

Critical Notice of *Genes, Genesis and God: Values and Their Origins in Natural and Human History*. The Gifford Lectures, University of Edinburgh, 1997-1998. Cambridge University Press, 1999

Holmes Rolston, III

John A. Bryant (Cell and Molecular Biology, University of Exeter) says: "The book ... is a real masterpiece. The author's grasp of a wide range of disciplines including theology, philosophy and various scientific disciplines, but especially biology, is mind-blowing and the width of his reading is immense. ... Reading the book straight through (although certainly not at one sitting) is like listening to a long, beautifully crafted, stirring piece of music that gradually works towards a memorable finale or slowly climbing from the plains through the foothills, with views getting better and better until one finally reaches the summit." Review in *Science and Christian Belief* 12 (no. 1, 2000):85-86.

Frederick Ferré (Philosophy, University of Georgia) says: "Lord Gifford, whose bequest founded the famous Gifford Lectures more than a century ago with a mandate to advance 'natural theology', would be proud of this book. ... Holmes Rolston III brings together the best of current information about nature, especially the history of this planet, with the persistent depths of classical concerns about the character of the ultimate nature of things. ... The massive weight of learning contained in this book is reason enough to buy and keep it, like a handy reference guide or mini-encyclopedia. ... The book is a long song in praise of self-transcending creativity. That is the kind of God the exuberant Earth reflects, and in its living, worships. Holmes Rolston deserves our thanks and congratulations for bringing this book, itself a magnificent example of creativity, into the Gifford tradition." Review in *International Journal for Philosophy of Religion* 47(No. 3, June 2000):179-182.

Robin Attfield (Philosophy, University of Wales) says: "Rolston's Gifford Lectures comprise a massively erudite overview of genetics, evolutionary biology and their relations to ethics and religion, saturated with an impressive grasp of recent developments in biology. It is also a persistently evocative text, replete with forceful arguments. ... Rolston's themes include powerful criticisms of sociobiologists' representations of genes as selfish and of individual's

actions (reproductive and otherwise) as propelled by such egoistic genes. ... The present work combines Rolston's earlier contributions at the interface of science and religion with his better known work as the founder and leading practitioner of environmental philosophy, comprising, as it does, an interdisciplinary work from which philosophers (particularly ethicists), biologists and theologians alike have much to learn." Review in *Reason in Practice* 1(No. 1, 2001):75-77. Reprinted in *Science and Religion Forum Reviews* 37 (July 2001):29-31).

Audrey R. Chapman (Director, Program of Dialogue on Science, Ethics, and Religion at the American Academy of Science, Washington, DC) refers to "Holmes Rolston III's masterful treatment of genetics, values, and ethics in *Genes, Genesis and God*" (p. 219). "Perhaps the most penetrating and sophisticated critique of sociobiology comes in the recently published work *Genes, Genesis and God*" (p. 187). Other citations, p. 186, p. 188, p. 218. In *Unprecedented Choices: Religious Ethics at the Frontiers of Genetic Science* (Minneapolis, MN: Fortress Press, 1999).

M. Therese Lysaught (Religious Studies, University of Dayton) says: "Lord Gifford would be pleased. Endowed upon his death in 1888, the distinguished Gifford Lectures were established to 'promote and diffuse the study of natural theology in the widest sense of the term.' ... In his 1997 Gifford Lectures, Holmes Rolston, university distinguished professor of philosophy at Colorado State University, the 'father of environmental ethics,' and eminent scholar of biology and religion, carries the torch admirably. ... Rolston's book is a must-read for anyone interested in this conversation." Review in *Commonweal* 127(No. 2, January 2000):24-26.

A. L. Herman (Philosophy, University of Wisconsin, Stevens Point) says "Holmes Rolston's Gifford Lectures of November 1997 in Edinburgh, *Genes, Genesis and God*, are a grand attempt to do two things: first, to answer certain reductionist sociobiologists, in particular E. O. Wilson, who have rejected all attempts to find intrinsic values in a nature that consists solely of matter and energy; and, second, to discover value in that nature but grounded in something more than just matter in motion. Along the way, Rolston does what every philosopher ought to do: he sets and tries to answer and to solve certain philosophic questions and problems ... a splendid attempt. Review in *Ethics* 111(no. 1, 2000):186-189.

John Hedley Brooke (History, Religion, Oxford University) says: "It is refreshing to read an informed and sustained critique of attempts to reduce culture to biology. In his Gifford Lectures, delivered at Edinburgh University in 1997-8, Holmes Rolston stands in that distinguished line of philosophers and theologians who have insisted that, at every increasing levels of complexity achieved by the processes of evolution, new properties emerge, contributing to organismic wholes that transcend the sum of their parts ... [a] carefully crafted book. Review in *Environmental Values* 9(2000):401-403.

J. Ronald Engel (Meadville Lombard Theological School, University of Chicago) says: "The extraordinary genesis of values on planet Earth is a fact that science and religion have long vied to explain. Since the ascendancy of neo-Darwinian interpretations of genetic evolution with little use for religion and the general retreat of academic theology from the field of grand narratives, it has become increasingly difficult to provide an integrated account of Earth's evolution that does justice to the creative process in both "nature" and "spirit." Holmes Rolston, III ...brings one of the most seminal and influential minds in the field of environmental philosophy to the challenge in these Gifford Lectures of 1997."

"Rolston goes after his topic like the superb field naturalist that he is: tracking page by page the elusive signs of a generous and inclusive creativity from the first emergence of life through the course of biological evolution to the birth of culture and the efflorescence of spirit

in science, ethics, and religion. Rolston's genius lies in generating a metaphor of 'genesis and sharing of valued achievements' that he convincingly shows holds the key to evolutionary advance toward greater complexity and diversity ... a sophisticated, scientifically informed natural theology." Review in *The Journal of Religion* 80(2000):697-699.

Donald W. Shriver, Jr. (Ethics, Union Theological Seminary, New York) says: "Rolston is a rarity: a scholar who has thoroughly digested the findings of biological science, who refuses to disconnect those findings from questions of value, and who thinks traces of providence can be seen in the evolution of the species. Scientists and theologians who think 'fact' and 'value' are utterly separate domains will not like this book." In *Christian Century* 117(November 22-29, 2000):1231.

Ian Barbour (Physics and Religion, Carleton College) cites *Genes, Genesis, and God* for its analysis of relevant differences between genetic information and cultural information, its transmission and character. "Rolston points out that the sociobiologists themselves [including E. O. Wilson and Richard Dawkins] subscribe to values that cannot be justified by their own theories. ... Rolston's view of the evolution of morality is compatible with Christian views of human nature, whereas Wilson's is not." In *When Science Meets Religion* (San Francisco: HarperSanFrancisco, 2000), citation on pp. 124-125, p. 191.

John Polkinghorne (Physics, Queen's College, Cambridge) says: "To read the(se Gifford) lectures is to travel along important paths of enquiry in the company of a mind that is humane and perceptive, careful for truth, and valiant for value." Review in *Zygon: Journal of Religion and Science* 35(2000):191-194.

Theodore W. Nunez (Ethics Program, Villanova University) says: "If there is a trend toward increasing diversity and complexity over evolutionary time, as Rolston argues, then it simply won't do to posit autopoiesis in natural phenomena without asking further about the ultimate source, or *Source* of this creativity. Arriving at this point, perhaps a leap of faith is still required for us to affirm the power and presence of divine creativity in world process. To his credit, Rolston succeeds in making such a commitment both more reasonable and more attractive to his contemporaries. ... Rolston skilfully reworks his stated positions on natural history, objective natural value, the nature-culture distinction, human nature, and the divine-world relationship. Review in *Environmental Ethics* 22(2000):111-112.

James W. Kuhn (Graduate School, Columbia University) says: "Holmes Rolston, III, a philosopher and theologian, has studied recent scientific discoveries carefully, particularly the sweeping changes in our understanding of biology. He has written a careful but bold challenge to the claims of the sociobiologists that human values can be deduced only from nature. Culture exceeds natural biology, he suggests, even as biology has found possibilities beyond physics and chemistry. ... Let us hope that Rolston's challenging and provocative, but modest, way of interpreting the story of evolution will stimulate other philosophers to carefully examine recent scientific discoveries about nature and carry further the dialogue he has begun." Review in *Social Theory and Practice* 26(no. 3, 2000):530-535.

Michael Ruse (Philosophy, University of Guelph, Ontario) says: "Holmes Rolston III has written extensively on both the philosophy of religion and on the philosophical issues to do with the environment. This book, which started life as the Gifford Lectures given at the University of Edinburgh in November 1997, is a full and fair natural theological attempt to understand modern biology and its relevance for social, ethical and religious thought. The author comes through as a learned and humane man who has taken his project seriously." Review in *Philosophical*

Quarterly 50(no. 199, April 2000):280-282.

Stephen G. Post (Center for Biomedical Ethics, School of Medicine, Case Western Reserve University) cites *Genes, Genesis and God*. In "Regarding the Other: Altruistic Love as Religious Ideal and Scientific Project," *Science and Spirit* 11(no. 1, 2000):34-36, citation on p. 36.

Philip Clayton (Philosophy, Sonoma State University, Sonoma, CA) says, "The real work on evolution and faith is being done by two sets of scholars (one pro and one con on reconciling religion and biology). ... The books of Holmes Rolston and Michael Ruse ... represent the best recent thought of both camps. Review, "Biology Meets Theology," *Christian Century* 117 (no. 2, January 19, 2000):61-64.

Donald L. Mykles (Biology, Colorado State University) says, "Rolston knows his genetics, and is masterful in presenting complex biology concepts in a highly readable and non-threatening way. It is certain to provoke vigorous discussion between philosophers, theologians, and scientists. It's something we need more of." Review in *Presbyterian Outlook* 181(no. 22, June 28, 1999, p. 14.

Perry Biddle (Nashville, TN) says, "Rolston's work is an effective antidote to ultra-Darwinists ... who find all human behavior so pervaded with genetic self-interest that this is invariably the dominant determinant in human affairs, including science, ethics, and religion. ... Rolston ... points us to a deeper understanding of where we have come from and where we are going as a human race and as partners in caring for creation." Review in *Presbyterian Outlook* 181 (no. 22, June 28, 1999, pp. 14-15.

Adam Ford (London) says: "The question behind these Gifford Lectures of 1997" [is]: "The evolution of life on Earth resembles a passion play, a *via dolorosa*, painful in its process, stumbling and often tragic--but does it really have a plot? Richard Dawkins and others would have us believe that evolution is blind and purposeless; that genes are selfish with only one goal, which is to reproduce themselves. Rolston subjects this view to rigorous examination and shows it to be totally inadequate, its exponents misled by their own metaphors. He demonstrates that one can speak meaningfully of *values* in nature, and that genes, far from being seen as acting selfishly are better described as cooperating, working in harmony, *sharing* valuable information. He demolishes, with great efficiency, the inappropriate rhetoric of 'selfishness' and 'competition'." Review in *Expository Times* 111(February 2000):5.

Arthur Peacocke (Exeter College, Oxford University) says: *Genes, Genesis and God* is "a comprehensive and evocatively written set of Gifford Lectures. ...He [Rolston] manages to convey, in a way not given to many of us writing in this field, the excitement and fascination of the natural historian with the living world--something we have not witnessed since the writings of Charles Raven. One could not find a better exposition of 'biology for theologians' than this. ... A review cannot do justice to the rich resources of these chapters ... an exhilarating journey." Review in *Journal of Theological Studies* 52 NS, Part II (2001):996-1000.

Ursula Goodenough (Cell Biology, Washington University) says: "Rolston's presentation of his own natural theology, wherein the Spirit of God, both immanent and transcendent, infuses our evolutionary and cultural history, is beautifully articulated at the conclusion of the volume and will be deeply meaningful to those who seek or hold this orientation. ... One of the key things Rolston is trying to do throughout the book--he returns to it again and again--is to insist that living creatures and human culture have value, and he has some wonderful ways of saying this, such as 'reproduction is the transmission of intrinsic value, instantiated in the organism as

somatic value and transmitted as genetic value' ... 'There is,' he writes a deep puzzlement about what we ought to do, and the grounds of its justification. ... The value questions in the twentieth century remains as sharp and as painful as ever in our history.' Indeed." Review in *Nature Biotechnology* 17 (1999):926-927.

Mikael Stenmark (Theology, Uppsala University, Uppsala, Sweden) says: "The author's grasp of biology, ethics, as well as religion, is truly impressive. ... *Genes, Genesis and God* is indeed a very good and very interesting book." Review in *Religious Studies* (Cambridge University Press) 37(2001):230-233.

Gregory R. Peterson (Religion, Thiel College, Greenville, PA) cites *Genes, Genesis and God*, in which the claims of "sociobiologists have been rightly castigated." In "God, Genes, and Cognizing Agents," *Zygon: Journal of Religion and Science* 35(2000):469-480, citation on p. 474.

William A. Rottschaefter (Philosophy, Lewis and Clark College) cites *Genes, Genesis and God*. In "Review of Elliott Sober and David S. Wilson, *Unto Others: The Evolution and Psychology of Altruism*," in *CTNS (Center for Theology and Natural Science Bulletin* 19 (no. 2, 1999):21-23, citation on p. 23.

Genes, Genesis and God is briefly noted in *The Chronicle of Higher Education*, March 26, 1999.

Genes, Genesis and God is briefly noted in *The Hastings Center Report*, July/August, 1999, p. 45.

V. V. Ramanan (Rochester Institute of Technology) says: "Can ethical principles be deduced from the basic molecular properties of genes? This question is explored in depth in Rolston's erudite book. He presents some persuasive arguments against the thesis that religion and ethics are all mere consequences of complex chemistry. If anything, genes too function in an ethical framework. Short notice in *Choice* 37(no. 2, 1999):349.

Paul D. Numrich (Social Science Research, University of Illinois at Chicago) and Robert W. Numrich (Cray Research/Silicon Graphics, Eagan, MN) review *Genes, Genesis and God* (along with others). In *Journal for the Scientific Study of Religion* 39(no. 2, 2000):247-249.

William A. Rottschaefter (Philosophy, Lewis and Clark College, Portland, OR) cites *Genes, Genesis and God*. In "How to Make Naturalism Safe for Supernaturalism: An Evaluation of Willem Drees's Supernaturalistic Naturalism," *Zygon: Journal of Religion and Science* 36(no. 3, 2001):407-453, citations on p. 431, p. 453.

Frederick Ferré (Philosophy, University of Georgia) cites *Genes, Genesis and God*. In *Living and Value: Toward a Constructive Postmodern Ethics* (Albany, NY: State University of New York Press, 2001), citations on p. 254-255, p. 350.

Marc Bekoff (Biology, University of Colorado) cites *Genes, Genesis and God*. In "The Evolution of Animal Play, Emotions, and Social Morality: On Science, Theology, Spirituality, Personhood, and Love," *Zygon: Journal of Religion and Science* 36(no. 4, December 2001):615-655, citation on p. 620, p. 654.

Jan Wawrzyniak (Philosophy, Adam Mickiewicz University, Poznan, Poland) cites *Genes, Genesis and God*. In *Teoretyczne podstawy neonaturalistycznej bioetyki środowiskowej (The*

Theoretical Foundations of Neonaturalistic Environmental Bioethics), Wydawnictwo Naukowe IF UAM (IF UAM Publishers), Poznań, 2000), citations passim.

John R. Williams (Theology and Bioethics, University of Ottawa, Canada) reviews *Genes, Genesis and God*. "Rolston's [book] provides the most convincing refutation of biological and genetic reductionism. ... Rolston ... offers a detailed (occasionally too detailed) account of natural history, the origin of values, culture, and ethics that will force sociobiologists to reformulate or perhaps even abandon their attempts to explain humanity by biology and genetics." In *The Heythrop Journal* 42(no. 3, 2001):361-363.

Gregory R. Peterson (Religion, Thiel College, Greenville, PA) cites *Genes, Genesis and God*. In "Whose Evolution? Which Theology?", *Zygon: Journal of Religion and Science* 35(no. 2, 2000):221-232, citation on p. 223, p. 232.

William A. Rottschaefter (Philosophy, Lewis and Clark College, Portland, OR) cites *Genes, Genesis and God*. In "Naturalizing Ethics: The Biology and Psychology of Moral Agency," *Zygon: Journal of Religion and Science* 25(no. 2, 2000):253-286, citation on p. 266, p. 286.

Norbert M. Samuelson (Jewish Studies, Arizona State University) cites *Genes, Genesis and God*. Rolston "engages in serious, constructive reflection on the significance of contemporary scientific uses of evolution for Christian thought." In "Rethinking Ethics in the Light of Jewish Thought and the Life Sciences," *Journal of Religious Ethics* 29(no. 2, 2001):209-233, citation on p. 219, p. 232.

Niels Henrik Gregersen (Theology, Aarhus University, Denmark) cites *Genes, Genesis and God* as being "insightful" on the place of evil in evolutionary nature. In "The Cross of Christ in an Evolutionary World," *Dialog: A Journal of Theology* 40(no. 3, Fall 2002):192-207, citation on p. 198, p. 206.

Karl E. Peters (Philosophy, Religion, Rollins College, Winter Park, FL) cites the "nice summary of both lawfulness and inevitability on the one hand and contingency and probability on the other in *Genes, Genesis and God*". In *Dancing with the Sacred: Evolution, Ecology, and God* (Harrisburg, PA: Trinity Press International, 2002), citations on p. 152, p. 152

Edith Wyschogrod (Philosophy and Religious Thought, Rice University) cites *Genes, Genesis and God* on the misapplication of moral categories to genes. In "Pythagorean Bodies and the Body of Altruism," pages 29-39 in Stephen G. Post, Lynn G. Underwood, Jeffrey P. Schloss, and William R. Hurlbut, eds., *Altruism and Altruistic Love: Science, Philosophy, and Religion in Dialogue* (New York: Oxford University Press, 2002), citation on p. 30, p. 39.

Jeffrey P. Schloss (Biology, Westmont College, Santa Barbara, CA) cites *Genes, Genesis and God*. In "Emerging Accounts of Altruism," pages 212-242, in Stephen G. Post, Lynn G. Underwood, Jeffrey P. Schloss, and William R. Hurlbut, eds., *Altruism and Altruistic Love: Science, Philosophy, and Religion in Dialogue* (New York: Oxford University Press, 2002), citation on p. 217, p. 241.

Robert J. Russell cites *Genes, Genesis and God* for Rolston's criticism of Michael Ruse's evolutionary ethics. In "Life in the Universe: Philosophical and Theological Issues," *CTNS (Center for Theology and the Natural Sciences) Bulletin* 21 (no. 2, 2001):3-9, citations on p. 8.

Luis Oviedo OFM (Papal Athenaeum "Antonianum," Cappellanie University, University of Rome

reviews *Genes, Genesis and God* in *Antonianum* 72:2, 2001. [Pontificio Ateneo Antonianum ITA, Rome, The Vatican] Translated from Spanish: "Rolston ... offers a monograph of great interest that engages him in a theoretical field that has recently been intensively in dispute. This field is referred to as sociobiology or 'evolutionary psychology'. ... Rolston's work principally aims to answer that challenge and to discover what the relationship is between the laws that govern these natural processes and the rules by which human decisions should be governed, the latter including the socio-cultural environment and religious needs. ... Rolston's work can be added to the long list of works in the last few years that have tried to respond to the challenges posed by the sciences and, at the same time, to look for ways to use the insights of these scientific theories for a better re-reading and up-to-date understanding of the classical Christian proposals. This book more than adequately reaches its objectives and takes us further toward a religious faith that is capable of demonstrating its irreducible significance and particular contribution to the intellectual scene that is dominated by the sciences. This claim for an "evolution" that is shaped by religious criteria and truth seems very accurate, especially in its orientation to the universalism that is a determinant of religious evolution."

Ian G. Barbour (Physics, Religion, Carleton College, Northfield, MN) cites *Genes, Genesis, and God* for its effective reply to sociobiologists' claims about genetic determinants of human behavior. In *Nature, Human Nature, and God* (Minneapolis: Fortress Press, 2002), citations on pp. 41-42, p. 147.

Steven L. Peck (Biology, Brigham Young University) cites *Genes, Genesis and God*. In "Randomness, contingency, and Faith: Is There a Science of Subjectivity?" *Zygon: Journal of Religion and Science* 38(2003):5-23, citation on p. 6, p. 23.

Gordon D. Kaufman (Theology, Harvard Divinity School) cites *Genes, Genesis and God* for its account of creativity in natural history. In "Biohistorical Naturalism and the Symbol 'God'," *Zygon: Journal of Religion and Science* 38(2003):95-100, citation on p. 98, p. 100.

Stephen G. Post (School of Medicine, Case Western Reserve University) cites *Genes, Genesis and God* on the inability of genetic explanations of morality to explain universal altruism and missionary activity in world faiths. In "The Tradition of Agape," pages 51-64 in Stephen G. Post, Lynn G. Underwood, Jeffrey P. Schloss, and William R. Hurlbut, eds., *Altruism and Altruistic Love: Science, Philosophy, and Religion in Dialogue* (New York: Oxford University Press, 2002), citation on p. 61, p. 64.

Gregory H. Peterson (Philosophy, South Dakota State University) cites *Genes, Genesis and God* for its account of the increase of complexity and diversity over evolutionary time. In *Minding God: Theology and the Cognitive Sciences* (Minneapolis: Fortress Press, 2003), citations on p. 208, p. 234, p. 243.

Robin Attfield (Philosophy, University of Wales, Cardiff) cites *Genes, Genesis, and God*. In *Environmental Ethics: An Overview for the Twenty-First Century* (Cambridge: Polity/Blackwell, 2003), citations on pp. 41, 61, 215.

J. Wentzel van Huyssteen (Theology and Science, Princeton Theological Seminary) cites "Holmes Rolston's important recent work," *Genes, Genesis and God* for its arguments on gene-mind co-evolution. In "Fallen Angels or Rising Beasts? Theological Perspectives on Human Uniqueness," *Theology and Science* 1(no. 2, October 2003):161-178, citations on p. 175, p. 178.

Stephen Post (Bioethics, Case Western Reserve University) cites *Genes, Genesis and God*. In

interview with Jill Neimark, "What the World Needs Now ...", *Science and Spirit*, November-December 2003, pages 40-46, citation on p. 45.

Lucrecia Burges (Ecology and Evolutionary Biology, University of California, Irvine; Philosophy, University of the Balearic Islands, Spain) says: "Rolston acknowledges how important biology is, and he goes deeper into evolutionary theory searching the explanation of epistemology and ethics. ... I want to endorse that Rolston uses a positive axiological paradigm in order to claim that genes can be interpreted as *loci* of intrinsic value. ... Rolston develops one of the most interesting critiques of sociobiology." Essay review, "Evolutionary Epistemology: A Clue to Understand Moral Origins," *History and Philosophy of the Life Sciences* 24(2002):109-120, citation on p. 115, p. 117.

Lisa H. Sideris (School of Environment and Faculty of Religious Studies, McGill University, Montreal) cites *Genes, Genesis and God*. In *Environmental Ethics, Ecological Theology, and Natural Selection* (New York: Columbia University Press, 2003), citations passim.

James D. Proctor (Geography, University of California, Santa Barbara) says: "Visions of both external (biophysical) and internal (human) nature have been at the heart of theories of science and religion from Thomas Aquinas to Isaac Newton and continuing in notable contemporaries such as Ian Barbour (1997), John Polkinghorne (1991), and Holmes Rolston, III (1999)." Citing *Genes, Genesis and God*. In "Resolving Multiple Visions of Nature, Science, and Religion," *Zygon: Journal of Religion and Science* 39(2004):637-657, citation on p. 638; other citations on p. 646, p. 656.

Christoph Rehmann-Sutter (Ethics in Biosciences, University of Basel) reviews *Genes, Genesis and God*. In *Ethical Theory and Practice* 7 (no. 1, 2004):95-98. "Rolston argues, convincingly in my view, that the phenomena of ethics and religion cannot be *reduced* to the phenomena of biology. ... Ethics ... is a human specialty. But this does not mean that, for our human ethics, only humans count as morally considerable others. ... This has always been Rolston's position, and it is given in this book. But what is clarified and offered for a critical appraisal is how fundamentally these issues affect the classic questions of metaphysics."

Mikael Stenmark (Theology, University of Uppsala, Sweden) cites *Genes, Genesis and God* on interpreting evolutionary theory in terms that are congenial to religious belief. In *How to Relate Science and Religion* (Grand Rapids, MI: William B. Eerdmans, 2004), citations on pp. 164-165, p. 275.

Alister McGrath cites *Genes, Genesis and God*. In *Dawkin's God: Genes, Memes and the Meaning of Life* (Oxford: Blackwell Publishing, 2005), p. 162.

Anthony M. Mateo (Philosophy, Elizabethtown College, Elizabethtown, PA) cites *Genes, Genesis and God* for its argument that biologists are unable to derive universal altruism from genetics. In "Darwin, Materialism, and the Possibility of Evolutionary Ethics," *Ultimate Meaning and Reality* 27(no. 3,2004):219-234, citation on p. 232, p. 234.

Seth Holtzman (Religion and Philosophy, Catawba College, Salisbury, NC) cites *Genes, Genesis and God* for its argument for a rational overturning of naturalism in science interpreted as metaphysical naturalism. In "Science and Religion: The Categorical Conflict," *International Journal for the Philosophy of Religion* 54(2003):77-99, citation on p. 97.

Louis-Jacques Van Bogaert (Department of Philosophy, University of Stellenbosch, South

Africa) cites *Genes, Genesis and God* for its arguments about pain in evolutionary history. In "Sentience and Moral Standing," *South African Journal of Philosophy* 23(no. 3, 2004):292-301, citation on p. 295, p. 300.

Roberto Peverelli cites *Genes, Genesis and God*. In "Un'etica della terra. La riflessione filosofica di Holmes Rolston, III, [The Land Ethic: Philosophical Reflections of Holmes Rolston, III]," *Aut Aut: rivista di filosofia e di cultura*, Issue 316-317, July-October, 2003, pages 116-138, citation on p. 124.

David C. Lahti (Ecology and Evolutionary Biology, University of Michigan, Ann Arbor) cites *Genes, Genesis and God*. In "Parting with Illusions in Evolutionary Ethics," *Biology and Philosophy* 18(2003):639-651, citation on p. 639, p. 651.

Lucrecia Burges (Ecology and Evolutionary Biology, University of California, Irvine; Philosophy, University of the Balearic Islands, Spain) cites *Genes, Genesis and God* for its arguments about organisms as cybernetic systems. In "Natural Values or Taking Biological Contributions to Morals Seriously," *History and Philosophy of the Life Sciences* 24(no. 2, 2002):275-284, citation on p. 280, p. 284.

Michael Ruse (Philosophy, Florida State University) reviews *Genes, Genesis and God*, together with Edward O. Wilson, *The Future of Life*, Stephen Jay Gould, *The Structure of Evolutionary Theory*, Bryan Norton, ed., *Searching for Sustainability*, and Nicholas Agar, *Life's Intrinsic Value: Science, Ethics, and Nature*. Rolston is "the most prominent Christian writing today on ecological and conservation issues" (p. 877). In "Stewardship for the Earth: A Review of Some Recent Books on Biology and Values," *BioScience* 53(no. 9, 2003):876-879.

Karl E. Peters (Philosophy and Religion, Rollins College, Winter Park, FL) cites *Genes, Genesis and God*: "Holmes Rolston's helpful and sophisticated discussion of the relation between genes and culture in various types of altruism in his Gifford Lectures, *Genes, Genesis and God*." In "Pluralism and Ambivalence in the Evolution of Morality," *Zygon: Journal of Religion and Science* 38(no. 2, 2003):333-354, citation on p. 345, p. 354.

Gregory R. Peterson (Philosophy and Religion, South Dakota State University, Brookings) cites *Genes, Genesis and God* on directions in evolutionary natural history. In "Being Conscious of Mark Bekoff: Thinking of Animal Self-Consciousness," *Zygon: Journal of Religion and Science* 38(no. 2, 2003):247-256, citation on p. 254, p. 255.

Brent Waters (Garrett-Evangelical Theological, Evanston, IL) cites *Genes, Genesis and God* for its critical analysis of the capacity of human parents to care for children with whom they share no close biological genetic heritage, rejecting sociobiological accounts. In "Welcoming Children into our Homes: A Theological Reflection on Adoption," *Scottish Journal of Theology* 55(no. 4, 2002):424-437.

Ronald Godzinski (Philosophy, Southern Illinois University at Carbondale) says that "*Genes, Genesis and God* exemplifies some of Rolston's finest work. For a text that was intended to reach a wide audience, Rolston has excelled. This is especially evident where Rolston has taken 'thick' scientific concepts, made them accessible to the layperson, and done so without impinging on their content. ... Rolston's argument seems compelling..." Review in *Kinesis* (Southern Illinois University at Carbondale) 31(no. 2, 2005):66-71.

Christopher L. Fisher (Asbury Theological Seminary, Wilmore, KY) cites *Genes, Genesis and*

God for its defense of the uniqueness of human mental and moral life. In "Animals, Humans and X-Men: Human Uniqueness and the Meaning of Personhood," *Theology and Science* 3(no., 3, 2005):291-314, citations on p. 292, p. 304, p. 306, p. 309, p. 313.

John Polkinghorne (Cambridge University) cites *Genes, Genesis and God* for its account of the blending of both environmental and genetic influences in evolutionary natural history. In *Exploring Reality: The Intertwining of Science and Religion* (New Haven: Yale University Press, 2005), p. 49.

Mikael Stenmark (Theology, University of Uppsala, Sweden) cites *Genes, Genesis and God* for its critique of sociobiology and evolutionary psychology. In "Sociobiology and Evolutionary Psychology: Darwinism and Religion." Pages 8477-8480 (vol. 12) in *Encyclopedia of Religion*, Second Edition, Lindsay Jones, editor-in-chief. Farmington Hills, MI: Macmillan Reference USA, Thomson \ Gale, 2005. Citation on p. 8479.

John Hedley Brooke (Professor of Science and Religion, Oxford University) cites *Genes, Genesis and God* for its analysis of why the "watchmaker" kinds of design arguments are inappropriate in the light of contemporary biology. He also cites Rolston's account of nature as a *via dolorosa*. In "Revisiting Darwin on Order and Design," pages 31-52 in Niels Henrik Gregersen and Ulf Gorman, eds., *Design and Disorder: Perspectives from Science and Theology* (London: T&T Clark, 2002), citations on p. 47, p. 52.

J. Wentzel Van Huyssteen (Religion and Science, Princeton Theological Seminary) cites *Genes, Genesis and God*. In "Evolution and Human Uniqueness: A Theological Perspective on the Emergence of Human Complexity." Pages 195-215 in Kees Van Kooten Niekerk and Hans Buhl, eds., *The Significance of Complexity: Approaching a Complex World Through Science, Theology and the Humanities* (Aldershot, Hants, UK: Ashgate, 2004), citations on pp. 210-211, p. 215. "Holmes Rolston's important recent work, *Genes, Genesis and God* ... convincingly argues that natural selection is greatly relaxed in great areas of cultural activity." (p. 210).

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length for its arguments about value in nature and the origin of information. Although Rolston is opening up the possibility of religious interpretation of evolutionary history, "Rolston's ability to argue on the empirical terms without invoking a religious premise adds power to his concluding proposal." "Teleology Past and Present," *Zygon: Journal of Religion and Science* 41(no. 2, 2006):445-464, citations on p. 445, pp. 458-460.

Donald G. Crosby (Philosophy, Colorado State University) cites *Genes, Genesis and God*. In *A Religion of Nature* (Albany: State University of New York Press, 2002), citation on p. 106, 108, 180.

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Fred W. Hallberg (Philosophy and Religion, University of Northern Iowa), in a review, says:"This ambitious book is a distinguished addition to the Gifford Lecture Series. ... Robust features of the story of life are neither predicted nor explained by the current version of neo-Darwinian evolutionary theory. That is why the theory is false when asserted to be generally acceptable and complete. Rolston proposes to correct the current version of neo-Darwinianism by introducing a dimension of value into its account of selection. ... What is selected for and preserved in the evolutionary account is this cumulative quantity of information or value. ... The emergence of increasing levels of order in life, and of unexpected 'discoveries' of nature cannot be explained by a purely value-neutral theory of evolution. ... This reviewer finds Rolston's book to be a *tour de force*. ... We do not see many such attempts among contemporary philosophers to construct comprehensive theories which promise to integrate both science and religion, especially not from philosophers who are as well versed in the natural sciences as is Rolston." Review in *American Journal of Theology & Philosophy* 21(no. 1, January 2000):85-88.

Victoria S. Harrison (Philosophy, University of Glasgow, Scotland) cites *Genes, Genesis and God* in several contexts. She cites Rolston's reply to E.O. Wilson's argument that biologically advantageous behaviors are likely not to be true (p. 162), Rolston's argument that a purely Darwinian scientific account of evolution (that the fittest survive) cannot explain the origins of the geophysical setup in which life became possible, nor the origins of life, nor the increase in

information that creates biodiversity and biocomplexity (pp. 179-182, p. 186, p. 191, p. 193, p. 194, p. 195). In Harrison, *Religion and Modern Thought* (London, SCM Press, 2007).

Scott F. Gilbert (Biology, Swarthmore College) cites *Genes, Genesis and God*. In "Evolutionary Developmental Biology and Intelligent Design," pages 691-700, in Gennaro Auletta, Marc Leclerc, Rafael A. Martinez, eds., *Biological Evolution: Facts and Theories: A Critical Appraisal 150 Years after "The Origin of Species"* (Rome: Gregorian and Biblical Press, 20011). Citations on p. 698, p. 700.

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Paul B. Thompson (W. K. Kellogg Chair in Agricultural, Food, and Community Ethics, Michigan State University) cites Rolston's *Genes, Genesis, and God*, for his arguments about intrinsic value in nature. In *From Field to Fork: Food Ethics for Everyone* (New York: Oxford University Press, 2015), citations on pp. 182-183, p. 313.

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Graeme Finley (Senior Lecturer, Scientific Pathology, The University of Auckland, Auckland, New Zealand) cites and quotes from *Genes, Genesis, and God* repeatedly in "The Amazing Placenta: Evolution and Lifeline to Humanness," *Zygon: Journal of Religion and Science* 55 (2020, no. 2):306-326 on the place of chance in generating evolutionary novelty in the evolution of the placenta, and the generation of increased caring over historical natural history. Citations on p. 314, p. 316, p. 326.