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Intrinsic Value and Care: Making Connections through Ecological Narratives

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ABSTRACT

Vitriolic debates between supporters of the intrinsic value and the care approaches to environmental ethics make it sound as though these two sides share no common ground. Yet ecofeminist Jim Cheney holds up Holmes Rolston's work as a paragon of feminist sensibility. I explore where Cheney gets this idea from and try to root out some potential connections between intrinsic value and care approaches. The common ground is explored through Alasdair MacIntyre's articulation of a narrative ethics and the development of the notion of an ecological and evolutionary tradition.

KEYWORDS

Care, intrinsic value, narrativity, tradition, ecology and evolution

1. INTRODUCTION

In a recent survey article appearing in the journal *Ethics*, Samantha Brennan looks at a number of contemporary approaches in feminist ethics and draws an encouraging conclusion (Brennan 1999). She notes how the growing breadth, depth, and history in feminist ethics has emboldened a number of prominent feminist thinkers to go back and re-engage with some of the ethical concepts that feminists had initially eschewed. So, for example, she notes Annette Baier's (1994) and Martha Minow's (1990) revisiting of the concept of rights and Alison Jagger's (1991) and Jean Hampton's (1993) willingness to look for a feminist version of a social contract. This is, I take it, is an encouraging sign because of the possibilities that it opens up for constructive dialogue between those who initially appeared to be on opposite sides of irreconcilable ideological differ-

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ences. Appreciating what is good and what is bad about your own position in dialogue with those who disagree is presumably, in the long run, preferable to hardening the battlelines and slogging it out from a distance.

If Brennan is right about what is happening in ethical theory in general, we might well ask whether there are any prospects for a similar *rapprochement* in environmental ethics, where the battlelines between ecofeminist approaches and deontological, intrinsic value approaches have been well and truly hardened. There are any number of places you can go and witness the care and passion with which this gulf has been articulated.¹ But can this gulf really be as wide as it is often made to seem? I make two perhaps idiosyncratic observations to suggest that it cannot.

The first is that there are at least a couple of ecofeminist voices, including Karen Warren's and Jim Cheney's, that apparently find aspects of this gulf to be overstated (Warren and Cheney 1991, Cheney 1987). Cheney² has for over 13 years consistently held up Holmes Rolston's work as 'com[ing] closest of any male-authored piece in the philosophical literature...to embodying the [feminist] sensibility I have been trying to articulate' (Cheney 1987: 144). Clearly Cheney finds something buried in Rolston's deontological work that resonates with an ecofeminist approach. The second observation comes from a growing succession of environmental philosophy undergraduate students with whom I have worked. After reading and discussing the debates over several classes, these students almost invariably become frustrated at the vitriol exchanged between each side. While the students recognise a different emphasis they tend to see the two approaches as different sides of the same coin rather than incompatible moral theories. 'You could not value something intrinsically unless you also cared about it' one student complained.

Taking my lead from Aristotle, I am going to assume that these student nonspecialists – and Warren and Cheney for that matter – cannot be completely wrong about this and that there must be some common ground in these two positions that can be constructively explored. My intention is emphatically not to try to reduce one approach to the other, nor to make the absurd claim that they amount to the same thing, either practically or theoretically. I have no wish to totally diffuse what is usually a fairly constructive tension. Rather I hope to explore the dialectic whereby two competing viewpoints can be worked against each other to draw out the best parts of each. The desired result is to ultimately push each discussion forward upon more productive lines.

2. SEARCHING FOR COMMON GROUND

To keep things methodologically simple, I will focus on the work of just one theorist from each camp, Karen Warren from ecofeminism and Holmes Rolston III from 'malestream' environmental philosophy. Note that there are no illusions

here about being able to characterise a diverse and evolving set of theoretical positions though the work of a single theorist. The goal is simply to find some – any! – piece of potentially enriching common ground. It is not to account for all the nuances of each side of the debate. To further simplify matters, and again mindful of the fact that this is acceptable only if I am only looking simply for prospective sites for constructive engagement, I single out from each theorist's work some very specific passages. For its engaging and provocative nature, I will start with Karen Warren's famous rock face narrative in 'The Power and Promise of Ecological Feminism' (1990).

This widely anthologised paper sets eight boundary conditions of an ecofeminist ethic. But it is perhaps more often noted for its inclusion of an intriguing narrative about Warren scaling a rock face. This narrative captures a great many of the trademarks of an ecofeminist sensibility. It is not only philosophically enlightening, it is also rhetorically enlivening. It provides a sweet breath of air that injects life into the dense philosophical prose of the surrounding sections. The narrative is quite moving. Here it is in full:

For my very first rock climbing experience, I chose a somewhat private spot, away from the other climbers and on-lookers. After studying "the chimney," I focused all my energy on making it to the top. I climbed with intense determination, using whatever strength and skills I had to accomplish this challenging feat. By midway I was exhausted and anxious. I couldn't see what to do next – where to put my hands or feet. Growing increasingly more weary as I clung somewhat desperately to the rock, I made a move. It didn't work. I fell. There I was, dangling midair above the rocky ground below frightened but terribly relieved that the belay rope had held me. I knew I was safe. I took a look up at the climb that remained. I was determined to make it to the top. With renewed confidence and concentration, I finished the climb to the top.

On my second day of climbing, I rappelled down about 200 feet from the top of the Palisades at Lake Superior to just a few feet above the water level. I could see no one – not my belayer, not the other climbers, no one. I unhooked slowly from the rappel rope and took a deep cleansing breath. I looked all around me – really looked – and listened. I heard a cacophony of voices – birds, trickles of water on the rock before me, waves lapping against the rocks below. I closed my eyes and began to feel the rock with my hands – the cracks and the crannies, the raised lichen and the mosses, the almost imperceptible nubs that might provide the resting place for my fingers and toes when I began to climb. At that moment I was bathed in serenity. I began to talk to the rock in an almost inaudible, childlike way as if the rock were my friend. I felt an overwhelming sense of gratitude for what it offered me – a chance to know myself and the rock differently, to appreciate unforeseen miracles like the tiny flowers growing in the even tinier cracks in the rock's surface, and to come to know a sense of being in relationship with the natural environment. It felt as if the rock and I were silent conversational

partners in a long standing friendship. I realized then that I had come to care about this cliff which was so different from me, so unmovable and invincible, independent and seemingly indifferent to my presence. I wanted to be with the rock as I climbed. Gone was the determination to conquer the rock, to forcefully impose my will on it; I wanted simply to work respectfully with the rock as I climbed. And as I climbed, that is what I felt. I felt myself caring for the rock and feeling thankful that climbing provided the opportunity for me to know it and myself in the new way. (1990: 134-5)

The narrative is quintessentially ecofeminist. Right away it is obvious how it captures many of the themes articulated in Carol Gilligan's work. These themes, themes which have become integral parts of a number of feminist approaches to ethics, include 'being in relationship', 'appreciating difference', 'a chance to know myself better', 'conversational partners', 'looking - really looking', 'listening', and, of course, 'caring'. Warren points out how effectively a narrative can be used to give voice to the acute sensitivity that is required by a relational ethic of care. The narrative voice brings into sharp relief aspects of Warren's relation to this rock face that would likely have remained hidden had she employed more traditional modes of philosophical expression. The narrative also illustrates how ethical guidance emerges out of particular situations rather than being imposed from the outside according to predetermined moral laws. This mode of expression makes a pointed contrast with the abstract and universalist language that usually characterises rights based and intrinsic value based theories. Warren's story makes it all the more evident just how potent is the narrative voice and just how intimate is the ethic of care.

But it is a further aspect of Warren's narrative that is especially suggestive for the *rapprochement* I am seeking. Warren claims that over and above its potential for voicing care, emphasising relationships, and stressing a certain type of moral particularity, most importantly her narrative 'has argumentative force by suggesting *what counts* as an appropriate solution to an ethical situation' (1990: 136, emphasis in original). Narratives, Warren makes clear to us, have endings. They beg conclusions. Without this insistence on conclusions, narrators can keep on spinning wild tales *ad nauseam*, constructing events according to whim and directing their narrations in self-serving ways.

When ethics is structured by narratives, it becomes important to know how to wrap up those stories and bring them to fitting conclusions. Failure to do so turns a narrative into a series of emotive expressions of personal preference that, in the worst case scenario, run the risk of continually reinscribing the same cycles of violence and oppression. Thanks in part to a couple of decades of high quality ecofeminist analysis, it is clear now that narratives involving nature have all too often reinscribed normative structures that affirm androcentric domination and control. Examples of the tropes that ecofeminists have exposed are 'man as triumphant over nature', 'woman as ontologically closer to devalued nature', and 'human as separate from wild nature'. If we are going to commit to ethics

as a contextualised narrative – and there are plenty of good reasons offered by post-modern and feminist theorists for us to do so³ – this demands from us an answer to a critical question. How are we to shape our narratives of nature so that they head towards better conclusions?⁴ The way Warren ends her own narrative about the rock face, with a successful ascent proving possible only after she has adopted a more caring and dialogical attitude towards the rock face, is one of the most significant normative recommendations to emerge from the whole article. We will need to know exactly how she got there.

When we look to what Cheney finds helpful about Holmes Rolston's approach we find a similar recognition of the importance of narrative to environmental ethics. The part of Rolston's work that Cheney finds so helpful is illustrated by this quote:

[A]n environmental ethic does not want to abstract out universals if such there are, from all this drama of life, formulating some set of duties applicable across the whole. An ethic demands a theory of the whole, an overview of the Earth, but not a unity that destroys plurality, not the sort of moral law that forgets history. So far from an ethic uncolored by the agent's own history, cultural identification, personal experiences and choices, an ethic rather requires a theory that can rejoice in that color. The moral point of view wants a storied residence in Montana, Utah, Newfoundland, a life on the tall grass prairie, or on the Cape Cod coastline....

...The logic of the home, the ecology, is finally narrative, and human life will not be a disembodied reason but a person organic in history...If a holistic ethic is really to incorporate the whole story, it must systematically embed itself in historical eventfulness. Else it will not really be objective. It will not be appropriate, well adapted, for the way humans actually fit into their niches. (quoted in Cheney 1987: 145)

In this passage, Rolston clearly puts the emphasis on an ethic that is contextualised relative to particular persons, places, and histories. A *storied residence* belongs to creatures that enjoy a narrative existence and clearly the earth is a place full of creatures like these, both human and non-human. Though Cheney heard Rolston speak these words over fourteen years ago, Rolston has recently reiterated this narrative and particularised component of his ethic. Discussing the importance of situatedness to ethics, Rolston states:

[A]n environmental ethic needs roots in locality and in specific appreciation of natural kinds – not always in a single place but moving through particular regions and tracks of nature so as to make a narrative career...[A]n ethic in the sense we are developing it is a creative act, not simply the discovery and following of rules and duties. It is writing an appropriate part of an ongoing story...[A]n ethic must be lived; humans are persons incarnate in the world; they are who they are where they are. (Rolston 1998: 295-6)

Warren and Rolston appear then to share at least a conception of ethics and

ethical meaning as best conceived to be in some sense an historically situated, embodied, and narrative phenomenon.

But this common ground, if it exists, is significant indeed because Rolston is also one of the thinkers most often pilloried by ecofeminists as typifying the worst kind of masculinist approaches to environmental ethics. Rolston's fault appears to lie in his claim that recognising the existence of objective, intrinsic value in nature is the *sine qua non* of an environmental ethic. The problem is that this position relies too much on the detached, rational, Kantian subject that so many ecofeminists deplore. As Val Plumwood notes of this type of approach, concern for nature amounts to nature deserving 'respect'. This Kantian notion makes determining how to treat nature into 'an essentially cognitive matter (that of a person believing something to have "inherent worth" and then acting from an understanding of ethical principles as universal)' (Plumwood 1991: 5). Rolston, with his objective, intrinsic values, appears to be guilty as charged.

This raises the puzzle of how one part of Rolston's approach, the objective, intrinsic value part, can be so unpalatable to some ecofeminists while another part, the idiographic part, can apparently be so attractive to others. Rolston's position is one of the most well known and well examined of any in environmental philosophy and no one has yet, to my knowledge, pointed out that there is incurable schizophrenia embedded in it. In the light of this fact, one has to give Cheney the benefit of the doubt and assume that buried somewhere in Rolston's account of intrinsic value is a genuine commitment to ethics as narrative and contextual. Uncovering this narrativity and contextuality is likely to require some digging. This digging will be easier if we can add some theoretical sophistication to our discussion of narrative ethics. So for now I shall set this hypothesis about Rolston's narrativity aside in order to add some flesh to the bones of the narrative approach to ethics, noting for now only that narrativity might be the place where the desired *rapprochement* can begin. To fill out the narrative approach to ethics, I turn to Alasdair MacIntyre.

3. NARRATIVES AND ECOLOGICAL NORMATIVITY

The fact that narratives must go somewhere and that ethics is about figuring out how to make them go the right places is, in broad terms, the position that Alasdair MacIntyre argues for in *After Virtue* (1984). One of the most compelling parts of MacIntyre's account is his claim that to find a conclusion to a narrative that is going to yield appropriately public norms, we cannot just turn inside and make the story up as we go along. The narrative needs instead to be contextualised within a suitable kind of normative framework. It was, in fact, the loss of this framework during the Enlightenment that precipitated the emotivist crisis in ethics that MacIntyre seeks to resolve. MacIntyre offered three parts of a framework –he called them 'practices', 'the narrative unity of an individual life',

and 'moral traditions'⁵ – that make up the social context from which narratives get their normative force. Failure to contextualise relative to these three yields a directionless narrative. The absence of the context makes it impossible to talk meaningfully about a narrative having normative force.

While MacIntyre may have been unacceptably androcentric about the particulars of the contexts that he describes - and Susan Okin has argued persuasively that he is (Okin 1989) – there is something about his approach to context that is illuminating. Moreover, this something will likely be welcomed by many feminist ethicists. MacIntyre believes that whatever normativity there is in a particular situation emerges out of the particular relationships that the moral agent finds herself operating in at that time and not from abstract, deontological considerations good for all agents at all times and places. Normativity, if it is to emerge at all, emerges out of the practices, traditions, and lives operating in the specific situations described in the narrative.⁶ It is this emphasis on the emergent, contextualised, and particularised nature of his ethics that earned MacIntyre the label of 'honorary woman' from Annete Baier (1992: 2). But if this insight is going to be of use to environmental ethicists then we will need to identify the particular part of the context that will supply the ecological norms. A closer look at MacIntyre's position will provides some clues. But before this, some reassurance might be necessary.

Delving deeper into MacIntyre's position at this point is likely to make some readers, especially feminist readers, a little nervous. Annette Baier's opinion notwithstanding, MacIntyre has only a tenuous claim at best to any feminist sensibilities. His language of 'traditions' seems to offer little hope for generating a progressive ethic and his turn to Thomism in *Whose Justice? Which Rationality?* seems only to confirm that the structures he had in mind are of little interest to feminists. Despite these initial worries, the framework, and in particular his key notion of a 'tradition', reveals itself to be surprisingly sensitive to a number of key environmental and key feminist concerns.

Admittedly, MacIntyre starts his discussion of traditions off in an alarming way by characterising them as predetermined structures imposed on an individual against her will from the outside. He states that '[W]hat I am, therefore, is in key part what I inherit...I find myself part of a history and...whether I like it or not, whether I recognize it or not, one of the bearers of a tradition' (1984: 221). This apparent surrender to a pre-existing structure is worrying. But as MacIntyre continues to fill out his account, he deliberately distances himself from a Burkean conception of traditions as stable and unchanging structures. He suggests that traditions are made up of a continuous conflict about their own composition. A living tradition, one that is worthy of preserving, is characterised by MacIntyre as 'an historically extended, socially embodied argument, and an argument precisely in part about the goods which constitute that tradition' (1984: 222). When a tradition becomes too conservative, which happens when it has immunised itself against both internal and external criticism, then the tradition

is dead or dying and should be rejected. A vital tradition, in contrast, has the form of a continuous debate about what it means to participate in a particular set of ideas that explain one's positionality in the world.

Given this definition of tradition as a continuous debate about which goods are worth preserving, it is clear that traditions do not have to preserve the status quo. To the contrary, they are encouraged not to. This point was recognised by Susan Okin who, in the middle of her critique of the particular traditions that MacIntyre chose, implicitly endorsed the concept of a tradition itself by suggesting that feminism is an example of a tradition, containing as it does the central structural component of the challenge to the oppression of women in addition to a number of ongoing debates about its composition (Okin 1989: 60-2). Clearly, then, as is the case with feminism, a tradition can be inclusive, emergent, and subversive to the established order.

In addition to their anti-conservative nature, MacIntyre's traditions are also friendly to many post-modern and feminist views on the socially constructed nature of our accounts of the world. He characterises tradition-constituted inquiry as anti-Hegelian due to its rejection of any pretense towards attaining absolute truth. 'Traditions are always and ineradicably to some degree local', claims MacIntyre, 'informed by particularities of language and social and natural environment...' (MacIntyre 1988: 361, emphasis added). Such a situated account of traditions suggests that MacIntyre had a view of them as indigenous social structures which reflect local conditions, needs, interests, and histories. What we know and what we claim as our tradition is often ineradicably local. This emphasis on knowledge as an indigenous practice has recently emerged with considerable persuasiveness in feminist epistemology and philosophy of science (Harding 1998). It is not as surprising as it might seem to find MacIntyre in this territory. Over two decades ago, he authored one of the most important early post-Kuhnian papers in the philosophy of science in which he characterised the progression of science as a sequence of increasingly explanatory narratives (MacIntyre 1977). His social constructivism about traditions could have been used by Baier as some further evidence of MacIntyre's credibility as an 'honorary feminist epistemologist'. It certainly puts him into a neighbourhood in which both feminist and post-modern epistemologists should feel comfortable.

If MacIntyre's concept of a tradition can be of some help, then what kind of tradition is going to usefully inform narratives that involve the environment? Any answer given here will be to some degree limited and parochial. There is no single tradition that has an exclusive claim to be uniquely capable of generating appropriate environmental attitudes. Across many cultures and ages, different traditions have supplied a range of contexts that have proved themselves capable of generating environmentally friendly attitudes. The choice of one particular tradition at this point is in no way meant to suggest that this is the best or the only tradition that can supply the right kind of norms. However, there is one tradition

that, given Rolston's and Warren's locatedness, it is particularly tempting to call upon. Both thinkers have always made a point of keeping their work as scientifically informed as they can. Rolston's articles often include detailed descriptions of cell processes and Warren has on more than one occasion used contemporary ecological theory alongside her ethic. Western science seems to be an important part of the context in which both these thinkers articulate their positions. It is certainly an important part of the context in which they live. Looking here for a tradition also has the advantage of avoiding any potential accusation of colonial thinking that might be levelled if the traditions of indigenous or minority cultures were called upon. Enough of this colonising happens in environmental ethics already. For these and other reasons, and mindful of what I hope is the harmless parochialism of this decision, I suggest that what I will label 'the ecological and evolutionary tradition' is a good place to look for some environmental norms.

4. AN ECOLOGICAL AND EVOLUTIONARY TRADITION?

Like the tradition of feminism, the socially constructed set of ideas that I will call the ecological and evolutionary tradition has proven itself to be decidedly anticonservative and anti-hierarchical. As these two sciences have evolved over the last one hundred and forty years, one of their central structural components has been that neither of them provides a justification for any form of human centredness. They are both subversive sciences, because they have systematically undercut the basis of humanity's pretensions towards superiority to the rest of nature. This central structural component of the ecological and evolutionary tradition has lead environmental thinkers such as Ynestra King and Murray Bookchin to use it as the ground from which to call for the ending of all hierarchies in culture - patriarchies, gerontocracies, ethnocentrisms - hierarchies believed to be at the root of environmental devastation. Warren herself has done as much as any feminist theorist to illustrate the kinds of bridges that can be built between feminism and ecology (Warren 1987, Warren and Cheney 1991). Through its anti-hierarchical and non-anthropocentric core, the ecological and evolutionary tradition offers support for a number of ecofeminist and environmental goals.

Though opposition to human centeredness is perhaps the structural component of the ecological and evolutionary tradition that gives it the stability it needs to count as a tradition, neither science has remained static or monolithic. Both sciences more than meet MacIntyre's criterion of 'an historically extended and socially embodied argument'. The different twists and turns that ecological and evolutionary theory have taken since their inception have been chronicled by, amongst others, Donald Worster (1977, 1990). Worster not only tracks the developments of the theories themselves but he also shows how local social and

historical values came to infuse each of the theoretical debates. Despite, or perhaps because of, these traces of social values, the science of ecology has not failed to have considerable normative force. Particular scientific conceptions of the economy of nature provided the back drop for the first few attempts at environmental ethics. According to Baird Callicott, Aldo Leopold's thinking tracked developments in ecology from Clements and Forbes superorganism concept through Charles Elton's community concept to Arthur Tansley's thermodynamic idea of an ecosystem (Callicott 1993). Leopold blended the theoretical ecology of Elton and Tansley and then added his own practical experiences in the forests of the South-west and the wasted agricultural lands of the upper mid-west to settle on an ethic for nature that has the notion of an interdependent biotic community at its heart. Rachel Carson's *Silent Spring* would likewise have been incapable of generating environmental norms without similar notions of interrelationship and interdependence which she, like Leopold, found in scientific ecology.⁷

Evolutionary theory is also characterised by a sequence of socially informed debates that are central to its normativity. Though the basic mechanism described in Darwin's Origin of the Species has more or less remained in place, evolutionary theory is far from a settled affair. Contemporary protagonists emphasise different elements of the Darwinian picture. Richard Dawkins (1976) takes the gene or 'replicator' as the central player in evolutionary theory. Stephen J. Gould and Richard Lewontin, influenced by Lewontin's Marxist historical materialism, contest Dawkin's position by increasing the emphasis placed on the role of the natural environment in presenting particular options to the organism (Gould and Lewontin 1979). Feminist evolutionary biologists such as Linda Marie Fedigan (1982), Nancy Tanner (1976), and Adrienne Zihlman (1982) have persuasively challenged the focus on 'man the hunter' in traditional evolutionary accounts. The relative importance of competition and co-operation in evolutionary theory is still up for debate. Sociobiologists have contested with anti-naturalists the bearing of evolutionary theory on ethics. Each challenge invigorates and advances the historically extended and socially embodied debate about what the evolutionary and ecological tradition actually is.

This non-hierarchical nature of both evolutionary and ecological theory is a central structural component of the tradition taken as a whole. It is this structure that serves as a valuable part of the context of any narrative that might guide our attitudes and actions towards the environment. What is distinctive about the ecological and evolutionary tradition when compared to many of the contexts typically called upon to bring normativity to narratives is that it draws on accounts of material and biological structures to supplement the social structures which usually dominate our narratives. Though our accounts of material and biological nature may never be free from the traces of all social values, an approach that takes the material seriously avoids the kind of radical social constructivism that allows any story whatsoever to be told. Taking nature

seriously reminds us to be accountable to the resilience of material reality.⁸

Including accounts of ecological and evolutionary nature in our narratives is desirable, then, both because it demands from us accountability to material reality and because it grounds our environmental norms. To leave the ecological and evolutionary considerations out of the context looks like it would be to set aside some rich resources that might enable the argumentative force of the narrative to be directed towards the well-being of the natural environment. While the ecological and evolutionary tradition is clearly not unique in this regard, it certainly sends us in the right direction.

4. RECOVERING THE NARRATIVE IN ROLSTON

Now we can return to the matter of the *rapprochement* between ecofeminist and intrinsic value approaches and to the question of how to use this *rapprochement* to press each in a more helpful direction. Earlier we uncovered the fact that both Warren and Rolston are at some level committed to the idea that ethics takes a narrative form. Since then we have used MacIntyre's argument to show that narratives need a context to have normativity and we have proposed the ecological and evolutionary tradition as a context that might foster an appropriate kind of environmental normativity. How might we apply these insights to the common ground that Rolston and Warren appeared to share?

Rolston's position called for a contextualised ethic describing an individual's storied residence in some particular place. He did not want to abstract out universals but rather set the particulars of a person's life into a narrative structure. Character, he said, 'always takes a narrative form' (Rolston 1998: 286). Even if we can think globally, we have to live our lives being locally responsible to particular relationships and situations. So he wants an 'historical geography' for the individual actor.

When we look to whether the ecological and evolutionary tradition is part of this historical geography, we find that to some degree it is. This part of Rolston's account becomes clear only if we look at his key term 'storied residence'. Close inspection reveals that this important term serves him twice. There are simultaneously two kinds of storied residence at work in his ethic. The first is the storied residence of the individual person, 'organic in history', whose life embodies a narrative structure. This is the part that Cheney admired. But the second is the storied residence of the surrounding parts of nature, those recognised as possessing intrinsic value. It is here that we find a story that includes the ecological and evolutionary tradition.

The identification of this second type of storied residence is absolutely crucial to the coherence of the notion of intrinsic value and to its ability to propel us to action. Rolston recognises this. Seventeen of the nineteen references to 'story' in the index of his classic *Environmental Ethics: Duties to and Values in*

the Natural World direct us to passages detailing this second type of storied residence. Rolston would be the first to admit that if intrinsic values were simply some kind of non-narratively understood natural property it would be hard to understand how they could generate any kind of behavioural obligation.⁹ To appreciate fully this second type of storied residence, it helps to examine intrinsic values genetically to see how Rolston thinks that they arise in nature.

DNA, Rolston has always claimed, is 'essentially a linguistic molecule' (Rolston 1988: 98). With the appearance of DNA earth gained 'memory.' Memory here means the ability to carry stories through time. Biology, Rolston points out, means literally the logic of life but there *is* no logic of life that is not historical. DNA is therefore a story teller. These are stories of how the ancestors of that organism evolved phenotypes that proved to be reproductively successful. DNA is not alone in being a story teller in nature. The same is true of glacier carved valleys and tectonic plates that have ground against each other and pressed mountains upwards. Other stories are contained in geological strata or in the tree rings of Aldo Leopold's 'good oak'. The land reveals to the knowledgeable observer the traces of the events that brought it to its current state. These histories often have to be situated geographically in the places in which they occur in order to make sense to the senses. It is biology plus geography that yields history, claims Rolston (1998: 286).

This account of nature as a story teller sets us up for the answer to the question of how the evolutionary and ecological tradition is functioning to ensure normativity for Rolston. Normativity cannot be imposed on these stories from without. Rolston states that 'philosophy can present no argument why these stories ought to have taken place...the best that I can give you is good stories and hope that you can accept them for that...we can begin to sketch nesting sets of marvelous tales' (1998: 287-8). The normativity of these 'marvelous tales' comes from the fact that these narratives are anchored in events deep in natural history, events that were taking place long before humans arrived on the scene. Though these narratives are anchored deep in the past, they also operate diachronically through the present and on into the future. This happens because genetic sets are also propositional and normative sets containing information about how things ought to be.¹⁰ According to Rolston's interpretation of the evolutionary and ecological tradition, DNA offers 'an assertion, a set task, a theme, a plan, a proposal, a project' and it is this project that supplies the normativity (1988: 98).

While the narrative that DNA supplies is enough by itself to supply normativity we need to add something to be sure that this kind of normativity is desirable and not a kind of prejudice. Rolston considers the stories of adaptive complexity contained in DNA as not just as *parts of* history but as *achievements in* history. It is the increase in the diversity of species and the adaptive complexity of each that marks their achievement. This achievement is what Rolston calls value. Recently he confirmed that '[I]t is difficult to dissociate the idea of value from

natural selection' (Rolston 2000: 82). Natural value requires the achievements of the natural selection narrative.¹¹

Intrinsic value is therefore less a thing to be discovered in nature by the Kantian, rational subject and more of an affective awakening to the existence of something.¹² This awakening occurs upon familiarity with a narrative that tells a tale of increasing adaptive complexity and diversity. Interestingly, this is a recognition that requires careful looking and listening and a visceral appreciation of ecological relationship. To get the objectivity in his position, Rolston maintains that the existence of the value itself is not dependent upon those occasions when stories of biology, ecology, and geology are told by human tellers because these tales are expressed continually in nature whether humans are present or not. Rolston might have used MacIntyre's observation that 'stories are lived before they are told' (1984: 212). MacIntyre maintained that accepting oneself as part of a pre-existing context means at least conditionally 'accepting the authority of the best standards realized so far'(1984: 190). Accepting the authority of the ecological and evolutionary tradition means, for Rolston, recognising intrinsic values in nature. It is the stories re-presented to us in evolutionary and ecological science that make visible Rolston's intrinsic values, values that are, in fact, already there.

With two types of storied residence going on simultaneously the challenge for the individual seeking to act morally becomes to integrate the first type (the individual human's storied residence) with the second type (the storied residence of the natural object that possesses intrinsic value). This is the fundamental task for those wishing to live an ecological life. While Rolston's account is generally strong on the storied residence of the second kind, he appears to pay little more than lip service to the storied residence of the first kind. Furthermore, he says little about how these different kinds of storied residence might be integrated with each other. Stridently maintaining the existence of objective, intrinsic value won't often help the individual seeking a storied residence in a culture located in Montana, Utah, Newfoundland...the tall grass prairie, or on the Cape Cod coastline. What is a person supposed to do when the story presented by the ecological and evolutionary tradition conflicts with the stories presented by one's pioneer grandparents? Rolston does not often offer much help on how to reconcile the two kinds of narrativity at work.

Not often, however, does not mean that Rolston never addresses this at all. The final chapter of *Environmental Ethics* and the 1998 article in *Philosophy and Geography* are devoted almost entirely to this question of how the first and second types of storied residence might be integrated with each other. Whether these short discussions really offer an acceptable resolution, the reader will have to decide for herself. It is certainly worth noting how little attention these efforts have received, given how essential they are for bringing the two parts of his ethic together.

In addition to these questions about whether he does an adequate job of integrating the two kinds of storied residence there is a second worry about how Rolston presents his case. The repeated emphasis on the terms 'objective, intrinsic value' has often eclipsed even the storied residence of the second kind, the one to which he devotes the most attention. This comes at a significant cost because the storied residence of the second kind is absolutely essential to the normativity of the values described. The narrative has a central role to play if the values that Rolston's finds are to influence action. Once again, the fact that Rolston spends more time defending the objectivity of natural values than he does defending the narrative basis of the ethic is perhaps more interesting as a commentary on what his readers have judged to be most controversial about his theory rather than a true reflection of how his notion of intrinsic value is supposed to work.

5. RECOVERING THE ECOLOGICAL AND EVOLUTIONARY TRADITION IN WARREN

If these are the places that Rolston's approach is found wanting, what can we say about Warren's? Warren suggested that one fitting conclusion to her narrative is that 'what counts as a proper ethical attitude toward mountains and rocks is an attitude of respect or care...not one of domination and conquest' (1990: 136). Though it is easy to agree that a proper attitude towards mountains and rocks is indeed one of respect or care, we should ask some questions about how Warren came to this normative conclusion. The narrative illustrates clearly how her caring attitude emerges out of careful attention to the particularities of the situation. The problem is that the only part of the situation that appears to be relevant to the normative conclusion she draws is her wish to climb successfully to the top of the rock face. The caring attitude differed from the conquering attitude to the rock face in this one respect; that the former enabled Warren to stay more closely engaged with the rock, make it to the top, and enjoy the experience while the latter left her scared and dangling from the belay rope. It is far from clear that this context is going to generate the right kind of behaviour in every case.

This worry about Warren's narrative has already been discussed by several critics. Roger King argues against Warren that 'we cannot give uncritical credence to the view that normative force emerges from the personal narratives of lived experience' (King 1996: 91). For whose narratives can we rely on, wonders King? The resort developer's, the agribusiness entrepreneur's, the hunter's, the tourist's, the weekend athlete's? Wendy Donner also worries about the dangers of simply expecting a narrative to do the work if 'no grounds are given for accepting that what "emerges" from the situation is indeed the "fitting conclusion" rather than just an arbitrary prejudice' (Donner 1997: 378–9). The

potential danger of relying on just any narrative to guide attitudes to the environment is well illustrated by the actions of a raft guide in Arizona. This raft guide and his accomplices, concerned that their clients were getting a diminished rafting experience, are alleged to have dynamited Quartzite Falls on Arizona's Salt River in order to ease the bottleneck that this falls created and to reduce the usual queue of rafting parties.¹³ The guide might have read just a little bit of MacIntyre and might have found himself arguing that thanks to his 'dynamiting attitude' the goods available through the recreational practice of rafting became more readily available to himself and his clients even though they may happen to have come at the cost of a few environmental qualities. His clients, he might suggest, could bring their narratives to better conclusions, take better pictures, and see fewer fellow boaters on their float. The case illustrates how an ungrounded narrator might arbitrarily select an attitude that harms rather than helps the environment.

King's worry about Warren's narrative and the example of the raft guide presses home the point that Warren ignored something important about the context that would have ensured an environmentally appropriate normative conclusion. Connecting the rock face story into the ecological and evolutionary tradition would have been a way of making secure an environmentally sensitive attitude. Did this rock face require pitons to be hammered into it? Were there nesting birds in the area? How did Warren gain access to this area? Did part of the rock face need blowing up (à la raft guide) to make it climbable? A narrative lacking any kind of ecological or evolutionary context may with luck still generate appropriate attitudes, as was the case with Warren's rock face narrative, but it could equally give free reign to unscrupulous narrators (such as the raft guide) to adopt whatever attitude they wish towards nature. While Warren is strong on the narrativity, the particularity, the embodiment, and the emergent nature of the ethic, she appears to be weak on ensuring an environmentally favourable context.

6. CONCLUSION

This analysis suggests some possible routes towards lessening the tensions between the intrinsic value and the care approaches. This rethinking is not about reducing an intrinsic value approach to a care approach or *vice versa*. Rather it is about recognising where the two approaches overlap. Both approaches rely on connections between narrative ethics and a tradition such as the ecological and evolutionary tradition. Staying focused on these connections makes it possible to avoid drawing up some rather tiresome battlelines. The debates that have followed Carol Gilligan around suggest that this is not very productive territory to enter. Those who wish to set the intrinsic value approach up in opposition to the care approach might perhaps recall that Gilligan's own intention was to have

her readers see 'the integrity of two disparate modes of experience that are in the end connected' (1993: 174).

One of the upshots of this interpretation for Rolston is that while he can retain the commitment to the ontological reality of values intrinsic to nature and to natural processes he should start to de-emphasise his insistence on intrinsic values as non-relational, objective, natural properties. In an ethic that relies so heavily on narrativity there is simply no room for a non-relational property. His commitment to the first kind of storied residence, the one that Cheney admired, more or less admits as much. This shift in emphasis would be a helpful concession not only for ecofeminists but also for post-modern epistemologists who have learned to treat most objectivity claims with caution. In its place, he should put more emphasis on how intrinsic values make sense only when seen to emerge as part of a narrative about evolution and ecology. Rolston could also show more carefully how it is not just objects of intrinsic value that enjoy a storied residence but also human moral agents. The storied residence that human moral agents enjoy makes deciding how to act a complex matter of integrating stories about both culture and nature and not a matter of simple obedience to the dictates of natural value.

For Warren, this interpretation suggests that one way that the appropriate normativity can be ensured in her narratives would be to locate them relative to the contested evolutionary and ecological tradition.¹⁴ As already pointed out, in other places Warren has been particularly sensitive to the good uses to which this tradition can be put by feminists (Warren 1987, Warren and Cheney 1991). But to ignore this tradition as she does in the rock face narrative is to risk narrators who continually create for themselves life stories at odds with environmental well being. The evolutionary and ecological context ensures that the structural resilience of the physical world can be brought to bear on a socially situated, narrative ethic.

The undergraduate student's basic insight that there is common ground between Warren and Rolston proves itself to be at least partially correct. By focusing on the emphasis that each places on narrativity and by elevating the normative significance of the ecological and evolutionary tradition in this narrative, some productive ways of transforming each approach emerge. In both cases we get normativity by placing ourselves into the narrative context and dwelling on the kind of guidance offered by the ecological and evolutionary traditions. Another way of writing narratives about human actions in nature would be to let the expressions of care and of value slip further into the background and to bring to the foreground the 'nesting sets of marvelous tales' that emphasise the diversity of life generated by natural processes. I close with an example of what such a narrative about recreation might look like.

By now, 7 miles into the ride, I had settled into an easy rhythm. My fingers curled tightly around handle bars slippery with sweat, my thighs pressed torque into the

cranks, and my helmeted head bobbed rhythmically from side to side with each downward stroke of the pedals. My lungs worked willingly, sucking and pulling the creek-cooled air across a million oxygen-grabbing membranes. Beneath me, two knobbly tires squeezed crunching testaments to velocity out of the pebbles of the Rattlesnake Valley. Robins scattered on every side of my obtrusive trajectory through this place. For several miles now, young douglas firs and ponderosa pines trailside had reached out and brushed my forearms, touching me, distracting me, and trying repeatedly to alert me to something.

Finally I noticed. I sat up from my hunched over position, stopped pedalling and coasted gently to a stop. I leant my bike carefully against a cotton wood tree and took a few paces over to the stream bank where I stood amongst glacier lilies, breathing hard for several seconds. I took a deep, slow, and cleansing breath. I looked all around me – really looked – and listened.

In a moment the Rattlesnake shifted from scenery to a personality. The valley and I began to engage with each other. A cloud of no-see-ums came to enjoy my scent and the robins stopped leaving. The creek changed from a strip of indistinct sound into a thousand braided characters, with falls and pools created by logjams and gravel bars, each brimming with descriptions of places and events beyond my knowing. Snowmelt pressed the creek into nooks it visits maybe once a year, teasing novel configurations out of water and land. Liquid fingers probed gently, finding nutrients to claim for their own. The land gave these up grudgingly, while the creek whisked them off to the Clark Fork River below. Trout made shadows that only the corners of my eyes were discerning enough to see as they explored newly exposed edges for insects toppled into cold water. I crossed part of the creek over a fallen cottonwood tree, now sending shoots up at 90 degrees to the direction it grew for the first one hundred and twenty years of its life, making new relationships possible in its unforeseen recline.

Now on one of several islands in the middle of Rattlesnake Creek, I found myself immersed in a bustling community of both the biotic and the abiotic. A kingfisher rattled noisily up stream to resume its water watching from a more comfortable distance. An osprey sat on a snag tearing at its still dripping prey, turning piscine protein into avian muscle. I could smell the profusion that is a subalpine springtime in the dense evening air. I felt it on my skin. It pressed against my ears and worked its way into my hair. I was surrounded by life stories and stories of life...old stories, decaying stories, emerging soft green stories, stories encased in rocks, and the nervous beginnings of new stories poking up around my feet. Now in late April, the older willows and alders on the stream bank were beginning to pick up where they had left off in the fall. If I watched closely enough, if I really watched, I could see the miraculous generativity of this one place at work as it prodded elements and minerals into new arrangements, arrangements capable of beginning fresh sets of marvelous tales. All it takes to witness these things going on is a certain kind of openness. It is, after all, just a form of listening.

NOTES

¹ See Lori Gruen's 'Re-Valuing Nature,' Val Plumwood's 'Nature Self, and Gender: Feminism, Environmental Philosophy and the Critique of Rationalism,' and Marti Kheel's presentation at the Ecofeminism Conference at the University of Montana, Missoula, April 1998 (Kheel 1999).

²I am deeply aware of how problematic it is to use Jim Cheney's words to suggest an ecofeminist sympathy with Rolston's position. Deborah Slicer (1995), amongst others, has pointed out her frustration with the practice of male authors using men's voice to characterise an ecofeminist position. I hope that the recklessness of this move can be partially mitigated by pointing out that I am in no way trying to claim that Cheney represents even a fraction of all ecofeminist voices, only that his is *an* ecofeminist voice and that his own work and the work he has done with Karen Warren is usually fairly well regarded. I have seen little other ecofeminist support for Rolston's position in print, though I have heard it expressed on several occasions verbally. Ecofeminisms are multiple and this paper is not intended to approach them reductively. But it *is* intended to pick up on some common ground where I see it and to try to say something helpful about that ground.

³ See, for example, Martha Nussbaum's *Love's Knowledge: Essays on Philosophy and Literature* and Alasdair MacIntyre's *After Virtue*. Though this paper does draw heavily on the narrative approach to ethics, I will not be arguing the case for narrative ethics here in any detail.

⁴ It is important to say 'better conclusions' in the plural. An ecofeminist analysis will shrink from the idea of a single determinate conclusion to every narrative. The situational nature of ecofeminist ethics demands a particular flexibility and openness to conclusions emerging from specific contexts. However, this openness cannot be completely unconstrained. Warren makes it clear earlier in the article that conclusions that rest upon logics of domination and control are not permissable.

⁵ See After Virtue Chapters 14 and 15.

⁶ It should perhaps be pointed out that the kind of normativity that MacIntyre is after are not rules for how to act in particular circumstances but certain virtues of character that are essential for meeting the demands of the context. Reversing the order of the Enlightenment picture, MacIntyre claims that 'we need to attend to *virtues* in the first place in order to understand the function and authority of rules' (1984: 119). The emphasis on virtues rather than rules steers the ethic away from unwelcome deontological approaches.

⁷ In *Silent Spring*, Carson acknowledges debts to evolutionary and ecological scientists such as Elton, Maurice Brooks, Darwin, Dr. James DeWitt, Mrs. Thomas Waller and many others.

⁸ There is an important point in here about how the natural and the cultural interact in informing our accounts of the world. The need to ground analysis in something more than just the social context has already been pointed out by Carol Bigwood. Bigwood notes, for example, of Judith Butler's post-structuralist analysis that 'what is most disturbing and dangerous...is its complete abandonment of nature and support of purely cultural determinants in the construction of gender' (Bigwood 1991: 59). See also Preston (2000). ⁹ It is the failure to recognise the narrative nature of the obligations that intrinsic values generate that has lead to allegations that the notion is impotent. See Bryan Norton's

'Epistemology and Environmental Values' (1992) and Lori Gruen's 'Re-valuing Nature' (1997) for examples of this criticism.

¹⁰ In response to those that might object on the grounds of a naturalistic fallacy, Rolston claims that 'here an *ought* is not so much *derived* from an *is* as discovered simultaneously with it' (1988: 232).

¹¹This is a good moment to note that adaptive complexity in the evolutionary context need not convey any hierarchical connotations. Adaptive complexity is simply a description of a quality that enables multi-cellular organisms to attain an evolutionary fit with their environments. There are no necessary hierarchical conclusions to be drawn from facts about how the desert pupfish has adapted to one environment and how the arctic fox has adapted to quite another. Though the notion of adaptive complexity need not convey any hierarchical connotations, it is fair to say that for Rolston it appears to do so. It is at this point that some followers of the intrinsic value approach might find themselves parting company with Rolston. The elevation of the human species by Rolston to nature's richest achievement is clearly hierarchical.

¹² It is interesting to note that Kant himself was very slippery about whether respect was a feeling or a cognitive state. In a crucial footnote in his *Grounding to a Metaphysics of Morals*, he seems unable to convincingly deny an affective element to respect. He concedes 'there may be brought against me here an objection that I take refuge behind the word respect in an obscure feeling'. His response to the objection fails to make a convincing case that respect is, in Plumwood's words, 'purely a cognitive matter'. See Kant (1981: 14, footnote 14)).

¹³ See 'Eight Charged with Bombing a River,' *High Country News*, vol.26, no.20 (31 October 1994).

¹⁴ I should point out again that there are other ways to situate a narrative so that it generates an environmentally beneficial attitude. However, it seems that situating relative to the ecological and evolutionary tradition is often a reliable way of ensuring an environmentally desirable result.

REFERENCES

Baier, Annete 1994. *Moral Prejudices*. Cambridge, MA: Harvard University Press. Bookchin, Murray 1982. *The Ecology of Freedom*. Palo Alto, CA: Chesire Books

Bigwood, Carol 1991. 'Renaturalizing the Body (with the Help of Merleau-Ponty)', *Hypatia* **6**: 54–73.

Brennan, Samantha 1999. 'Recent Work in Feminist Ethics', Ethics 109(4): 858-891.

Callicott, J. Baird 1988. 'The Conceptual Foundations of the Land Ethic' in J.B. Callicott (ed.) *Companion to a Sand County Almanac: Interpretive and Critical Essays.* Madison: University of Wisconsin Press

Card, Claudia (ed.) 1991. Feminist Ethics. Lawrence: University Press Kansas.

Carson, Rachael 1962. Silent Spring. New York: Houghton Mifflin.

Cheney, Jim 1987. 'Ecofeminism and Deep Ecology', *Environmental Ethics* **9**: 115–145. Dawkins, Richard 1976. *The Selfish Gene*. New York: Oxford University Press.

- Donner, Wendy 1997. 'Self and Community in Environmental Ethics', in K.Warren (ed.) *Ecofeminism: Women Culture and Nature*, pp. 375–389. Bloomington: Indiana University Press.
- Fedigan, Linda Marie 1982. *Primate Paradigms: Sex and Social Bonds*. Montreal: Eden Press.

Gilligan, Carol 1993. In a Different Voice. Cambridge, MA: Harvard University Press.

- Gould, Stephen and Richard Lewontin 1979. 'The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Program', *Proceedings of the Royal Society of London* **B205**: 581–598.
- Gruen, Lori 1997. 'Revaluing Nature', in K. Warren (ed.) *Ecofeminism: Women, Culture, and Nature.* Bloomington: Indiana University Press.
- Hampton, Jean 1993. 'Feminist Contractarianism', in L. Anthony and C. Witt (eds) A Mind of One's Own, pp. 227–256. Boulder, CO: Westview Press.
- Jagger, Alison 1991. 'Feminist Ethics: Problems, Projects, Problems', in C. Card (ed.) Feminist Ethics, pp. 78–106. Lawrence, KY: University Press of Kansas.
- Kant, Immanuel 1981 [1785]. *Grounding for the Metaphysics of Morals*. Translated by James Ellington. Indianapolis: Hacket Publishing.
- Kheel, Marti 1999. 'The Hidden Hostility in Holism: An Ecofeminist Critique', *Ethics and the Environment* **4**(2): 123–153.
- King, Roger 1996. 'Caring About Nature: Feminist Ethics and the Environment', in K. Warren (ed.) *Ecological Feminist Philosophies*. Bloomington: Indiana University Press.
- King, Ynestra 1983. 'Towards an Ecological Feminism and a Feminist Ecology', in J. Rothschild (ed.) *Machina Ex Dea: Feminist Perspectives on Technology*. New York: Pergamon.
- Leopold, Aldo 1949. A Sand County Almanac. Oxford: Oxford University Press.
- MacIntyre, Alasdair 1977. 'Epistemological Crises, Dramatic Narrative, and the Philosophy of Science', *The Monist* 69: 453–472.
- MacIntyre, Alasdair 1984. *After Virtue* (2nd Edition). Notre Dame, IN: University of Notre Dame Press.
- MacIntyre, Alasdair 1988. *Whose Justice? Which Rationality?* Notre Dame, IN: University of Notre Dame Press.
- Minow, Martha 1990. *Making all the Difference: Inclusion, Exclusion, and American Law.* Ithaca, NY: Cornell University Press
- Norton, Bryan 1992. 'Epistemology and Environmental Values', *The Monist* **75**(2): 208–226.
- Nussbaum, Martha 1992. Love's Knowledge: Essays on Philosophy and Literature. Oxford: Oxford University Press.
- Okin, Susan Miller 1989. Justice, Gender, and the Family. New York: Basic Books.
- Plumwood, Val 1991. 'Nature, Self, and Gender: Feminism, Environmental Philosophy, and the Critique of Rationalism', *Hypatia* 6: 3–27.
- Plumwood, Val 1993. Feminism and the Mastery of Nature. London: Routledge.
- Preston, Christopher 2000. 'Conversing with Nature in a Post-Modern Epistemological Framework', *Environmental Ethics* 22: 227–240.
- Rolston, Holmes 1988. *Environmental Ethics: Duties to and Values in the Natural World*. Philadelphia: Temple University Press.
- Rolston, Holmes 1998. 'Down to Earth: Persons in Place in Natural History', in A. Light and J. Smith (eds) *Philosophy and Geography* III, pp. 285–296.

- Rolston, Holmes 2000. 'Naturalizing Values: Organisms and Species', in L.Pojman (ed.) *Environmental Ethics: Readings in Theory and Application* 3rd Edition. Belmont, CA: Wadsworth
- Slicer, Deborah 1995. 'Is there an Ecofeminism Deep Ecology "Debate"?' Environmental Ethics 17: 151–169
- Tanner, Nancy 1976. On Becoming Human. Cambridge: Cambridge University Press.
- Warren, Karen 1987. 'Feminism and Ecology: Making Connections', *Environmental Ethics* **9**: 3–20.
- Warren, Karen 1990. 'The Power and Promise of Ecological Feminism', *Environmental Ethics* **12**: 125–146.
- Warren, Karen and Jim Cheney 1991. 'Ecological Feminism and Ecosystem Ecology', *Hypatia* 6: 179–197.
- Worster, Donald 1977. Nature's Economy. A History of Ecological Ideas. Cambridge: Cambridge University Press.
- Worster, Donald 1990. 'The Ecology of Order and Chaos', *Environmental History Review* SP/SU: 1–18.
- Zihlman, Adrienne 1981. 'Women and Shapers of Human Adaptation', in F.Dahlberg (ed.) *Woman the Gatherer*. New Haven: Yale University Press.