

billions of humans in case she gets pregnant. But while the Bayesian calculus is sound, this line of reasoning is not. Since Eve and Adam *know* that they are the first two humans, learning whether or not there are billions of others does not change their belief that they are the first humans. This background knowledge spoils the applicability of the self-sampling assumption, and they cannot be considered a random sample. When Bostrom later discusses the reference class problem, i.e. the difficulty of choosing an adequate reference class, he admits that the background knowledge of the observer is intimately linked with the choice of reference class. Thus, the problem that Bostrom solves, or attempts to solve, almost inverts: rather than calculating probabilities of hypotheses in the light of some biased observational evidence from some mechanically established reference class, one starts out from intuitively given probabilities and infers back the corresponding reference class and its stability under varying probability distributions.

Chapters 10 and 11 present a general theory of OSE, including a reformulation of the self-sampling assumption. The author discusses, but does not solve, the reference class problem and its relation to indexical information. Unfortunately, he only offers a rather sketchy account of these issues, which are of high interest to the reader with a systematic inclination. Apart from the insufficiently explicated and thus somewhat obfuscated mathematical reasoning in these two chapters, Bostrom presents a highly readable and widely relevant work which can be warmly recommended to everyone in philosophy of science. The book has an associated website (www.anthropic-principle.com) where one can find an abundance of scholarly resources regarding anthropic reasoning, the Doomsday argument, and some other philosophical conundrums. Bostrom's book has appeared in the Studies in Philosophy: Outstanding Dissertations series edited by the late Robert Nozick. Just a few pages into the volume, and the reader learns why.

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Bryan G. Norton, *Searching for Sustainability: Interdisciplinary Essays in the Philosophy of Conservation Biology*. New York: Cambridge University Press (2003), viii + 554 pp., \$30.00 (paper).

This anthology collects 27 essays published since 1988 by Bryan Norton, whose early books set much of the agenda and a higher standard of argumentation for environmental ethics (Norton 1987, 1991). Reflecting his longstanding participation in environmental policy formation with the Environmental Protection Agency and his position in a public policy

school, conservation scientists and environmental policy makers constitute the original audience of these essays; few were originally published in philosophical venues. Norton addresses a diverse set of issues that include: the pragmatism of Thoreau and Aldo Leopold, anthropocentrism vs. nonanthropocentrism concerning environmental values, the relationship between economics, ecosystem valuation, and environmental policy, and the role of spatiotemporal scale in environmental management and policy formation. Given their ambitious scope, the essays are only loosely unified as a search for a better understanding of the concept of sustainability.

For philosophers of science, Norton's discussions of issues of spatiotemporal scale in ecosystem valuation and the value-ladenness of conservation science are the most interesting. This discussion, however, exhibits a major weakness. Norton's conceptual analysis is often not specific or clear enough to be philosophically illuminating. Consider, for instance, the only explicit definition of sustainability presented in the anthology: a relationship between economic and ecological systems such that "(a) human life can continue indefinitely; (b) human individuals can flourish; (c) human cultures can develop; but in which (d) effects of human activities remain within bounds so as not to destroy the health/integrity of the environmental context of human activities" (177). Norton does not elucidate the vague notions of individual flourishing or cultural development and the reader can only speculate about the relationship between (b) and (c). Identifying 'integrity of the environmental context' with 'ecosystem integrity,' Norton attempts to illuminate (d) by defining the latter as the maintenance of a region's gamma diversity that has "held sway historically" and the "autonomous processes" that maintain this diversity (178). Leaving aside the question of what definition of gamma diversity Norton has in mind (Huston 1994) and Norton's problematic "operational definition" of 'autonomous' as that which "allows self-organization" (177), Norton is not explicit about what historical benchmark is appropriate. Similar to the contentious problem of what historical period restoration ecologists should restore to (Callicot 2002), Norton's omission skirts the question of what temporal period conservationists should use to assess ecosystem integrity. The similar definition of 'ecological integrity of a place' in another essay is no more helpful (491).

Norton's use of "hierarchy theory" exhibits the same lack of clarity and specificity. His attention to hierarchy theory is motivated by its focus on spatiotemporal scale (Allen and Starr 1982, O'Neill et. al. 1986). This focus is critical since (i) an adequate understanding of ecosystems requires careful consideration of the spatiotemporal scale(s) at which they have been and should be studied (Levin 1992); (ii) an adequate understanding of ecosystems is crucial to successfully addressing environmental problems;

and (iii) conservation biologists have paid insufficient attention to (i). It is unclear, however, that anything approaching a scientific hierarchy *theory* has emerged from this work or, as Norton (282) claims, that it represents “a new and highly promising theoretical approach” (Sarkar 1984, Ellner 1987, Ricklefs 1987). For instance, the “descriptive axioms” of hierarchy theory that Norton suggest: “(1) that all observation must be from some point inside the hierarchically organized system that is being measured and (2) that smaller subsystems within the hierarchy change at a slower pace that represents a quantum difference from the pace of change in the larger system in which it is embedded—its environment” (317) only dimly illuminate the concept of a hierarchy and contribute little to a better comprehension of (i). The second axiom (2) is also inconsistent with the claim, made in most of the works devoted to hierarchy theory and made by Norton at other places (65, 214, 229, 282), that smaller subsystems usually change at a more rapid rate than the larger systems that contain them.

Conservation biology is a relatively young science, and it is only beginning to receive the philosophical attention it merits. As part of the distinguished Cambridge Studies in Philosophy and Biology series, this anthology makes an important contribution towards securing the recognition conservation biology deserves within the philosophy of biology. Given the subtitle, however, it is surprising that Norton scarcely discusses conservation *biology* as a biological science. The essays do not address the epistemological and methodological issues that arise in the modeling of population viability, the prediction of species distributions based on habitat type or other environmental parameters, the prioritization of places based on biodiversity content, or the role ecological theories should or should not play in the science of reserve network design. Since his primary goal is to, “contribute to a better understanding of the complex process by which environmental policy is proposed, modified, and implemented” (1), Norton’s anthology is more accurately subtitled as essays in the philosophy of environmental policy formation and ecosystem evaluation.

For topics more remote from the philosophy of science, Norton displays an acute sensitivity to philosophical problems and a thorough practical knowledge of the realities of environmental policy formation and ecosystem valuation. Norton’s critical analysis of nonanthropocentrism (essays 3, 21) and attempts to value ecosystems monetarily (essays 10–14, 23), as well as his interpretation of Thoreau and Leopold as pragmatic thinkers (essays 1–3, 5, 8) leaves little to be desired. He demonstrates, for instance, the impotency of nonanthropocentric environmental ethics in contexts where it should matter the most, environmental policy formation and ecosystem valuation (essay 3). With the same eloquence as his earlier books, Norton vividly exploits well-chosen examples to illustrate his

arguments. Despite its weaknesses, Norton's anthology provides a valuable, and currently rare, resource for environmental philosophy.

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John Stachel, *Einstein from 'B' to 'Z'*. Einstein Studies, vol. 9. Boston: Birkhäuser (2002), xi + 556 pp., \$69.95 (cloth).

John Stachel was the founding editor of the *Collected Papers of Albert Einstein* and is among the world's most knowledgeable experts on Einstein. When he dared to publish a collection of essays under the title *Einstein from 'B' to 'Z'*, he must have had his tongue in cheek. The 'A' is left out to indicate that the volume does not exhaust all aspects of Einstein's life and work. It is also possible to find some idiosyncratic biases in the book. Nevertheless, this collection of 37 essays written over the past 25 years gives a surprisingly comprehensive and balanced picture of Einstein.

The first chapter on the "Human Side" contains some short, authoritative biographical overviews as well as topical discussions, e.g. on Einstein's Jewish identity. These biographical pieces, although few in number, suggest that Einstein's political awareness and his standpoints on social issues are dearest to Stachel's heart. But with all his sympathy for Einstein, he is very careful not to give in to hagiographic temptations. It is no accident that Stachel also included a chapter on his involvement in "Editing the Einstein Papers." It is his credo that any Einstein scholarship must be grounded on the critical and comprehensive evaluation of all available documentary evidence.

Searching for Sustainability: Interdisciplinary Essays in the Philosophy of Conservation Biology (Cambridge Studies in Philosophy and Biology) Paperback 17 Oct 2002. by Bryan G. Norton (Author). "[R]eaders with interests in environmental science and conservation biology will find insight and mature, thoughtful discussion well founded in the social and life sciences as well as the humanities." Choice. "...inspiring and thought-provoking as well as wide-ranging... This book would be excellent for an undergraduate or graduate student discussion of public policy and philosophy, and as background reading on the complexities of sustainability." 2 September 2003 - Published on Amazon.com. Verified Purchase. Cambridge University Press does . Practice exam-style papers and marking schemes. Glossary. ... 4th edition. Cambridge University Press, 2015. 276 p. Objective First is an updated and revised Cambridge First Certificate in English - Student's Book with answers. 177 Pages 2001 20.02 MB 9,947 Downloads New! syndicate - Student's book with answers Cambridg. University Press is the only official publisher Page 1 Page 2 Page 3 CAMBRIDGE UNIVERSITY PRESS Cambridge, New York, Melbourne 102 Pages 2006 32.66 MB 696 Downloads. , first published by . Are you Tomiko Sato? B: . Page 1 Page 2 Page 3 CAMBRIDGE UNIVERSITY PRESS Page 1 CAMBRIDGE CAMBRIDGE ENGLISH 5 UNIVERSITY PR... Abstract: A continuing interest in interdisciplinary research characterizes conservation biology. This interest is a response in large part to the increasingly complex problems facing society. Analysis of recent ecotourism research, as an interdisciplinary enterprise, offers insights. The need for such research to address environmental problems was first identified by ecologists in the 1970s [5], around the same time that there was general societal recognition of the complexity of these problems. In conservation biology, this recognition of the need for multi-disciplinary research has been expressed in several ways. Cambridge University Press Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo Cambridge University Press The Edinburgh Building, Cambridge CB2 8RU, UK Published in the United States of America by Cambridge University Press, New York www.cambridge.org Information on this title: www.cambridge.org/9780521822138 Cambridge University Press 2007 This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press... Interdisciplinary Essays in the Philosophy of Conservation Biology. Bryan G. Norton. Published online: 21 January 2010. This collection of essays focuses on the connection between biology, in particular evolutionary biology, and foundational questions in ethics. The book asks such questions as whether humans are innately selfish, and whether there are particular facets of human nature that bear directly on social practices. This is one of the first books in a new series that will publish the very best work in the philosophy of biology. The series will be non-sectarian in character, will extend across the broadest range of topics, and will be genuinely interdisciplinary.