza is the naturalism of conceiving the human as part of nature and the commitment to immanence. However, neither is a straightforward Spinozist and both regard him as too much of a Stoic in which the philosopher gets worryingly attached to philosophical self-absorption.

Hume's naturalism held that we should study the human mind in exactly the same way we study the forces of physical objects (laws of attraction and repulsion, laws of association, etc. [Hume 1978, 645]); in this way Hume is an important influence on both Nietzsche and Bergson. In *On the Genealogy of Morals* (Nietzsche 1967) Nietzsche praises "English psychologists" (in which group he no doubt includes Hume), for promoting, through free inquiry, a set of "ungodly, immoral, and unchristian truths": notably the idea that the workings of the human mind can be explained through such "base" phenomena as the inertia of habit and the random, mechanical coupling or association of ideas (Nietzsche 1967, 1.1). This works against our intellectual pride: the intellect wants to believe that our mind has more lofty sources and superior operations. But then in *Beyond Good and Evil* (Nietzsche 1966) he also criticizes "English philosophy" for its limited "plebeian" ambitions and argues that the likes of Hume and Locke represent a devaluation of the concept of the philosopher (1966, #252). Bergson's Humean inspiration is no doubt the view the human is not primarily a rational animal; reason is always subordinate in its operations to feelings and beliefs that have their source in our nature and are not derived from reason, such that reason is not an independent faculty.

B. Deleuze

It is customary, though not necessarily all that illuminating, to classify Deleuze as a poststructuralist. In a nod to convention, we will adopt that phrase, thus locating Deleuze after the structuralist challenge to phenomenology. Rather than locating sense in transcendental subjectivity (or in one of its existentialist rivals, such as Heidegger's *Dasein*, or Merleau-Ponty's lived body), the structuralists were, in the words of Paul Ricoeur, a sort of "Kantianism without the transcendental subject," that is, a search for formal and oppositional structures of intelligibility located in

cultural systems rather than in a subject. But the structuralist move paid the price of reducing history to an exterior realm that at most would activate switches embedded in the structures; the post-structuralists insist on the historical formation of the unconscious social structures underlying the production of sense (and of desire).

With this all-too-brief introduction, let us turn to Deleuze, whom we will treat in relatively greater detail than the other figures; we think this defensible due to our judgment that Deleuze is the most important naturalist figure garnering widespread CP attention. Deleuze's naturalism is evident in his early essay on Lucretius (in Deleuze 1990). Deleuze's interest is in the pluralistic naturalism of Lucretius, in which nature is understood as a distributive rather than a collective power. As Patrick Hayden notes, nature so understood "is that which produces the diverse, yet it does not totalize the diverse into the transcendent One, Whole, or Being to which Platonic anti-naturalism aspires" (Hayden 1998, 107). For Deleuze, Lucretius thinks of nature in terms of multiplicity, as a nontotalizable sum of diverse individuals, species, and environments. On this naturalism our actions are to be guided not by adherence to supernatural myths and illusions, but rather by the affirmation of the positive power of an immanent and multiple nature, and by joy resulting from the diversity of its elements.

In his major work on Spinoza (Deleuze 1992 [1968]), Deleuze speaks of a "new naturalism"; in one instance he also recognizes a "new materialism." The new materialism is, for Deleuze, first and foremost, a philosophy of immanence; here he sees the attempt to recognize the positivity of nature and to grant the human being the reflective capacities necessary to penetrate these depths (Deleuze 1992, 322). Deleuze reads Spinoza as proposing an "expressive" nature, a nature of causal explication, and argues that there is an immanence of expression in what expresses itself (substance and modes). Deleuze acknowledges that in this thinking of immanence "insinuates itself among the transcendent concepts of emanative or creationist theology" (Deleuze 1992, 232). The transformation effected, however, is radical since there is no transcendence of the One beyond or above Being or the transcendence of a Being above its creation. Being is univocal in all its expressions in which the One is said with a single meaning of all that differs. Deleuze speaks of Spinoza's "realization of naturalist program" that has both mechanist and dynamic aspects (Deleuze 1992, 229).

In fact, Deleuze locates the "new naturalism" in both Leibniz and Spinoza and articulates a clear preference for the latter. In Spinoza we find a naturalism where what is at stake is an expressive nature. In Spinoza nature is characterized as a positive and productive power. It is from within infinite nature that all finite things exist as a plurality of modes: nature is not the creation of a transcendent God and the thinking subject is not placed outside the order of nature. Deleuze holds Leibniz's finalism to be an inverted mechanism in which, although there is an expressive nature, this nature is given by God in the form of a pre-established harmony. Things are very different in Spinoza. In him we find a pure immanent

causality that is to be thought in terms of the endowment of things with their own force of power and that belongs to them as modes. On this conception of nature finality is excluded, and this is the true significance of the notion of conatus. This means that there is no given moral harmony, no metaphysics of essences, and no mechanics of phenomena: "Expression in Nature is never a final symbolization, but always, and everywhere, a causal *explication*" (Deleuze 1992, 232). It is not that there is no mechanism or determinism in Spinoza for Deleuze; rather, he is pointing out that, although everything is physical, there is also a level on which a physics of force and a dynamism allows for essence to assert itself in existence and espouse the variations of the power of action.

Deleuze is keen to develop a thinking of norms from his naturalism, so he extracts from Spinoza the insight that the human exists as the normative type par excellence (Deleuze 1992, 277). He writes of Spinoza developing a theory of natural right from the insights of Hobbes, one that is opposed to the classical theory of natural law. The antique tradition of natural law (Cicero) advances the following theses: (a) our being can be defined by its perfection within an order of ends (we are naturally reasonable and sociable); (b) the state of nature does not precede society but rather we live in conformity with nature in a good civil society; (c) in this state what is primary and unconditional are "duties": our natural powers are only potential and require an act of reason to realize them in relation to the ends they need to serve. For Deleuze, Spinoza transforms this in a specific manner, grounding everything in natural right or power (Deleuze 1992, 258-60).

The key development that needs to take place in our thinking for Deleuze is this: it is a matter of capacities and powers, in which "law" is identical to "right" and this means that natural laws are to be conceived as *norms of power* rather than rules of duty. The norms in question are ones of life in the sense that they relate to the strength and the power of action of individuals. We are normative animals out of a specific motivation: we do not wish to be only the subject of chance encounters but rather to seek a rational organization of our natural powers and to enhance the cultivation and enjoyment of these powers. Deleuze maintains that reason and freedom are inseparable from a formative process: "Nobody is born free, nobody is born reasonable. And nobody can undergo for us the slow learning of what agrees with our nature, the slow effort of discovering our joys" (Deleuze 1992, 262). For Deleuze, reason is involved in all the stages of our becoming-ethical and normative subjects, enabling us to move from the randomness of chance encounters to common notions and adequate ideas, and so helping us make the effort to organize our encounters, including agreements and disagreements, in a more thoughtful and rational manner (Deleuze 1992, 280). It is not a question of moving, legitimately or illegitimately, from an "is" to an "ought," since ethics is situated in the desire of our nature to become rationally-motivated normative agents of life.

Deleuze's early period closes with his masterpiece, *Difference and Repetition* (Deleuze 1994 [1968]). Recent work (e.g., Voss 2011) points to the importance of Deleuze's references to Solomon Maimon's criticism of Kant that he settled for the

conditions of rational experience in general when he should have pushed for a demand for the genetic account of real experience. This hooks up with Deleuze's early work on Hume and how the mind *becomes* a human nature; the guiding question of Deleuze's Hume book (Deleuze 1991) is: "how is the subject generated in experience"? We see Deleuze's answer in the "dynamic genesis" of Chapter 2 of *Difference and Repetition*, which treats the three syntheses of time; Deleuze's philosophical interlocutors here are Hume, Bergson, and Nietzsche. To highlight Deleuze's naturalism we will concentrate here on organic time, the synthesis of habit producing the living present. Deleuze drives down to the most basic syntheses; he shows how beneath active syntheses (thought) are passive syntheses (perception) and beneath passive perceptual syntheses are passive organic syntheses (metabolism) (Deleuze 1994, 70-79; see also Ansell-Pearson 1999; DeLanda 2002; Protevi 2013).

Taking account of Deleuze's encounter with Guattari is an important factor in contemporary scholarship. Toscano 2006 and Welchman 2009 posit a naturalization trajectory in which the collaborative works *Anti-Oedipus* (Deleuze and Guattari 1984) and *A Thousand Plateaus* (1987) jettison the still-Kantian scaffold of subjective syntheses of time – even granting that Nietzsche is used in *Difference and Repetition* to call into question the unity of the subject.

The key term of *Anti-Oedipus* (Deleuze and Guattari 1984) is "desiring-production," which reveals Deleuze and Guattari's conceptual and terminological innovation in their naturalism. Crisscrossing Marx and Freud, they put desire in the eco-social realm of production and production in the unconscious realm of desire. Rather than attempting to synthesize Marx and Freud in the usual way, that is, by a reductionist strategy that either (1) operates in favor of Freud, by positing that the libidinal investment of social figures and patterns requires sublimating an original investment in family figures and patterns (i.e., Oedipal triangulation), or (2) operates in favor of Marx by positing neuroses and psychoses as mere super-structural by-products of unjust social structures, Deleuze and Guattari will call desiring-production a "universal primary process" underlying the seemingly separate natural, social and individual realms. Desiring-production is thus not anthropocentric; it is the very heart of the world. All natural processes, even those well beyond the human, are processes of desiring-production: "everything is a machine. Celestial machines, the stars or rainbows in the sky, alpine machines... nature as process of production" (1984, 2). Desiring-production has two aspects relevant to our discussion of ON: (1) there is no subject that lies behind the production, that performs the production; and (2) the "desire" in desiring-production is not oriented to making up a lack, but is purely positive (1984, 25). Desiring-production is autonomous, self-constituting, and creative: it is the *natura naturans* of Spinoza or the will-to-power of Nietzsche.

In *A Thousand Plateaus* (Deleuze and Guattari 1987) "desire" drops out of the description of nature, which is described in terms of "abstract machines" and "machinic assemblages." Again, as in *Anti-Oedipus*, "machinism," the term for

creative self-organization of material systems, is not mechanism, or deadened, routinized, repetition. In fact, we could say, mechanism is a residue of machinism: creativity comes first, then routinization. In *A Thousand Plateaus'* terminology, "strata" (forms which induce mechanical repetition) are ontologically secondary to "lines of flight" (which provide the occasion of creative novelty by disrupting – "destratifying" and "deterritorializing" – stratified, mechanical, processes). Deleuze and Guattari write: "what is primary is an absolute deterritorialization, an absolute line of flight ... it is the strata that are always residues ... The question is not how something manages to leave the strata but how things get into them in the first place" (Deleuze and Guattari 1987, 56).

Despite the ontological priority of lines of flight, stratification is chronologically "simultaneous" with destratification and is a "very important, inevitable phenomenon that is beneficial in many respects and unfortunate in many others" (40). Nature as process, *natura naturans*, is thus bivalent, constituting an "abstract machine" of stratification – a tendency to hierarchically ordered, mechanically repetitive systems – and destratification – a tendency to experimental, creative processes or "lines of flight." Nature as stratification is called "the judgment of God" (40) while destratification allowing creative novelty is called "life" (336; 503; 507). While stratification produces a body composed of homogenous layers, destratification allows the construction of "consistencies" or "assemblages," functional wholes that preserve the heterogeneity of their component parts and enable further non-hierarchical or "rhizomatic" connections (505). The "abstract" part of the term "abstract machine" simply means that the processes of stratification and destratification occur in many material registers, from the geological through the neural, the biological through the social. An "abstract machine" is thus the diagram for processes that form functional wholes in different registers (510-514). In sum, nature forms strata and it also breaks down such strata, freeing parts to form connections with heterogeneous others in consistencies or assemblages.

To conclude this section, let us analyze the treatment of Deleuzian naturalism in Caygill 1997. Caygill criticizes Deleuze for sentimentally including a human level selection (active joyful encounters) and avoiding Darwin's inhuman selection. A common fear, as we see here in Caygill, is that we thus brutalize ethics and politics by naturalizing. But this is a monolithic view of nature. Darwin is not just about competition; as Kropotkin shows, there's plenty of co-operation in nature as well (Gould 1997). We can approach the intertwining of competition and cooperation in nature with Deleuze and Guattari's distinction of stratification and consistency. Nature is multiple, so both sides of human nature, the destructive and constructive, the State and the nomad, the creative and the repetitive (obviously these do not always line up) are natural.

ANTI-NATURALISM IN CRITICAL SOCIAL THEORY

Any discussion of critical social theory in the CP tradition should mention, albeit briefly, the attempts at a Marx and Freud synthesis by Reich, Marcuse, Adorno and

others. Their anti-naturalism is at base a critique of the way fascists indulged in a reductive, biologizing naturalization of national characteristics as rooted in "blood" and so on. These thinkers are, however, sympathetic to a form of naturalism that consists in looking at social and unconscious psychological factors beneath political allegiances, as in Reich (1980 [1933]; see also Corrington 2003), Marcuse 1987 [1955]), and Adorno et al (1983 [1950]).

Just as we cannot fully explore the classical Critical Theory positions, we must acknowledge that it exceeds the format of a survey article to discuss the anti-naturalism of Western feminism; what feminist, from Wollstonecraft (2009 [1792]) to Beauvoir (2010 [1949]) and beyond, has not had to fight opponents wanting to render "natural" the causes and justifications for women's subordinate status? We will conclude then by moving past feminism to briefly address some key anti-naturalist positions in CP-inflected critical race theory (Alcoff 2006), gender theory (Butler 1990), and disability studies (Tremain 2001). Each of these is founded on a critique of previous ideological naturalizing of what they consider to be historical, socio-political, contingent "constructions."

Linda Alcoff's *Visible Identities* (2006) provides a clear example of anti-MN, but perhaps a weak ON in critical race theory, insofar as she insists on the social reality of race even as she rejects any biological basis. For Alcoff, naturalized racial identities have been exposed as specious; but the phenomenology of racial perception allows us to speak of its reality: "in the very midst of our contemporary skepticism toward race as a natural kind stands the compelling social reality that race, or racialized identities, have as much political, sociological, and economic salience as they ever had" (2006, 181). Alcoff prefers contextualism to nominalism and essentialism. In Alcoff's version of contextualism, "race is socially constructed, historically malleable, culturally contextual, and reproduced through learned perceptual practices... It can acknowledge the current devastating reality of race while holding open the possibility that present-day racial formations may change significantly or perhaps wither away" (2006, 182). Alcoff goes on to define subjectivist contextualism, which she prefers to objectivist (social science) accounts: "subjectivist approaches that begin from the lived experience of racialization can reveal how race is constitutive of bodily experience, subjectivity, judgment, and epistemic relationships" (2006, 183). Alcoff sees a danger in de-historicizing phenomenological descriptions at the base of subjectivist contextualism: "one might be led to think that racial categories are the understandable result of the need to group and categorize. In other words, racism is the unfortunate but inevitable result of human cognitive processes" (2006, 184). Against this abstraction to the level of the "human," Alcoff insists on the historical specificity of racial perception: "although racial classification does operate on the basis of perceptual difference, it is also the case that, as Merleau-Ponty argues, perception represents sedimented contextual knowledges" (184).

In the field of gender and / or queer theory, Judith Butler is staunchly anti-naturalist in that one means that gender can be discussed in natural scientific terms (anti-

MN) or that gender is a natural category (anti-ON). In fact, her groundbreaking *Gender Trouble* (1990), describes itself as a "critical genealogy of the naturalization of sex and of bodies in general" (Butler 1990, 147; see also Butler 1988). In *Gender Trouble*, Butler follows Foucault's *History of Sexuality, volume 1* (1978), as she will claim "sex" as supposedly natural is in fact secreted from the social and political practices that make up the "deployment sexuality." Butler writes "As such, sexuality is understood by Foucault to produce 'sex' as an artificial concept which effectively extends and disguises the power relations responsible for its genesis" (Butler 1990, 92). Adding her performativity analysis to this, Butler will claim that supposedly natural gender is in fact the retrospective effect of performing gender: "gender is an identity tenuously constituted in time, instituted in an exterior space through a *stylized repetition of acts*" (140; emphasis in original). Butler's performative anti-naturalism is crystal clear in this formulation: the "sedimentation of gender norms produces the peculiar phenomenon of a 'natural sex' or a 'real woman' or any number of prevalent and compelling social fictions" (140).

Shelley Tremain (2001) picks up the Foucaultian term "governmentality" in her contribution to disability studies. "Governmentality" is the "action on the action of others"; it seeks to shape the field of thinkable and doable actions rather than directly manipulating or training bodies as in sovereign and disciplinary power, respectively. Tremain's target is the "social model" of disability, which naturalizes "impairment" in order to place "disability" in social structures. Thus in the social model, a polio-stricken leg would be an impairment made into a disability by the lack of appropriate social environment (e.g., wheelchair ramps). Building on Butler and Foucault, Tremain shows however that supposedly natural impairment is itself a social category, just as "sex" is produced as pre-cultural by the very social practices of the deployment of sexuality. Tremain writes with regard to the UK Disability Living Allowance policy, "in order to make individuals productive and governable ... the policy actually contributes to the production of the "subject of impairment" that it is claimed to merely recognize and represent" (Tremain 2001, 631). The problem with naturalized "impairment" is that it presupposes a socially determined view of "human function and structure, competency, intelligence, and ability" (632). The individualizing information that social workers coerce disabled subjects into providing in order to become eligible for aid feeds them into a normalization process: "the more individualizing the nature of the state's identification of us, the farther the reach of its normalizing disciplinary apparatus in the administration of our lives" (633). The political takeaway for Tremain's anti-naturalist position is then: "we should, in other words, formulate demands in terms of 'what we want,' not 'who we are' " (635).

To conclude this section, and our essay, note that one of Butler's references in *Gender Trouble* is Anne Fausto-Sterling (1989; see also Fausto-Sterling 2000 and 2012), to whom she turns for biologically informed complications of search for biological determinants of sex and gender (Butler 1989, 109). The new biology to which Fausto-Sterling contributes is a good way to conclude our essay, as its notions of epigenetics and plasticity puts the capacity for "social construction" into human

nature (among many others, see Jablonka and Lamb 2005; West-Eberhard 2003; Oyama 2000; Wexler 2006; an introductory survey is included in Protevi 2009 and 2013). Although CP-inflected critical social theory always retains some sort of social construction thesis, the new biology thinkers allow a thought a bio-sociality, a deep embodiment of experience. Thus the construction is not a merely a discursive or surface effect but is a construction of the material body itself in its neuro-endocrinological depths. The terms nature and culture or nature and nurture need no longer be opposed; a slogan might be that we have evolved to be so open to nurture that it becomes second nature.

NOTE OF ACKNOWLEDGEMENT. We would like to thank Patrick Gamez, Robin James, Rebecca Millstein, Michael Rooney, Carl Sachs and Annika Them for advice and encouragement.

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