

A CRITICAL ECOLOGICAL ONTOLOGY FOR EDUCATIONAL INQUIRY

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AN ABRBRIDGED VERSION OF ONTOLOGY
AND THE CRITICAL DISCOURSE OF EDUCATION RESEARCH
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ABSTRACT

In furthering the critical discourse of educational inquiry the metatheories in the social sciences of Anthony Giddens and Brian Fay are developed here to question environmental education, but are of equal relevance to other human development issues-oriented curriculum. Of particular interest is the foregrounding of ontological considerations in curriculum inquiry, thus announcing a point of departure from the usual stress on epistemological concerns. Concentrating on the day to day actions and interactions of learners provides the experiential fodder for the ontological twist proposed for educational inquiry of a critical nature. This twist, arguably, provides an important avenue for examining the ethical and political "horizons" currently hazed in educational discourses by the mood surrounding the modern:postmodern debate.

Environmentalism, let alone its institutional applications such as in education, is eloquent testimony to Clifford Geertz's observations about the changing fortunes of grand ideas.

For a historical account of environmentalism see Richard Grove, "The Origins of Environmentalism", *Nature*, 345 (1990): 11-14. "Sustainability" is now replacing "ecologism" and

"environmentalism" while "conservation" is used rarely. Geertz notes that the bursting on the scene of big ideas proposed to resolve fundamental problems is typically accompanied by those "sensitive and active" minds who turn to exploiting the idea. Clifford Geertz, *The Interpretation of Culture* (New York: Basic Books, 1973). According to Geertz the idea becomes less popular or exhausted as its analysis becomes all too familiar within existing theoretical frameworks. Some "zealots" persist with the big idea while "others" devote their energies to the problems created by the exploitation of the initial idea.

At about the same time Geertz was commenting on the fate of important ideas "environmental education" emerged formally in educational discourses and practices. Discourses are "what is said

and written and passes for more or less orderly thought and exchange of ideas." Discourses, as contextually and culturally regulated, are relative to time and place. Practices are those educational activities performed on a regular basis and for the most part governed formally by rules and regulations and informally by unstated conventions, expectations, customs, and habits. Practices, therefore, are conventional but potentially unstable. Discourses contribute significantly but not totally to practices. Practices can be partially or fully enacted discourses but contingently open to teachers' and learners' dispositions, positioning, circumstances, or "situatedness." Cleo Cherryholmes, *Power and Criticism: Poststructural Investigations in Education* (New York: Teachers College Press, 1988), 2. as the new savior to the fall of "nature studies," "conservation education," and the like. While the term nature studies was widely used in Australian educational circles prior to the 1970's the idea and practices of "conservation education" did not enjoy the limelight to the extent it did in the USA. Given predictions in the late 1970's that environmental education in the USA would suffer a fate similar to that of conservation education it is not surprising that Geertz's observations relate directly to the emergence of a range of different discourses about environmental education in the early 1980's. These discourses are examined here. Since the late 1970's the path of environmental education has been a difficult one, if not an idea tortured. Discourse genres typically focus on pedagogical, curriculum, organizational, and research concerns, reflect technocentric or ecocentric ideologies and tend to be framed in positivist, interpretivist, or critical paradigms. John Fien, *Education For The Environment: Critical Curriculum Theorising and Environmental Education* (Geelong, Vic.: Deakin University Press, 1993). Ian Robottom and Paul Hart, *Research in Environmental Education: Engaging the Debate* (Geelong, Vic.: Deakin University Press, 1993). Between these two texts a sound overview of different perspectives or orientations of environmental education

can be gleaned. The exploitation and fragmentation of an idea, particularly those that are always tested in practices such as curriculum and pedagogical work, is to be expected. Ivor F. Goodson (ed.), *Social Histories of the Secondary Curriculum: Subjects for Study* (London: The Falmer Press, 1985); Thomas S. Popkewitz, *A Political Sociology of Educational Reform* (New York: Teachers College Press, 1991). In the wake of apparent unrealized aspirations, unrealistic expectations, definitional problems, and various other contradictions of a moral, social, and political nature the legitimacy and efficacy of environmental education is not challenged directly here. Questions must be asked, however, about the propensity for environmental educators to cogently and coherently advance individual and collective solutions to the problems and issues they purport to deal with.

In North America Bill Pinar and Chet Bowers conclude that despite the great achievements of critical educational theory to understand curriculum as a political text its scholars have neglected the ecological crisis, it being the "central issue" now confronting critical scholarship. William F. Pinar and Chet A. Bowers, "Politics of Curriculum: Origins, Controversies, and Significance of Critical Perspectives" in *Review of Research in Education* 18, ed. G. Grant (Washington: American Educational Research Association, 1992), 163-190. Meanwhile in Australia there has been a concerted effort over the past fifteen years to develop a critical praxis in environmental education curriculum. In Geertz's terms this discourse may well amount to a reconciliation of the problems created by the fragmentation of

the idea environmental education. The intention in this essay is to pursue recent developments in critical curriculum theorizing signalled

by John Fien. Fien, "Education for the Environment," 87. Fien suggests Anthony Giddens' "theory of structuration" satisfies the criteria for a social action theory appropriate to critical curriculum theorizing and environmental education. Elsewhere, Fien utilizes Fay's account of critical social science to conceptually frame his theorizing about "pathways to sustainability." John Fien (ed.), *Environmental Education: A Pathway to Sustainability* (Geelong, Vic.: Deakin University Press, 1993). How Fien appropriates Fay's work has a significant impact on theorizing and practicing environmental education. Some problems will be identified later in context. I will elaborate Fien's proposal and detail how Giddens' and Fay's social theorizing, with detailed appraisals, can advance the critical discourse of educational inquiry, with environmental education exemplified.

Consistent with Giddens' and Fay's respective turns to ontological considerations for explanation in critical social science the twist in curriculum inquiry I pursue here is captured

neatly in Robert Brown's assessments of Max van Manen's contribution to phenomenological research in education. Of particular interest is what he refers to as the "misunderstanding of theory." Robert K. Brown, "Max van Manen and Pedagogical Human Science Research," in *Understanding Curriculum as Phenomenological and Deconstructed Text*, ed. William F. Pinar and William M. Reynolds, (New York: Teachers College Press, 1992). 44-63.

Says Brown,

Instead of approaching pedagogical practices directly in the original context of the lived experience, the majority of educational theorists are satisfied with manipulative reconstitutions of experience.

To which Brown adds,

This failure (of practically all modern curriculum theorists) occurs because research into curriculum theory development is seen as an epistemological--not ontological--inquiry...Good curriculum theory, or curriculum theory of the good, helps us as pedagogues build a place, or edifice, for students to experience being-in-the-world in all its dynamic variances.

The thrust of this inquiry is both simple and complex at the same time. Ontologically speaking, conventional day-to-day actions and interactions comprise "patterns of being" which should be the experiential "fodder" of curriculum and pedagogical practices in human development and issues-related education (such as environmental, health, physical, multicultural, citizenship, drug, technology, and social education). More difficult to grapple with in curriculum inquiry is how those patterns of being are inscribed by dispositions, habits, social arrangements, relations and conditions which are mediated temporally, spatially, and symbolically by various historical, social, material, and cultural realities. A premise of raising the ante of "original" or "authentic" ontological considerations in curriculum inquiry is that educational "experiences" are all too often contrived instrumentally so as to validate particular interests and disciplinary claims for epistemologically and

methodologically superior vantage points.

John Dewey crystallizes this point well when he states, "Thus sects arise: schools of opinion. Each selects that set of conditions that appeal to it; and then erects them into a complete and independent truth, instead of treating them as a factor in a problem, needing adjustment." John Dewey, *The Child and the Curriculum* (Chicago: University of Chicago Press, 1956),

3. Richard Kraft, for example, laments the rise in experiential education of instrumental reason and the search for the best technique. Kraft believes there is a "crisis" in the theory and practice of experiential education which, given the pedagogical importance of experiential approaches to environmental education, exacerbates the difficulties of the idea. Of particular concern for Kraft is the demise of Dewey's progressive democratic social vision and Hahn's moral imperatives. Richard J. Kraft, "Guest Editorial: A Call to Action and Reflection," *The Journal of Experiential Education* 4, no. 1, (1981): 5-7.

Again, for the purpose of introducing the notion of a critical ontology Brown is useful in articulating the critical component of curriculum inquiry.

His (van Manen's) argument (that phenomenology is a 'philosophy of action' well suited to radically reforming educational practice) is that phenomenology, because of its ontologically oriented methodology, provokes serious and original thinking about the world. It raises radical questions concerning preconceived ideas of what it is to be-in-the-world and what is the nature of truth. A deeper understanding of the lifeworld of the student through phenomenological research precipitates a greater likelihood of one actively articulating questions and dissent concerning ideas and programs that violate the good of the student. (emphasis mine)

The intention of developing Giddens' structuration theory and Fay's metatheory of critical social science is to derive questions for curriculum inquiry in environmental education. Anthony Giddens, *Central Problems in Social Theory: Action, Structure and Contradictions in Social Analysis* (Berkeley, CA.: University of California Press, 1979); Anthony Giddens, *The Constitution of Society: Outline of the Theory of Structuration* (Berkeley, CA.: University of California Press, 1984); Anthony Giddens, *The Consequences of Modernity* (Stanford: Stanford University Press, 1990); Anthony Giddens, *Modernity and Self-Identity: Self and Society in the Late Modern Age* (Stanford, CA: Stanford University Press, 1991); Brian Fay, *Social Theory and Political Practice* (London: George Allen and Unwin, 1975); Brian Fay, *Critical Social Science: Liberation and Its Limits* (Ithaca, NY: Cornell University Press, 1987). It is strategic. By concluding with a series of questions that the environmental educator can consider in relation to his or her own curriculum and pedagogical practices the aim is to foreground those original contexts of learners' lives and actions that can be scrutinized individually and collectively for their environmental antecedents and consequences. The set of questions derived have an eye to Van Manen's "good," that is the nexus of political and ethical consequences of curriculum and pedagogical action. Whilst I will

not concern myself directly with a tension evident in environmental education discourses, that of the postmodern:modern debate, the selection of Giddens and Fay appeals to finding a way through that dilemma. The inclusion of Fay's metatheorizing seeks to clarify some theoretical exclusions acknowledged by

Giddens in responding to his critics.

Ontology as a key idea in inquiry

Before proceeding to an account of how Giddens and Fay can inform curriculum inquiry in environmental education some clarification of key concepts is required; least of all to describe the term "ontology" whose meaning in educational discourses is elusive and rarely explained in contextually appropriate ways. Additional justifications for including ontological considerations are also outlined. In short, the meaning of ontology is deftly characterized by the sayings "creatures of habit" and "actions speak louder than words." The inclusion of ontological considerations in curriculum inquiry proposed here signals a renewed emphasis on the everyday experiences of individuals and groups. To do so, I believe, enhances critical curriculum and pedagogical work in issues-related areas. There can be no doubting the ecological crisis and other human development related issues are socially embedded and individually embodied in the integrating conditions of one's ordinary "being," or existence. That is, environmental problems and issues reside in the patterns of being in private and public life. I am reluctant to use the term "ecological crisis" for reasons which become clearer shortly. The term perpetuates the idea that environmental problems and issues are removed from those who create them. "Problems" typically relate to adverse effects on the environment while "issues" pertain to the processes enacted between individuals or groups to resolve the problem. Each of the terms are suggestive of a reactive response to environmental responsibility and accountability. Excavating and educatively exploring those mundane but mediated day-to-day actions, interactions, social relations and conditions of individual and social experience is one way of unearthing the persistent roots of the ecological crisis. Nevertheless by prioritizing what it is to "be-in-the-world" associated existential concepts like "original" and "authentic" must be treated with some caution if they carry an essential or foundational view of what it is to be human. And, to rely primarily on speaking authentically about experiences tends to devalue the body as a mode of praxis fundamental to understanding the politics of identity and reconstitution of social life. The outlining of an ontology for curriculum inquiry presented above locates its contextualized meanings in the situated, embodied, and embedded actions of individuals and groups. For example, the eating of an apple, as a conventional

action and event of which more will be said in mobilizing the term "conditions" for curriculum inquiry, might involve the ingestion of certain pesticides and hence, the residue of a high technology industry and its supporting infrastructure. While eating the apple is "basic" the experience is neither original nor authentic, particularly if this action, along with others over time, place, and space, contributes to consequences such as colon cancer. If not already obvious this contextualist perspective of ontology invokes the educational probability of examining various moral, social, and political dimensions of ecological problems and issues.

Furthermore, placing ontological considerations at the forefront of curriculum inquiry has, if the above example holds, the propensity to deal with dualistic thinking and values hierarchies which historically have privileged the mind over and against the body as well as distancing the world (and its ecological crises) from the self. In environmental education, for example, the case for including ontological considerations in curriculum inquiry is heightened by the commentary of its

practitioners. Respectively, C. E. Roth, "The Endangered Phoenix--Lessons from the Firepit," *The Journal of Environmental Education* 19, no. 3, (1988): 3-9; L. M. Gigliotti, "Environmental Education: What Went Wrong? What Can be Done?" *The Journal of Environmental Education* 22, no. 1, (1990): 9-12; and L. A. Iozzi, "What Research Says to the Educator. Part two. Environmental Education and the Affective Domain," *The Journal of Environmental Education* 20, no. 4, (1989): 6-13; A. E. Wals, A. Beringer and W. B. Stapp, "Education in Action: A Community Problem-Solving Program for Schools," *The Journal of Environmental Education* 21, no. 4, (1990): 13-19. There is a loose consensus that many learners do not understand, or are not prepared to make the sacrifices necessary for environmentally responsible behaviors, or do not understand the consequences of their actions for the environment. Extrapolating these views suggests the syndrome of the ecological crisis existing "out there somewhere" persists--astute teachers and students only have to find it, or be made aware of it, investigate the problem thus fixing it and saving the environment. Whilst this is not necessarily inappropriate an ontological twist is one way of redeeming dualistic thinking and associated values hierarchies--be it the cartesianism implicit in the syndrome mentioned above, or the socially disconnected individualism and unencumbered self-determinism of the disembodied rational and autonomous self. In educational theory and practice the split of curriculum and pedagogy might well be mended.

Curriculum Theorizing and Environmental Education

John Fien's project of developing a critical curriculum theory for the environment concludes with a brief indication of

how Anthony Giddens' "theory of structuration" satisfies a number of problems inherent within the field of environmental education. Elsewhere Peter Dickens attempt to develop a "green social theory" draws heavily on Giddens. Dickens pays particular attention to Giddens account of time-space distanciation which will be considered in elaborating Fien's introduction. Peter Dickens, *Society and Nature: Towards a Green Social Theory* (Philadelphia: Temple University Press, 1992). Initially Fien identifies the importance of unearthing the ideological foundations of environmental education. These are characterized as approaches about, through, and for the environment of which Fien concludes the first two deal inadequately with the structural causes of environmental problems and downplay an activist conception of learner outcomes and roles. Fien's second phase of theorizing links the approaches of "about" and "through" the environment with a technical prescription of curriculum and pedagogical practices. Missing from this technocratic perspective is a political orientation. According to Fien a political orientation includes the development of a "critical environmental consciousness, critical thinking and problem-solving skills, an environmental ethic based upon the values of social and ecological sustainability, and the knowledge, skills, and values of political literacy, and critical praxis. Fien, "Education for the Environment," 75. Finally, Fien concludes that a critical curriculum theory for environmental education needs to be based upon "a language of critique and possibility" rather than the more conventional sociology of curriculum that emphasizes reproduction theory.

What needs to be developed is not so much how Giddens' theory of structuration is an appropriate direction for Fien to conclude with but how Giddens' explanations can be elaborated in curriculum if Fien's theorizing were to satisfy Fay's criteria that critical social science, and hence critical curriculum and

pedagogical inquiry in environmental education, must simultaneously be "scientific, critical, practical, and non idealistic." Fay, "Critical Social Science," 24-26; 36-41; 203-215. In citing page 23 of Fay's account of critical social science Fien refers to the need for critical theories which are scientific, critical, and practical only. Fay's criteria for a "properly critical science" include "non-idealism" because historically it has been disregarded in humanist variants of critical social science; a point which Fay's metatheoretical project consciously seeks to rectify. Fien's omission of the criteria of non-idealism is not explained.

Fay and Giddens as mutual edification

Like Giddens, Brian Fay's metatheoretical focus turns to ontological considerations to supplement what he believes is a "one-sidedness" of numerous versions of critical theory. Fay

claims to "lay bare and to assess the foundations of critical social science." Of specific concern are the presuppositions about human nature and society.

In addition Fay's metatheorizing asserts social science should be scientific, critical, practical, and non-idealistic, at the same time, if it is to explain, criticize, and empower individuals and collectivities. Fay, "Critical Social Science," 1.

In utilizing Giddens and Fay to critically theorize environmental education the notions of "limits," "one-sidedness," "practicality" and "non-idealism" are imperatives in curriculum inquiry overlooked by Fien. As will be developed here Giddens' theorizing is well suited to conceptually "fitting" Fay's metatheoretical criteria. But before developing this fit some important preliminary matters demand explanation.

In general terms, Fay identifies a "basic" scheme of critical social science. Upon scrutiny of its ontological presuppositions the basic scheme is found to lack. It comprises four main theories which are complex and systematically interrelated--theories of false consciousness, crisis, education, and transformative action which are broken down into ten subtheories. Fay, "Critical Social Science," 31. According to Fay, this basic scheme embraces three core ideas where each regulative ideal represents a particular normative commitment. These commitments are enlightenment with its valuing of rational self-clarity, empowerment with its valuing of self-determination, and emancipation that values collective autonomy, and hence freedom interpreted as happiness. After discussing the relation of metatheory and theory Fay supplements the basic scheme with four additional and equally interrelated theories--the body, tradition, force, and reflexivity which include another ten subtheories. Fay, "Critical Social Science," 213. Fay's practical and non-idealistic "amended scheme" is derived from the view that the regulative and normative problem of critical social science lies in its most basic ontological assumptions. Theories, therefore, need to be less grandiose and more mundane. Relatively, normatively and practically they need to be "self-consciously local, particular, situated, experimental, and physical" bearing in mind "the inherent limitations of reason" to unravel the mysteries of the human identity where the ecological sense of interrelatedness is "explicitly aware of the unpredictable, fragile, and limited character of human enterprises."

Fay's critical "acknowledgement" in his amended scheme of certain themes of postmodernism have major implications for theorizing and practising critical environmental education. If the fit of Giddens' corpus and Fay's metatheoretical "criteria" (that is a conceptual convergence of Giddens' diagnosis of high

modernity and Fay's eight theories) is acceptable then critical

environmental education theorizing should proceed substantively and normatively along that line. Thus, as with his exclusion of "non-idealism" from the scientific, critical, and practical objectives of critical social science Fien needs to explain why Fay's theories of body, tradition, force, and reflexivity are not included. Fien, "Introduction," in "A Pathway to Sustainability."

At this self-evident point of departure in theorizing critical environmental education curriculum it is worth noting Fay's reasons for amending the basic scheme with theories of the body, tradition, force and reflexivity--these being significant to the ontological twist being pursued here. That critical social science be practical and non-idealistic at the same time as being scientific and critical is an imperative of Fay's that demands earnest consideration be given the "audience" of critical theories. Fay, "Critical Social Science," 85. In effect how the recipients of critical social science are "educated" and "empowered" by a critical curriculum and pedagogy is increasingly problematic given Giddens' and Fays' acknowledgements of limits to rationality and change seen within the context of a postmodern crisis in representation. Giddens and Fay have alerted us generally to this phenomena. With regard to more detailed theorizing intellectual interchange and extended forms of the self in a technologically saturated and mediated postmodern society the work of Geoff Sharpe stands as an important addition to what is being discussed here. Geoff Sharpe, "Intellectual Interchange and Social Practice," *Arena* 99/100, (1992): 188-216; Geoff Sharpe, "Extended Forms of the Social" *Arena Journal* 1, (1992): 221-237. In a similar vein Don Ihde's work is extremely valuable in

understanding the ontological "priority" in phenomenological descriptions and cultural hermeneutics of technology. Don Ihde, *Technics and Praxis* (Boston, MA.: Reidel, 1979); Don Ihde, *Existential Technics* (Albany, NY: State University of New York Press, 1983); Don Ihde, *Technology and The Lifeworld: From Garden to Eden* (Bloomington, IN.: Indiana University Press, 1990); Don Ihde. *Instrumental Realism: The Interface Between Philosophy of Science and Philosophy of Technology* (Bloomington, IN.: Indiana University Press, 1991).

Criticized by Fay for its unattainable utopian agenda and questionable regulative ideals is the ontological presupposition in much critical social science of the activist conception of human being. At issue for Fay is its epistemological and normative privileging of unlimited enlightenment through rational self clarity, unobtainable empowerment through individualistic self-determination, unencumbered emancipation through collective autonomy, and non-problematic ethical equation of freedom and happiness. To achieve the criteria of practicality and non-idealism Fay's tempering of these inherently liberal assumptions, expectations, and regulative and normative commitments dwells on a range of factors mitigating rational change, clarity, and

autonomy. According to Fay there are four limits which warrant consideration--epistemological, therapeutic, ethical, and power. Epistemological limits are those factors which prevent rational analysis from yielding information required respectively for self and social understanding. They are consistent with Giddens' critique of "trickle down" reflexivity. First, according to Fay there are various impediments to self understanding which occlude complete and definitive understandings of the identities of people. Second, determinate judgements about how groups or collectivities should act, attain consensus, or organize themselves is problematic. Of particular educational interest is

Fay's criticisms of Habermas's notion of communicative competence and the ideal speech situation. Fay, "Critical Social Science," 188-191. And by osmotic implication, versions of Action Research, which as a research tool of critical social science, is utilized in educational inquiry and participatory research in environmental education. Robottom & Hart, "Research in Environmental Education," but in particular Ian Robottom, "towards Inquiry-Based Professional Development in Environmental Education," in *Environmental Education: Practice and Possibility* ed. Ian Robottom (Geelong, Vic.: Deakin University Press, 1987): 83-120. See also Wals, Beringer and Stapp, "Education in Action," 13-18. Therapeutic limits are those barriers which preclude rational reflection from altering a way of behaving or thinking. According to Fay there are features of human existence which are impervious to rational power as therapy. An acknowledgement of epistemological and therapeutic limits suggests ethical limits to the certainty, perhaps chaos, of predicating self and social determination on rationality, clarity, and autonomy. Finally, the ethics limits imply limits to power if the notion of autonomy and ability to self-determine is found to be wanting, hence the ethical notion of happiness emerging from attained freedom is challenged. The rise of "communitarian" philosophy and social theory in particular, and some versions of feminist and environmental ethics, stand in contrast to the classical assumptions of liberal ethical theory. See Alasdair MacIntyre, *After Virtue: A Study In Moral Theory* (Notre Dame, IN.: University of Notre Dame Press, Second Edition, 1984); Michael Sandel (ed.), *Liberalism and Its Critics* (New York: New York University Press, 1984); David Rasmussen (ed.), *Universalism vs. Communitarianism: Contemporary Debates in Ethics* (Cambridge, MA.: The MIT Press, 1990); Seyla Benhabib, *Situating the Self: Gender, Community, and Postmodernism in Contemporary Ethics* (New York: Routledge, 1992).

To make sense of these limiting factors Fay supplements the basic scheme of critical social science with explanations of the historically embodied, embedded, and opaque nature of our contingent and contested being- individually, socially, and

culturally. Included, therefore, are theories of the body, tradition, force, and reflexivity. Of particular educational importance and academic interest is Fay's appreciation of the body as providing a more inclusive but rationally problematic "site" for self-understanding and social explanation. Consistent with Giddens stress on the embodied "knowledgeability" of practical consciousness as distinct from discursive consciousness Fay outlines how direct and indirect somatic learning are constitutive of disposition acquisition and identity formation, and hence their politics. Thus, for Fay and Giddens an ontological inclusion of the body as an important site of explanation for a full bodied theory of action in social inquiry provides a point of departure from the cognitivism of critical social theory and the "linguistic turn" currently so prominent in academic circles. Giddens maintains the body, as the locus of the acting self and as positioned in time-space, is central to the analysis of action and its intended and unintended consequences for reality. His delineation of the unconscious, practical consciousness, and discursive consciousness places practical consciousness at the forefront of social inquiry. Practical consciousness, as a corollary of embodiment and embeddedness, is defined by Giddens as what actors "know" or "believe" about social conditions, especially their own, but cannot express discursively. Giddens, "The Constitution of Society," 6, 41, 375. The superficiality Fay aligns with the

fullest social explanations resting essentially on the interiorization

of discursive rules or distinctions which lie beneath them is supported by Sharp's concern about the prominence of linguistic models as bridging across situations in poststructural attempts to frame the social. Sharp, "Extended Forms of the Social," 229. While interactions of communication, modes of interpretative schemes, and structures of signification are important in Giddens' theorizing elsewhere he has concluded poststructuralism, as a "vague appellation" of thought, has been unable to generate satisfactory accounts of human agency. Anthony Giddens, "Structuralism, Post-structuralism and the Production of Culture" in Social Theory Today ed. Anthony Giddens & Jonathan Turner (Stanford, CA: Stanford University Press, 1987): 195-223. Without downplaying the importance of language and its social constitutions it would appear the adage "actions speak louder than words" is a view Giddens holds to and is subscribed to by Fay.

The "disciplining" of bodies, both individual and collective, is a phenomena embedded historically by tradition and determinatively by authoritative force. Fay finds it ethically inappropriate that humans can deprive tradition of its power over them, particularly the inherited endowment of bygone days and

ways of life of which many are held to be sacrosanct in the present and the future. Fay challenges the Cartesian propensity that one's existence, in toto, can be questioned, that one's inheritance can be objectified and detached which, for rational scrutiny, is illusory. For Fay the disregard of people's traditions can have terrible consequences in that they belong to a tradition as much as it belongs to them; that identities are inextricably tied to cultural traditions and legacies. But in acknowledging tradition and its embedding/embodying tendencies Fay, as is Giddens, are not radical or cultural conservatives. Presumably in reference to "open-ended" Western societies Fay maintains that being part of a tradition permits affirmation and rejection of certain aspects of that tradition. Traditions are cultivated, transmuted, embraced, recombined, and created; they can not be separated off from those individual and collective identities whom, according to some critical theories, can elect to reject or cast off tradition. Traditions, embedded and embodied in habituated actions, rituals, roles, folklore, myths, religions and other cultural moraise, including historical perceptions of the environment provide definite limits to rational change. Accordingly "progressive" versions of critical social science, as Fay understands, must incorporate tradition theoretically, practically, and non-idealistically into its domain. Giddens' understanding of tradition is viewed from within the context of high modernity's disembedding mechanisms. The increasing irrelevance of time, space, and place in technologically mediated high modernity effectively "lifts out" traditional social relations from local communities and their contexts and "reembeds" or stretches them globally. Individuals are surely global passengers; the notion of community as has historically been understood must be held in abeyance, while the adage "think globally act locally" takes on new, and problematic, meanings. But surely not as passengers deserving equal blame for the ecological crisis individually, socially, nationally, culturally, and geographically as Enzensburger correctly criticizes in regard to the oft deployed spaceship earth analogy, used characteristically in education. Hans Magnus Enzensburger, *Raid and Reconstructions: Essays in Politics, Crime, and Culture* (London: Pluto Press, 1976), 253. Giddens assessment of threats

to traditions contrasts with other views that posit modernity as progressively refining established and traditional activities in personal and social actions. According to Giddens' concept of disembedding the "openness" of high modernity leads to choosing from a variety of possible futures that are then reorganized as reflexive knowledge of the present, but is often counterfactual to tradition. The reflexivity of high modernity "colonizes the future" for the present, creating a conflict of past, present, and future that adds to the phenomenal tension of ontological

security and existential anxiety. This tension underscores what Giddens refers to as the "return of the repressed" and the subsequent charge for a morality of authenticity. Giddens' use of these terms indicates a resurgence of interest in reclaiming the moral in response to existential matters rather than permitting the ongoing sequestration of experience. Among other things, the return of the repressed is an aspect of life politics that seeks reflexively to reengage with some past traditions and rituals. Some versions of environmentalism and environmental education espouse a solution of "back to the future" -- a problematic which, to date, has escaped critical scrutiny, least of all in education theory. Stanley touches on some of the issues in his discussion of curriculum, reconstruction, and possibility when he outlines the transformation/transmission dichotomy. But his views are couched more in questions about the maintenance of selected traditions, a point which Giddens and Fay agree on.

William B. Stanley, *Curriculum for Utopia: Social Reconstructionism and Critical Pedagogy in the Postmodern Era* (New York: State University of New York Press, 1992), 191. Much on the question of progressive and conservative tendencies can be gained from the exchanges between Maxine Greene and Peter McLaren, on one hand, and Chet Bowers, on the other. Chet A. Bowers, "An Open Letter to Maxine Greene on The problem of Freedom in an Era of Ecological Interdependence," *Educational Theory* 41, no. 3, (1991): 325-331. Chet A. Bowers, "Some Questions About the Anachronistic Elements in the Giroux-McLaren Theory of a Critical Pedagogy," *Curriculum Inquiry* 21, no. 2, (1992): 239-251; Chet A. Bowers, "Critical Pedagogy and the Arch of Social dreaming: A Response to the Criticisms of Peter McLaren," *Curriculum Inquiry* 21, no. 4, (1992): 479-487; Peter McLaren, "The Emptiness of Nothingness: Criticisms as Imperial Anti-Politics," *Curriculum Inquiry* 21, no. 4, (1992): 459-477. In some educational circles there is support for the idea that lapsed, discarded, or rejected traditions can selectively be redeemed, or appropriated from indigenous cultures, to fix ecological problems of "our" making. This standpoint raises a variety of moral, social, and political concerns. See for example, McClellan Hall and G. Owen Crouch, "The Use in Experiential Education of Ceremonies and Rituals from Native American Cultures," *The Journal of Experiential Education* 15, no. 1, (1992): 51-55; Gordon W. A. Oles, "Borrowing Activities from Another Culture: A Native American's Perspective," *The Journal of Experiential Education* 15, no. 3, (1992): 20-22. Giddens appreciates the protective "cocoon" of traditions, habits, language, and of small communities that develop ontological security are broken down in the face of increasing existential anxiety arising from the "juggernaut of high modernity." For Giddens, orality and tradition are inextricably connected to one another. But, beyond the "evanescence" of the spoken word high modernity undercuts

traditions, customs, and other established patterns of social activity and relations. Notably, however, Giddens states that tradition, not habit, does have remnants of a binding normative

and authoritative character that often resist the technical powers of high modernity. According to Giddens there are residues of morality within the fixity of traditions that provide some coordination of the past and the present. Giddens, "Modernity and Self-Identity," 145, 202.

What becomes apparent in Fay and Giddens assertions of the historical embodiment and embeddedness of individuals and collectivities is the contingent nature of what it is to be human and what the conditions of existence have been, are, and will be. The epistemological, therapeutic, ethical, and force limits Fay attaches to the activist conception of human beings with its valuing of rational self-clarity and collective autonomy, and the inevitability of happiness, demands reconsideration of the practicality and ideals of critical theories. Fay concludes that its fundamental values are inadequate to serve as regulative ideals from which judgements about social arrangements and progress can be made let alone how such ideals can be instantiated in social practices. Fay, "Critical Social Science," 166. The opacity, rather than transparency, of social life and the construction of a unified self or social narrative all point to the indeterminacy of the "new" social sciences mentioned earlier by Bohman. The "anticipatory narratives" Fay proposes are to be constructed on the basis of hoping people pragmatically interpret "patterns" of actions in making practically wise decisions with appropriate consequences. The established idea of a "genuine narrative" with its aggregating of discrete and identifiable intentions into a non-contingent prescription and prediction of social life is rejected by Fay. MacIntyre's notion of a "narrative concept of selfhood" where narratives are embedded in narratives is an important adumbration of Fay's concept of narrativity. MacIntyre, "After Virtue," 204-225. Fay's supplementation of the basis scheme of critical social science with theories of the body, tradition, force and reflexivity posit a different character and aspirations for critical theories, including those of education and curriculum. If Fay's metatheoretical argumentation is acceptable, partially or wholly, resulting theories will need to be self-conscious, local, particular, situated, experimental, and physical. Seen within Fay's metatheoretical framework, and with clarification, Giddens' explanations of high modernity and theory of structuration underwrite a more detailed, but sensitizing, theorizing of environmental education curriculum--scientifically, critically, practically, and non-idealistically, at the same time.

A Matrix of Giddens' and Fay's Major Concepts

GIDDENS' (1984, 90, 91) FAY (1987) CONCEPT

PRINCIPLE/THEORY/METATHEORY REGULATIVE - Sequestration of experience
DIMENSION PROPOSITION CRITERIA AND - Commonsense
NORMATIVE
VALUES

Existential anxiety Self False Consciousness Happiness as - Multilayered
democratic

- disembedding mechanisms Risk Society freedom participation
- reflexive modernity - Post-scarcity system
- Demilitarization
- Humanization of technology

- Growth of totalitarian Self Crisis Enlightenment - New knowledge
power Risk Society - Life politics

- Collapse of economic - Politicization of local/global
growth mechanisms - emancipatory politics
- Nuclear warfare of large-
scale war
- Ecological decay/disaster

Ontological security Action Education Rational - New knowledge

Social movements Social Changes self-clarity, - Free speech/democratic
collective movements
autonomy, - Labor movements
empowerment - Peace movements
- Ecological movements

- Social integration Dialectic of Transformative Action Activity, -
Unconsciousness/practical

- Social movements control self-consciousness
- Action determination, - Mutual knowledge
- Social change collective
autonomy,

liberation

Ontological securityActionBodyEmbodiment,-Practical consciousness/
SelfEmbeddedness, unconsciousness
Opacity-Mutual knowledge
Rational-Contextualization
disagreement-Societal totalities
-Allocative Resources

Ontological securitySelfTraditionTradition/-Recursivity
Time-spaceEmbeddedness-Structure(s)
-Authoritative resources
-Dialectic of control

Existential anxietyActionForceMonadic-Recursivity
-time space distancingSocietyHistoricity/-Diachrony
Embeddedness-Structure(s)

Existential anxietySelfReflexivityHistorical
-disembedding mechanismsSociety andopacity,
socialRational
changecontradiction
Double
hermeneutic

With regard to specifying the further relation of Fay's
metatheorizing to a critical theory of environmental education
Fien has outlined some of key ideas in relation to the basis
scheme which I supplement according to Fay's amended scheme.

A Conceptual Matrix for Critical Environmental Education

THEORY AND SUB-THEORIESCRITICAL THEORY FOR EDUCATIONA CRITICAL ONTOLOGY FOR
FOR SUSTAINABILITYEDUCATIONAL INQUIRY

.0J OFF

1. A theory of false consciousness whichDemonstratesAccepts interpretively
and engages
(i) demonstrates the ways in which the(i) the ways in which the social and
selfreflexively
self understandings of a group of peopleunderstanding of a society fails to
account(i) the fallibility of mutual knowledge and
are false (in the sense of failing to accountfor root causes of
environmental problemscommonsense, and hence problematizes
for the life experiences of the members ofor provide for the social and
environmentalreification.
the group), or incoherent (becauseneeds and interests of all its members

(theScrutinizes internally contradictory), or both-Ideology-skill of ideology critique).
(ii) the conventions, or rules and critique.Explainsresources, of actions, social interactions
(ii) explains how the members of this(ii) how the members of a society came toand relations which learners draw upon
group came to have these self-have these misunderstandings and howand reconstitute knowingly and
misunderstandings, and how they arethey are maintained through the process ofunknowingly; and reveals
maintained;"hegemony"; and provides(iii) how learners are capable, are social
(iii) contrasts them with an alternative(iii) a vision of an alternative world viewtheorists, and involved in constructing a
self-understanding, showing how thisand a new set of social and self-narrative concept of selfhood.
alternative is superior.understandings.

2. A theory of crisis whichUnderstandingAcknowledges
(iv) spells out what a social crisis is;(i) the scope of the environmental crisis;(i) lived individual, social, and
(v) indicates how a particular society is in(ii) the root causes of the environmentalenvironmental experience is increasingly
such a crisis. This would requirecrisis and how they cannot be alleviatedfragmented and mediated externally,
examination of the felt dissatisfactions ofeffectively given the basic organizationalprimarily through technological means
a group of people and showing both thatstructures of our society; andand intellectual expertise
they threaten social cohesion and that they(iii) the historical development of the
can not be alleviated given the basicenvironmental crisis in terms of the organization of the society and the self-structural bases of society and of
understandings of its members;individual and group false consciousness.
(vi) provides a historical account of the development of this crisis partly in terms
of the false consciousness of the members of the group and partly in terms of the structural bases of the society.

3. A theory of education whichOffersProblematizes with new knowledge
(vii) offers an account of the conditions(i) an account of the forms of(i) the technological and intellectual
necessary and sufficient for the sort ofenvironmental education necessary for theextension of the embodied and embedded
enlightenment envisioned by the theory;sort of enlightenment envisioned by theself,
(viii) shows that given the current socialtheory; and shows(ii) accepts the importance of language
situation these conditions are satisfied.(ii) how the pedagogical practices

in these and communicative action but treats forms of environmental education can be cautiously the notion that language is the implemented construction of reality; and hence (iii) seeks to understand somatic knowledge, embodied actions and their consequences.

4. A theory of transformative action which outlines identifies and assesses (ix) isolates those aspects of society which (i) a strategy for altering those aspects of (i) the moral, social, and political must be altered if the social crisis is to be social structure which causes the implications of individual, social, and resolved and the dissatisfactions of its environmental crisis and trapped society's environmental actions and their members lessened; members in self-defeating patterns of belief consequences, (x) details a plan of action indicating the and behavior; and details justifies socially people who are to be the "carriers" of the (ii) a strategic plan through which society's (ii) the individual and collective course(s) anticipated social transformation and at members can become agents of self- and of actions assessed; and accepts least some general idea of how they might social transformation. (iii) responsibility and accountability for do this. individual and collective actions taken, or not taken.

5 A theory of the body which renders (xi) develops an explicit account of the (i) the body as a site of qualitatively

nature and role of inherited dispositions different understanding and explanation in and somatic knowledge; that its mode of being is organic, (xii) formulates a theory of body therapy; habituated, and corporeally penetrated and (xiii) spells out the limits which inherited extended. dispositions and somatic knowledge place appreciates on liberation. (ii) that as a mode of praxis with socio-environmental consequences somatic knowledge is partial and incomplete; yet acknowledges (iii) that as a positioned and localized site of praxis and disclosure a body's being and sharing-in-the-world is organically, habitually, and corporeally dynamic, and hence both capable and changeable, but confined.

6. A theory of tradition which accepts

(xiv) identifies which parts of a particular(i) the dispositional inheritance, bonds, tradition are, at any given time, and legacies of previous patterns and changeable; conventions of family, community, and (xv) identifies which parts of a particular cultural life; while acknowledging tradition are, at any given time, not(ii) their hold is not always immutable but changeable or worthy of change. selective.

7. A theory of force which Appreciates, understands, or accepts (xvi) develops an account of the(i) the weight of intellectual, bodily, conditions and use of force in particular social, political, cultural, and ecological socio-political settings; influences; but recognizes (xvii) explicitly recognizes the limits to(ii) the individual and collective capability the effectiveness of a critical theory in the to make a difference, even if it is partial, face of certain kinds of force. limited, or constrained.

8. A theory of reflexivity which Engenders (xviii) gives an explanation of its own(i) a personal and collective reflexivity historical emergence, and in this portrays that, morally, politically and ecologically, itself as a necessarily one-sided engages a dialectic of individual and construction in a particular historical socially embodied actions, interactions, setting; and relations with local and historical (xix) explicitly eschews transcendental circumstance and situations. aspirations regarding the experience of all humans (those who might be oppressed), and gives up any pretensions to capture the "essence" of liberation; (xx) offers an account of the ways in which it is inherently and essentially contextual, partial, local, and hypothetical.

The socially theoretical work of Giddens and Fay point to four overarching points that need to be made about curriculum inquiry in environmental education. First, the strategy of questioning existing discourses and practices is general and offered only as a "sensitizer" for the environmental educator to consider in relation to his or her own educational situation. The strategy

is sufficiently generic to be adopted by different educators working in a range of settings--urban, regional, and rural. Elaboration of the questions in specific contexts is required for curriculum and pedagogical development. Second, different

aspects of the questioning strategy can be emphasized according to the experiences and capabilities of teachers and learners. Third, the questions make no claims on preferred pedagogical practices. Given the nature of this inquiry it seems to me that teachers and students are in the best position to adjudicate those issues given the different educational circumstances in which they operate. Finally, the fine line between the questioning strategy being educative or instrumentalist is justified by the objective that theorizing be practical; that the deployment of Giddens and Fay identified by Fien for theorizing critical environmental education be consistent with their respective theorizing; and that the self-professed verdict of environmental education reveals a constancy of concern about unrealistic expectations, unrealized aspirations, and disparate epistemological commitments. While it is not appropriate to question the legitimacy of the big idea of environmental education there is no doubt it is fragmenting in the manner Geertz alerts us to. The concerted pursuit in Australia of a critical praxis for environmental education is one area of exploitation that, in this inquiry, culminates reflexively in a strategy of questioning existing critical discourses and practices.

There is general agreement in critical perspectives of environmental education that curriculum ideally be interdisciplinary, or ecological, in its content and methods. Disciplinary knowledge can be brought to bear on problem-oriented approaches to resolving and acting upon local, community-focussed environmental issues. Experientially driven pedagogies, underpinned by a strong role for perceptual and valuing activities, is a constant. Practices and theories aim to be socially critical. That is individual and collective change and action arising from environmental education needs to be deliberated and justifiable according to broader historical, social, material, economic, and, more recently, cultural contexts. As already indicated these contexts are encapsulated in the term sustainability. This loose consensus marks out the conventional "contours" of critical environmental education. The re-theorizing I now conclude with builds on these contours, for it is appropriate to do so, but modifies and tempers the certainty, educationally, morally, and politically, that the ideas are enacted or fulfilled.

Re-theorizing critical environmental education

Theorizing an ontologically driven critical environmental education curriculum rests largely on establishing the corporeal

body as a site of disclosure for the ecological crisis--revealing but limited, personal in the first instance but social over time and space. The question "how is the ecological crisis embodied?" invites numerous possibilities for environmental educators. To be sure, in acting as the focal point of a sensitizing focus for curriculum inquiry and enactment numerous perspectives of an "embodied crisis" are anticipated. Moreover, different crises are implied in contextualist ethics, be they the relational type which are in ascendancy or the ascetic type which are in decline. By ascetic I mean those environmental ethics whose historical, social, material, and political matrices have dwelt on overconsumption and its accompanying infrastructure as the cause of the ecological crisis. Its practical message of conservation is marginalized in contemporary ethical discourses which focus abstractly on person-environment and culture-nature relations of which there is a nagging negativity epitomized in the use of the term "ecological crisis." What provides positive or negative valency in relational ethics is all too often unclear beyond the

aesthetic self-interest of participant relators. Stated more blandly it is hard to discern in relational ethics what moral and political "gain" there is for nature/environment. An interweaving of the two types is a challenge for environmental ethics and for critical environmental education, neither of which can be addressed adequately here. Crises of care, self-realization and biocentric equality, ecology, technology, mother earth, animals, the social, the cultural, and others will differ for educators influenced by the thoughts of ecofeminists, deep ecologists, Leopoldians, Gaians, animal liberationists, and social ecologists. Put another way the embodied crisis might be tackled by asking "in individuals' lived experience what can be disclosed about the residues, deposits, or sediments of environmental problems and issues?"

The concern of establishing embodiment leads to the question of how it occurs. The pathways of the crises into and out of the body demands elaboration of the connections of various individual and social "patterns of being" to their timings, settings, and signs. Embodied action is a crucial site for curriculum and pedagogical inquiry. Numerous opportunities again exist to investigate, compare, and contrast among individuals and groups those historically, materially, technologically, and culturally mediated habits and routines of daily life at home, school, classroom, neighborhood, work and play that sustain ecological problems and issues.

The embodied and embedded nature of the ecological crisis can be amplified by considering the "conventions" of personal actions as well as the social interactions and expectations of a symbolic, physical, geographical, and economic nature. Language, its use, print and electronic media, social images and

symbols, and various other traditions, rules, and norms would appear to be appropriate venues for examining various pathways of the ecological crisis.

Having considered the influence of some or all of the embodied and embedded crises, perhaps individually and collectively the appropriateness of change, as a deliberated possibility, can be assessed. "What pathways might be changed so that the ecological crisis into and out of the body can be reduced?"

But, morally and politically the extent of desirable change will need to be adjudicated in light of the further question of "what are the consequences for self, others, and the environment, and for the pathways of the ecological crisis if the routines and conventions of interactions and relations of individuals, the group, and the community are changed knowingly? And, on the basis of theorizing Giddens and Fay for environmental education what also demands consideration is how "knowledgeable" responses to the preceding question might be obtained. As an aside one aspect of environmental education that needs further consideration can be framed in the further question "what justifications might be offered to those who are effected by the direct and indirect consequences of actions taken socially and environmentally in environmental education?"

This ongoing question foregrounds two major problematics for curriculum inquiry raised by Giddens and Fay. The first is to consider the boundedness of morally relevant and politically effective actions--what is doable and achievable, and what hubris of self is socially and environmentally defeating? Actions must also be personal if the syndrome of the "environmental problem out there somewhere" perpetuates a group exuberance, or evangelism, for "fixing" up the problems of others, thus displacing personal responsibility and ethical accountability

while exacerbating the problems of collective autonomy. Irrespective of the probability that "big" environmental problems and issues might be inaccessible, or non-understandable within the limited confines of environmental education curriculum, the second worry is, if socially critical actions are "successful" or "unsuccessful," those others have to "wear" the consequences of those actions. How those inevitably effected by environmental education are invited, or engaged, in the curriculum processes becomes a more pressing issue for curriculum inquiry.

The extent, obvious breadth, and implications of this questioning strategy for curriculum theorizing is not meant to dissuade the task of developing a critical praxis for environmental education. For, it seems to me, that some or a lot of these sensitizing questions and probes can be addressed thematically--be it through an examination of chewing gum and its contexts of agency and structure or an investigation of the

Greenhouse effect and its contexts of structure and agency. The moral and political implications of the questioning strategy might be perplexing but a way to deal with them is summed up neatly in Seyla Benhabib's notion of an enlarged mentality. Says Benhabib, "(t)he more we can identify the different viewpoints from which a situation can be interpreted and construed the more we will have sensitivity to the particularities of the perspectives involved." Benhabib, "Situating the Self," 54. See also my "Enlarged Thinking, Moral Considerability, and Ecological Feminism" where I attempt to tease out Benhabib's notion of moral judgement for a practical ethics that conjoins a somatic embodied sensitivity and rational sensibility.

A final note

Re-theorizing critical curriculum inquiry into environmental education according to Giddens' and Fay's critical ontologies has been textualized by the discourses of environmental education. Other "issues oriented" approaches to curriculum and pedagogy such as multicultural, social, citizenship, and physical education, to name a few candidates, are well placed to consider and assess the ontological turn pursued here. How those curriculum discourses might then be textualized for curriculum inquiry according to their specific needs, interests, and experiential fodder remains a question to be taken up at another time.

Finally, the mood of the postmodern:modern debate has created both a sense of uncertainty and a reason for many theorists and practitioners of critical persuasions to reinstate the ethical and the political as a priority concern. To the extent that mood is opaque critical theorists of education appear to be grappling with ways through it. The reflexivity of social theory and educational inquiry in curriculum theorizing and pedagogical practices continues to challenge educators of all ilk to be relatively clear about the practical, moral and political consequences of their discourses. Not to deal earnestly with their implications, it seems to me, is tantamount to a "lack" which circumvents the aspirations of critical discourses and practices. Whilst it is unreasonable to expect solutions will easily emerge, nor will Giddens and Fay dissuade educators from their fixed positions, or elicit consensus, it is possible the ontological line for inquiry pursued here can foreground those ethical and political horizons which, with ongoing debate, remain a vexing concern but which can further the project of critical inquiry in education.