

# **EXPLANATION IN ANTHROPOLOGY AND HUMAN ECOLOGY**

(070:528, 215:599, 378:502)

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## Syllabus and Reading List

The course will be devoted to analysis of modes of explanation found in studies in anthropology (including socio-cultural and evolutionary anthropology) and in human ecology, with consideration of such issues and topics as causal vs. non-causal explanations; holism and individualism; essentialism; explaining actions by referring to mental events; norms and traditions as explanatory factors and as objects of explanation; unintended consequences as objects of explanation; naive functionalism in cost/benefit explanations; the explanatory role of generalizations; the explanatory use of narratives; the relation between "processes" and "events" in explanations; counterfactual questions and explanatory relativity; "how-possibly" vs. "why-actually" explanations; and the usability of the same modes of explanation for behavior in different cultures and different periods.

Students will be expected to come to class with brief written answers (1-2 pages) to assigned questions based on the assigned readings and will be expected to take part in discussion of the questions and answers. Students' provisional written answers to a selected few of the assigned questions are to be submitted about halfway through the course for the instructors' comments. The final answers to all of the questions are to be submitted by students at the end of the semester and will figure, along with participation in classroom discussions, in the determination of grades. Participating in the discussions during at least ten of the class meetings is required for a grade higher than C. Since class periods will be devoted to discussion of the readings, not falling behind in them and in the preparation of the written answers to the questions will be essential for successful completion of the course.

Either short essays on the semester's work as a whole or else term papers on explanatory issues in relation to studies in anthropology or human ecology are required from students and are to be submitted, along with the homework assignments, at the end of the semester.

Readings for the course are listed below and include anthropological case studies as well as

methodological and theoretical discussions. It should be noted that the fifty-five items marked with asterisks are recommended but not required readings. It should also be noted that, in the case of fifteen items not marked with asterisks, only some of the listed pages are required reading. Moreover, eleven of the numbered items on the list (e.g., 74, 75, 102, and 115) are repetitions of previously listed items needing to be reviewed.

Items not marked with asterisks will be available for purchase.

## I. BACKGROUND

1. Morren, G.E.B., 1986, The Miyanmin: Human Ecology of a New Guinea Society, Ann Arbor: UMI Research Press, pp. 13-14 (on distinguishing theory, methodology, and technique).

\*2. De Munck, V.C., and E. Sobo, eds., 1998, Using Methods in the Field, Walnut Creek: AltaMira Press, pp. 253-254 ("Appendix") (illustration of Morren's point [Reference 1, above] about anthropologists' equation of methodology with techniques).

3. Roscoe, P.B., 1995, "The Perils of 'Positivism' in Cultural Anthropology," American Anthropologist 97: 492-504 (on interpretive methods in the natural sciences and on anthropologists' "erroneous conflation of science and positivistic conceptions of science").

\*4. Martin, M., 1993, "Geertz and the Interpretive Approach in Anthropology," Synthese 97: 269-286 (on Geertz's misleading analogy of ethnography as text interpretation and his inadequate accounts of causality and the validation of social scientific interpretations).

\*5. Harris, O., 1996, "The Temporalities of Tradition: Reflections on a Changing Anthropology," in V. Hubinger, ed., Grasping the Changing World: Anthropological Concepts in the Postmodern Era, London: Routledge, pp. 1-16 (on anthropology's modernist, structuralist, and postmodern "moments").

## II. ALTERNATIVE CONCEPTS OF EXPLANATION

6. Vayda, A.P., 1995a, "Alternative Scientific Explanations," Anthropology Newsletter, October, p. 3.

7. Roth, P.A., 1996, "Will the Real Scientists Please Stand Up? Dead Ends and Live Issues in the Explanation of Scientific Knowledge," Studies in the History and Philosophy of Science 27: 43-68 (only pp. 43-45 and 61-67, arguing for explicating and assessing "each putative explanatory practice in terms other than those drawn from some abstract characterization of what it is to be a science," are required).
- \*8. Evans, J., "The Influence of Prior Belief on Scientific Thinking," in P. Carruthers, S. Stich, and M. Siegal, eds., 2002, The Cognitive Basis of Science, Cambridge: Cambridge University Press, pp. 193-210 (see especially p. 204 on confirmation-seeking bias and satisficing in actual "scientific" thinking and practice).
9. Caldwell, B., 1982, Beyond Positivism, London: Allen & Unwin, pp. 53-60 (the section entitled "The Covering-Law Models Challenged").
10. Brandon, R.N., 1990, Adaptation and Environment, Princeton: Princeton University Press, pp. 159-161 (on "Two Concepts of Explanation").
11. Smith, E.A., 1983, "Evolutionary Ecology and the Analysis of Human Social Behavior," in R. Dyson-Hudson and M.A. Little, eds., Rethinking Human Adaptation: Biological and Cultural Models, Boulder: Westview, pp. 23-40 (arguments for a model-based, general, professedly Darwinian explanatory approach).
12. Vayda, A.P., 1995b, "Failures of Explanation in Darwinian Ecological Anthropology..." Philosophy of the Social Sciences 25: 219-249, 360-375 (arguments for a causal/mechanical approach and against Smith's approach [Reference 11, above]).
13. Lewis, D., 1986, Philosophical Papers, Vol. 2, New York: Oxford University Press, pp. 214-231 (on explaining events by providing information about their causal histories).
14. Schroeder, J.L., 2000, "Just So Stories: Posnerian Methodology," Cardozo Law Review 22: 351-423 (only pp. 351-355 and 395-407, on Posner's misuse of abductive or hypothetical reasoning, are required but entire article should be available online).

\*15. Peirce, C.S., 1932, Collected Papers of Charles Sanders Peirce, Vol. 2, C. Hartshorne and P. Weiss, eds., Cambridge: Harvard University Press, pp. 495-499 (one of Peirce's many passages on abduction, induction, and deduction as three elementary modes of reasoning).

16. Freedman, D.A., 1991, "Statistical Methods and Shoe Leather," in Sociological Methodology 1991 (P.V. Marsden, ed.) 21: 291-313 (only pp. 291-304 and 311-313 are required) (on detective work vs. regression models to find causes of events).

### III. ISSUES IN EXPLANATION

#### A. Holism and Individualism

\*17. Wolf, E., 1988, "Inventing Society," American Ethnologist 15: 752-761.

18. Dore, R., 1961, "Function and Cause," American Sociological Review 26: 843-853 (only pp. 848-852 required).

19. Elster, J., 1986, An Introduction to Karl Marx, Cambridge: Cambridge University Press, pp. 22-25 (section on "Methodological Individualism").

\*20. Little, D., 1991, Varieties of Social Explanation: An Introduction to the Philosophy of Social Science, Boulder: Westview Press, pp. 195-201 (on the "microfoundations debate").

\*21. Dray, W., 1980, Perspectives on History, London: Routledge & Kegan Paul, pp. 47-66, 128-130 (analysis of methodological individualism as set forth by J.W.N. Watkins).

22. Bhargava, R., 1994, Summary of his book, Individualism in Social Science: Forms and Limits of a Methodology (Oxford University Press, 1992), in History and Theory 33: 266 (on the "pivotal role of social practice" for the explanation of individual intentions and actions).

\*23. Turner, S., 1994, The Social Theory of Practices, Chicago: University of Chicago Press (on their lack of intelligible causal powers and some other problems with social practices as a concept).

24. Douglas, M., 1986, How Institutions Think, Syracuse: Syracuse University Press, pp. 9-19 (discussion of Durkheim and Fleck on the social conditioning of cognition and action).

\*25. Jorgensen, S.E., 1997, Integration of Ecosystem Theories: A Pattern, 2nd ed., Dordrecht; Kluwer, pp. 343-363 (tentative propositions pertaining to ecosystems in general).

26. Sagoff, M., 1997, "Muddle or Muddle Through? Takings Jurisprudence Meets the Endangered Species Act," William and Mary Law Review 38: 825-993 (only pp. 948-951, on deficiencies of holistic ecological theories and concepts for causal explanations and real-world applications, are required).

27. Rappaport, R., 1969, "Ritual Regulation of Environmental Relations among a New Guinea People," in A.P. Vayda, ed., Environment and Cultural Behavior, Garden City, NY: Natural History Press, pp. 181-201.

28. Rappaport, R., 1990, "Ecosystems, Populations and People," in E.F. Moran, ed., The Ecosystem Approach in Anthropology, Ann Arbor: University of Michigan Press, pp. 41-71 (only pp. 41-51 and 70-71 are required).

29. Kemp, J., 1988, Seductive Mirage: The Search for the Village Community in Southeast Asia, Dordrecht: Foris Publications, pp. 7-19, 38-39.

30. Vayda, A.P., 1996, Methods and Explanations in the Study of Human Actions and Their Environmental Effects, Jakarta: Center for International Forestry Research, pp. 9-16 only (section on "Problems with Studying Humans as Components of Predefined Systems").

31. Smith, C.A., 1984, "Local History in Global Context: Social and Economic Transitions in Western Guatemala," Comparative Studies in Society and History 26: 193-228 (only pp. 193-195 required).

## B. Essentialism and Anti-Essentialism

32. Popper, K., 1957, The Poverty of Historicism, Boston: Beacon Press, pp. 26-29.

33. Gould, S.J., 1982, "Of Wasps and WASPs," Natural History, December, pp. 8-15.

34. Vayda, A.P., 1994, "Actions, Variations, and Change: The Emerging Anti-Essentialist View in Anthropology," in R. Borofsky, ed., Assessing Cultural Anthropology, New York: McGraw-Hill, pp. 320-330.
- \*35. Pelto, P.J., and G.H. Pelto, 1975, "Intra-Cultural Diversity: Some Theoretical Issues," American Ethnologist 2: 1-18.
36. Wilson, P., 1977, "The Problem with Simple Folk," Natural History, December, pp. 26-32.
37. Hallpike, C.R., 1974, "Aristotelian and Heraclitean Societies," Ethos 2: 69-76.
38. Vayda, A.P., 1979, Review of C.R. Hallpike's Bloodshed and Vengeance in the Papuan Mountains. American Anthropologist 81: 424-425.
39. White, E., 1979, Review of E.W. Said's Orientalism. Manchester Guardian Weekly, February 4, p. 18.
- \*40. Robison, R., 1990, Power and Economy in Suharto's Indonesia, Manila: Journal of Contemporary Asia Publishers, pp. 97-100 (chap. 4 on "orientalism" in analyses of Southeast Asian politics).
- \*41. Harris, M., 1979, Cultural Materialism, New York: Random House, pp. 165-221 (on structuralism).
- \*42. Gailey, C.W., 1983, "Categories without Culture: Structuralism, Ethnohistory and Ethnocide," Dialectical Anthropology 8: 241-250.
43. Obeyesekere, G., 1992, The Apotheosis of Captain Cook: European Mythmaking in the Pacific, Princeton: Princeton University Press, pp. 8-9, 19-22, 205 (arguments against assuming that the religious or cosmological beliefs of Polynesians necessarily interfere with their exercise of practical rationality).
44. Sahlins, M., 1995, "How 'Natives' Think," Times Literary Supplement, June 2, pp. 12-13 (abridged from Sahlins's "Introduction" in his 1995 book, answering Obeyesekere [Reference 43, above] and arguing against "negating ... cultural particularity in favour of a universal practical rationality").

\*45. Thomas, N., 1991, "Against Ethnography," Cultural Anthropology 6: 306-322 (arguments against ethnographers' exoticizing and essentializing "others" and "other cultures").

\*46. Colson, E., 1984, "The Reordering of Experience: Anthropological Involvement with Time," Journal of Anthropological Research 40: 1-13 (on the pervasiveness of flux and the absence of enduring values or essences).

### C. Mental Phenomena as Explanations of Actions or Behavior

47. Shaffer, J., 1968, Philosophy of Mind, Englewood Cliffs, N.J.: Prentice-Hall, pp. 77-110 (chap. 5 on "Actions").

\*48. Polkinghorne, D., 1983, Methodology for the Human Sciences, Albany: State University of New York Press, pp. 169-199, 310-313 (chap. 5 on "explanations and accounts of human action").

\*49. Stoutland, F., 1986, "Reasons, Causes, and Intentional Explanation," Analyse & Kritik 1: 28-55.

\*50. Searle, J., 1984, Minds, Brains and Science, Cambridge: Harvard University Press, pp. 57-70 (chap. 4 on "The Structure of Action").

51. Kempton, W., 1987, "Two Theories of Home Heat Control," in D. Holland and N. Quinn, eds., Cultural Models in Language and Thought, Cambridge: Cambridge University Press, pp. 222-242.

52. Keesing, R.M., 1987, "Models, 'Folk' and 'Cultural': Paradigms Regained?" in D. Holland and N. Quinn, eds. (see Reference 51, above), pp. 369-393 (only pp. 381-384 required).

53. Suchman, L., 1987, Plans and Situated Actions, Cambridge: Cambridge University Press, pp. vii-x, 185-189 (on plans vs. contingencies as determinants of actions).

54. Richards, P., 1989, "Agriculture as a Performance," in R. Chambers, A. Pacey, and L.A. Thrupp, eds., Farmer First: Farmer Innovation and Agricultural Research, London: Intermediate Technology Publications, only pp. 39-40 required (on the same theme as Suchman [Reference 53, above]).

\*55. Wassman, P., 1995, "The Final Requiem for the Omniscient Informant? An Interdisciplinary Approach to Everyday Cognition," Culture and Psychology 1: 167-201 (on changes in cognitive anthropology in the direction of greater concern with not necessarily shared knowledge applied by individuals in everyday life).

\*56. Gatewood, J., 1985, "Actions Speak Louder than Words," in J.W.D. Dougherty, ed., Directions in Cognitive Anthropology, Urbana: University of Illinois Press, pp. 199-219 (especially p. 216) (on personal vs. collective representations in accounting for actions).

57. Vayda, A.P., B.B. Walters, and I. Setyawati, n.d., "Doing and Knowing: Questions About Studies of Local Knowledge," in A. Bicker, P. Sillitoe, and J. Pottier, eds., Investigating Local Knowledge: New Directions, New Approaches, London: Ashgate Publishing, in press (on knowing what not to know about knowing when explaining actions) (electronic copies available).

58. Elster, J., 1979, Ulysses and the Sirens: Studies in Rationality and Irrationality, New York: Cambridge University Press, pp. 153-156 (on presuming rationality and inferring the reasons behind actions).

59. Richardson, R.C., 1998, "Heuristics and Satisficing," in W. Bechtel and G. Graham, eds., A Companion to Cognitive Science, Oxford: Blackwell, pp. 566-575 (only pp. 567-570 and 574-575 are required) (optimizing vs. satisficing as bases for decision-making and action).

\*60. Slovic, P., et al., 2002, "Rational Actors or Rational Fools: Implications of the Affect Heuristic for Behavioral Economics," Journal of Socio-Economics 31: 329-342 (on the role of affect and emotions as guides to judgments and decisions).

#### D. Norms and Traditions as Explanantia and as Explananda

\*61. Boyer, P., 1987, "The Stuff 'Traditions' Are Made Of: On the Implicit Ontology of an Ethnographic Category," Philosophy of the Social Sciences 17: 49-65 (on whether and how it makes sense to characterize some phenomena as "traditional").

\*62. Harris, O., 1996 (Reference 5, above), pp. 8-14 (on changing and using conceptions of tradition).

63. Elster, J., 1989, "Social Norms and Economic Theory," Journal of Economic Perspectives 3 (4): 99-117 (on explaining social norms and on using them to explain behavior).

64. Boyd, R., and P.J. Richerson, 1993, "Rationality, Imitation, and Tradition," in R.H. Day and P. Chen, eds., Nonlinear Dynamics and Evolutionary Economics, New York: Oxford University Press, pp. 131-149 (only pp. 131-133 and 149 are required) (discussion and models of basing decision-making and action on imitation or on following tradition rather than on individual learning and problem-solving).

65. Vayda, A.P., 1995b (Reference 12, above), pp. 365-367 (on Boyd and Richerson's models) to be reviewed.

\*66. Heyes, C.M., and H.C. Plotkin, 1989, "Replicators and Interactors in Cultural Evolution," in M. Ruse, ed., What the Philosophy of Biology Is, Dordrecht: Kluwer, pp. 139-162 (see especially pp. 144-150, indicating the "cognitive complexity" of imitation and disagreeing with Boyd and Richerson [Reference 64, above] about regarding it as a simple or distinct alternative to individual learning for the acquisition of particular behavioral variants).

67. Elster, J., 1999, Strong Feelings: Emotion, Addiction, and Human Behavior, Cambridge: MIT Press, chap. 4 (only pp. 85-125, on interrelations of norms, emotions, cognition, and action, are required).

## E. Unintended Consequences as Objects of Explanation

68. Vayda, A.P., 1996 (Reference 30, above), pp. 1-9, 16-44 (the two introductory paragraphs and the sections on "Problems with Emphasizing Concepts and Values about the Environment" and "Actions and Consequences as Objects of Study").

69. Schelling, T., 1978, Micromotives and Macrobehavior, New York: Norton, pp. 140-147 (on unintended aggregate consequences of varied individual behavior).

\*70. Murphy, M., 2002, "Viagra Gives Wildlife a Boost," NewScientist.com, Oct. 25 (on Viagra's unintended impact on trade in wild animal body parts used as traditional cures for impotence).

#### F. Naive Functionalism in Explaining Behavior and Evolutionary Change

71. Harris, M., 1985, Good to Eat: Riddles of Food and Culture (reprinted in 1987 as The Sacred Cow and the Abominable Pig), New York: Simon and Schuster, pp. 13-18, 47-66 (chaps. 1, 3).

72. Vayda, A.P., 1987a, "Explaining What People Eat: A Review Article," Human Ecology 15: 493-510; M. Harris, 1987, "Comment on Vayda's Review of Good to Eat: Riddles of Food and Culture," Human Ecology 15: 511-517; and A.P. Vayda, 1987b, "Reply to Harris," Human Ecology 15: 519-521.

73. Elster, J., 1983, Sour Grapes: Studies in the Subversion of Rationality, Cambridge: Cambridge University Press, pp. 101-108 (on distinguishing well-founded and ill-founded "consequence-explanations").

74. Vayda, A.P., 1995b (Reference 12, above), pp. 225-236 (on "consequence-explanations" and "naive functionalism ") to be reviewed.

75. Smith, C.A., 1984 (Reference 31, above), pp. 193-195 (on "a new kind of global functionalism") to be reviewed.

\*76. Klepp, L., 1995, "Simon Schama Makes a Mess of History," New York, April 24, pp. 55-57 (especially p. 57, suggesting the naive functionalism of some postmodernists).

\*77. Hawkes, K., J.F. O'Connell, and N.G. Blurton Jones, 1989, "Hardworking Hadza Grandmothers," in V. Standen and R.A. Foley, eds., Comparative Socioecology: The Behavioural Ecology of Humans and Other Mammals. Blackwell, Oxford, pp. 341-366.

78. Waddell, E., 1975, "How the Enga Cope with Frost: Responses to Climatic Perturbations in the Central Highlands of New Guinea," Human Ecology 3, only pp. 249-255 required (on the functional explanation of mounding).

79. Vayda, A.P., 1995b (Reference 12, above), pp. 227-228 (on "design analysis" as a means of avoiding naive functionalism in the explanation of mounding) to be reviewed.

80. Orr, H.A., 1996, "Dennett's Strange Idea; Natural Selection: Science of Everything, Universal Acid, Cure for the Common Cold..." Boston Review, Summer (Vol. 21, No.3), pp. 28-32 (critique of Dennett and other adaptationists for their naively functionalist story-telling and their undue claims for the presence of Design) (another, only slightly different version, under the title "Dennett's Dangerous Idea," is in Evolution 50: 467-472 [1996]).

81. Davies, P.S., 2001, Norms of Nature: Naturalism and the Nature of Functions, Cambridge: MIT Press, pp. xi-xiv ("Preface") (all-out critique of appeals to natural selection and to "design" arguments to explain allegedly functional biological traits).

## G. Processes and Events

82. Vayda, A.P., B.J. McCay, and C. Eghenter, 1991, "Concepts of Process in Social Science Explanations," Philosophy of the Social Sciences 21: 317-331.

83. Ben-Menahem, Y., 1997, "Historical Contingency," Ratio (n.s.) 10: 99-107 (on distinguishing between necessary and contingent outcomes).

84. Fischer, D.H., 1996, The Great Wave: Price Revolutions and the Rhythm of History, New York: Oxford University Press, pp. 235-258, 360-361 (on how events relate to regularities in "great waves" of rising prices).

85. Rindos, D., 1984, The Origins of Agriculture, Orlando: Academic Press, pp. 82-99 (on agriculture as resulting from intentional acts but not from an "intentionalist process").

86. Mink, L., 1987, Historical Understanding, Ithaca: Cornell University Press, pp. 198-201 (on the dependence of our conception of events on their place in constructed narratives).

87. Griffin, L.J., 1993, "Narrative, Event-Structure Analysis, and Causal Interpretation in Historical Sociology," American Journal of Sociology 98: 1094-1133 (only pp. 1094-1104 and 1130-1133, dealing with counterfactuals

and other tools for analyzing causal connections among events in narratives, are required).

\*88. McCullagh, C.B., 1984, Justifying Historical Descriptions, Cambridge: Cambridge University Press, chap. 7 ("Justifying Singular Causal Judgments in History").

89. Vayda, A.P., and B.B. Walters, 1999, "Against Political Ecology," Human Ecology 27: 167-179.

90. Honan, W.H., 1998, "Historians Warming to Games of 'What If'," New York Times, January 7, p. B7.

\*91. Weber, M., 1949, The Methodology of the Social Sciences, Glencoe: Free Press, pp. 164-188 ("Objective Possibility and Adequate Causation in Historical Explanation").

#### H. Explanatory Relativity (The "Contrast-Case Problem")

92. Vayda, A.P., 1996 (Reference 30, above), note 12 (p. 30) to be reviewed.

\*93. Hallpike, C.R., 1973, "Functionalist Interpretations of Primitive Warfare," Man 8:451-470.

94. Vayda, A.P., 1989, "Explaining Why Marings Fought," Journal of Anthropological Research 45: 159-177 (on different explanations resulting from differences in contrastive why-questions).

95. Vayda, A.P., 1992, Review of J. Haas, ed., The Anthropology of War, in Anthropos 87: 268-271.

\*96. Hesslow, G., 1988, "The Problem of Causal Selection," in D.J. Hilton, ed., Contemporary Science and Natural Explanation: Commonsense Conceptions of Causality, New York: New York University Press, pp. 11-32 (on criteria for selecting some causes over others in explaining events).

\*97. Hilton, D.J., 1995, "Logic and Language in Causal Explanation," in D. Sperber et al., eds., Causal Cognition: A Multidisciplinary Debate, Oxford: Clarendon Press, pp. 495-529 (on selecting causes from causal scenarios in explaining events).

\*98. Menzies, P., n.d., "Difference-Making in Context," in J. Collins, N. Hall, and L. Paul, eds., Counterfactuals and Causation, Cambridge: MIT Press, in press (on philosophical pros and cons of the commonsense view of causes as difference-makers with respect to contrastive why-questions) (online copy accessible from the author's homepage).

## I. How-Possibly Explanations

99. Dray, W., 1957, Laws and Explanation in History, Oxford: Clarendon Press, pp. 156-169 (chap. 6 on "Explaining Why and Explaining How").

100. Vayda, A.P., 1966, "Diversity and Uniformity in New Guinea," Acta Ethnographica (Hungary) 15: 293-300.

101. Vayda, A.P., 1995b (Reference 12, above), pp. 365-368 (the discussion of Richerson and Boyd's work) to be reviewed.

102. Schroeder, J.L., 2000 (Reference 14, above), pp. 351-355 and 395-407 to be reviewed regarding misrepresentation of "how-possibly" explanations as "why-necessarily" or "why-actually" ones.

103. O'Hara, R.J., 1988, "Homage to Clio, or, Toward an Historical Philosophy for Evolutionary Biology," Systematic Zoology 37: 142-155 (especially pp. 146-150 on the nature and pragmatics of "evolutionary explanation").

104. Richardson, R.C., 2001, "Evolution Without History: Critical Reflections on Evolutionary Psychology," in H.R. Holcomb III, ed., Conceptual Challenges in Evolutionary Psychology, Dordrecht: Kluwer, pp. 327-373 (arguments for rejecting how-possibly explanations if they consist only of "empty generalities or unconstrained speculation").

\*105. Report on New Scientist's "Feedback Christmas Competition," asking readers to submit evolutionary explanations of a human trait or behavior, New Scientist.com newsletter, Dec. 18, 2002 (how-possibly evolutionary explanations of such behaviors as snoring and spitting into urinals) (electronic copy available).

\*106. Elster, J., 1999 (Reference 67, above), pp. 46-50 (critique of how-possibly explanations of emotions as products of selection because of their possible role in causing adaptive or fitness-enhancing behavior).

107. Falvo, D., 2000, "On Modeling Balinese Water Temple Networks as Complex Adaptive Systems," Human Ecology 28: 641-649 (a critique suggesting more plausible, evidence-based alternatives to an acclaimed how-possibly explanation).

108. Vayda, A.P., 1995b (Reference 12, above), pp. 235-236 (the discussion of hard work by post-menopausal Hadza women) to be reviewed.

109. Angier, N., 1999. Woman: An Intimate Geography, Boston: Houghton Mifflin, pp. 216-230, 374 (on using observations among the Hadza [References 77 and 108, above] for how-possibly explanation of the development of long and robust postmenopausal life spans among early humans) .

\*110. Gardenfors, P., 1990, "An Epistemic Analysis of Explanations and Causal Beliefs," Topoi 9: 109-124 (on the idea of degrees of explanation, arguing against any basic difference between "how possibly" and other explanations).

## J. Generalizations: Their Explanatory Uses and Limitations

\*111. Harris, M., 1979 (Reference 41, above), pp. 78-79 (section on "Nomothetic versus Idiographic Theories").

112. Gould, S.J., 1988, "Mighty Manchester," New York Review of Books, October 27, pp. 32-35.

\*113. Cartwright, N., 1999, The Dappled World: A Study of the Boundaries of Science, Cambridge: Cambridge University Press (the view that deductive-nomological accounts will work only in very special circumstances and that impressive scientific successes, even in physics, argue not for "a unified world of universal order, but rather for a dappled world of mottled objects").

114. Richards, R.J., 1992, "The Structure of Narrative Explanation in History and Biology," in M.H. Nitecki and D.V. Nitecki, eds., History and Evolution,

Albany: State University of New York Press, pp. 19-53.

115. Lewis, D., 1986 (Reference 13, above), pp. 225-226 (section on "General Explanation") to be reviewed.

\*116. Cartwright, N., 1988, "Regular Associations and Singular Causes," in B. Skyrms and W.L. Harper, eds., Causation, Chance, and Credence, Vol. 1, Dordrecht: Kluwer, pp. 79-97 (arguments, *contra* Hume, for regarding singular causal facts as basic and not reducible to generic causal facts).

\*117. Roth, P.A., 1988, "Narrative Explanations: The Case of History," History and Theory 27: 1-13.

\*118. Fain, H., 1993, Review of G. Hawthorn's Plausible Worlds: Possibility and Understanding in History and the Social Sciences (Cambridge University Press, 1991), in History and Theory 32: 83-90 (on context-dependence and counterfactual reasoning in historians' explanations).

\*119. Fay, B., 1983, "General Laws and Explaining Human Behavior," in D.R. Sabia and J. Wallulis, eds., Changing Social Science, Albany: State University of New York Press, pp. 103-128.

\*120. Little, D., 1993, "On the Scope and Limits of Generalizations in the Social Sciences," Synthese 97: 183-207.

121. Vayda, A.P., 1995b (Reference 12, above), pp. 360-364 (on "Generality and Causality in Models") to be reviewed.

122. Green, D.P., and I. Shapiro, 1994, Pathologies of Rational Choice Theory, New Haven: Yale University Press, pp. 33-38, 202-204 (on "methodological failings rooted in ... universalist aspirations").

123. Schelling, T., 1978 (Reference 69, above), pp. 83-96, 182-183 (on models).

124. Ostrow, E., 1998, "A Behavioral Approach to the Rational Choice Theory of Collective Action: Presidential Address, American Political Science Association, 1997," American Political Science Review 92: 1-22 (on the need to "expand the range of rational choice models" that are used to explain

collective action and its effects).

\*125. Elster, J., 1990, Excerpts from interview by R. Swedberg, in Swedberg's Economics and Sociology, Princeton: Princeton University Press, pp. 233, 247-248 (chap. 13: "Jon Elster").

126. Sturgess, N.H., and H. Wijaya, 1983, "Rice Harvesting: A View from the Theory of Common Property," Bulletin of Indonesian Economic Studies 19 (2): 2

\*127. Vayda, A.P., and A. Sahur, 1996, Bugis Settlers in East Kalimantan's Kutai National Park: Their Past and Present and Some Possibilities for Their Future, Jakarta: Center for International Forestry Research (case study illustrating, as noted especially on pp. 50-51, the uses and limitations of general knowledge for the causal explanation of particular events).

\*128. Searle, J., 1984 (Reference 50, above), pp. 71-85 (chap. 5 on "Prospects for the Social Sciences").

129. Farr, J., 1982, "Historical Concepts in Political Science: The Case of 'Revolution'," American Journal of Political Science 26: 688-708.

130. Sperber, D., 1986, "Issues in the Ontology of Culture," in R. Barcan Marcus et al., eds., Logic, Methodology and Philosophy of Science VII, Amsterdam: North-Holland, pp. 557-571 (on the interpretive basis of general terms in cultural anthropology).

\*131. Fisher, H., 1991, "Monogamy, Adultery, and Divorce in Cross-Cultural Perspective," in M.H. Robinson and L. Tiger, eds., Man & Beast Revisited, Washington: Smithsonian Institution Press, pp. 95-126 (on an example of something general to be explained: the cross-cultural constancy of 4 years as the modal duration of marriages ending in divorce).

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