

Anthropology 4315/5315 Human Behavioral Ecology

Instructor: Robert L. Kelly; **Office:** Anthropology 101

Course Hours: T/R 8-9:25 AM

Office Hours: T/R 9:30-10:30 (or call 766-3135 or send e-mail to me). However, my **office policy** is: if my door is open, come in!

E-Mail: RLKELLY@uwo.edu



Texts: Kelly, *The Foraging Spectrum*; Cronk, Chagnon, Irons, *Adaptation and Human Behavior*, and readings. Purchase texts from Amazon or other on-line dealer.

Note: This course does not fulfill the anthropology department's upper division cultural requirement for majors.

Course description: This is a course on human behavioral ecology, the study of “evolution and adaptive design in ecological context.” This course begins with a discussion of ecological/evolutionary paradigms, leading to a description of one approach, that of behavioral ecology, and relies almost entirely upon its application to foraging societies. We focus on foragers because that is my area of expertise, and because it is that form of human society to which HBE has been most heavily applied.

The course will begin with the very beginnings of anthropology itself as the concept of evolution played a key role in the early development of the field. Here we consider the work of Darwin and its misapplication by social evolutionists such as Spencer. We'll then move quickly through some other evolutionary applications, including evolutionary psychology (which focuses on the role of natural selection in the creation of the human mind) and dual inheritance theory, a way to combine the unique elements of cultural and biological (genetic) transmission of information. We then consider the field of human behavioral ecology (HBE), the dominant evolutionary paradigm in anthropology today. As we will see there are variants within HBE, notably those that are more heavily focused on reproductive fitness and those that are less so (full disclosure: I fall in the latter category). I hope to cover a variety of areas: subsistence, mobility, sharing, territoriality, the division of labor, social organization, and political organization.

Requirements: Class participation makes up 1/3 of the grade. I expect students to have done the reading beforehand and come to class with comments and questions. Class proceeds largely in terms of a discussion of the readings. In places, we will give particular attention to the application of HBE in archaeology.

A take home mid-term and final exam together make up 1/3 of the grade (i.e., each is 1/6 of the final grade).

The final term paper makes up the other 1/3. The final paper can be on a topic of your

choice, related to your own research (e.g., for your thesis) or an overview of some aspect of the field (e.g., current research on sharing, demography, etc.) that is of interest to you. In the week of April 10-12, students will give brief reports on their term papers. These are not final presentations of their work, but instead are reports on “progress to date.” This will give both me and the class the opportunity to give each of you feedback and help refine the final paper. (And, of course, each of you are expected to discuss your topics and progress on the paper through the semester with me individually.)

Please note that the course will end a week early as the Society for American Archaeology meetings this year happen to fall in the last week of classes.

Schedule

- Jan 9-11 Introduction: class matters, and discussion of paradigms, hypotheses, theories
Development of Evolutionary Thinking in Anthropology
(1) Kelly, chap 1-2
(2) Cronk et al, chap 1 (Irons and Cronk)
(3) Darwin, C. 1859, *The Origin of Species*, chapter 25 (concluding chapter)
- Jan 16-18 Evolutionary paradigms in anthropology
Fundamental Principles of HBE
(1) Fox, R., 1971, The Cultural Animal. In *Man and Beast: Comparative Social Behavior*, edited by J.F. Eisenberg and W.S. Dilton, pp. 275-296. Washington, D.C., Smithsonian Institution Press.
(2) Sahlins, M..1976, *The Use and Abuse of Biology: An Anthropological Critique of Sociobiology*. Ann Arbor, University of Michigan Press. Chapter 1
(3) Cronk, 1991, Human Behavioral Ecology. *Annual Review of Anthropology* 20:25-53.
(4) Cronk et al chap 2 (Smith)
- Jan 23-25 Foraging
(1) Kelly, chap 3 (ignore section on linear programming)
(2) Hill, K., K. Kaplan, K. Hawkes, and M. Hurtado, 1987, Foraging Decisions Among Ache Hunter-Gatherers: New Data and Implications for Optimal Foraging Models. *Ethology and Sociobiology* 8:1-36.
(3) Tucker, B. 2006, A Future Discounting Explanation for the Persistence of a mixed Foraging-Horticulture Strategy Among the Mikea of Madagascar. In *Behavioral Ecology and the Transition to Agriculture*, edited by D.J. Kennett and B. Winterhalder, pp. 22-40. Berkeley: University of California Press.
- Jan 30-Feb 1 Foraging
(1) Hawkes, K., J.F. O’Connell, and N. Blurton-Jones, 1995, Hadza Children’s Foraging: Juvenile Dependency, Social Arrangements and Mobility among Hunter-Gatherers. *Current Anthropology* 36:688-700.
(2) Tucker, B., and A.G. Young, 2005, Growing Up Mikea, Children’s Time Allocation and Tuber Foraging in Southwestern Madagascar. In *Hunter-gatherer*

Childhoods: Evolutionary, Developmental, and Cultural Perspectives, edited by B.S. Hewlett and M.E. Lamb, pp. 147-171. AldineTransaction, New Brunswick.
(3) Bird, D.W., and R. Bliege-Bird, 2005, Martu Children's Hunting Strategies in the Western Desert, Australia. In *Hunter-gatherer Childhoods: Evolutionary, Developmental, and Cultural Perspectives*, edited by B.S. Hewlett and M.E. Lamb, pp. 129-146. AldineTransaction, New Brunswick.

- Feb. 6-8 Mobility and settlement patterns
(1) Kelly, Chap 4.
(2) Bird, D.W., and R. L. Bliege Bird, 1997, Contemporary shellfish gathering strategies among the Meriam of the Torres Strait Islands, Australia: Testing predictions of a central place foraging model. *Journal of Archaeological Science* 24: 39-63.
- Feb. 13-15 Territoriality and Sharing
(1) Kelly, chap 5
(2) Cronk, chap 18 (Hames)
(3) Henrich, J. et al., 2006, Costly Punishment Across Human Societies. *Science* 312: 1767-1770.
- Feb. 20-22 Sharing
(1) Wood, B., and K. Hill, 2000, A Test of the "Showing Off" Hypothesis with Ache Hunters. *Current Anthropology* 41: 124-125.
(2) Gurven, M., 2002, From forest to reservation: transitions in food-sharing behavior among the Ache of Paraguay. *Journal of Anthropological Research* 58: 93-120.
(3) Smith, E.A., and R.L. Bliege Bird, 2000, Turtle Hunting and Tombstone Opening: Public Generosity as Costly Signaling. *Evolution and Human Behavior* 21: 245-261.
(4) Bliege-Bird, R., D.W. Bird, E.A. Smith, and G.C. Kushnick, 2002, Risk and reciprocity in Meriam food sharing. *Evolution and Human Behavior* 23: 297-321.
(5) Weissner, P., 2002, Hunting, Healing, and Hxaro Exchange: A Long-term Perspective on !Kung (Ju/'hoansi) Large-Game Hunting. *Evolution and Human Behavior* 23: 407-436.

Mid-Term exam handed out

Mid-Term Exam due Feb. 27

- Feb 27-Mar 1 Division of Labor
(1) Kelly, chap 7 (to page 270)
(2) Cronk, chap 12 (Hawkes et al)
(3) Hawkes, K., and R. Bliege-Bird, 2000, Showing off, handicap signaling, and the evolution of men's work. *Evolutionary Anthropology* 11: 58-67.

- Mar. 6-8 Technology
 (1) Ugan, A., J. Bright, and A. Rogers, 2003, When is technology worth the trouble? *Journal of Archaeological Research* 30: 1315-1329.
 (2) Bright, A. Ugan, and L. Hunsaker, 2001, The effect of handling time on subsistence technology. *World Archaeology* 34: 164-181.
 (3) Simms, S., A. Ugan, J. Bright, 1997, Plain-ware ceramics and residential mobility: a case study from the Great Basin. *Journal of Archaeological Science* 24: 779-792.
- Mar. 13-15 NO CLASSES, spring break
- Mar. 20-22 Parenting/mating/reproductive decisions
 (1) Kelly, chap 7, (270 – end) and Kelly, chap 6
 (2) Cronk, chap 4 (Blurton-Jones et al)
 (3) Cronk, chap 6 (Chagnon)
- Mar. 27-29 Parenting/mating/reproductive decisions
 (1) Cronk, chap 8 (Hewlett et al.)
 (2) Cronk, chap 10 (Cronk)
 (3) Cronk, chap 11 (Irons)
- Apr. 3-5 Evolution of Inequality
 (1) Kelly, chap. 8
 (2) Boone, J.L., 1992, Competition, conflict and development of social hierarchies. In *Evolutionary Ecology and Human Behavior*, edited by E. Smith and B. Winterhalder, pp. 301-338. Hawthorne, NY, Aldine.
 (3)
- Apr. 10-12 Student presentations and discussions of term papers
April 10: Final exam handed out (covers second half of course)
- Apr. 17 Last Class (Kelly at WAS meeting on April 19) Is HBE the best way to go?
“Final exam” due April 17.
 (1) Kelly, R.L., 2005, Hunter-Gatherers, Archaeology, and the Role of Selection in the Evolution of the Human Mind. In *A Catalyst for Ideas: Anthropological Archaeology and the Legacy of Douglas W. Schwartz*, pp. 19-39, edited by Vernon Scarborough and Richard Leventhal. Santa Fe, School of American Research Press.
- Apr. 24-26 NO CLASSES (Kelly away at SAA conference)
ALL TERM PAPERS DUE by April 26