Online Ethics Center
FOR ENGINEERING AND SCIENCE

Rachel Carson's Environmental Ethics

Author(s)

Philip Cafaro

Description

This essay by Philip Cafaro discusses Carson's environmental philosophy and asks the questions -- what are the 'foundations' of Rachel Carson's environmental ethics? Otherwise put: how does she justify her three main evaluative premises (or her two controversial ones, concern for human health presumably needing no justification)?

Body

Introduction

Rachel Carson has been called the founder of the U.S. environmental movement, which some date, plausibly, to the publication of *Silent Spring* in 1962. That best-

selling book focused public attention on the problem of pesticide and other chemical pollution, and led to such landmark legislation as the U.S. Clean Water Act and the banning of DDT in many countries throughout the world. Whatever Carson's arguments were in *Silent Spring*, they succeeded. Yet she has received little attention from environmental ethicists.1

I believe Rachel Carson was not just a successful polemicist, but an important environmental thinker. With the recent publication of a definitive biography, Linda Lear's *Rachel Carson: Witness for Nature*, we can better understand her environmental philosophy, for Carson lived that philosophy as well as wrote about it. 2 Meeting Carson the scientist and naturalist clarifies her understanding of the role knowledge can play in a larger relationship to nature. Studying her fifteen-year career as a U.S. Fish and Wildlife Service biologist gives valuable insight into her views on practical conservation issues. Carson's personal story teaches us much about humility and courage, as she triumphed over various setbacks and achieved great literary success, while faithfully discharging her many responsibilities to family, friends, and nature. Still, in order to best understand Carson's environmental ethics, the place to start is with her final work, *Silent Spring*.

Back to Top

Silent Spring

Silent Spring constitutes an extended argument for strictly limiting the use of pesticides, herbicides, and other dangerous agricultural and industrial chemicals, and for their careful application and safe disposal when such use is necessary. This argument rests on both factual and evaluative premises. Factually, *Silent Spring's* case rests on numerous scientific and anecdotal accounts of the abuse of these chemicals. It also rests on such easy-to-establish facts as companies' common failure to test products' effects on humans and non-humans, users' frequent negligence in following instructions for applying agricultural chemicals, and the weakness and lack of enforcement of government regulations. Carson's clear presentation of such facts, and of the basic science needed to understand the issues, gave her book its authority. Carson's scientific credentials had already been firmly established in earlier works which had popularized recent developments in oceanography and marine biology. Without Carson's scientific credibility and

impressive presentation of "the facts", *Silent Spring* would not have won such a large hearing.3

Nevertheless, evaluative or ethical premises were equally important to Carson's overall position. She avoided complicated ethical argument in *Silent Spring*, perhaps believing that the ethical issues really were quite simple. More likely, Carson reasoned that simple appeals to widely held values would be more convincing. In any case, *Silent Spring* is filled with short, emphatic ethical statements and arguments. Evaluatively (and somewhat schematically) its plea for restraint rests on a triple foundation of human health considerations, the moral considerability of non-human beings, and the value to humans of preserving wild nature and a diverse and varied landscape.

Doubtless most important for many readers were Carson's chapters on acute pesticide poisoning, and these chemicals potential to cause cancer and human birth defects. For these readers Carson states the moral clearly: 'Man, however much he may like to pretend the contrary, is part of nature. [He cannot] escape a pollution that is now so thoroughly distributed throughout the world'.4Examples of human sicknesses and fatalities caused by inappropriate use of chemicals recur throughout the book.

Carson was acutely aware of the importance of good health, having suffered a variety of serious illnesses over the years. In fact, she was dying of cancer as she finished *Silent Spring*. Yet in writing the book, she seems to have been more concerned with the destruction of wild nature and its resultant human loss. In her acknowledgments, she writes that it was a letter from a birdwatcher, who 'told me of her own bitter experience of a small world made lifeless' by pesticide poisoning, which 'brought my attention sharply back to a problem with which I had long been concerned. I then realized I must write this book'.5 Carson told Life magazine: 'I wrote [*Silent Spring*] because I think there is a great danger that the next generation will have no chance to know nature as we do'. In a letter to her best friend she wrote: 'I told you once that if I kept silent I could never again listen to a veery's song without overwhelming self-reproach'.6

Silent Spring clearly shows Rachel Carson's concern for all of life, human and non-human. Many of its arguments explicitly assert or implicitly rely on the moral considerability of non-human beings. For example, she recounts a massive dieldrin spraying program to eradicate Japanese beetles in and around Sheldon, Illinois.

Robins, meadowlarks, pheasants and other birds were virtually wiped out; so were squirrels. Amazingly, ninety per cent of area farm cats were killed during the first season of spraying. 'Incidents like the eastern Illinois spraying', Carson reflected:

> raise a question that is not only scientific but moral. The question is whether any civilization can wage relentless war on life without destroying itself, and without losing the right to be called civilized . . . These creatures [wild and domestic] are innocent of any harm to man. Indeed, by their very existence they and their fellows make his life more pleasant. Yet he rewards them with a death that is not only sudden but horrible.Carson goes on to describe the ghastly convulsions observed in poisoned birds at Sheldon, and concludes:

By acquiescing in an act that can cause such suffering to a living creature, who among us is not diminished as a human being?[7]

This passage clearly implies moral considerability on the animals' part and moral responsibility on our part. Both inflicting unnecessary suffering and causing unnecessary loss of non-human life are morally wrong. A fully human being is a humane being, feeling compassion for the suffering of others. A true civilization does not dominate or destroy the non-human world; it protects and seeks to understand it.

In another section, Carson fights the common prejudice against insects by explaining to her readers the important role of honeybees, wild bees and other pollinators in natural and human economies. 'These insects', she concludes:

> so essential to our agriculture and indeed to our landscape as we know it, deserve something better from us than the senseless destruction of their habitat.[8]

Here again, the notion of desert clearly implies moral considerability. Similar examples could be multiplied many times. They are not usually found pure--that is, Carson does not assert non-human moral considerability regardless of, or in contrast to, human self-interest. Instead, as in the examples above, she asserts non-human moral considerability and asserts that our selfish human interests practically harmonize with its recognition.

Our interests and their interests largely coincide -- for two reasons. First, we inhabit the same environment. Hence we cannot poison other animals without poisoning ourselves. Second, preserving wild nature helps promote human happiness and flourishing. Carson approvingly quotes ecologist Paul Shepard and U.S. Supreme Court Justice William O. Douglas on the aesthetic value and intellectual stimulation provided by wildlife, wild places, and a diverse and varied landscape.[9] She also adds her own arguments:

> To the bird watcher, the suburbanite who derives joy from birds in his garden, the hunter, the fisherman or the explorer of wild regions, anything that destroys the wildlife of an area for even a single year has deprived him of pleasure to which he has a legitimate right.
>
> Over increasingly large areas of the United States, spring now comes unheralded by the return of the birds, and the early mornings are strangely silent where once they were filled with the beauty of bird song...Can anyone imagine anything so cheerless and dreary as a springtime without a robin's song?
>
> Who has decided -- who has the right to decide -- for the countless legions of people who were not consulted that the supreme value is a world without insects, even though it be also a sterile world ungraced by the curving wing of a bird in flight. The decision is that of the authoritarian temporarily entrusted with power; he has made it during a moment of inattention by millions to whom beauty and the ordered world of nature still have a meaning that is deep and imperative.[10]

Pleasure, adventure, beauty, grace, even meaning -- all these may be driven from our world along with the "target organisms", impoverishing our own lives. A *Silent Spring* is a season of loss to us and to them, the losses inseparably linked. As she finished *Silent Spring*, Rachel Carson was planning her next book: a guide to help parents explore nature with their children, tentatively titled *Help Your Child to Wonder*. [11]

What is the relative importance of these three main evaluative premises -- preserve human health! respect the moral considerability of non-human beings! promote human happiness and flourishing! -- in *Silent Spring*? I see no evidence that one was any more important than another to Carson's main argument. The book's title

suggests, perhaps, that Carson herself was motivated more by the latter two premises, with human health concerns secondary. This impression is strengthened when we recall that her previous books were works of natural history which did not deal with human health issues. Nevertheless, health is necessary for happiness and flourishing, and human health considerations play a prominent part in *Silent Spring*. Given their ubiquity and interrelatedness, it seems best to say that all three premises are crucial to Rachel Carson's environmental ethics. They are the three strong legs of an environmental ethics in which a healthy, diverse environment provides the wherewithal for human and non-human flourishing.

Carson's critics often tried to drive a wedge between these three ethical premises, forcing her to acknowledge cases where various human interests, and especially human and non-human interests, were at odds. As a bit of doggerel in an information packet from the National Pest Control Association had it:

> Hunger, hunger, are you listening,
>
> To the words from Rachel's pen?
>
> Words which taken at face value,
>
> Place lives of birds 'bove those of men.12

Many critics argued that DDT was necessary to prevent mosquito born diseases and increase harvests in developing nations.13 Here the question of this necessity became important (were there other ways to accomplish these important goals?) along with a complete reckoning of the actual effects of using these chemicals. Carson generally steered clear of the ethical question of how to balance human and non-human interests. She probably believed that she stood a better chance of moving society toward safer, reduced pesticide use by emphasizing the common dangers pesticides posed to humans and non-humans. In her own life, however, she often went considerably out of her way to avoid harming non-human beings, carefully returning microscopic tide pool specimens to the ocean after studying them, for example.14

Similarly, Carson criticized the increasing simplification and sterility of modern farm and suburban landscapes, pointing out a human cost to such dullness. Her opponents countered that this was the cost of progress and prosperity, in effect

arguing that increased wealth and productivity were more important than the merely aesthetic values appreciated by birdwatchers. 'We can live without birds and animals', reflected one correspondent, 'but, as the current market slump shows, we cannot live without business'.15 Once again, Carson preferred to argue that the choice -- birds or business -- was a false one, in most cases. But she also stood up strongly for the importance of non-economic values in a truly human life; particularly the appreciation of beauty, the search for knowledge, and the achievement of wisdom.16 Such values were important to many of her readers, she believed, and if they weren't, they should be. As for herself, she found birds more essential than banknotes to her happiness.17

In general, Carson (and legions of environmentalists to come) emphasized the complementarity in the great majority of cases of the three basic goals of protecting human health, preserving non-human life, and promoting human flourishing. She shone a spotlight on the selfishness and short-sightedness which so often undermined all three goals. Meanwhile, in trying to move her society toward greater recognition of non-human interests and higher human interests, Carson developed an environmental ethics with both non-anthropocentric and enlightened anthropocentric elements. While *Silent Spring* shows how these two aspects may 'converge' regarding an important public policy issue, Carson's own life, dedicated to knowing and appreciating nature, shows how they converge at the personal level.18 Recognition of the intrinsic value of non-human beings provides benefits that outweigh the restrictions such recognition places upon us. So too, a nobler view of human life -- one focused on friendship, the pursuit of knowledge and a rich experience, rather than on getting and spending -- should lead to less environmentally destructive lifestyles. The lives of the great naturalists -- including Rachel Carson's -- suggest that we really will live better lives when we do right by nature.19

As philosophers, we are inclined to ask: what are the 'foundations' of Rachel Carson's environmental ethics? Otherwise put: how does she justify her three main evaluative premises (or her two controversial ones, concern for human health presumably needing no justification)? Clearly, meta-ethical reflection would have been out of place in a popular work like *Silent Spring*, but I have found little evidence that Carson gave sustained attention to this issue elsewhere. Perhaps she believed that people who understood and experienced wild nature would come to accept its moral considerability and its continued importance to human happiness and

flourishing, and that philosophical arguments could add little to such understanding and experience. Perhaps she believed that by implying such general ethical principles as "cause no unnecessary suffering" or "preserve opportunities for human knowledge and experience", she was resting on ethical ultimates which were beyond justification.

In *Silent Spring* Carson describes poisoned ground squirrels whose attitudes in death -- backs bowed, mouths filled with dirt from biting the ground -- suggest they died in agony. She adds the simple reflection that causing such suffering diminishes us as human beings. She pictures a varied and beautiful roadside filled with bright flowers and buzzing insects, then the same after spraying, a dull, sere, silent wasteland. Now, she writes, it is 'something to be traversed quickly, a sight to be endured with one's mind closed to thoughts of the sterile and hideous world we are letting our technicians make'.20 Carson could paint such pictures and draw such obvious morals for her readers. In her earlier natural history writings, she helped hundreds of thousands of people to recognize new plants and animals and appreciate what they were seeing. She could create or enhance a mood before nature of wonder, appreciation, or reverence. But more than that she could not do. Without a personal experience of these things, there is no is from which to move to the moral ought. With such experience, the movement from is to ought is typically accomplished. Let the philosopher who can better explain this process do so!

Another intriguing question remains at the foundational level: the role that religion or spirituality played in grounding Carson's personal environmental ethic. *Silent Spring* is dedicated to Albert Schweitzer and Carson's biographer, Linda Lear, reports that a handwritten letter and inscribed portrait from Schweitzer were Carson's most prized possessions in her last years. In her foreword to Ruth Harrison's Animal Machines, a pioneering work in the animal welfare movement, Carson wrote of the need for a 'Schweitzerian ethic that embraces decent consideration for all living creatures--a true reverence for life'. Carson's previous best-seller *The Edge of the Sea* shows flashes of a genuine if unobtrusive spiritual sensibility; particularly in its final, stirring paean to 'the enduring sea' and 'the ultimate mystery of life', but also in its appreciation of the 'fragile beauty' of small, transient, individual life-forms.21 Paul Brooks, Carson's friend and long-time editor, wrote that Carson 'felt a spiritual as well as physical closeness to the individual creatures about whom she wrote' and asserted that 'her attitude toward the natural world was that of a deeply religious person'.22

Still, I think the importance of religion and spirituality to Carson's environmental ethics can be exaggerated. She clearly had moments of spiritual epiphany, but Carson's more usual posture before nature, in her books and in her life, seems to have been appreciation and interest. Reverence, respect, and appreciation are not three names for the same thing. Appeals to a proper reverence may have strong rhetorical and logical force, when addressed to believers, but Carson uses them sparingly in her books. Carson did write to a friend that the 'Reverence-for-Life philosophy is of course somewhat like my own', and other approving references to Schweitzer are scattered throughout her writings and correspondence.23 But it could be that for her, the word "reverence" captures an ascription of high value or intrinsic value, rather than an essentially religious view of the world. Too, Carson always puts the emphasis on life rather than on any putative creator. She certainly had little interest in orthodox religious doctrine.

Rachel Carson received many awards for writing *Silent Spring*. In accepting the Schweitzer medal of the Animal Welfare Institute, she said: 'I can think of no award that would have more meaning for me or that would touch me more deeply than this one, coupled as it is with the name of Albert Schweitzer'. After discussing the account of how he first formulated his cardinal principle of 'reverence for life', Carson continued:

> In his various writings, we may read Dr. Schweitzer's philosophical interpretations of that phrase. But to many of us, the truest understanding of Reverence for Life comes, as it did to him, from some personal experience, perhaps the sudden, unexpected sight of a wild creature, perhaps some experience with a pet. Whatever it may be, it is something that takes us out of ourselves, that makes us aware of other life. From my own memories, I think of the sight of a small crab alone on a dark beach at night, a small and fragile being waiting at the edge of the roaring surf, yet so perfectly at home in its world. To me it seemed a symbol of life, and of the way life has adjusted to the forces of its physical environment. Or I think of a morning when I stood in a North Carolina marsh at sunrise, watching flock after flock of Canada geese rise from resting places at the edge of a lake and pass low overhead. In that orange light, their plumage was like brown velvet. Or I have found that deep awareness of life and its meaning in the eyes of a beloved cat.24

Here the focus is clearly on experience, rather than on philosophical principles or religious doctrine.

Perhaps it is most accurate to say that Rachel Carson embraced nature in all its manifestations, from the small to the grand and from the scientific to the mystical. These experiences and interactions seem to have motivated her own powerful concern and effective action on behalf of nature. Ultimately, I think, her ethical foundation is experiential. Aesthetic, intellectual, sensual, imaginative, personal experience grounds ethical judgments and action. In the main, Carson's writings are concerned to facilitate such experiences, rather than to argue for particular ethical positions. They certainly do not argue for particular religious beliefs.25

Three further themes round out the ethical argument of *Silent Spring*. First, Carson's disapproval of economism -- the overvaluation or exclusive focus on economic goals and pursuits. Second, her criticisms of a human 'war on nature'. Third, her warnings concerning the increased artificiality and simplification of the landscape.

Carson criticized the age as one 'in which the right to make a dollar at whatever cost is seldom challenged'. Corporations and individuals make 'insatiable demands' on the land, while commercial advertising lulls the users of dangerous chemicals into a false sense of security. Non-economic values and interests are routinely sacrificed to economic ones, while the 'true costs' of chemical spraying, including costs that cannot be measured in dollars, are left uncounted.26 Worst of all, people lose the ability to see the land and its natural communities for what they are, to learn their stories and appreciate their beauty and complexity. Instead nature is reduced to natural resources -- both in our minds and on the ground -- which humans may fully engross or utterly change, without compunction. Carson believed that conservation had to take economic reality into account, including the need to feed and protect growing numbers of human beings; hence her many suggestions for alternatives to chemical control and safer means of applying chemicals, when necessary. But she also saw the failure to recognize non-economic realities as a denial of our full humanity. Like the failure to prevent unnecessary suffering, the failure to understand and appreciate nature lessened our stature as human beings.

Carson was equally uncompromising in her criticism of what she saw as a 'needless war' on nature. Again and again, she decries the desire for domination in back of much of the use of agricultural chemicals.27 She saw a reveling in power for its own sake and a will to simplify the landscape in order to control it. But 'the "control of

nature"', she concluded *Silent Spring*:

> is a phrase conceived in arrogance, born of the Neanderthal age of biology and philosophy, when it was supposed that nature exists for the convenience of man . . . [The] extraordinary capacities of life have been ignored by the practitioners of chemical control who have brought to their task . . . no humility before the vast forces with which they tamper.[28]

Speaking directly to millions of Americans on the television show 'CBS Reports' a few months before her death, she repeated the message:

> We still talk in terms of conquest . . . I think we're challenged, as mankind has never been challenged before, to prove our maturity and our mastery, not of nature but of ourselves.[29]

Carson doubted that human beings would find peace among themselves without first making peace with nature.[30]

Finally, Carson spoke out against artificiality and simplification: on farms, forests and rangelands, as well as towns, suburbs and highway margins. Anticipating our own contemporary concern for the preservation of biodiversity, Carson quotes ecologist Charles Elton, that 'the key to a healthy plant or animal community lies in . . . the conservation of variety'.[31]Such conservation of variety, particularly at the local level, is also the key to preserving human opportunities to know and enjoy nature. Carson insists that all native species have a right to persist in their environments--not just the ones human beings find attractive or useful. And while we must manage and change much of the landscape to suit our needs, some areas should be left wild, free from human artifice and control.[32]

These three critiques -- of economism, domination, and artificialization -- come together in Carson's criticism of government efforts to wipe out sagebrush in the western United States.[33] In an attempt to 'satisfy the insatiable demands of the cattle-men for more grazing land', millions of acres of sagebrush were sprayed with herbicides yearly during the 1950s and 60s, in order to replace sage with grass. Carson asserts that even from an economic point of view, this is a dubious attempt, since the costs of the spraying program are immense and the sagelands are already being utilized for grazing. More important, though, the sage belongs on the

landscape. Well-suited to the arid climate west of the hundredth meridian, through a long process of competition sage has come to dominate large portions of the landscape, and many native birds and mammals have come to depend on the sage. Eradicate the sage and the sage grouse and antelope will dwindle or disappear. 'The land will be poorer for the destruction of the wild things that belong to it'. So will its human inhabitants -- whether they know it or not.

Once again, Carson does not provide elaborate arguments to justify the moral considerability of these wild species and natural communities, or the value, to us, of knowing and appreciating them. A true teacher, she knows that she cannot prove the superiority of knowledge over ignorance. But she can make the pursuit of knowledge attractive. Once her readers know and experience that of which she speaks, she is convinced, they will value it. 'The natural landscape is eloquent of the interplay of forces that have created it', Carson writes. 'It is spread before us like the pages of an open book in which we can read why the land is what it is, and why we should preserve its integrity. But the pages lie unread'.34 That is the problem. Before we can appreciate ethical arguments for its preservation, we must appreciate wild nature itself, and we cannot appreciate what we have not seen, experienced, or at least imagined. Like a long line of naturalist/conservationists before her, then, Rachel Carson worked to teach us to read in the book of nature. In turning to her earlier natural history writings, we gain a fuller understanding of her environmental ethics.

Back to Top

Non-Anthropocentrism

Today Rachel Carson is primarily known for *Silent Spring*. But that was her fourth book to make the New York Times bestseller list. Carson's natural history writings -- *Under the Sea-Wind* (1941), the number one best-seller *The Sea Around Us* (1951/1961) and *The Edge of the Sea* (1955) -- explored the astounding diversity of littoral and marine ecosystems. She took readers to some of the wildest and hardest to imagine places on earth: Arctic tundra in the grip of winter; the weird, dark depths of the ocean; microscopic planktonic worlds. Just as surely, Carson uncovered the many details of nature close to hand: the fishing techniques of herons and skimmers; the fine structures and hidden beauties of jellyfish. She was also a great

explainer of relationships and connections. 'It is now clear that in the sea nothing lives to itself', she wrote, and what holds true in the sea holds true throughout the biosphere.35

This oft-repeated message resounds somewhat ominously in *Silent Spring*, but even here Carson's clear message is that life's complexity and interconnections are cause for appreciation and celebration, if also for restraint. 'One might easily suppose', she wrote in an earlier book, 'that nothing at all lived in or on or under these waters of the seaÕs edge', but by its end we know differently, and we come to the edge of the sea with new eyes, a better sense of 'the spectacle of life in all its varied manifestations', and a desire to learn more.36 Carson never doubted that increased knowledge was more precious than increased material wealth, or that a more widespread knowledge of nature would motivate people to protect it.37 And knowledge, for her, was not simply learned, but lived and experienced, engaging and developing the senses and emotions as well as the mind, our imaginations as much as our analytic abilities.

Non-anthropocentrism is a main theme in the natural history works. We have already seen that Carson's ethics were non-anthropocentric: she recognized the moral considerability of non-human beings. But Carson's work reminds us that non-anthropocentrism is both an ethical position and an intellectual task, and the latter demands as much from us as the former. In particular, it demands repeated attention to the non-human world: the setting aside of our works and purposes and a concentration on nature's own stories and realities.38 Experienced often enough and set within the proper intellectual frameworks, we may, we hope, see ourselves truly as parts of a more-than-human whole. Carson is convinced that such non-anthropocentrism is a part of wisdom.

The attempt to transcend anthropocentrism is found in her earliest book, *Under the Sea-Wind*. In an 'author's questionnaire' submitted to the marketing division of Simon & Schuster, her first publishing house, she wrote:

> I believe that most popular books about the ocean are written from the viewpoint of a human observer and record his impressions and interpretations of what he saw. I was determined to avoid this human bias as much as possible . . . I decided that the author as a person or a human observer should never enter the story, but that it should be told as a

> simple narrative of the lives of certain animals of the sea. As far as possible, I wanted my readers to feel that they were, for a time, actually living the lives of sea creatures.[39]

Carson goes on to describe her efforts to imagine for herself, and recreate for her audience, the world as experienced by sandpipers, crabs, mackerels and eels. In this difficult attempt, Carson worked back from what she knew of each animal's natural history, to try to imagine how it might perceive its environment and its varied interactions with other creatures. *Under the Sea-Wind* is a fascinating attempt to marry an imaginative, phenomenological exploration of other consciousnesses with the latest researches in scientific natural history.

Even in this first book, Carson's imagination took her beyond a focus on individual animals to the larger forces which shape their lives. 'I very soon realized', she wrote in the questionnaire:

> that the central character of the book was the ocean itself. The smell of the sea's edge, the feeling of vast movements of water, the sound of waves, crept into every page, and over all was the ocean as the force dominating all its creatures.[40]

How to make the ocean a character without inappropriate personification thus became a delicate task. Like other serious interpreters of nature, she struggled to avoid bogus personification and the pathetic fallacy, on the one hand, and an unjustified reductionism and simplification of nature's complexity, on the other.[41]

Carson's next book, which gave her fame, also took non-anthropocentrism as a key intellectual goal. *The Sea Around Us* synthesized recent discoveries in oceanography and marine biology, presenting them to a public whose interest in the sea had been aroused by the naval battles and new underwater technologies of World War II.[42] Carson pictures the astonishing variety and strangeness of marine life, and works to instill a sense of the vast, titanic forces which have created it over geologic time scales. She repeatedly invokes the ocean's radical non-humanity, asking readers to imagine underwater 'tides so vast they are invisible and uncomprehended by the senses of man', or lights traveling over the water 'that flash and fade away, lights that come and go for reasons meaningless to man', though 'man, in his vanity, subconsciously attributes a human origin' to them.[43] This ocean wilderness teaches humility and wisdom, she believes, for modern man:

> in the artificial world of his cities and towns...often forgets the true nature of his planet and the long vistas of its history, in which the existence of the race of men has occupied a mere moment of time.[44]

The wildness and radical otherness of nature should be known, imagined, experienced -- on pain of ignorance and arrogance.

Achieving such a perspective involves both knowledge and imagination. From such a perspective, non-anthropocentric value judgments will tend to follow, along with a truer sense of the importance of our own problems. Her biographer writes: 'Carson's fan mail revealed that *The Sea Around Us* had touched a deeper yearning for knowledge about the natural world as well as for a philosophic perspective on contemporary life'. The book came out at a time of great anxiety over an escalating Cold War. One reader wrote:

> We have been troubled about the world, and had almost lost faith in man; it helps to think about the long history of the earth, and of how life came to be. When we think in terms of millions of years, we are not so impatient that our own problems be solved tomorrow.

Another said: 'This sort of thing helps one relate so many of our man-made problems to their proper proportions'. These responses were among those most appreciated by Rachel Carson, whose personal ethics placed a premium on the virtues of humility and fortitude.[45]

Non-anthropocentrism is thus a key to Rachel Carson's ethical philosophy, which contains the three complementary and equally challenging injunctions: "Respect nature!" "Know nature!" and "Place yourself in proper perspective!" We mistake the nature of ethics, and Carson's ethics in particular, if we separate the intellectual from the ethical challenge here, or fail to acknowledge an ethical force behind all three injunctions. For Carson, arrogance is both an intellectual and a moral failing, while ignorance is as culpable as wrong action.

Because she placed such a strong emphasis on knowing nature and transcending our habitual focus on people, science was a key human activity for Carson. 'The aim of science is to discover and illuminate truth', she said in a speech accepting the National Book Award. Ideally, that illumination should inform the everyday lives of

common people: not by creating more wealth or new consumer products, but by creating people who better know the earth which they inhabit and which has created them. 'We live in a scientific age', she continued, 'yet we assume that knowledge of science is the prerogative of only a small number of human beings, isolated and priestlike in their laboratories'. But to believe this is to cut the average person off from self-knowledge, because 'it is impossible to understand man without understanding his environment and the forces which have molded him physically and mentally'.46

Carson clearly believed in science. She earned an MA in marine biology from Johns Hopkins University, worked as a government scientist for the U.S. Fish and Wildlife Service, kept up with the latest developments in a wide variety of fields, and made her name as a scientific popularizer. Yet she also saw many of science's limitations. In contrast to common scientific practice, Carson emphasized direct appreciation of individual organisms. Personal connections to particular places, such as her beloved Maine coast, were very important to her. She rejected a purely objective outlook; her own writings often sought to create an emotional response to nature, which she believed would help further conservation. 47

Many of Carson's critics, including some scientists, accused her of 'emotionalism' after the publication of *Silent Spring*, usually making more or less explicit reference to her gender.48 In a typical example, a reviewer for Time magazine wrote that Carson's case was 'unfair, one-sided, and hysterically overemphatic'. 'Many scientists sympathize with Miss Carson's love of wildlife', the reviewer continued:

> and even with her mystical attachment to the balance of nature. But they fear that her emotional and inaccurate outburst in *Silent Spring* may do harm by alarming the nontechnical public, while doing no good for the things that she loves.49

In response, Carson suggested that there was something wrong with people who felt no emotion in response to nature or nature's destruction. Emotional attachment, aesthetic appreciation, and a personal connection to particular places should complement the pursuit of rigorous science, she believed, since these all furthered our understanding and appreciation of nature, which in turn improved our lives. 'I am not afraid of being thought a sentimentalist', she told a gathering of women journalists:

> when I stand here tonight and tell you that I believe natural beauty has a necessary place in the spiritual development of any individual or any society. I believe that whenever we destroy beauty, or whenever we substitute something man-made and artificial for a natural feature of the earth, we have retarded some part of man's spiritual growth.[50]

In an earlier article, she assured parents with a limited knowledge of nature that they could still help their children appreciate it, since 'it is not half so important to know as to feel'. Furthermore, she wrote, 'it is possible to compile extensive lists of creatures seen and identified without ever once having caught a breath-taking glimpse of the wonder of life'. [51]

Carson reflected long and hard on the proper role of science in human society. Just as it called into question the haphazard, unregulated use of pesticides and herbicides, *Silent Spring* touched off a heated debate, among scientists, on the proper ends of science: whether to control, dominate and change nature for human purposes, or to preserve, protect and further our understanding of it, as is. Obviously, this debate continues and has lost none of its urgency, as witnessed by the recent growth of both conservation biology and a massive biotechnology industry. Rachel Carson is properly seen as one of our first and greatest conservation biologists, who popularized the wild worlds of sea and shore and incited people to work to protect all of nature.[52]

Carson valued science and the personal experience of nature because they helped her to understand nature's stories and thus achieve a larger, truer, non-anthropocentric point of view. She was also a self-proclaimed realist, and this seems to have played an important role in her environmental ethics. Science can achieve truth and thus illuminate our lives, she believed. It teaches us, for instance, that we are kin, however distant, to all the life with which we share the Earth. As she expressed it in *The Edge of the Sea*, a scientifically-informed personal experience gets us in touch with 'the realities of existence', with 'elemental realities'.[53] Carson was aware of the great gulfs of ignorance surrounding so many scientific questions in her day; her revisions to new editions of her books reminded her of the provisional nature of scientific knowledge. As a natural historian, she was also aware of the shifting, evolutionary nature of nature. She wrote in *The Edge of the Sea*'s conclusion of 'coastal forms merging and blending in a shifting, kaleidoscopic pattern in which there is no finality, no ultimate and fixed reality--earth becoming

fluid as the sea itself'. What holds for the earth and sea obviously holds for organic nature, as the nature and meaning of life 'haunts and ever eludes' the seeker after knowledge.54 This passage suggests a Peircean limit concept of truth and reality, as the ever elusive goals of an endless process.

Nevertheless, it is a process to which Carson is passionately committed. As a scientist, she needs the concept of reality to make sense of scientific progress. As a naturalist, she values knowledge over ignorance and personal acquaintance with nature over casual disregard. As a mystic and nature lover, she speaks of 'enchanted' experiences when the 'realities' of nature 'possessed my mind'.55 As a conservationist, she wants to protect 'The Real World Around Us'--as she titled one talk--from humanity's relentless pressure to replace the creation with our creations. 56 Only a belief in reality, and in the possibility and sweetness of knowing and connecting to reality, can make sense of the goals Rachel Carson pursued throughout her life. She put it this way in a speech accepting the John Burroughs Award for excellence in nature writing:

> I myself am convinced that there has never been a greater need than there is today for the reporter and interpreter of the natural world. Mankind has gone very far into an artificial world of his own creation. He has sought to insulate himself, in his cities of steel and concrete, from the realities of earth and water and the growing seed. Intoxicated with a sense of his own power, he seems to be going farther and farther into experiments for the destruction of himself and his world. There is certainly no single remedy for this condition and I am offering no panacea. But it seems reasonable to believe--and I do believe -- that the more clearly we can focus our attention on the wonders and realities of the universe about us the less taste we shall have for the destruction of our race. 57

Carson is surely right here. Environmentalists need to offer some positive alternative to gross economic consumption and the trivial pleasures offered by our destructive modern economy. With Carson, I can think of no alternative superior to a physical and intellectual engagement with the natural world. Away with all epistemological caviling which would deny such realities! Away with all post-modernist literary maunderings which would substitute clever wordplay for knowledge and experience of what Carson elsewhere calls 'the great realities'! 58 The alternative to such realism is solipsism and the ever more exclusive focus on artificial worlds and virtual

realities of our own creation.

Reading *Silent Spring* reminds us that it was not sophisticated postmodern deconstructionists but naive realist birdwatchers who provided much of the evidence about the dangers of pesticides that Rachel Carson laid before the public. Carson herself mentions how easy it is for people to destroy wild things when they do not even know they exist. 59 So we need to know 'the real world around us' for its own sake. But we need to know it for our sakes, as well. 'I have had the privilege of receiving many letters from people who, like myself, have been steadied and reassured by contemplating the long history of the earth and sea, and the deeper meanings of the world of nature', Carson wrote. 'In contemplating "the exceeding beauty of the earth" these people have found calmness and courage'. 60

Carson needed such calm fortitude throughout her life: to meet her many family obligations, to stand up to the personal and professional attacks leveled against her after *Silent Spring* was published; to persevere through difficult health problems during her last decade. In fact, she finished *Silent Spring* racing the cancer that she knew would shortly end her life. Half a year before her death, Carson and her best friend spent a morning at the seashore near her cottage in Maine, watching the fall migration of monarch butterflies. 'This is a postscript to our morning at Newagen', she wrote later that afternoon:

> something I think I can write better than say. For me it was one of the loveliest of the summer's hours, and all the details will remain in my memory: that blue September sky, the sounds of wind in the spruces and surf on the rocks, the gulls busy with their foraging, alighting with deliberate grace . . . But most of all I shall remember the Monarchs, that unhurried drift of one small winged form after another, each drawn by some invisible force. We talked a little about their life history. Did they return? We thought not; for most, at least, this was the closing journey of their lives. But it occurred to me this afternoon, remembering, that it had been a happy spectacle, that we had felt no sadness when we spoke of the fact that there would be no return. And rightly--for when any living thing has come to the end of its cycle we accept that end as natural . . . That is what those brightly fluttering bits of life taught me this morning. I found a deep happiness in it -- so, I hope, may you. Thank you for this morning.61

Back to Top

Conclusions

I'd like to end by noting several respects in which Rachel Carson's life and work might point the way forward for environmental ethics. First, Carson's frequent criticisms of human attempts to dominate nature suggest important parallels with contemporary ecofeminism. Consider also the roles compassion and caring seem to have played in her environmental ethics; also, her emphasis on the importance of direct experience. Finally, there were her pioneering efforts in the primarily male worlds of science, government service and conservation--and the misogynistic tone of many of her critics. All this suggests that Carson may be an important resource for ecofeminist reflection.

Second, Carson's philosophy of 'reverence for life' seems to support the whole spectrum of environmental activism. During her careers in government conservation work and private advocacy, she tackled many environmental issues, from pollution prevention to natural areas restoration to ending ocean dumping of atomic wastes. A recent collection of Carson's shorter and occasional pieces, titled Lost Woods, perhaps gives us a fuller picture of her conservation interests than we have had previously. Several pieces highlight her advocacy for wilderness, including 'The Real World Around Us' and 'Our Ever Changing Shore'. The latter includes a moving plea for the preservation of wild beachlands:

> Somewhere we should know what was nature's way; we should know what the earth would have been had not man interfered. And so, besides public parks for recreation, we should set aside some wilderness areas of sea-shore where the relations of sea and wind and shore--of living things and their physical world--remain as they have been over the long vistas of time in which man did not exist.62

Other articles show a concern for the beauty and health of more developed landscapes.

Lost Woods also contains Carson's prefaces to the U.S. Animal Welfare Institute's educational booklet 'Humane Biology Projects' and to Ruth Harrison's Animal

Machines. These indicate her commitment to the humane treatment of animals. 'I am glad to see Ruth Harrison raises the question of how far man has a moral right to go in his domination of other life', she writes:

> Has he the right, as in these examples [of intensive farming], to reduce life to a bare existence that is scarcely life at all? Has he the further right to terminate these wretched lives by means that are wantonly cruel? My own answer is an unqualified no.[63]

In her biography, Linda Lear shows that Carson muted her animal welfare advocacy, out of concern that it would undermine her case against the misuse of pesticides. Nevertheless, while writing *Silent Spring*, she wrote to a confidante that 'I wish I could find time to turn my pen against the Fish and Wildlife Service's [her own former agency's] despicable poisoning activities [of predators and "vermin" such as prairie dogs]...it is all part of the same black picture'.[64]What are the similarities between sacrificing a wild beach for condominium development and sacrificing the happiness of a veal calf for the pleasure of a gourmand? In both cases, human interests come first, no matter how trivial. In both cases, we dominate or deny nature and create new anthropocentric realities. In both cases, profit trumps a true humanity. This is the 'black picture' which commands misery or disappearance for so much that is "not us". Carson's example suggests that a philosophy of love and appreciation for all nature and its creatures can bridge the gaps between environmental ethics and animal welfare ethics, and between anthropocentric urban environmentalists and biocentric wildlands advocates.

This indicates a final way in which Rachel Carson might point a route forward for environmental ethics: through her example of personal commitment and activism. Carson was a woman of great character who balanced her personal, professional and political responsibilities with utter integrity. She did not relish controversy, but she did not retreat from it, when necessary. No one else, she realized, had the combination of literary skill and scientific knowledge to write *Silent Spring*. Her struggle to synthesize a mountain of current scientific work and write one final book that was both accurate and compelling, in the face of family tragedy and failing health, provides one of the heroic stories in conservation history. One cannot read about it without being deeply moved. When Carson writes to a friend that it is 'a privilege as well as a duty to have the opportunity to speak out - -to many thousands of people -- on something so important', we know she means it and love her for it.[65]

Here knowledge and respect for nature, and personal humility and commitment to nature, go hand in hand. Such an ethics is certainly demanding. Yet reading of Carson's life, one learns how much she received in return for living up to it. Perhaps we too may hope that Nature will repay us for our attentiveness and efforts on her behalf. As inspiration and provocation, then, Rachel Carson's life and writings also hold great potential for environmental philosophy. 66

Back to Top

Footnotes

- 1A recent search of the International Society for Environmental Ethics bibliography turned up zero articles on Rachel Carson's environmental ethics or environmental philosophy. Popular readers such as Botzler and Armstrong, 1998, Zimmerman, 1993, and Gruen and Jamieson, 1994 do not include anything written by Carson. Pojman, 1994 does include a piece by Carson, however, and the second edition of the popular introductory text DesJardins, 1997 covers Carson more extensively than the first edition.
- 2I have made extensive use of Lear, 1997 in preparing this essay. Although I have tried to acknowledge that use fully in the footnotes that follow, I am sure that I have picked up some ideas or information from Professor Lear that remain unacknowledged.
- 3Lear, 1997, pp. 396-456.
- 4Carson, 1962, p. 169.
- 5 Ibid., p. ix.
- 6 Quoted in Lear, 1997, pp. 424, 409.
- 7Carson, 1962, pp. 93-96.
- 8 Ibid., p. 73, emphasis added.
- 9 Ibid., pp. 22, 77.
- 10 Ibid., pp. 84, 97, 107, 118-119.
- 11 Freeman, 1995, p. 391; Lear, 1997, pp. 461, 466.
- 12 Quoted in Lear, 1997, p. 435.
- 13 Ibid., pp. 433-437.
- 14 Brooks, 1972, p. 8. Rachel Carson learned this respectful attitude from her mother, who, according to Carson's brother, 'would put spiders and other insects out of the house, rather than kill them' (Gartner, 1983, p. 7).

- 15 Lear, 1997, p. 409.
- 16 Brooks, 1972, pp. 324-326.
- 17 Gartner, 1983, p. 8.
- 18 The 'convergence thesis' is the idea that convincing, properly formulated anthropocentric and non-anthropocentric ethics will largely converge in their practical environmental recommendations. See Norton, 1991.
- 19 I discuss this 'convergence' and develop the idea of an environmental virtue ethics grounded in our enlightened self-interest in Cafaro, 2001.
- 20 Carson, 1962, pp. 96, 71.
- 21 Lear, 1997, pp. 322, 438, 440. Harrison, 1964, p. viii. Carson, 1955, pp. 196, 215-216.
- 22 Brooks, 1972, pp. 8-9.
- 23 Freeman, 1995, p. 62; Brooks, 1972, p. 242.
- 24 Brooks, 1972, pp. 315-317.
- 25 Readers should know that Carson's biographer Linda Lear believes that she was a more spiritual person than my essay implies. Lear thinks that the concept of 'material immortality', treated in *Under the Sea-Wind* and latter writings, is key to Carson's religion, and that her environmental ethics is grounded in this religious sensibility (Lear, 2001; see also Freeman, 1995, pp. 446-447).
- 26 Carson, 1962, pp. 23, 66, 38, 69.
- 27 Ibid., pp. 118, 64, 83. Recent environmental historiography confirms the importance of an ideology of conquest and domination in the growth of modern industrial agriculture. See Feige, 1999, pp. 171-181.
- 28 Carson, 1962, p. 261. Note the close connection between is and ought implied in the pairing of 'biology and philosophy'. Post-Darwinian biology has shown us that life on earth was not created for our benefit, that we are evolutionary latecomers, and that we are kin to all life. Philosophical ethics should accommodate this new-found knowledge.
- 29 Quoted in Lear, 1997, p. 450. Among others, Thomas Hill, Jr. has also suggested that 'a proper humility' is an important environmental virtue. See Hill, 1983: 216, 219, 223.
- 30 See Carson, 1998, p. 196, and Lear, 1997, p. 407. In a commencement address delivered two years before her death, Carson explicitly linked human domination of nature to 'the Jewish-Christian concept of man's relation to nature' (Gartner, 1983, p. 120).
- 31 Carson, 1962, p. 110.
- 32 Ibid., p. 78. See also Carson, 1998, p. 194.

- 33 Carson, 1962, pp. 64-68.
- 34 Ibid., 65. Note the quick move from is to ought.
- 35 Carson, 1955, p. 39.
- 36 Ibid., pp. 41, 15.
- 37 Carson, 1962, p. 118.
- 38 See Saito, 1998: 135-149.
- 39 Carson, 1998, pp. 55-56.
- 40 Ibid., p. 56.
- 41 Gartner, 1983, pp. 35-36; Lear, 1997, pp. 90-91.
- 42 Lear, 1997, pp. 203-204.
- 43 Carson, 1951/1961, pp. 106, 45.
- 44 Ibid., pp. 29-30.
- 45 Lear, 1997, p. 205. See also ibid., pp. 219-220, and Carson, 1998, p. 62.
- 46 Lear, 1997, pp. 218-219.
- 47 Gartner, 1985, p. 3.
- 48 Lear, 1997, pp. 430, 461.
- 49 Quoted in Brooks, 1972, p. 297.
- 50 Carson, 1998, p. 160.
- 51 Gartner, 1983, p. 118.
- 52 Lear, 1997, pp. 428-440.
- 53 Carson, 1955, pp. 13-14.
- 54 Ibid., pp. 215-216.
- 55 Ibid., p.13.
- 56 Carson, 1998, pp. 147-163.
- 57 Ibid., p. 94.
- 58 Ibid., p. 92.
- 59 Carson, 1962, pp. 110-115, 118.
- 60 Brooks, 1972, pp. 325-326.
- 61 Ibid., pp. 326-327.
- 62 Carson, 1998, p. 124.
- 63 Ibid., p. 196.
- 64 Lear, 1997, p. 352. For more on Carson's views and actions on behalf of animal welfare see Brooks, 1972, pp. 314-317; Gartner, 1983, pp. 6-7, 26-27.
- 65 Lear, 1997, p. 328.
- 66 Thanks to Kris Cafaro, Clare Palmer and an anonymous reviewer for detailed comments that significantly improved this essay. Special thanks to Linda Lear, the second "anonymous" reviewer, for detailed comments and for generously

answering various questions about Rachel Carson's life and thought.

Back to Top

References

- Botzler, Richard and Armstrong, Susan (eds) 1998. *Environmental Ethics: Divergence and Convergence*. 2nd ed. Boston: McGraw Hill.
- Brooks, Paul 1972. *The House of Life: Rachel Carson at Work*. Boston: Houghton Mifflin.
- Cafaro, Philip 2001. 'Thoreau, Leopold, and Carson: Toward an Environmental Virtue Ethics', *Environmental Ethics* 23: 3-17.
- Carson, Rachel 1951/1961. *The Sea Around Us*. Revised ed. New York: Signet.
- Carson, Rachel 1955. *The Edge of the Sea*. Boston: Houghton Mifflin.
- Carson, Rachel 1962. *Silent Spring*. New York: Fawcett World Library.
- Carson, Rachel 1998. *Lost Woods: The Discovered Writing of Rachel Carson*. Linda Lear, ed. Boston: Beacon Press.
- DesJardins, Joseph 1997. *Environmental Philosophy*. 2nd ed. Belmont, CA: Wadsworth.
- Feige, Mark 1999. *Irrigated Eden: The Making of an Agricultural Landscape in the American West*. Seattle: University of Washington Press.
- Freeman, Martha (ed) 1995. *Always, Rachel: The Letters of Rachel Carson and Dorothy Freeman*, 1952-1964. Boston: Beacon Press.
- Gartner, Carol 1983. *Rachel Carson*. New York: Frederick Ungar.
- Gruen, Lori and Jamieson, Dale (eds) 1994. *Reflecting on Nature: Readings in Environmental Philosophy*. Oxford: Oxford University Press.
- Harrison, Ruth 1964. *Animal Machines: The New Factory Farming Industry*. London: Vincent Stuart.
- Hill, Thomas, Jr. 1983. 'Ideals of Human Excellence', *Environmental Ethics* 5: 211-224.
- Lear, Linda 1997. *Rachel Carson: Witness for Nature*. New York: Henry Holt.
- Lear, Linda 2001. Personal communication.
- Norton, Bryan 1991. *Toward Unity Among Environmentalists*. New York: Oxford University Press.
- Pojman, Louis (ed) 1994. *Environmental Ethics: Readings in Theory and Application*. Boston: Jones and Bartlett.

- Saito, Yuriko 1998. 'Appreciating Nature on Its Own Terms', *Environmental Ethics* 20: 135-149.
- Zimmerman, Michael (ed) 1993. *Environmental Philosophy: From Animal Rights to Radical Ecology*. 2nd ed. Upper Saddle River, NJ: Prentice Hall.

Rights

Resource Type

Case Study / Scenario