

Joy A. Palmer Cooper and David E. Cooper, eds.,
Key Thinkers on the Environment
London, Routledge, 2018
revised edition of **Joy A. Palmer, ed.,**
Fifty Key Thinkers on the Environment, Routledge, 2001.

HOLMES ROLSTON III 1932-

Duties arise to the individual animals and plants that are produced as loci of intrinsic value within the system.

(Environmental Ethics, p. 188)

Holmes Rolston III is widely recognized as the 'father' of environmental ethics as an academic discipline. More so than any other, he has shaped the essential nature, scope and issues of the discipline.

Throughout Rolston's nine books and many articles, he holds that intrinsic value entails duties. Especially influential were Rolston's early, ground-breaking article in the journal *Ethics* (1975), his comprehensive formulation of his ethical theory in the book *Environmental Ethics* (1988), and his impressive compendium and assessment of environmental ethics for the new millennium in *A New Environmental Ethics* (2012). In 1997, in

recognition of Rolston's contributions to natural theology, he gave the prestigious Gifford Lectures at the University of Edinburgh in Scotland, published under the title *Genes, Genesis and God* (1999). In 2003, he received the Templeton Prize for 'progress or discoveries about spiritual realities', awarded by Prince Philip in Buckingham Palace. Teleological theism is also a theme in *Three Big Bangs: Matter-Energy, Life, Mind* (2010).

Holmes Rolston III was born 19 November 1932, the son and grandson of Presbyterian ministers, whose names he shares. Except for summers spent in Alabama on his mother's parents' farm, Rolston spent his childhood in the Shenandoah Valley in Virginia, where his father was a Presbyterian minister and respected theologian. In these rural places, Rolston grew to love nature and to value simplicity. The Maury River flowed in front of the family home, which was nestled in the woods, and the Blue Ridge Mountains shaped the horizon. The house lacked electricity, and water came from cisterns.

As an undergraduate at Davidson College, Rolston wanted to study nature and so completed his degree in physics (BS, 1953). Planning to be a Presbyterian minister like his father and grandfather, Rolston next obtained a divinity degree from Union Theological Seminary in Richmond, Virginia (BD, 1956), and then a PhD in philosophical theology at the University of Edinburgh in Scotland (1958). For the next decade, he was a minister in the Appalachian Mountains in Virginia near the Tennessee and North Carolina borders. He and his wife, Jane, have two children, a daughter and a son.

In his spare moments while serving as minister, Rolston attended classes at East Tennessee State University, and explored the biology, mineralogy and geology of the southern Appalachian Mountains, becoming a recognized naturalist and bryologist. He also worked as an activist to conserve wildlife, to preserve Mount Rogers and Roan Mountain, and to maintain and relocate the Appalachian Trail.

Rolston felt a need to study philosophy in an attempt to explain the values he found in nature and to resolve the intellectual conflicts between his religious faith and the non-theistic naturalism of the biological sciences. Leaving his beloved Virginia, he studied philosophy of science at the University of Pittsburgh. There he began to formulate his theory of the intrinsic value of nature and his objections to the naturalistic fallacy. After finishing a degree in philosophy of science in 1968, Rolston was appointed Professor of Philosophy at Colorado State University, Fort Collins, where during the ensuing decades he achieved international academic recognition. He has given invited lectures on all seven continents. In addition to his many academic achievements, he has continued his ordained status in the local Presbytery.

Five concepts frequently recur throughout Rolston's environmental writings: (1) the intrinsic value of nature, which value is non-anthropocentric and even anti-anthropocentric since it is independent of and apart from humankind; (2) ecological-systemic holism; (3) the derivation of duties to nature from the intrinsic value of nature, which logically entails, Rolston argues, the denial of the naturalistic/is-ought fallacy; (4) the intrinsic value of species as forms of life; and (5) biocentrism, that is, the intrinsic value of and derivative duty to respect every individual living organism. Prominent in Rolston's later religious works is the controversial claim that evolution, at least on some tracks, results in progress and is best explained by some form of teleological theism.

Central to Rolston's theory of environmental ethics are the concepts 'intrinsic value' and 'holism'. Aldo Leopold proposed holism under the rubrics of 'community' and 'land ethic'. Holism is a familiar concept in ecology, and has become a key component in many contemporary theories of environmental ethics. In Rolston's theory, ecological wholes are intrinsically valuable. His ethic is explicitly an ethic of duties derived from intrinsic value.

Rolston clearly identifies two 'rules' or 'principles': the Homologous Principle and the Principle of Value Capture.¹ He also uses at least four other principles, for a total of six. Others may need to be added. These six principles are:

- 1 The Homologous Principle: Follow Nature
- 2 The Value-Capture Principle
- 3 The Organic Principle: Respect for Life
- 4 The Species Principle: Preserve 'Forms' of Life
- 5 The Ecosystemic Principle
- 6 The Three 'Environments' Principle: Urban, Rural and Wilderness.

By 'nature', Rolston, generally means *non-human* nature. He carefully distinguishes 'nature' and 'culture'. Culture is an artefact made possible by human self-awareness and linguistic rationality, found to a degree much exceeding any other species, and which make possible the cumulative acquisition and transfer of knowledge, information, science, technology, ethics, religion, and a host of other achievements. In contrast to 'deliberative' culture, nature is 'spontaneous' and 'non-reflective'.² Natural processes are law-like, orderly though also probabilistic, even chaotic, and open to historical novelty, as evidenced in the creativity in evolving ecosystems. Natural selection, combining with genetics, results in the genesis of value.

Rolston acknowledges that humans are in and part of nature, enfleshed or incarnate in vital respects. The biology of human bodies, for instance,

is fully natural. He often says that humans (and human culture) 'emerged out of nature.' For Rolston, 'wilderness' is a synonym for the environment of nature wherever it is free of human interventions. Wilderness, rural culture and urban culture make up the present world's three kinds of 'environments', each having its own particular intrinsic goods.³

Understanding Rolston's metaphysical commitments is essential to understanding his ethic. His explicit commitments are deeply biological and evolutionary. Yet, he parts company with contemporary theoretical evolution when he denies that nature operates by 'nothing but chance'.⁴ Rolston's philosophy, in addition to being deeply biological, is also deeply theistic. The ultimate explanation for the origin, order and historical novelty in nature, for this genesis, is God.⁵

Rolston's denial of total chance is consistent with his Organic Principle, which is the assertion that every individual organism, from the simplest cell to the most complex multi-cellular organism, is intrinsically valuable and, therefore, worthy of appropriate respect. Unlike inorganic things, living organisms have 'vitality'. Every living organism has four features: (1) each individual has an identity; (2) it defends itself; (3) it functions with an end (*telos*); and (4) it has within its DNA information that is passed on, or communicated, to others via reproduction. By virtue of these traits, organisms are centres of valuing; even when unconscious, what happens to them 'matters'. In addition, natural organic evolution is often projective in value in the sense that the values are captured and carried forward in time, producing increases in both (a) numbers (quantity) of individuals and species, and (b) complexity (quality) of the forms of life.⁶

Denying the is-ought fallacy, Rolston argues for a naturalistic ethic in which morality – including both values and duties – can be derived from the holistic character of the ecosystem. 'Substantive values', Rolston contends, 'emerge only as something empirical is specified as the locus of value.'⁷ All values are objectively grounded and supported by the possibilities and limitations within the earth's ecosystems.

Rolston concedes that some *concepts* of value important in holism, namely, the Leopoldian concepts of beauty, stability and integrity, are human and perhaps non-natural. Nevertheless, such *values* are a product of the inter-relationship of human persons with an objective environment. What counts as beauty, stability and integrity emerges from the interaction of world and human appreciation. Rather than being located solely in human persons, values are collectively relocated in human persons in the environment. The value of the ecosystem is not imposed on it but is discovered already to be there: 'we find that the character, the empirical content, of order, harmony, stability is drawn from, no less than brought to, nature'. Because the substantive, empirical content is in nature, and in

nature independent of human and other valuing beings, the value is appropriately and most clearly called 'intrinsic value'. Rolston asserts that 'here an "ought" is not so much *derived* from an "is" as discovered simultaneously with it'.⁸

As a theory of value, ecological holism claims that multiple levels of value, whether a gene, an individual, a species or a collective ecosystem, are morally relevant and valuable. Rolston argues that value is both in the thing and in the system directly and intrinsically, not just indirectly – or instrumentally – as the thing or system is related to humans or other beings who are rational, sentient, conative or alive.

To use a term favoured by Rolston, the value that emerges at the evolutionary ecosystem level is 'systemic'.⁹ Rolston asserts that systemic value is intrinsic. In addition, he seems to hold that systemic intrinsic value is qualitatively richer than – greater than – the intrinsic value of the component parts and sub-systems, whether these components are considered as discrete things or sub-systems, even if their discrete intrinsic values are totalled. The value of the whole is greater than the sum of the parts; the systemic intrinsic value of the whole exceeds the net sum of the intrinsic values of the individuals, species, and sub-systems making up the whole system. Moreover, when the system is compared to any component part or sub-system, the qualitatively richer intrinsic value of the whole system seems to entail that, whenever the health or integrity of the system is threatened, the parts are expendable. The system as a whole captures lower intrinsic values and qualitatively enhances them, thereby exceeding the net sum of their individual intrinsic values.

In support of his notion of natural systemic intrinsic value, Rolston cites research in evolutionary history. The explanation for the accumulated diversity of species in nature is systemic: natural processes include trends to produce greater diversity and complexity of life forms. This generalization seems to be true, despite the catastrophic extinctions in the fossil record, after which nature rebounds. The natural tendency of earth's ecosystems is to increase species diversity – and to do so without any evident limit. Rolston calls such natural value 'systemic'. Natural systemic values are also intrinsic values, and as such they entail duties and obligations, Rolston argues.¹⁰

Systemic value does not prohibit instrumental use of the component parts, provided the health and integrity of the system are not threatened. According to Rolston's Principle of Value Capture, any human action should not destroy anything of intrinsic value unless the action produces something else of equal or greater intrinsic value.

Evolutionary adapted fit tends to integrate intrinsic values in individuals and species within the habitats of the ecosystems they inhabit, Rolston

contends. The pressure is toward good adapted fit. Conflicts between individuals using resources and ecosystems are more a problem for culture, not nature. In other words, Rolston claims that a feature of evolution is the generation of increasingly greater kinds and amounts of intrinsic value. When predators kill prey, for instance, they contribute to greater emergent value – more skilled prey and predators. Even with parasites, evolution is producing greater diversity of life forms. Except for human intrusions that shut down such evolutionary progress, values are enhanced and increased in nature.

Rolston argues that because humans are only members – one of many members – of the biotic community, holism is non-anthropocentric, if not anti-anthropocentric. Moral value is attributed to the natural environment considered as an ecological-systemic whole, independently of humans and human interests. In contrast, anthropocentric-humanistic approaches treat ecosystems only as resource values to be exploited for human ends. A scientifically enlightened humanist would have no reason not to use the planet as a mere resource according to long-term ecological science and the highest humanistic values.

Rolston rejects the anthropocentric view that ecology is merely enlightened and expanded human self-interest. We preserve the environment, not merely because it is in our best long-term economic, aesthetic and spiritual self-interest, but because there is no firm boundary between what is essentially human and what is essentially ecosystem. Human and environmental interests merge; egoism becomes 'ecoism'. Since the boundary between the individual and the ecosystem is diffuse, 'we cannot say whether value in the system or in the individual is logically prior'. The individual is not suppressed but enriched.¹¹

A scientific ecological fact is that complex life forms evolve and survive only in complex and diversified ecosystems. If 'human' as we know it is to survive, we must maintain the oceans, forests and grasslands. To convert the planet entirely into cultivated fields and cities would impoverish human life. Humans too need 'ecosystem services.' We also ought to preserve ecosystems to enable the further evolution of the planet, including that of human mental and cultural life.¹²

Echoing Leopold, Rolston maintains that normatively right actions – our duties – are those actions that preserve ecosystemic beauty, stability and integrity. Preserving the ecosystemic status quo, however, is not always entailed because humans can improve and transform the environment for their interests, as with agriculture. Borrowing a metaphor from contemporary physics, Rolston holds that integrity is a function of a 'field' interlocking species and individuals, predation and symbiosis, construction and destruction, aggradation and degradation.

Since human life-support is part of the ecosystem, domestication is enjoined in order maximally to utilize the ecosystem. Biosystemic welfare allows alteration, management and use. 'What ought to be does not invariably coincide with what is.'¹³

Regarding species, Rolston contends that our duties are to the species as forms of life rather than to the individual members of the species. The species is the form; whereas, the individual member re-presents the form. 'The dignity resides in the dynamic form; the individual inherits this, instantiates it, and passes it on.' Biologically and ecologically, the individual is subordinate to the species.¹⁴

Although extinctions do occur in nature, natural extinctions are open-ended, usually producing diversification, new ecological niches and opportunities, new species and ecologic trade-offs. In contrast extinctions caused by humans are dead ends, destroying diversity, producing monocultures and shutting down evolution.

Concerned about recent enthusiasm for humans managing earth in an Anthropocene Epoch, Rolston cautions: 'We must learn to manage ourselves as much as the planet Be a resident on your landscape. ... We do not want to live a de-natured life on a de-natured planet.'¹⁵

Notes

- 1 *Environmental Ethics*, pp. 61, 79, *passim*.
- 2 *Conserving Natural Value*, p. 4, *passim*.
- 3 *Philosophy Gone Wild*, pp. 40-6; *A New Environmental Ethics*, pp. 48-52.
- 4 *Environmental Ethics*, p. 207.
- 5 See *Genes, Genesis and God and Three Big Bangs*.
- 6 *Environmental Ethics*, chapter 6.
- 7 *Philosophy Gone Wild*, p. 19.
- 8 *Ibid.*, pp. 19-20.
- 9 *Environmental Ethics*, pp. 186-9; *Conserving Natural Value*, pp. 68-100.
- 10 *Ibid.*, pp. 155-7. Rolston cites D.W. Raup and J.J. Sepkoski, *Science*, 215, 1501-3, 1982. See *Genes, Genesis and God and Three Big Bangs*.
- 11 *Philosophy Gone Wild*, p. 25.
- 12 *Ibid.*, pp. 22-4.
- 13 *Ibid.*, p. 25.
- 14 *Ibid.*, p. 212.
- 15 'After Preservation?', in Ben A. Minteer and Stephen J. Pyne, eds. *After Preservation: Saving American Nature in the Age of Humans* (Chicago, University of Chicago Press, 2015), p. 40.

See also in this book
Callicott, Leopold