An [Un]Likely Alliance

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Thinking Environment[s] with Deleuze|Guattari

Edited by

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DELEUZE AND DEEP ECOLOGY

ALISTAIR WELCHMAN

I

Deep ecology is distinguished by three central commitments. The first is to the intrinsic value of nature.[1] Surface ecology, by contrast, legitimates various broadly ecological concerns with non-human nature on the basis of their value as means for some human end. Deep ecology might for instance argue in favor of restricting or forbidding pollution on the ground that the pollution causes harm in nature; a surface ecologist might be able to support exactly the same conclusion, but only because the same pollution will cause harm to human beings. In this sense deep ecology is an ethics of nature, the denial of the axiological version of humanism, i.e. the denial of the view, exemplified by Kant, that human beings either themselves constitute the only values or else are the only source for values.[2] Deep ecology can therefore be correctly described as a kind of (axiological) anti-humanism, provided it is clear that the "anti" does not negate human beings as such, but merely negates the view that human beings are the sole sources of value.

From its initial formulations, deep ecology has always been bound up with a second central commitment, the metaphysical claim that human beings are nothing other than natural entities, i.e. a kind of metaphysical naturalism.[3] In this sense, deep ecology is the denial of the metaphysical version of humanism, i.e. a denial of the view, exemplified by Descartes, that human beings are metaphysically distinct from natural beings. Accordingly, deep ecology can also be understood as a kind of (metaphysical) anti-humanism, with a suitably modified version of the above proviso.

Deep ecologists manifest an obvious affinity for naturalistic philosophical systems that assert the continuity of human beings with non-human nature and therefore give naturalistic accounts of human beings themselves. Naess alludes with some frequency to the work of Spinoza (e.g. "Spinoza and Ecology"). And more recently connections have been made with Nietzsche and Deleuze,[4] who, not coincidentally, himself

devoted two monographs each to Spinoza and Nietzsche. In addition, some deep ecologists have made use of a specifically naturalistic account of ethics (Callicot).

Now there is a clear (though not inferential) connection between metaphysical and axiological humanism: the metaphysical distinctness of human beings is often mobilized in support of their axiological distinctness.[5] What is not so clear is the question as to whether there is a relation between the *denial* of metaphysical humanism and the denial of axiological humanism. It is not obvious, to say the least, how one can move from any kind of metaphysical naturalism to an axiological claim. It seems, on the face of it, quite consistent to believe that humans are natural beings and at the same time to think that the rest of nature has only instrumental and not intrinsic value in relation to human beings.

In other words, deep ecology wants to be an ethics of nature, but it only supports this with a kind of naturalistic ethics. The gap between the two is not necessarily simply the result of Moore's naturalistic fallacy (see Moore 9ff). Indeed I will argue that metaphysically naturalistic systems can all be understood as presupposing or expressing values in the sense of evaluation or selection. The question that needs answering however is: *what* principle of valuation or selection? And the answers to this question vary with the type of metaphysical naturalism, that is, with the conception of nature. Minimally, the relations between the metaphysical and axiological anti-humanisms at play in deep ecology need to be clarified.

The third central commitment of deep ecology is to some kind of practice that transforms our consciousness of nature.[6] Although it sometimes takes on a meditative or even a frankly mystical tone, this transformative aspect of deep ecology can, I think, be given a quite rigorous philosophical reconstruction. The motive for this third commitment seems clearly to be an avoidance of axiological issues, at least of a certain type: "moralizing" ones (see Fox 215ff). As a practical matter, it is probably true that adopting a moralizing tone may be counter-productive. But a transformative identification with nature hardly evades all issues of valuation. Presumably the reason for identifying with nature is that people are in fact identical (in some sense) with nature, i.e. not metaphysically distinct from it: this is certainly Fox's view.[7] And so the issue would devolve back into a consideration of the relation between valuation and metaphysical naturalism.

II

I think the transpersonal or transformative aspect of deep ecology is best interpreted as a species of *Ideologiekritik*: ideological processes have distorted our understanding of and relation to nature, and we must work to undo or reverse those processes. Thought of in this way, transpersonal ecology has also called upon some philosophical heavyweights, just as the metaphysical naturalism aspect did. Indeed, what have become the standard axes of ideological distortion can be deployed in this new field. Thus, Marxists may argue that our understanding of nature has been distorted by commodification, in which the non-human world comes to be understood primarily as an economic resource; similarly feminists (eco-feminists) may argue that our understanding of nature has been distorted by a patriarchal system that sustains itself by aligning women with nature as a way of legitimating male domination.[8]

On a more clearly philosophical plane, thinkers as diverse as Heidegger[9] and Adorno,[10] whose sophistication makes the term *Ideologiekritiker* seem rather a bad fit, nevertheless have analyses predicated on the presence of a deep distortion of nature in our experience of the world. These thinkers are doubtless difficult to interpret. But *what* makes them so difficult is, I think, their analysis of just how deep ideological distortion goes. In the case of Heidegger the distortion ("technology") is the only way in which Being has, historically, ever in fact been revealed to us.[11] In the case of Adorno the distortion is bound up with reason itself (in the form of instrumental rationality).[12] As a result, there is a certain pathos of the negative about both these writers that centers around the sheer intellectual (and even more than intellectual) difficulty of thinking beyond Western Metaphysics or Western Rationality. But at the same time their projects would make no (or at least less) sense if it were absolutely impossible to free oneself from the "ideological" distortions. However provisional it may ultimately be, there is a clear contrast in for instance Heidegger's "Question Concerning Technology" between the understanding of the Rhine made manifest in a hydroelectric plant and that manifest in Hölderlin's visionary poetry.[13]

Despite the variety of thinkers who can be positioned in place of a psychological sense of personal transformation, there is nevertheless considerable agreement on the centrality of Descartes in the construction of the false conception of nature. Descartes breaks with the medieval idea of the continuity of beings (and, a fortiori, of the continuity of human beings with nature) that had dominated Western thought since Aristotle by introducing a radical separation between human beings and what he now

calls "nature." The defining characteristic of human beings is their possession of consciousness, what he calls "thought", although it includes everything of which we are conscious and not just what today would be described as thoughts (as opposed to e.g. feelings or mere sensations).[14] We have bodies, but only contingently. And our bodies, like animals and everything else in the universe, i.e. nature, have only the property of being extended in space.[15] This conception of nature excludes not only thought and feeling, but also secondary qualities (like color), which have no real existence, according to Descartes, since they are merely subjective projections.[16]

Now Descartes' overall metaphysical position (metaphysical humanism, as above) involves two components: it claims that human beings are specifically distinct from nature in that we are defined by our possession of a non-natural property (thought); it also has a quite distinctive conception of what nature is – a machine. It is going to turn out, I believe, that the denial of metaphysical humanism must entail, along with its reconceptualization of human nature, a reconceptualization of both the rest of nature *and* of valuation. This is what can, I think, be learned from viewing the transformative aspect of (deep) ecology as a form of *Ideologiekritik*: at the end of the critique we will have transformed *both* the nature of human beings *and* (non-human) nature so as to see their underlying metaphysical unity in nature as such. It is from this point of view that the deep ecological reference to metaphysically naturalist philosophical systems can be brought critically into play with the question of valuation.

The often phenomenological orientation of the *Ideologiekritiker* lends itself to the epistemic pessimism of Heidegger and Adorno: it is extremely difficult, if not impossible, to escape the clutches of the false "ideology" of nature, and so most of the theoretical energy of such positions is spend in a kind of conceptual deprogramming that is the speculative analogue of Fox's appeal to psychology. Where it differs is that in Fox's case, although theoretically unsophisticated, it is clear that the culmination of the process is a consciousness of metaphysical naturalism, i.e. that "we and all other entities are aspects of a single unfolding reality" (Fox 252). *Ideologiekritik* however is by no means committed to any kind of metaphysical naturalism (although it may contingently accept some form of materialism, e.g. dialectical materialism). Indeed, in its most philosophically sophisticated guise, as phenomenology, it is intrinsically hostile to any form of metaphysical naturalism.

Heidegger clearly wants to revolutionize our (Cartesian) conception of nature; and, at the same time, he wants to revolutionize our conception of

the subject (hence his new vocabulary of *Dasein*); but he by no means wants to sink Dasein into the world *ontologically*: Being-in-the-world is the way of Being of Dasein that precisely *distinguishes* it from the ways of Being of non-Dasein, what he calls, after Kant the "categories", presence-at-hand and readiness-to-hand.[17] Heidegger can be best understood as radicalizing Kant's critique of Descartes, which objected to Descartes' conception of the subject as a thinking *thing* precisely because the subject is *even more different* from nature than the objectlike designation "thing" can accommodate.[18] This is why Kant figures so prominently in reactionary resistance to (deep) ecology.[19] Heidegger transforms our conception of nature from a mere resource; but is radically committed to the ontological distinctiveness of Dasein.[20]

Thus *Ideologiekritik* is doubtless important, but it is at best a way of getting to an underlying metaphysics (and here I am only interested in naturalistic metaphysics). So an emphasis on the transformative aspect of (deep) ecology distracts attention away from its metaphysical commitments; and those metaphysical commitments entertain as yet unexplained relations with its fundamental evaluative ones, i.e. the existence and importance of non-human values. Here I will want to argue that it is not just our conceptions of human beings and nature that must be changed, but also the conception of value itself.

As already mentioned, the problem of the relation of valuative commitments to metaphysical naturalism inevitably brings up the question of the application of Moore's naturalistic fallacy. In brief, Moore argued that it is impossible to infer the intrinsic goodness of something from its natural properties; from which of course he concluded that the good is an objective but non-natural property. The specter of this fallacy is raised by the very term "deep ecology." The "ecology" part of this designation refers to an apparently neutrally descriptive scientific endeavor; whereas the "deep" part brings in a range of normative principles. In Naess' formulation, this is supposed to be unproblematic because he distinguishes carefully between the scientific claims of ecology and his own system (more properly ecosophy), which, he says, like the great metaphysical systems of Spinoza and Aristotle, freely mixes normative and descriptive components (Naess 1973: 99). How this is possible still requires some clarification.

Nevertheless, while Naess may have been admirably explicit about separating the normative and factual principles of this view (see "The Shallow and the Deep" 33f), there are clear dangers in an appeal to ecology. On the one hand, there is the danger that social values will be projected onto the science in the process of its constitution. Ecology has

hardly achieved the kind of cognitive maturity that gives it a physics-like autonomy from the nexus of human practices out of which it emerged.[21] Indeed some of its most fundamental concepts were politicized at their origin and are still among the most contested of any science.[22] On the other hand, there is also the inverse danger that exploits the relative authority of the scientific discipline's epistemic position for prescriptive ends. For instance, for a long time, technical (perhaps among other) limitations made it difficult to model any but homeostatic, i.e. self-sustaining, systems. But from this it is easy to move to a view that systems *should* be self-sustained, a view that has conservative implications analogous to those of structuralist-functionalist sociology.

Three different positions can be used to mark out the range of possibilities for thinking about the relation of valuation to metaphysical naturalism. There is, first, what appears to be Naess' position: that evaluative commitments are separate from descriptive (metaphysical ones). This position suffers from an obvious drawback: in the absence of further elaboration, our abilities to perform evaluation or identification are not explicable on the basis of the nature that we attribute intrinsic value to or on the basis of that nature with which we identify. But then, we are to that extent precisely *not* identical with that nature, and the only result must be a kind of humanism.

Second, there is the view that valuations are "projected" into nature. This can be given an (increasingly popular) transcendental idealist gloss, so that it no longer seems as if it is just getting things wrong, i.e. the projection can be understood as in some sense constitutive of (our conception of) nature. Conceived in this way, the valuative commitments of (deep) ecology would be analogous to those of virtue theory: human experience of nature is (at least under the right conditions) always and constitutively the experience of a natural world that presents itself as inextricably shot through with valuative significance (affordances for the prosecution of human interests) in the same way that human experience of the social is (at least under the right conditions) always and constitutively the experience of a social world that presents itself as inextricably shot through with valuative significance (opportunities for kindness etc.). Thus, for both Heidegger (in thinking at least in part about nature), as for Alasdair MacIntyre (thinking about the social), the idea of the separation of fact from value (that underlies Moore's conception of the naturalistic fallacy) represents a kind of cognitive catastrophe: once valuation has been separated from description, then the two can never be put together again.[23] In this sense, even to ask the *question* of the relation between valuation and nature is already to have deprived oneself of the resources to answer

it. It should be noted however that the upshot of this position is a kind of idealism about nature. The very fact that we *are* able to break through the seamless interweaving of fact and value already demonstrates the contingency of this conception of nature and suggests that the seamless weave is not the *real* nature as it is in itself.

The last option is that nature itself is, in some sense, valuative, and that this is what supports both the existence and importance of non-human values *and* the valuation of human beings, understood as a part of nature. This is a delicate matter, for how can it be distinguished from a selective appeal to the authority of nature adopted as legitimation for a social project? One way is to appropriate the Kantian insight offered by the above analysis comparing Heidegger and Macintyre, but to prolong it in precisely the opposite direction. Rather than retreating to nature as phenomenon, the thought of nature can be expanded *beyond* the phenomenal scope where it is restricted by properly scientific considerations, transforming nature this time not in relation to a synthesis of human interests, but by going beneath the phenomena, retrieving but renewing a classical sense of the metaphysical. This, I take it, is the attraction of thinkers like Spinoza, Nietzsche and Deleuze for (deep) ecology.

III

Deleuze's conception of nature goes to unusual lengths to establish continuity between the cultural, biological and even inorganic domains. Deleuze's early assertion of a primary monism is articulated in his later (collaborative) works in terms of an analytical vocabulary that is deployed freely across all domains.[24] Thus, in a Plateau on ethology, territorial animal behavior (especially birdsong) is explained in terms derived from human cultural production (of musical styles) *and vice versa* with such suppleness that the twin objections of naturalizing the cultural and aestheticizing nature are simultaneously undermined. It is humanistic chauvinism not to attribute aesthetic ability to birds just as it is to deny that high art is not also nature (see Deleuze and Guattari, *A Thousand Plateaus*, Plateau 11).

In collaboration with Guattari, Deleuze defends this view by developing a thought of abstraction that is understood not as conceptual generality but as interconnection across heterogeneous domains. This difference can itself be understood using the crucial distinction between a tree and a rhizome. Tree-like or arborescent structures are organized according to a strict hierarchical principle, the most visible of which today

is probably the organization chart. These charts (in which the arborescent structure is upside down) start with a single trunk (the boss) who is the superior of everybody. Everyone else in the organization either reports to the boss, or reports to someone else who reports (ultimately) to the boss. The significant feature of such structures for Deleuze is that communication on one level is always mediated by someone on a higher level. Until recently, the biosphere was itself understood as a tree (the tree of life) in which present-day life forms were related by filiation through a common ancestor somewhere higher up the tree. Deleuze and Guattari were among the first philosophers to take note of the general import of the revision to this model that has now become the standard for redrawing the diagram of life, that is, the fact that genetic relatedness can also be established by direct lateral connection between life forms. When Deleuze and Guattari were writing, the only significant examples of this were viruses. But now it is widely recognized that most life forms can be assigned only a statistically approximate filiation because of the dominance of inter-"specific" genetic exchange in bacteria. This idea of lateral connectivity or networking is what Deleuze and Guattari call a rhizome.[25]

There are even rhizomatic and arborescent conceptions of abstraction itself. Conceptual classifications have, since Aristotle, followed the tree of life quite directly: higher order concepts contain or encompass lower order ones, traveling up to the most abstract concept (God, Being) and down to ever more minutely distinguished aspects of reality.[26] Abstraction here carries its standard but arborescent connotation of lacking (specific) content. But Deleuze and Guattari treat abstraction rhizomatically as the possession of a greater ability to connect laterally or transversally. The more connections to the more heterogeneous elements, the more abstract.[27]

Abstraction therefore knits together disparate domains at the same time as it radicalizes the notion of multiple realizability by isolating "machinic" fragments that can be effectuated in disparate domains. This is what enables Deleuze and Guattari to avoid reductionism in either direction: it is not that Deleuze and Guattari are projecting or anthropomorphizing when they say that in the development of courtship and other rituals in birds, "expressive matters" or "motifs" become "autonomous" and form a "style" – even when this autonomy of the motif is immediately explicated using the example of the Wagnerian musical motif wandering away, in the score, from its assigned dramatic character on the stage (1980: 319). Nor are they (the converse) giving a reductive account of human aesthetic capacities, as if the latter were "just the same as" birdsong. Rather, the same "abstract machine" is differentially effectuated in both cases.

Here Deleuze and Guattari insistently reject the idea that such inter-domain assemblages result from a comparison or an analogy, a procedure that would result in the privilege of one domain over another (see Deleuze, *Difference and Repetition* 129ff). An affinity group is not rhizomatic because it "compares itself" with couch grass or bacteria, but because all three effectuate the same abstract machine.

The relative under-theorization of ecology in comparison with evolutionary biology is exactly the victory of tree over rhizome since ecology is the study of the systemic properties of the lateral connectivity (alliance) between leaf nodes in the evolutionary tree of descent (filiation).

Nevertheless, despite Deleuze and Guattari's deep-seated metaphysical naturalism, implacable hostility to the humanist perspective of transcendence and detailed methodological commitment to the use of a conceptual apparatus that resists anthropocentrism, there is still an only uneasy juxtaposition between their work and (deep) ecology.

It should be clear that Deleuze and Guattari would fiercely resist Warwick Fox's peon to the tree (Fox 253-4) even while acknowledging the pernicious force of arborescent formations in biohistory. But the problem is surely more general than this. Organicist interpretations of ecosystemic relations have been rife in (deep) ecology, culminating in Lovelock's Gaia hypothesis. They are probably on the wane now, but their replacement by more vague terms like "interconnectedness" (e.g. Fox 245f) looks less than half-hearted in comparison with Deleuze and Guattari's onslaught against the (notion of the) organism as such in *Anti-Oedipus*, one of whose central theoretical terms is the body without organs. Similarly, Deleuze and Guattari strenuously resist any concept of holism: the whole, far from having any priority over the parts (either valuative or ontological) is simply a part produced alongside other parts. And, despite some similarities of their work to a kind of general systems theory, they distance themselves from this through a refusal of even the idea of effective functioning.[28]

Perhaps most basic of all, is the singular importance in Deleuze and Guattari's work from 1972 onwards of the term "machine." Of course, as Halsey carefully notes, Deleuze and Guattari's machines, especially their desiring-machines, are not "purely mechanical" (40).[29]

Is this disjunction between Deleuze and (deep) ecology a merely superficial or terminological one, or is there a substantive disagreement? To answer this question will require something of a detour, starting out from the observation that it was already true for Descartes that machines were not purely mechanical.

Descartes arrived at his historically dominant conception of nature through a peculiar reversal of the intuitively obvious relation between science and technology. This relation would normally be understood analytically, in other words: the theoretical business of science will tell us something about the way nature works, and technology, implemented by engineers not scientists, will apply the theoretical understanding of science to the fabrication of useful instruments, machines. For Descartes, this relation is exactly reversed. His conception of science is parasitic upon his understanding of technology. In particular, he formulated his mechanical philosophy of nature as the object of scientific inquiry on the basis of his observation of technical machines, most especially the hydraulic statuary in the royal gardens at Saint-Germain, which were themselves the products not of a scientific but of an autonomously artisanal milieu.[30]

This leaves Descartes with a problem because the notion of a machine is irreducibly normative: its effectuation of a causal chain is to be evaluated in terms of its performance of a function. As he admits in *Meditation* 6: "A clock made of wheels and counter-weights follows all the laws of nature no less closely when it has been badly constructed" (AT VII: 84). As a *machine*, a clock is defined not just by the chain of causes it embodies, but also by its functional consistency with something *outside* of nature, i.e. a form of purposiveness. In the case of human or animal bodies, this purposiveness must lie in God. So, even for Descartes, machines, and hence nature, are not purely mechanical, but contain an essential reference to a purposive or teleological realm.[31]

Descartes' conceptual innovations are generally regarded as in part responsible for the break between facts and values that underlies both Moore's naturalistic fallacy and the difficulty of any more supple an understanding of the relation between metaphysical naturalism and general questions of axiology. His failure to effect this break cleanly however has historically opened up the possibility of giving a naturalistic account of the emergence of values in nature through the functioning of biological organisms.

The phenomenological account weaves fact and value together on the presupposition that nature is constituted as phenomenon out of fundamentally human interests. In Heidegger, for instance, beings reveal themselves most primordially as ready-*to*-*hand*, i.e. as already taken up in a sphere of specifically human significances. By contrast the naturalist critique of Descartes takes the realm of divine purposes that underlie the mechanistic construal of nature, and gives a naturalistic account of just those purposes. In Kant, for instance, machines are precisely distinguished from organisms on the grounds that while the former have (as Descartes

argued) *extrinsic* purposiveness, the latter are intrinsically purposive, i.e. they carry their purposes with them. Kant, famously, could give no account of how this possible.[32] But after Darwin it becomes easy to think of organisms as positing value. Canguilhem, for instance, sees the causal pathways of organisms as incomprehensible in the absence of their homeostatic regulatory functions (see *The Normal and the Pathological* 126, 131, 136). Thus it becomes possible to say that e.g. methane is of value for methane-metabolizing bacteria because of the functional role it plays in maintaining the existence of such entities.

It is important to note the difference between these two positions, which can at times become subtle. In the phenomenological account we (as phenomenological subjects or Dasein or whatever) *construct* "nature" in accordance with our interests. It may still be true that this happens in the naturalized account. If there is anything that it's like to be a methane-metabolizing bacterium, then doubtless methane will appear valuable within its phenomenology. While this example may seem fanciful, the origin of the modern science of ethology was dominated by the work of von Uexküll who made exactly this move. Uexküll emphasizes that interest-relative life-worlds are constructed phenomenologically by all organisms and have strikingly different saliencies so that the "same" ensemble of objects will appear very differently to a human, a dog and a tick.[33]

Nevertheless, the naturalized account does not appeal to any projective, world-constituting or phenomenological origin – not even to one of Uexküll's non-human phenomenologies -- for a valuative component in nature. Rather, the crucial element is the sheer fact that there are systems, usually understood as biological ones, whose conditions of existence involve the effectuation of a differential valuation of segments of the environment, in other words: living systems that posit values. It is not, in other words, the values constructed phenomenologically from *within* such systems that form the basis of a metaphysically naturalized conception of valuation, but the existence of systems that do in fact posit values.

Still this does not seem to be enough to generate the valuative results that deep ecology wants to infer from its metaphysical basis. It might be possible to generate a naturalized conception of the *interests* of naturally occurring systems on this metaphysical basis. But the interests concerned are both inherently conservative (reminiscent of the first wave of cybernetics) and appear to have only an oblique relation to *our* valuations as human beings. Systems at various scales doubtless do have conditions of existence interpretable as interest-relative valuations. But on what basis ought I to respect these? It is not obvious. Indeed the phenomenology of

such valuations in e.g. the case of predator-prey relations suggests that the values one system posits may precisely be the abjection of another system. There are possible answers to such questions, in for instance the – sometimes now quite intricate – naturalistic ethics of evolutionary biology. Such naturalistic approaches are no longer socially Darwinist: since the 1930s, work on inclusive fitness has shown how it is possible to develop biologically based valuations that extend beyond the individual organism to those that (may) share its genes. Still these fall short of even the inclusion of all human beings, and so also fall short even of axiological humanism (see Callicot).

Those deep ecologists like Callicot, who use this approach therefore still need to appeal for a transformation of consciousness that will get us to identify with not only non-kin but also non-human nature. Perhaps this can be done. But the question remains: why should we engage in such a process of identification? It cannot be just on the basis of the values posited by life (the interest of a functional system is continuing to function) since those values opened up the original gap that now needs to be closed by identification. In other words: some *extra* valuation is also required to motivate identification.

My hypothesis is that this further move can indeed be explained on the basis of metaphysical naturalism, but only of a very specific kind. Naturalizing the extrinsic Cartesian finality of machines through the intrinsic finality of a living system yields a possible calculus of valuative interests, but nothing more. What could motivate a transformative identification with nature is not the mere fact that humans are a *part* of nature, but the further claim that humans are, in some way, genuinely metaphysically *identical* with (the rest of) nature.

An example of such a metaphysical naturalism is Schopenhauer's view that individuated things (including organisms, and hence human beings) possess, in addition to their material properties, a second, phenomenally inaccessible, aspect: they are also will. For Schopenhauer individuation itself is inapplicable to the will (this is his famous and highly original interpretation of the familiar doctrine of the freedom of the will: the will is free not because it is capable of free choice, but because it is free of the form of individuation, the *principium individuationis*). It follows from this that the will in itself is neither singular nor plural. For Schopenhauer therefore it is false to say that each of us *has* a will. Rather each of us (and every separate entity in non-human nature too) *is* at the same time the same non-singular, non-plural, non-individuated will.

Schopenhauer characterizes the will as endless striving: striving because it is *willing*; endless because if it had an end or aim or purpose,

there would be something separate from it. Here Schopenhauer introduces the idea of a transformed nature that acts, but neither in accordance with a chain of causes *nor* on the basis of a purposiveness alien to it. This is the idea of a nature whose activity is properly immanent to it. From these resources it would be possible to construct a rigorous critique of the naturalization of purposes on the basis that this naturalization uncritically accepts the non-natural purposes posited e.g. by Descartes and merely asserts that just those kinds of purposes can be given a naturalistic account without going further and interrogating the structure of purposiveness itself.

Of course endless striving without aim or purpose is a form of suffering, and Schopenhauer does not shrink from the implication that existence is, at a basic level, pain. Only at the level of individuated entities (what Schopenhauer calls the level of aspect of representation) does the will will anything in particular: each entity wills to sustain itself in what Schopenhauer calls the will to life. Each thing then posits the continuation of life as a value and performs an appropriate selection on its environment as a result.[34] But each of us is at the same time will, and hence metaphysically identical with the other. As a result, the direct values of self-maintenance posited by life are metaphysically superficial: when I pursue my interests at your expense, when I assert my (personal) will against yours, I forget that I am really (at the deeper metaphysical level underneath the nature of mere representation) the very same will that you are and hence I really attack myself – or more accurately: I act as an instrument by means of which the will attacks itself.

> Je suis la plaie et le couteau!
> Je suis le soufflet et la joue!
> Je suis les members et la roue,
> Et la victime et le bourreau!
>
> [I am the wound and the knife!
> I am the blow and the cheek!
> I am the members and the wheel,
> The victim and the executioner!][35]

This metaphysical identity provides the missing link between a naturalistic account of non-human interests on the basis of organic functioning and the need for a transformed consciousness. The affinities with deep ecological thought here are clear, and indeed the metaphysically naturalist and anti-humanist ethics of *Mitleid* (sympathy) that Schopenhauer develops from this shades into a mysticism of self-denial

explicitly influenced by the philosophy of the *Vedas* and the *Upanishads*. It seems to me that *only* something like this can meditate between the location of valuation in the self-sustenance or Self-realization[36] of the individual natural system and an analogue of Kant's "universalization" requirement, that we (as humans) *recognize* and value these valuations. It is because "I is another" that it makes sense to identify with the interests of self-unfolding natural systems taken as a whole.[37]

Now Deleuze's relation to deep ecology can be made clear, for Deleuze is the inheritor of the Schopenhauerian intellectual tradition, but only in a significantly modified form, that is, modified by Nietzsche's critique of Schopenhauer. Deleuze follows Schopenhauer in having a metaphysically enriched conception of nature, distinct from the interest-relative phenomena of phenomenology as well as from the interest-neutral terms of scientific discourse. But he follows Nietzsche in rejecting the presuppositions of the morality of sympathy that underlie Schopenhauer's rationale for our identification with nature as a whole, and hence also, the ground for recognition of the interests of functioning systems in maintaining their own functioning. This presupposition is that existence is fundamentally pain, and hence of little value. Schopenhauer's thought makes a clear bridge between a form of anti-humanist metaphysical naturalism and an anti-humanist axiology. But, for Nietzsche, it is the value of this axiology that must be brought into question on the basis of the value of life.[38]

What does this mean? Deleuze's interpretation is in terms of difference, both as ultimate value and metaphysically basic constituent. The idea is that conservative (i.e. homeostatic or purely self-conserving and merely self-regulatory) systems have a tendency to dissipate. They may for instance be subject to the ratchet effect, where eventual minor dysfunctions accumulate to the point of breakdown because a conservative system has no way to reverse such changes. The culmination of this tendency is the second law of thermodynamics and the eventual achievement of irreversible thermal equilibrium. Life, in so far as it resists this tendency, requires and produces differences (e.g. the pool of variation of Darwinian evolution). This is the sense that Deleuze gives to Nietzsche's eternal return, understood as a principle of selection. Conservative systems (based on identity) cannot return because, without difference, they will eventually corrode down to nothing; only difference can return because it is what enables even the identical to resist dissipation. But for difference to return is for "it" to return not as the same, but precisely as different.[39]

By his later and collaborative work, the rather dry-sounding philosophical distinction between the different and the identical had morphed into the distinction between rhizomatic and arborescent types of system discussed above. But the Nietzschean principle of evaluation and selection is still operative. It is rhizomatic systems that capture difference so as to act in a maximally exploratory way. Integrity (identity, self-maintenance etc.) has a completely secondary relation: it is affirmed to the extent that it is necessary for the promotion of rhizomatic exploration. This is the reason for Deleuze's hostility to functional coherence (organisms, functioning, finality, holism etc.). In the polemical first volume of *Capitalism and Schizophrenia*, he and Guattari prosecute Nietzsche's revaluation of values with a maximum of rigor, attacking all residual derivatives of identity; and, while the second volume is apparently more conciliatory, this is in fact a purely pragmatic response to the contention that some level of integrity may be required for the production of more difference.[40]

This is where Deleuze's conception of the machine finds its place. An assemblage (a "system" constituted out of intrinsically different or heterogeneous parts) is machinic at its most extremely deterritorialized edge, namely the point at which it is most in contact with a maximum number of other assemblages, at which it is maximally abstract in the sense previously elaborated.[41] This is the point at which its exploratory behavior produces a new source of differences, e.g. the metabolic creativity of bacteria or the chemical creativity of protein synthesis or the expressive creativity of language.

Machinic selection or valuation for Deleuze is therefore distinct from the implicit valuation of the machine in which Descartes found himself embroiled. Descartes makes all valuative judgments (including those of purpose or function) into essentially secondary qualities, projections of human mental capacities. It is possible to naturalize such capacities into the notion of the organism as intrinsically rather than extrinsically purposive; but in so doing, one retains both the ideas of extended (nature) and thinking things (human mental capacities) in substantially the same forms. The valuative commitments of this strategy are correspondingly conservative, favoring self-interested (i.e. self-maintaining) systems and the values they necessarily posit.

Deleuze's conception of machinic valuation is both metaphysically and axiologically anti-humanist, but quite different from the deep ecological view that natural systems have an interest in Self-realization. Machinic valuation does not represent selection based on anything remotely approximating *interests*; but rather the selection of systems that are

interesting, in the quite specific sense of optimally productive of exploratory novelty.

Notes

[1] In Arne Naess and George Sessions' canonical "Platform Principles of the Deep Ecology Movement," the first principle reads: "The well-being and flourishing of human and nonhuman Life on Earth have value in themselves (synonyms: intrinsic value, inherent value). These values are independent of the usefulness of the nonhuman world for human purposes" (Devall and Sessions 70). Naess in particular has tried to distance himself from any *theory* of intrinsic values in the style of analytic philosophy, and has instead emphasized a kind of "ordinary language" use of the term. See (Naess "Intrinsic Value" and Fox's discussion (221f). In some ways the distinction seems misplaced because many analytic philosophers use the terms "value" and "right" precisely to express the distinction between value in general (axiology) and specifically *moral* rightness.

[2] Kant's position is that only rational beings possess intrinsic value, because they have (possibly) good wills. Strictly speaking this includes rational aliens and rational supernatural beings like angels or god. I shall ignore these possibilities in what follows. See Kant's *Groundwork of the Metaphysics of Morals*).

[3] Naess claims that "The ecosophies will, I suppose, be absorbed in the general traditions of philosophy of nature (*Naturphilosophie*)" (*Ecology, Community and Lifestyle* 210).

[4] See the pieces by Acampora, Hallman and Halsey as well as Patrick Hayden's essay in this present volume. Bennett also makes use of Deleuze in her attempt to establish a kind of "active" theory of matter. Her references to ecology though are largely limited to its systems theoretic aspect rather than its "deep" aspect.

[5] In *The New Ecological Order*, Ferry locates Descartes' metaphysical discontinuity between human beings and nature at the origin of the axiological discontinuity constitutive of humanism that he rightly associates with Kant and Sartre (see e.g. 3ff).

[6] Naess' analysis of such a transformation in his conception of "identification" ("Spinoza and Ecology" 36ff). Fox's *Towards and Transpersonal Ecology* is a book-length attempt to orient deep ecology in terms derived from the then-fashionable transpersonal psychological analysis of Abraham Maslow. See especially pages 225ff for a wealth of evidence that this transformative approach is widespread among deep ecologists.

[7] Fox claims that there are three grounds for identification with wider nature: personal contact, ontological and cosmological (249ff). The last of these involves an acknowledgement of the claim that we are all "aspects of a single unfolding reality" (252).

[8] It is of course also standard for *Ideologiekritiker* to argue that the concept of "nature" is often deployed itself for ideological reasons, i.e. to present social choices as inevitable. Indeed this may be the basic formula for *all* ideology. I will

address this issue below, but here the point is that such distorted conceptions of nature presuppose the at least possible accessibility of an undistorted conception of nature.

[9] Heidegger has been repeatedly appropriated as an ecological thinker. See, for instance, Zimmerman ("Toward a Heideggerian Ethos"). Zimmerman regards Heidegger as a robust realist ("What Can Continental Philosophy Contribute to Environmentalism?" 217), citing Glazebrook. While not personally endorsing this interpretation of Heidegger, it does have the merit of making it clear that Heidegger wants to correct a distortion in our understanding of nature. Other, more canonical, interpreters of Heidegger have also given him an environmental gloss, see Wood (2001) who coins the term "ecopheneomenology."

[10] Adorno and Horkheimer's *Dialectic of Enlightenment* is already a proto-ecological tract in that their critique of the Enlightenment and its self-destructive obsession with the "mastery of nature" (xvi) creates a "disenchantment" (3) of nature, i.e. a false (ideological) conception of nature (and our relation to it) that can be, in principle, subject to *Ideologiekritik* and corrected.

[11] In his "Letter on Humanism" from 1947, Heidegger writes "As a form of truth technology [*Technics*] is grounded in the history of metaphysics, … which is itself a distinctive and up to now the only perceptible phase of the history of Being" (220).

[12] One can see how far this goes for Horkheimer and Adorno in the theme of the second essay of *The Dialectic of Enlightenment*, "Odysseus, or Myth and Enlightenment" (43-80). Although their constant allusions to the Weberian notion of disenchantment suggest that they agree with Weber that it was Descartes who radically instrumentalized modern culture, they nevertheless argue that the deployment of myth in Homer's *Odysseus* is already instrumental in conception. Thus to find a model for a non-instrumental relation to nature, one would already have to go back beyond the *muthos* / *logos* distinction.

[13] Heidegger writes: "In order that we may even remotely consider the monstrousness that reigns here, let us ponder for a moment the contrast that is spoken by the two titles: 'The Rhine,' as dammed up into the *power* works, and 'The Rhine,' as uttered by the *art* work, in Hölderlin's hymn by that name' (297).

[14] Descartes' theory of perception involves both a mental component and a physical component: stimulation of nerve sites causes information to be transferred to the brain where (at some point) it is converted into something of which we are conscious, a "sensing," of which he writes "But this [sensing] precisely so taken, is nothing other than thinking" (*Meditations* 29). In Meditation 6 he describes sensations e.g. of hunger or thirst as "nothing but confused modes of thinking" (81).

[15] This is the upshot of the famous 2nd Meditation (*Meditations* 23-34) in which Descartes shows that there are two substances in the universe, and that human beings are (essentially) one substance (thinking substance) and everything else (including the human body) is extended substance or matter.

[16] In Meditation 6 Descartes claims that there are indeed "differences corresponding to the different perceptions" of secondary qualities like colour, but that these differences "do not resemble" our perceptions of them (*Meditations* 81).

[17] Heidegger writes that "Dasein's characters of Being are defined in terms of existeniality, we call them '*existentialia*'. These are to be sharply distinguished from what we call '*categories*'—characteristics of Being for entities whose character is not that of Dasein" (*Being and Time* §9, 44).

[18] Kant's critique of Descartes' conception of the self as a thinking thing takes place in the "Paralogisms" section of the Dialectic of the *Critique of Pure Reason* (A348ff/B413ff). In §10 of *Being and Time*, Heidegger also mentions the "reification" (46) of the subject in Descartes and goes on to give an analysis of Max Scheler's (Kantian) attempt to distinguish persons from things (47-8) in which he is clearly approving, while at the same time maintaining that the various positive characterizations of the Being of persons (Dasein, in his terminology), e.g. "soul" or "spirit" or even "subject," have all been flawed. Later he makes it clear why: "Even if one rejects the 'soul substance' and the thinghood of consciousness, or denies that a person is an object [i.e. one takes Kant's critique on board], ontologically one is still positing something whose Being retains the meaning of present-at-hand, whether it does so explicitly or not" (§25, 114). In other words: Kant's critique does not go *far enough* in undoing the reification of Dasein, even terms like 'subject' are thought on the basis of the categories, that is, on the basis of the kind of being that entities *unlike* Dasein have.

[19] Ferry is quite clear about this, defining the humanist era in Kantian terms, as involving a conception of human beings able to set aside their whole natural being: as he terms it "Antinatural Man" (3ff).

[20] The term "metaphysical" is highly freighted in Heideggerian thought: it is the nexus of philosophical concepts characteristic of the West, which Heidegger wants to overturn or reinvigorate, but increasingly finds this task impossible, perhaps necessarily so. My use of the term is simply to distinguish prima facie non-axiological from axiological claims and I do not want to enter this complex Heideggerian debate on either side.

[21] In the interview "Truth and Power," Foucault distinguishes between sciences with a "low" and a "high epistemological profile" and confines his project to the former (109).

[22] Sarkar describes, for instance, the classification of stochastic models of population growth as "a striking exemplar of the social determination of science."

[23] See MacIntryre's "disquieting suggestion" at the beginning (1f) of his *After Virtue* that the social conditions required for even the *perception* of virtues have been eradicated and compare with Heidegger's claim that after Descartes scission of the world into extended and thinking things, we try to bridge the gap using "value-predicates" – but "Adding on value-predicates cannot tell us anything at all new about the Being of goods, *but would merely presuppose again that goods have pure presence-at-hand as their kind of Being*" (*Being and Time* §20, 99).

[24] In *Difference and Repetition*, Deleuze argues, following Duns Scotus, that Being is "univocal" (35). In *A Thousand Plateaus* he infers a pluralism from this monism according to the equation "PLURALISM = MONISM" (20).

[25] For all this see *A Thousand Plateaus*, Plateau 1. Deleuze and Guattari use the biological model of arborescence (10, complicated by viruses) and contrast

(arborscent) models based on filiation with (rhizomatic) ones based on "alliance, uniquely alliance" (25).

[26] Schopenhauer compares such conceptual classifications to a mosaic, which can approximate reality to any given degree of accuracy, but can never quite match up to it because the mosaic pieces must always have edges, where reality does not (see *Die Welt als Wille und Vorstellung*, Vol. 1, §12, 93-4).

[27] See their critique of Chomsky's linguistic models, which are "not too abstract but, on the contrary, … not abstract enough, … they do not reach the *abstract machine* that connects a language to the semantic and pragmatic contents of statements" (*A Thousand Plateaus* 7).

[28] *A Thousand Plateaus* borrows the term "plateau" from Bateson (21-2). In *Anti-Oedipus*, Deleuze and Guattari argue that "in desiring-machines everything functions at the same time, but amid hiatuses and ruptures, breakdowns and failures, stalling and short circuits, distances and fragmentations, within a sum that never succeeds in bringing its various parts together" (42).

[29] It must be noted however that Halsey's assimilation of Deleuze and Guattari to "conceptual-scheme"-type linguistics (where reality is a flux essentially ungraspable by any linguistic terms, which therefore do intrinsic violence to reality) does not really do justice to their break with structuralism.

[30] Descartes mentions the fountain at the royal gardens at Saint-Germain-en-Leyès in the "Treatise on Man" (AT X: 131-2).

[31] It is this that prompts Canguilhem to remark that "The mechanistic conception of the body is no less anthropomorphic, despite appearances, than the teleological conception of the world" ("Machine and Organism" 64).

[32] Kant distinguishes between "relative" and "inner" purposes in §61 of the *Critique of Judgement* (212f) and shows his skepticism about the possibility of a properly scientific biology when he declares that "it is absurd … to hope that another Newton will arise in the future who shall make comprehensible … the production of a blade of grass" (§75, 248).

[33] See von Uexküll's "Stroll through the Worlds of Men and Animals." Von Uexküll founded the *Institut für Umweltforschung* at the University of Hamburg, one of the first. Interestingly enough, his term for the biologically constructed worlds of animals was *Umwelten* or environments.

[34] Von Uexküll's debt to Kant is well-known (see his *Theoretical Biology*) but it would be interesting to speculate to what his notion of interest-specific and action-relative perception owes to Schopenhauer's conception of knowledge subordinated to the will.

[35] Charles Baudelaire "L'Héautontimorouménos" (poem LXXXIII in *Les Fleurs du Mal*).

[36] This is Naess' preferred term (*Ecology, Community and Lifestyle* 196f).

[37] Rimbaud declared that "I is another" (345). Thus transformative identification with nature has practical consequences only on the supposition of a kind of egoism: the more people identify with wider nature, the less they will be likely to harm it, presumably for the same reasons people don't generally harm themselves: self-interest.

[38] An analysis of Nietzsche's relation to Schopenhauer (independent of Deleuze's appropriation of it) is beyond the scope of this paper. It is worth noting however that even by 1872 in *The Birth of Tragedy*'s analysis of epic (§§3-4) Nietzsche is, in the notion of a Greek optimism based on a profound sensitivity to pain, contesting Schopenhauer's valuations even while still accepting its metaphysical outlook.

[39] This interpretation is laid out in detail in Deleuze's *Difference and Repetition*, Chapter 5.

[40] Deleuze and Guattari's implicit critique of *Anti-Oedipus* is given primarily in *A Thousand Plateaus*, Plateau 6, where they claim that "you don't reach the BwO [body without organs] … by wildly destratifying … the worst that can happen is if you throw the strata into demented or suicidal collapse" (160-1).

[41] "Whenever a territorial assemblage is taken up by a movement that deterritorializes it … we say that a machine is released. That in fact is the distinction we would like to propose between *machine* and *assemblage*: a machine is like the set of cutting edges that insert themselves into the assemblage undergoing deterritorialization and draw variations and mutations of it" (*A Thousand Plateaus* 333).

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