

2587 The 20th Century Search for Human Nature 04-2

The 20th century saw repeated announcements of a new, Darwinian science of human nature with the promise of transforming the social and behavioral sciences. In this course we examine the clash between early 20th century 'instinct psychology' and the behaviorist movement in psychology, the rejection of 'instinct psychology' by the founders of ethology and the construction of modern animal behavior studies in the period 1936-50, the negotiation of theoretical compromises between the new ethology and the existing, laboratory based tradition of comparative psychology, and, finally, the problematic period in the 1960s and early 1970s in which sociobiology either displaces or absorbs or develops from ethology.

Jan 6	<p>Victorian background</p> <ul style="list-style-type: none"> ● Darwin, C. (1981 (1871)). <i>The Descent of Man and Selection in Relation to Sex</i> (Facsimile of the first edition ed.). Princeton, NJ: Princeton University Press. Chs II, III, V, XXI ● Richards, R. J. (1987). <i>Darwin and the Emergence of Evolutionary Theories of Mind and behavior</i>. Chicago: Univ. of Chicago Press. Pp. 185-206.
Jan 13	<p>Baldwiniana</p> <ul style="list-style-type: none"> ○ Baldwin, J. M. (1896). Physical and Social Heredity. <i>American Naturalist</i>, 30(May), 422-428. ○ Cope, E. D. (1896). Observations on Prof. Baldwin's Reply. <i>American Zoologist</i>, 30(May), 428-430. ○ Baldwin, J. M. (1897). Organic Selection. <i>Science</i>, 5(23 April), 634-636. ○ Depew, D. (2003). Baldwin & His Many Effects. In B. H. Weber & D. J. Depew (Eds.), <i>Evolution and Learning: The Baldwin Effect Reconsidered</i> (pp. 3-31). Cambridge, MA: MIT Press. (pp. 1-19.) ○ Griffiths, P. E. (2003). Beyond the Baldwin Effect: James Mark Baldwin's 'social heredity', epigenetic inheritance and niche-construction. In B. H. Weber & D. J. Depew (Eds.), <i>Evolution and Learning: The Baldwin Effect Reconsidered</i> (pp. 193-215). Cambridge, Mass.: MIT Press. (pp. 193-204.) ○ <i>For more background on Baldwin himself, see Richards (1987)</i>
Jan 20	<p>Instinct and reflex</p> <ul style="list-style-type: none"> ○ Spalding, D. (1954 [1873]). Instinct: With original observations on young animals, with an introduction by J.B.S Haldane. <i>British Journal for Animal Behaviour</i>, 2(1), 1-11. ○ Richards, R. J. (1987). <i>Darwin and the Emergence of Evolutionary Theories of Mind and behavior</i>. Chicago: Univ. of Chicago Press. (pp. 381-404.) ○ McDougall, W. (1923). <i>Outline of Psychology</i>. New York: Charles Scribner's Sons. (pp. 43-73) ○ McDougall, W. (1908). <i>Introduction to Social Psychology</i>. London: Methuen. (pp.19-66)
Jan 27	<p>The Anti-Hereditarian Movement</p> <ul style="list-style-type: none"> ○ Loeb, J. (1964 [1912]). The Mechanistic Conception of Life. In D. Fleming (Ed.), <i>The Mechanistic Conception of Life</i> Cambridge, MA: Belnap/Harvard University Press. Extract: pp 28-33. ○ Kuo, Z. Y. (1921). Giving up instincts in psychology. <i>Journal of</i>

	<p><i>Philosophy</i>, 18, 645-664.</p> <ul style="list-style-type: none"> ○ Tolman, E. C. (1922). Can Instincts be Given Up In Psychology? <i>Journal of Abnormal and Social Psychology</i>, 17, 139-152. ○ Kuo, Z. Y. (1929). The net result of the anti-heredity movement in psychiatry. <i>Psychological Review</i>, 36, 181-199. ○ McDougall, W. (1922). The Use and Abuse of Instinct in Social Psychology. <i>Journal of Abnormal Psychology and Social Psychology</i>, 16(5-6), 285-333. Skim read this only. The best material is between 289-303 and 307-317.
Feb 3	<p>Lorenz and Instinct</p> <ul style="list-style-type: none"> ○ Burkhardt, R. W., Jr. (1981). On the emergence of ethology as a scientific discipline. <i>Conspectus of History</i>, 1(7), 62-81. ○ Lorenz, K. (1957 (1935)). Companionship in Bird Life. In C. H. Schiller (Ed.), <i>Instinctive Behavior: The development of a modern concept</i> (pp. 83-128). New York: International Universities Press. ○ Lorenz, K. (1957 (1937)). The Nature of Instinct. In C. H. Schiller (Ed.), <i>Instinctive Behavior: The development of a modern concept</i> (pp. 129-175). New York: International Universities Press.
Feb 10	<p>Classical ethology</p> <ul style="list-style-type: none"> ○ Burkhardt, R. W., Jr. (1983). The development of an evolutionary ethology. In D. S. Bendall (Ed.), <i>Evolution: From Molecules to Men</i> (pp. 429-444). Cambridge: Cambridge University Press. ○ Thorpe, W. H. (1950). The definition of some terms used in ethology. <i>Bulletin of Animal Behavior</i>, 8, 34-40. ○ Tinbergen, N. (1951). <i>The Study of Instinct</i>. Oxford: Oxford University Press. (Extracts: pp. 1-14, 205-210) ○ Bierens de Haan, J. A. (1947). Animal Psychology and the Science of Animal Behaviour. <i>Behaviour</i>, 1, 71-80.
Feb 17	<p>The British Reception of Ethology Reading for February 17th</p> <ul style="list-style-type: none"> ○ Haldane, J. B. S. (1956). "The sources of some ethological notions." <i>British Journal for Animal Behaviour</i> 4(4): 162-164. This is his most explicit attack on Lorenz. ○ He is referring to Lorenz's discussion in: Lorenz, K. (1955). <i>Morphology and Behavior Patterns in Closely Allied Species. Group Processes: Transactions of the first conference September 26-30, Ithaca, NY</i>. B. Schaffner. New York, Josiah Macy Foundation. This is a GREAT document because it transcribes the running discussion with Tinbergen, Schnerla, Lehrman, Mayr, etc during and after Lorenz's talk. We will return to it in future weeks.

	<ul style="list-style-type: none"> ○ Haldane, J. B. S. (1992 [1955]). "Animal Communication and the Origin of Human Language." <u>Current Science</u> 63(9-10): 604-611. This is the most comprehensive of Haldane's popular statements of his theory of language evolution. ○ Haldane, J. B. S. and H. Spurway (1954). "A statistical analysis of communication in "Apis Mellifera" and a comparison with communication in other animals." <u>Insectes Sociaux</u> 1(3): 247-283. This is the most serious scientific publication in which Haldane covers the theory. You should concentrate on the discussion section, p262 ff.
Feb 24	<p>Waddington and Ethology</p> <ul style="list-style-type: none"> ○ Waddington, C. H. (1942). "Canalisation of development and the inheritance of acquired characters." <u>Nature</u> 150: 563-565. ○ Waddington, C. H. (1953). "The "Baldwin Effect", "Genetic Assimilation" and "Homeostasis"." <u>Evolution</u> 7(4): 386-387. ○ Spurway, H. (1955). "The Causes of Domestication: An attempt to integrate some ideas of Konrad Lorenz with evolution theory." <u>Journal of Genetics</u> 53: 325-362. (Extracts). In this article Spurway makes extensive use of Waddington's ideas to interpret Lorenz. ○ Thorpe, J. P., R. A. Hinde, et al. (1955). "Proceedings of the Association for the Study of Animal Behavior, April 1955." <u>British Journal for Animal Behaviour</u> 3(3): 121-124. This collection of abstracts gives evidence of emerging differences between the views of british ethologists and Lorenz. ○ Ewer, R. F. (1956). "Imprinting in Animal Behavior." <u>Nature</u> 177: 227-228. In response to the 1955 ASAB proceedings, this article proposes using Waddington's ideas to explain imprinting, but Haldane and Spurway criticize this proposal in: ○ Haldane, J. B. S. and H. Spurway (1956). "Imprinting and the Evolution of Instincts." <u>Nature</u> 178: 85-86.
Mar 2	<p>Ethology and American Comparative psychology</p> <ul style="list-style-type: none"> ○ Lehrman, D. S. (2001 (1953)). Critique of Konrad Lorenz's theory of instinctive behavior (Abridged by Timothy D. Johnston). In S. Oyama, P. E. Griffiths & R. D. Gray (Eds.), <i>Cycles of Contingency: Developmental Systems and Evolution</i> (pp. 25-39). Cambridge, MA: MIT Press. ○ Tinbergen, N. (1963). On the aims and methods of ethology. <i>Zietschrift für Tierpsychologie</i>, 20, 410-433. (Concentrate on pp. 413-416; 423-427). ○ Lorenz, K. (1965). <i>Evolution & the Modification of Behavior</i> (US ed.). Chicago: University of Chicago Press. (Extracts) <p>I am also providing some useful secondary sources, although I do not</p>

	<p>expect you to read all of this material for the seminar. Johnston gives a particularly useful overview of the whole Lorenz-Lehrman debate.</p> <ul style="list-style-type: none"> ○ Johnston, T. D. (2001). Towards a systems view of development: An appraisal of Lehrman's critique of Lorenz. In S. Oyama, P. E. Griffiths & R. D. Gray (Eds.), <i>Cycles of Contingency: Developmental Systems and Evolution</i> (pp. 15-23). Cambridge, Mass.: MIT Press. ○ Beer, C.G. 1975. Was Professor Lehrman an ethologist? <i>Animal Behaviour</i> 23:957-964. ○ Silver, R, and J.S Rosenblatt. 1987. The development of a developmentalist. <i>Developmental Psychobiology</i> 20:563-570.
Mar 9	<i>Spring Break</i>
Mar 16	<p>The hydraulic model</p> <ul style="list-style-type: none"> ○ Lorenz, K. (1950). "The comparative method in studying innate behaviour patterns." Symposium of the Society of Experimental Biology 4(Physiological Mechanisms in Animal Behaviour): Section 4 (pp. 246-260). ○ Tinbergen, N. (1951). <i>The Study of Instinct</i>. Oxford, Oxford University Press. Ch 5 (pp. 101-127.) ○ Hinde, R. A. (1956). "Ethological Models and the Concept of 'Drive'." <i>British Journal for the Philosophy of Science</i> 6: 321-331. ○ Lorenz, K. (1966). <i>On Aggression</i>. New York, Harcourt, Brace and World. Chs 4-6 (pp. 40-92)
Mar 23	<p>The development of behavior genetics Work in Progress Talk: Jim Tabery</p>
Mar 30	<p>Popular biology in the 60's</p> <ul style="list-style-type: none"> ○ Ardrey, R. (1966). <i>The territorial imperative: a personal inquiry into the animal origins of property and nations</i>. New York: Dell Publishing Co. (extracts) ○ Morris, D. (1967). <i>The Naked Ape: A zoologist's study of the human animal</i>. London: Cape. (extracts) ○ Tinbergen, N. (1968). On War and Peace in Animals and Man. <i>Science</i>, 160(3835), 1411-1418. ○ Hinde, R. A.(1967). The nature of aggression (Review of Konrad Lorenz, <i>On Aggression</i>). <i>New Society</i> 9: 302. <p>and</p> <ul style="list-style-type: none"> ○ Work in Progress Talk: Justin Systma

Apr 6	<p>The arrival of Sociobiology</p> <ul style="list-style-type: none"> ○ Wilson, E. O. (1975). <i>Sociobiology: The New Synthesis</i>: Harvard University Press (extracts) ○ Baerends, G.P et al. 1976. Multiple Review of Wilson's Sociobiology'. <i>Animal Behaviour</i> 24:698-718. ○ Bateson, P. 1978. Review of "The Selfish Gene" by Richard Dawkins. <i>Animal Behaviour</i> 26:p316-318. ○ Dawkins, Richard. 1979. Defining Sociobiology. <i>Nature</i> CCLXXX (2 Aug.): 427-8. ○ Barash, D. P. (1979). Human ethology and human sociobiology. <i>Behavioral and Brain Sciences</i>, 2(1), 26-27. ○ Barkow, J. H. (1979). Human ethology: Empirical wealth, theoretical dearth. <i>Behavioral and Brain Sciences</i>, 2(1), 27. ○ Wilson, Edward O. 1979. Ethology and Sociobiology: A point of definition. <i>Behavioral and Brain Sciences</i> 2 (1):49. ○ Bateson, P. P. G., & Klopfer, P. (1989). Introduction. In <i>Whither Ethology?</i> (Vol. 8). New York and London: Plenum. ○ Dawkins, M. S. (1989). The future of ethology: How many legs are we standing on? In P. P. G. Bateson & P. Klopfer (Eds.), <i>Whither Ethology?</i> (Vol. 8, pp. 47-54). New York and London: Plenum.
Apr 13	<p>The arrival of Sociobiology (cond.) and Work in Progress Talk: Peter Gildenhuys</p>