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### **Introduction**

This paper develops a transactional model for environmental ethics which attempts to go beyond both anthropocentric and ecocentric approaches by seeing the relationship between the human and the natural in dialectical, rather than dualistic, terms. The first part of the paper develops a transactional ontology on the basis of Steiner's (1993) "human ecological triangle," which holds that self, society, and nature not only interact with, but also constitute, each other. The remaining sections of the paper apply the transactional model to the problem of how dualism between the human and the natural might be overcome in both theory and practice.

### **A Transactional Ontology**

A transactional perspective on the human-nature relationship sees individuals not as isolated entities but rather in terms of the relationships they have with both their social and natural environments. The transactional view accords with the contention of deep ecologists that the self cannot be understood as an "encapsulated ego" (Devall and Sessions 1985, p. 67; *cf.* Callicott 1989, p. 112), but further contends, *contra* deep ecology, that the relationship between the self and its social and natural environments is best characterized not by the concept of "identification" (Naess 1985; 1989; 1990; 1995; Fox 1990), but rather by a dialectical perspective (*cf.* Simon 1990), which views the self in terms of the various interactions it has with both its social and natural environments. Callicott's argument for "axiological complementarity," which sees the self as continuous with the

world, suggests that “*if* the self is intrinsically valuable, then nature is intrinsically valuable” (1989, p. 173; *cf.* Rolston 1989, p. 23: “the world is my body”; the expression originally comes from Watts 1966; see also Loy 1997). This position ultimately seems incoherent, however, because according value to the whole of nature seems to preclude any definite conception of disvalue, as well as the possibility that there may in fact be legitimate reasons for the destruction of some natural entities on at least some occasions (e.g., killing plants for food).

The transactional view also precludes, however, an environmental ethic based solely on the notion of nature as “other,” and therefore as something to be respected rather than something to be identified with (*cf.* Reed 1989; O’Neill 1993, pp. 149–152). A dialectical view attempts to reconcile “identification” and “otherness” by suggesting that humans are both *a part of* and *apart from* nature. These are simply two different ways of categorizing what is in fact a single ontological reality, and any ethic which emphasizes one aspect to the exclusion of the other is partial and incomplete.

A framework for understanding the various interactions individuals have with their social and natural environments is provided by Steiner’s (1993) “human ecological triangle,” which concerns itself with the particular relationships which obtain between persons, society, and the environment. In Steiner’s model, person-society and person-environment interactions represent recursive systems. Steiner defines the former in terms of Giddens’ (1984) structuration theory, which sees the relationship between humans and society as forming not a dualism but a seamless duality denoting a single phenomenon. Social structures have no ontological status in themselves, as they do in structuralist theories, but are rather reproduced in specific human activities; they simultaneously enable and constrain human activity (for example, humanly created laws enable certain types of action but constrain other types of action.)

The person-environment recursive system sees biologically constituted individuals as interacting directly with their natural environments in a reciprocal way: persons modify their environments and environments modify persons. There is a dialectical relationship between how human

action actually modifies nature and how these modifications enable or constrain future possibilities for human action. The direction of causation is never simply one-way, from human to nature, but reciprocal, also from nature to human. The logic here is similar to that employed in Giddens' structuration theory. In the same way that the societies we create both enable and constrain certain types of action, the natural environments we interact with also both enable and constrain other types of action (*cf.* Dickens 1992, pp. 181–185; Murphy 1992 also develops a theory of action he calls “volitional interdependence,” which goes beyond both free will and determinism by seeing human agency in terms of interactions between individuals, communities, and environments).

Steiner divides the reflective activity of persons into three different types: the unconscious, practical consciousness, and discursive consciousness. Reflective activity also forms a recursive system with objective reality in the sense that mental activity is both determined and determining. On the one hand, how we experience the world depends in part on how we and the world are biologically constituted and on how we are socialized to experience it. On the other hand, biological functions can be extended (e.g., through technology) and the socialization process transformed through the exercise of critical and imaginative reasoning faculties. These transformations in turn transform the environment we inhabit. Practical consciousness more or less accepts our present biological limits and social limits as “fixed” and attempts to achieve unreflected-on ends through a process of instrumental rationality. Discursive consciousness questions the ends themselves and attempts to formulate, through a process of critical and imaginative reflection, a conception of the goals that we find to be intrinsically valuable and desirable to work towards.

The dialectical perspective implicitly contained in Steiner's model illustrates the various ways in which conceptual constructs and material reality interact with each other. How we think transforms the world as much as the world influences how we think. On the one hand, the natural and social environments inhabited by humans influence, but do not exclusively determine, the facts and values which they construct. On the other hand, the beliefs and actions of humans influence, but do not exclusively deter-

mine, what society and nature themselves become.

Steiner sees the society-environment interaction as forming not a recursive system but rather a structural coupling, which is mediated through the agency of individuals. Presumably, in keeping with Giddens' structuration theory, Steiner wishes to avoid regarding society as a reified "entity" capable of interacting with other entities apart from the actions of individual humans. Steiner nonetheless quotes with approval Guattari's (1989) concept of "three inseparable ecologies," which include "... the mental ecology, referring to relations of an individual to him/herself; the social ecology, referring to relations between different human beings; and the environmental ecology, referring to relations between humans and the environment" (1993, p. 61). If it is the case, as Steiner contends, that how individuals interact with each other socially has an influence on how they interact with natural environments, then it would seem to make sense to also think of the society-environment relationship in dialectical terms. Natural environments influence (although do not determine) the kinds of societies humans create, while the kinds of societies humans create also have an impact on natural environments. Moreover, humanly induced changes in environmental conditions can also have a reflexive influence, either positive or negative, on social conditions.

In Steiner's model self, society, and nature can each be seen as interacting with the others in reciprocal, dialectical ways. Individuals both shape and are shaped by social and natural forces; societies both shape and are shaped by natural and individual forces; nature both shapes and is shaped by social and individual forces. This view is both relational and interactive. Steiner's model further suggests, however, that self, society, and nature do not simply interact with each other as separate entities, but are also in part constituted by each other. Since the term "interactive" is sometimes used to refer exclusively to relations that are external and non-constitutive, the term "transactional," which refers to relations that are also internal and constitutive, is preferable (*cf.* Dewey 1989; Weichhart 1993). Individuals do not simply passively observe or value the world from some supposedly "objective" position outside of it but rather actively *participate* in the world.

From a transactional perspective we can speak of the immanence of nature in the self, in that the self is constituted by biological processes and dependent on the natural environment for its sustenance. Conversely, nature can be seen as being constituted in part by the presence of human selves. At the social level we can similarly speak of the immanence of the self in society, in the sense that society does not exist apart from the individual selves which constitute it, and of the immanence of society in the self, in that the needs of the self are provided through social practices and the self is socialized into particular social norms and ways of seeing the world. Finally, the relationship between nature and society can also be characterized in transactional terms in the sense that natural environments provide the raw materials for built environments and built environments inevitably modify and constitute natural environments.

At the same time that each of the three poles is immanent in the others, however, each is also transcendent to the others, and can thus be regarded as partly autonomous. Individual behavior is never completely determined by either society or nature; within certain parameters individuals have the ability to act in ways that transform both nature and society. Society is autonomous in the sense that its structures endure despite the fact that the actual members which comprise it are constantly changing; society is able to constrain the behavior of individuals (through the construction of norms to govern social relations) and transform the natural environment (through the use of resources and the generation of wastes). Nature, for its part, retains a measure of autonomy in the sense that humans are unable to manage the whole of nature; nature is able to “respond” to human interventions in unpredictable ways.

### **Reconciling the Human and the Natural**

As has been argued, from a transactional perspective human culture is both immanent in and yet transcends nature, while nature as well is immanent in and yet transcends human culture. This claim is empirical; its normative counterpart is the suggestion that culture should not be permitted to completely dominate nature just as nature should not be permitted to completely dominate culture (*cf.* Gardiner 1990). Moral

reflection, therefore, must include both the human and the natural. Colwell, writing from a Deweyan transactional perspective, suggests that since both human and non-human lifeforms are part of nature, nature should be defined as “the totality of existing biophysical reality” (1987, p. 103). From this perspective

... the locus of moral evaluation is the entire environmental complex, a structural setting which requires examination of the effects of natural changes on multiple nonhuman as well as human aspects of it. The fundamental consideration is not which values best promote the interests of humans . . . but which values best promote the collective life and interests of the diverse membership of the environmental complex as a whole (1987, p. 109).

While we are capable of expressing a moral concern for the whole, such a concern implies neither a responsibility to manage the whole nor the duty to completely refrain from using resources found in nature to further the goals of human culture.

The transactional duality (not dualism) between nature and culture is at the center of the distinction Bookchin (1990; 1995) makes between “first nature,” which refers to biological evolution (both human and non-human), and “second nature,” which refers to social and cultural evolution. Making the distinction in this way avoids setting humans and nature in opposition to each other precisely because humans are regarded from the start as both biological and cultural beings. Freedom requires the full actualization of those unique characteristics which exist potentially in each living being, whether human or non-human.

Consistent with Darwinism Bookchin sees natural and cultural evolution in non-teleological terms. Bookchin defines “dialectical naturalism” as an immanent process of self-development which results in “. . . the full actualization of potentiality in its rich, self-incorporative ‘stages’ of growth, differentiation, maturation, and wholeness” (1995, p. 123; see also Biehl 1991, chap. 5). Nonetheless, while evolution has no final *telos*, or goal, which it is inexorably moving towards, it may have a discernible direction: oak trees may evolve in a variety of different ways but it is unlikely that



they will evolve willy-nilly into birds, for example. Bookchin's view is thus both developmental and dialectical; it is the process, not any given state, which is important. He seeks what he calls an "ethics of complementarity" which "forms a new symbiotic relationship between human communities and the nonhuman ecocommunities in which they are located" (1990, p. 259). Put differently, we need to create forms of society which neither dominate nor are dominated by nature, but are "synergistic" with it. Bookchin speaks of the need for a "radical integration of second nature with first nature along far reaching ecological lines" (1990, p. 258, italics omitted). In an ecological society conflicts both between humans and humans and between humans and nature would diminish to the extent that domination in all its forms is overcome.

Bookchin's view is essentially transactional because it sees humans as being both biologically constituted by nature but also partly autonomous from nature. Human freedom consists neither in blindly submitting to the laws of nature nor in attempting to dominate the natural environment, but rather in creating societies which allow for both human and non-human flourishing. The environment as well is constituted in part by human activity but is also autonomous in the sense that evolutionary forces are able to continue in the absence of human domination. To the extent that humans and natural environments interact with each other we can speak of the coevolution of culture and nature (Durham 1978; 1991; Norgaard 1994; Thiele 1999; Ehrlich 2000); to the extent that human intervention is minimal or relatively absent natural environments can be regarded as self-organizing or "autogenic" systems which follow their own autonomous evolutionary paths (Norton 1987, chap. 5; see also Heyd 2005).

A transactional ontology avoids not only dualism, but also those forms of monism which simply collapse the natural into the social and see nature as having no existence or autonomy apart from social practices, as with Latour's (1993) concept of "hybridity," Haraway's (1991) "cyborg," and Swyngedouw's (1999) "socio-nature." Such theories are undoubtedly useful when discussing transactional relations between social and natural processes, but can be reductionist if they simply posit a new procrustean category which denies the extent to which social and natural processes are

also capable of acting independently of each other. While transactionalism can fully appreciate the extent to which society and nature mutually constitute each other, it further contends that neither the *whole* of society nor the *whole* of nature is constituted by the other. Natural processes are able to function autonomously from social processes, and while social processes may be constrained by natural processes, they are never completely determined by them.

### **Beyond Dualism in Theory**

A transactional approach to environmental ethics, consistent with the “ethics of complementarity” suggested by Bookchin, overcomes several of the dualisms inherent in some schools of environmental philosophy (for other critiques of dualism see Plumwood 1993; 2002; Sterba 1994). The distinctions that are frequently made between conservationism, shallow ecology, reform environmentalism, and anthropocentric approaches to environmental ethics, on the one hand, and preservationism, deep ecology, radical environmentalism, and ecocentric approaches to environmental ethics on the other, are all premised on an “us vs. them” view of the relationship between humans and nature. Nature should be protected *either* because humans need the resources it provides *or* because it is something that should be valued “in itself.”

A dialectical view of the relationship between culture and nature refuses to see these concerns in “either-or” terms and attempts instead to see them in “both-and” terms. Unlike conventional logic which contends that a statement cannot be both true and false at the same time, dialectical thinking actively looks for ways to reconcile opposites. Daly suggests in this regard that while the law of contradiction holds for analytical concepts it does not apply to dialectical concepts because they have “. . . evolving penumbras which partially overlap with their ‘other’ . . . [T]here is an age at which we are both young and old; a tidal salt marsh is both land and sea; a credit card is both money and non-money” (1996, p. 2). Daly contends that “. . . most important concepts are not subject to analytically precise definition,” and gives democracy, justice, and welfare as examples (*ibid.*). A dialectical approach is neither exclusively anthropocentric nor non-

anthropocentric but instead seeks to reconcile anthropocentric and non-anthropocentric concerns by making critical judgments about when human intervention into natural evolutionary processes is justified and when it should be avoided. Such an approach is also consistent with Norton's (1991) convergence hypothesis and the attempt to integrate a plurality of different ethical theories into a wider framework.

Arguments for preserving biodiversity typically fall into one of two categories. Anthropocentric arguments argue that biodiversity should be preserved because of the benefits it affords human beings. Ecocentric arguments argue that biodiversity should be preserved because nature has "intrinsic value." From a transactional perspective, however, biodiversity should be preserved *both* because of the benefits it affords humans *and* because the autonomy of nature should be respected.

Anthropocentric arguments typically focus on the fact that nature provides the material resources for human culture and, more fundamentally, the biological basis of human existence itself; environmental degradation undermines the life-support systems that sustain human life. A biologically diverse world also offers humans important economic, aesthetic, recreational, and scientific benefits, among others (a summary of these and other arguments can be found in Primack 1993, Part III and Norton 1987, chap. 1). Nature, then, can be legitimately valued for the benefits humans derive from it.

Anthropocentric arguments are frequently criticized, however, particularly by deep ecologists, on the ground that they continue to treat nature as a resource or regard nature only from the perspective of human values (*cf.* Katz and Oechsli's "rejection of an anthropocentric and instrumental system of normative ethics" [1993, p. 49]). By rejecting anthropocentric arguments for preserving biodiversity, however, deep ecologists are forced to rely exclusively on ecocentric arguments which claim that nature should be preserved because of its presumed "intrinsic value" (regardless of whether intrinsic value is taken to be an objective part of nature existing independently of human valuations or simply the subjective product of human valuations). It can be argued, however, that the concept of intrinsic value, in both its objectivist and subjectivist renderings, offers little guid-

ance with respect to when it is morally permissible or impermissible to use natural objects for human purposes. Although some natural objects and environments can be valued intrinsically, not all can; at least some natural objects and environments must be valued instrumentally if human needs are to be satisfied. An environmental ethic must provide some guidance as to when nature should be valued intrinsically and when it should be valued instrumentally, and the claim that the whole of nature should be valued intrinsically provides no such guidance.

A further difficulty is that the one-sided emphasis on the intrinsic value of nature, and the corresponding denigration of anthropocentric arguments in favor of preserving biodiversity, itself constitutes a form of reductionism. In the same way that it would be reductionist to say that nature can or should only be valued for the economic benefits it provides, it is equally reductionist to claim that nature can or should only be valued intrinsically. There are a variety of different ways in which nature can be valued. There can be, then, a variety of good anthropocentric arguments for why biodiversity should be preserved; humans do value nature because of the benefits they derive from it. Anthropocentric arguments should not be rejected simply because they focus on the benefit that nature has for humans.

Nonetheless, it may still be possible to defend the view that the preservation of biological diversity and the continuation of evolutionary processes can be valued in their own right by appealing not to the “intrinsic value” of nature, but rather to its autonomy in the transactional sense discussed above. Although humans do influence and modify the natural environments they inhabit, they do not, and need not, use the whole of nature to sustain themselves. Those parts of nature which are genuinely needed to sustain human life can be legitimately used for that purpose; those parts of nature which are not needed to sustain human life should simply be left alone. Basic human needs can be fully satisfied without requiring any reduction in overall biodiversity; reductions in biodiversity cannot be justified on the grounds that such reductions are necessary to sustain human life.

The need to preserve biodiversity can thus be argued for both on

anthropocentric grounds (because of the value biodiversity has for humans) and on non-anthropocentric grounds (because the autonomy of nature should be respected). Neither of these arguments is sufficient in itself to provide a single, knock-down “foundational” reason why nature should be valued, however. Humans still have a choice whether to preserve or reduce biodiversity. From the perspective of practical reason, however, it can be argued that preserving biodiversity would in fact result in greater levels of flourishing for both human and non-human lifeforms and that current reductions in biodiversity will ultimately lead to the diminishment of human and non-human flourishing. In this sense, it can be said that preserving biodiversity is ethically superior to reducing biodiversity. However, this argument does not in itself establish why greater levels of human and non-human flourishing is superior to diminished levels of human and non-human flourishing. In other words, the argument is conditional rather than categorical: *if* human and non-human flourishing is valued, *then* efforts should be made to preserve biodiversity. In the absence of foundational arguments for or against the preservation of biodiversity, practical reason alone can only *assume* that everyone, or nearly everyone, would in fact regard flourishing as superior to non-flourishing. If this assumption is justified, however, it should then be a relatively straightforward process to demonstrate why preserving biodiversity is more conducive to both human and non-human well-being than reducing biodiversity.

One limitation of the constructivism implicit in the position defended here is precisely that foundational arguments are unavailable to it. However, the advantage of a constructivist position lies in its acknowledgment that there is not one single correct way in which nature can be valued, but rather that humans can plausibly value nature in a variety of different ways. There is no reason why nature should *only* be valued out of respect for its autonomy, just as there is no reason why nature should *only* be valued for its instrumental, economic value. Both views are myopic and reductionistic. Rather than set these two views against each other, it is necessary to see them as complementary. Both prudential and moral arguments for defending nature can be offered, without positing a false

dichotomy between them.

From this combined perspective a concern for the environment implies using resources in a way that does not diminish the future prospects for either human or nonhuman flourishing. Other species can legitimately be used to satisfy certain basic needs and to provide for a flourishing culture but not to the point that our activities cause these species to become extinct, either directly through consumption or indirectly through, for example, habitat loss. This position accepts the fact that humans will interact with and use the natural environment to sustain human life; it does not argue that all human interference with the natural environment is “unnatural” and should therefore be proscribed — a view which can be consistently maintained only in the event that the human species itself becomes extinct.

At a theoretical level the transactional approach stakes out a position which avoids the misanthropic claim that environmental concerns should always trump human concerns as well as the anti-environmental claim that human concerns should always trump environmental concerns. The ethical question is not, as it is sometimes defined in environmental philosophy, *whether* humans should interfere with natural environments or not — humans will inevitably interact with natural environments — but rather with those *kinds* of human interaction which are compatible with human flourishing, social justice, and ecological integrity and those kinds which are not. A more differentiated conception of ethics is needed which allows us to make qualitative judgments in specific cases regarding when human concerns should be allowed to trump environmental concerns and vice versa.

### **Beyond Dualism in Practice**

At a practical level a transactional perspective attempts to resolve conflicts between human interests and the environment. Setting up false dichotomies between human and environmental concerns promotes a divide-and-conquer strategy which shifts attention away from the root causes of both social insecurity and environmental degradation. The ideological impetus behind the argument that environmental destruction

is necessary or inevitable to sustain human life is that it shifts attention away from the prospect of revolutionary social change towards the presumed “antihumanism” of environmentalists.

The argument is frequently made, for example, that it is morally legitimate for the poor in the majority world (a term I find preferable to either “third world” or “developing countries”) to destroy nature because it is necessary for their survival, and that environmentalists who oppose such destruction are more interested in preserving nature than they are in promoting human well-being or social justice. Arguments such as these elegantly shift blame away from overdeveloped countries, which in fact bear the brunt of responsibility for most global environmental problems, and further justify efforts on the part of the overdeveloped countries to “help” the poor through capitalist-style development. Since, in this view, it is the poor themselves who are directly responsible for much of the world’s ecological damage, it is then assumed that ecological destruction can be alleviated by helping poor countries develop more quickly — if sufficient jobs in the market economy can be provided farmers will no longer need to burn down the Amazon rainforest to make subsistence farms, poachers will no longer need to kill elephants to sell ivory on the black market, and so forth.

Even in cases where the poor are demonstrably the direct cause of environmental destruction, it can often be shown that ultimate responsibility lies not with the poor themselves but rather with a social system which makes it difficult for them to sustain themselves otherwise. It is invalid to say that the poor have a “right” to destroy the environment without first looking at the various forms of oppression which may force them to engage in various acts of ecological destruction. By blaming environmental destruction on the victims of social injustice, rather than on the perpetrators of social injustice, the problem can be cast as one of “the poor vs. the environment.” The more politically explosive issue of “the poor vs. the rich” is thus conveniently avoided. Issues such as these are simply not addressed by environmental philosophers such as Katz and Oechsli (1993) who continue to see such problems primarily in terms of a conflict between “anthropocentric” and “non-anthropocentric” systems of

values. It will not do to simply tell the farmers to “respect nature” by not cutting the rainforests; nor will it do to say that the destruction of the rainforests is justified because there are no other viable alternatives.

As social ecologists contend, environmental problems cannot be solved without also addressing the social conditions which produce them. By refusing to address the social origins of many environmental problems, existing power relations also remain unchallenged and the real causes of the problem remain undiagnosed. It is only by upsetting those power relations and creating democratic and sustainable forms of culture that the problems can be dealt with in an effective way. If the only way the poor can survive is by degrading the environment, then we as a society have a moral obligation to change social relations in ways that enable people to attain a sufficient quality of life without engaging in environmental destruction. In terms drawn from Giddens’ structuration theory, if current social arrangements *constrain* a culture’s ability to achieve human well-being, social justice, and environmental integrity, new structures must be created which *enable* these goals to be realized.

The entire distinction between anthropocentric and ecocentric approaches to environmental ethics begins to dissolve in this light. Drawing a distinction between anthropocentrism and ecocentrism sets up a false dichotomy, with anthropocentrists arguing that a concern for humans should take precedence over a concern for nature and ecocentrists arguing that a concern for nature should take precedence over a concern for humans. Our argument is that from a genuine ecocentric position — i.e., one which places humans inside nature rather than in confrontation with it — these two concerns are complementary rather than contradictory. Rather than frame the problem as an either-or choice between what are perceived to be, in accordance with Aristotelian logic, two contradictory conceptions of the relation between humans and the environment, the problem can be recast, in accordance with dialectical logic, as a both-and choice which seeks to reconcile humans and the environment. It is possible to be simultaneously concerned about the good of nature and the good of humanity without privileging one over the other.



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