Human Behavior and Evolution Society Newsletter

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Editor: Kevin MacDonald

The View From The President's Window

Margo Wilson

Our Roots and Our Colleagues

It seems ironic that *Homo sapiens sapiens* is widely presumed to sit atop the scala naturae and yet our best insights about this lofty species are often based on studies of ants, wasps, crickets, chickens, lizards, eels, tits, jays, scorpionflies and many other lowly creatures. The Human Behavior and Evolution Society has provided a needed niche for scientists to consider human affairs unencumbered by the ignorant hostilities of those social scientists unfamiliar with the conceptual power of selectionism. But HBES did not appear out of nowhere. Its foundations lay in the Animal Behavior Society (ABS) where each year at the annual meeting one heard about the diversity in the lives of numerous species. By the time that an HBES was brewing many animal behaviorists had become dissatisfied with the slow pace at which selectionist-thinking was informing studies of animal behavior, and the International Society of Behavioral Ecology (ISBE) was established in 1986. This society and its flagship journal, *Behavioral Ecology*, have grown dramatically. And in fact the extended Darwinian framework quickly became the very fabric of ABS too. I mention these roots and connections with studies of non-human animal behavior because I fear that many members of HBES are unaware of the benefits of being informed about the latest empirical and theoretical insights about animals that superficially might seem quite irrelevant to our understanding of *H. sapiens*. We might ask if W. D. Hamilton or Robert Trivers or Richard Alexander or George Williams would have had the insights they did without a rich knowledge of the natural history of various species. Where would we be without them?

Journals like *Animal Behaviour*, *Behavioral Ecology*, *Behavioral Ecology & Sociobiology*, *Proceedings of the Royal Society of London (B)*, *Trends in Evolution & Ecology*, *American Naturalist*, and many others are just brimming with papers which are relevant to HBESers. How about "Female initiated divorce in a monogamous songbird: abandoning mates for males of higher quality"? Or, "Free food or earned food? A review and fuzzy model of contrafreeloading". Or, "How parasites can promote the expression of social behaviour in their hosts". Or, "Why female crested tits copulate repeatedly with the same partner: evidence for the mate assessment hypothesis". These titles alone might pique anyone's interest, but even titles as drab as a dunnock might be camouflaging exciting events.

The dunnock is a small inconspicuous brown bird inhabiting the hedge-rows of Cambridge University Botanical Gardens where Nick Davies disclosed the dynamics of their social life. A female may have one mate or more, or she may even be part of a more polyamorous association of males and females. Females benefit from paternal assistance as revealed in the number and size of her offspring. Collecting insects for the ravenous nestlings is effortful for these paters, and its not surprising that they modulate their feeding rates as a function of a conditional decision rule like "if I slept with her...". This is an imperfect proxy of the truth but can be improved by various ploys to deal with rivals and to deal with a mate's inclinations and agendas. Davies' astute observations and field experiments make a persuasive case study of the information-processing and decision-rules of the adaptations underlying reproductive competition and sexual conflict in dunnocks (see N. Davies, 1992, *The Social Behaviour of the Dunnock*, Cambridge University Press). Other very complex social affairs are to be found among bee-eaters (Stephen Emlen, HBES 1996, Northwestern University), for example, who, unlike the dunnock have to deal with relatives and even in-laws, but for the moment we know very little about their mental processing. And these are but just two species which offer particular windows on the products of past selective forces in the midst of multiple actors.

And it seems—as Richard Dawkins has said repeatedly —that the individual actor cannot be our sole focus. David Haig (HBES 1995, UC-Santa Barbara) and Robert Trivers (HBES 1994, Univ. of Michigan) introduced us to some recent findings on genetic conflicts and genetic imprinting with vast implications for sexual conflict, parent-offspring conflict, and maybe even intrapsychic

conflict. The theoretical and empirical developments in this area are apparently proceeding at a dizzying pace. And there's more. The field of developmental neurobiology now has some of the tools whereby the impacts of gene products can be traced during tissue differentiation and acquisition of functional connections. Recent insights in the field of immunology may help solve some of the puzzles about how solutions to past experiences can deal with the time scale of evolutionary changes in the world of pathogens and viruses. And we HBESers need to keep up.

How can we possibly do this when we can barely keep up with our own specialties, never mind those developments in the social sciences more generally which may be even more germane to our research? Fortunately, we have a conceptual framework—the logic of evolutionary theorizing—which facilitates our comprehension of new jargon and new tools. And HBES is a marvelously multidisciplinary scientific association where we do have a chance to keep abreast of relevant science outside our own specialties. I'm glad to be a member of HBES and honoured to represent you for awhile.

September 6, 1997

Minutes of HBES Business Meeting, June 5, 1997
University of Arizona

President-Elect Margo Wilson called the meeting to order, noting that the President of the Society, Richard Alexander was not present.

1. Napoleon Chagnon, Past-President of the society, thanked those involved in organizing the 1997 conference. The Program Planning Committee consisted of Aurelio José Figueredo, James E. King, and David C. Rowe (Program Co-Chair University of Arizona), and Mark Flinn (Program Co-Chair, University of Missouri). The Conference Organizing Committee consisted of Hobart Cleveland, Kevin Daly, Cordelia Guggenheim, Cathleen Hunt, Prentiss NcNeill, Gene Mesher, Vanya Moreno, Rebecca Sage, Alexander Weiss, Victoria Weldon, and Richard Weibe. Local host representatives were Aurelio José Figueredo and Mary C. Wetzel.

2. Monique Borgerhoff Mulder announced that the next HBES conference will be held at the University of California-Davis, July 8–12, 1998. The organizing committee will consist of Monique Borgerhoff Mulder, Denise Cummins, Debra Judge, Peter Richerson, and Joanna Scheib.

3. Kevin MacDonald read the minutes from the 1996 Business Meeting at Northwestern University. The minutes were approved.

4. Patrick McKim gave the Treasurer's Report. The society is approximately $15,000 in the black. Current membership is 727, up from 601 at this time in 1996. 28% of the members are students.

5. Margo Wilson announced that the Executive Committee had approved plans for a post-doctoral competition in addition to the New Investigator competition and the poster competition beginning with next year's meetings. Rules for the New Investigator competition remain the same except that entrants are eligible only up to the end of the calendar year in which they receive their Ph.D. The rules for the New Investigator Competition therefore are as follows:

Students are eligible if:

a) they enter before or during the calendar year in which they receive the Ph.D. (or other advanced professional degree;
b) have not won the competition (i.e., individuals may compete more than once);
c) are sole author of the paper;
d) submit a written version of the paper that is no longer than 5000 words including figures and references three weeks prior to the beginning of the annual conference. This paper can be one that was submitted for journal publication.

Rules for the Post-Doctoral competition are the same, except that persons are eligible if they enter within five years from the end of the calendar year in which they complete their Ph.D. or other advanced professional training.

6. Randy Nesse gave the Publications Committee report:

- The contract discussions with Elsevier have been resolved by the publisher agreeing that the editors would have complete autonomy regarding what is published in the journal *Evolution and Human Behavior*. Cost to the society has been fixed for the next 5 years at $37.00 per member. Presently the society provides discounts for members in foreign countries.
- Submission and rejection rates of manuscripts submitted to *Evolution and Human Behavior* have approximately doubled since October 1996.
- The web-site is functioning well under the direction of Michael Mills.
- Gene Mesher will be stepping down as manager of the HBES-L electronic bulletin board, and Elizabeth M. Hill will be stepping down as editor of the HBES Newsletter. Kevin MacDonald will be editing the

next newsletter. Replacements will be announced in the near future.

- The procedures for constituting the Publications Committee will be more formally specified by the Executive Council in the future.

7. Martin Daly, co-editor of the journal *Evolution and Human Behavior*, reported that in the period from October 6, 1996 to May, 1997 there had been 53 submissions of articles to *Evolution and Human Behavior*. Of these, 10 had been accepted, 28 rejected, and 15 remained under consideration. Daly estimated that the acceptance rate would be approximately 30-35% once all 53 submissions were settled. The journal is now completely caught up in its publication schedule.

8. Nap Chagnon reported that John Tooby won the election for president by a narrow margin. Steve Gangestad and Linda Mealey were elected as members of the Executive Council. Ruth Bennett of the University of Oregon was elected Student Representative.

9. Margo Wilson announced that proposed amendments to the Constitution will be published in the Newsletter. Acceptance of the changes will require the approval of 2/3 of those voting.

The meeting adjourned.

Submitted by Kevin MacDonald, Secretary/Archivist

These minutes have not been approved.

Announcements

HBES 1998 Conference. The 10th annual meeting of the Human Behavior and Evolution Society will be held at The University of California at Davis 8–12 July, 1998. Davis is in California's sunny Central Valley, twenty minutes from Sacramento Metropolitan/International Airport, the only airport in the area with public transport to Davis. In July temperatures can range from pleasantly warm to hot; visitors should bring warm weather clothing. For visitors arriving before noon on Wednesday, trips will be planned to local attractions. The meeting will feature plenary speakers and one keynote address. The business meeting will be held at lunch time on Saturday, and the meeting will end on Sunday afternoon. Housing will be in UCD dorms, or in local hotels (a list of hotels will be provided). Abstracts for papers are due March 16; symposia abstracts (consisting of four thematically-linked paper abstracts demonstrating a synthetic and interdisciplinary focus) are due February 16, 1998. Details for the abstracts will be forthcoming. The program organizers are Jane Lancaster and Monique Borgerhoff Mulder, the local host is Peter Richerson, and the committee members are Denise Cummins, Debra Judge, Lore Ruttan and Joanna Scheib. Beginning January 1998 a web page for the meeting can be found at http://www.des.ucdavis.edu

APLS Annual Meeting. The Association for Politics and the Life Sciences (APLS) will hold its first independent annual meeting, September 3–6, 1998 in Boston. The program will include panels, roundtables, plenary lectures, and a banquet. The keynote speaker will be E. O. Wilson. Plenary speakers will include George Annas (Medicine and Ethics Program, Boston Univ.), Richard Butler (Executive Director, United Nations Special Commission on Iraq), Patricia King (Georgetown Univ. Law Center), Frans de Waal—if travel plans permit (Yerkes Regional Primate Research Center), and James Q. Wilson (Graduate School of Management, UCLA).

Additional information will appear in a call for papers/abstracts (in October or November, 1997), at the association's web site (http://www.lssu.edu/apls), and in the December 1997 issue of *APLS News*, the association's newsletter. Those interested in the meeting who are not currently members of APLS may be added to a mailing list for the call for papers by contacting Gary R. Johnson, Association for Politics and the Life Sciences, Lake Superior State Univ., 640 West Easterday Ave., Sault Ste. Marie, MI 49783-1699, USA (tel: +1-906-635-2757; fax: +1-906-635-2111; e-mail:gjohnson@lakers.lssu.edu).

Congratulations to New Investigator and Best Poster Winners. Awards for the New Investigator Competition and the Best Poster were presented at the 1997 conference at the University of Arizona. John Q. Patton (Department of Anthropology, Univ. of Colorado) won the New Investigator Competition with his paper "Are Warriors Altruistic?" Two papers were also given Honorable Mention in this competition: "Paternal Care and Mating Effort in a Foraging Society, the Hazda of Tanzania" by Frank Marlowe (UCLA Department of Anthropology) and "The Role of Endogenous Opioids in the Regulation of Male Sexual Behavior and Ejaculate Composition," by Nicholas Pound (Department of Psychology, McMaster Univ.).

The prize for Best Poster competition was split between two entries, whose first authors are husband and wife: "Human Universality: Evidence from Japan (1) Cognition Studies" by T. Hasegawa, M. Hiraiwa-Hasegawa, and K. Hiraishi, (Univ. of Tokyo at Komaba) and "Human Universality: Evidence from Japan (2) Sexual Selection Studies" by M. Hiraiwa-Hasegawa, T. Hasegawa (Univ. of Tokyo at Komaba), and M. Yusa (Shenshu Univ.).

Left-handedness Research Project. Left-handedness is more frequent among men than women, it has an additive genetic basis, and is associated with reduced values of several fitness components. This gives rise to a paradox: How can left-handedness be maintained? We have recently suggested that frequency dependent selection accounts for this paradox (M. Raymond et al., 1996; *Proc. R. Soc. Lond. B*). We hypothesize that left-handers have an advantage in fights with right-handers that the latter do not experience. We have found support for the hypothesis by demonstrating that there is an over-representation of left-handedness among people involved in interactive sports (e.g., fencing and boxing), especially among the elite athletes in these sports.

There is some evidence that the frequency of left-handedness varies geographically. We would greatly appreciate contact with anthropologists or evolutionary psychologists working in the field with indigenous peoples. Our objective is to test whether the frequency of left-handedness is related to the importance of fighting and aggressive interactions in difference societies. We need information on handedness, sex and age of a reasonable sample of individuals for several different societies. Please contact Anders Pape Moller at Lab. d'Ecologie, Univ. P. et M. Curie, 7, quai St. Bernard, F-75252 Paris, Cedex 05, France; email: AMOLLER@HALL.SNV.JUSSIEU.FR

Call for Papers by HBES Members for Submission to *Human Nature: An Interdisciplinary, Biosocial Perspective*. *Human Nature* is a quarterly journal published by Aldine de Gruyter which offers a subscription discount to HBES members. It is in its ninth year of publication. Over this time period a wide variety of papers have been published including ones on the evolutionary ecology and life history strategies of men and women, bio-aesthetics, criteria for human mate selection, human behavior and conservation of the environment, historical demography, and numerous other topics. Members interested in submitting a manuscript can e-mail the editor, Jane Lancaster, at jlancas@unm.edu for "Instructions to Authors."

Call for Papers. *Managerial and Decision Economics* is hosting a special issue on Management, Organization and Human Nature. Livia Markoczy is the guest editor. More information, including references to some of the relevant literature, details of the review process and background material can be found at <URL:http://www.cranfield.ac.uk/public/mn/mn795/MOHN/MDE-call.html>

Vacant Position. The Department of Psychology at the Univ. of Colorado at Boulder will soon have an ad appearing in the American Psychological Association Monitor for a position in social psychology. The position's description is very broad in order to attract a wide response. People interested in the evolution of social behavior and cognition are encouraged to apply. Contact Reid Hastie (reid.hastie@colorado.edu) for more infomation.

Comments on the Tuscon Conference

Comments on the Tuscon conference were solicited via the HBES-L electronic bulletin board. The vast majority of those replying commented on the physical arrangements of the conference and their overall tone was quite positive. Suggestions for improvement were forwarded to the 1998 conference organizers, who expressed their gratitude.

Elizabeth Hill's comment typifies several that expressed dissatisfaction with the quality of some of the papers: "Extinction of the 'variance' meme? There were no reported sightings of standard error bars at the Tucson conference! Other evidence of the general concept of a sampling distribution was also quite rare, such as providing sample sizes when presenting results. Has this meme become extinct, or simply migrated elsewhere? Is this due to the shrinking of its natural habitat, which requires quantitative data? Should we introduce conservation efforts?"

Phil Rushton's comment emphasized an increasing visibility within the society of studies of individual differences from an evolutionary perspective, and reflected the feeling of many that John Alcock's plenary address on Stephen Jay Gould's anti-Darwinian rhetorical gymnastics was an emotional high point: "I for one was gratified to see the great increase in heritability and genetic analyses at HBES in Tuscon, thus pushing further the synthesis of behavior genetics and evolutionary psychology. Many papers considered personality traits like impulsiveness, intelligence, conscientiousness and their role in crime and social dysfunctions. Even ten years ago the behavior genetics of intelligence couldn't have made it to the front page of *Science*. Today it is utterly respectable and only a Stephen Jay Gould or a Leon Kamin could deny it. And their stars are rapidly fading if Alcock's great plenary on Gould is anything to go by." Alcock and Rushton join other recent critics, including John Maynard Smith, Richard Dawkins, Daniel Dennett, and Steven Pinker in a long list of people taking Gould to task for scientific malfeasance.

Book Review

David Sloan Wilson

An Evolutionary Psychological Novel

Enduring Love, by Ian McEwan. Doubleday (U.S. publication scheduled for Spring, 1998)

Last spring a colleague sent me an urgent message that I must read a short story in the May 19th issue of the New Yorker magazine. The story was entitled "Us or Me" by a British writer named Ian McEwan. I won't divulge the plot but suffice it to say that I was soon spreading the word among my own colleagues, not only because it is a great story, but because of the evolutionary themes that emerge in numerous places. It seemed that the author must have been influenced by recent developments in evolutionary psychology. A trip to my local bookstore revealed that McEwan is a well known and highly praised novelist. I was so curious that I finally wrote to ask him if and how he had been influenced by evolutionary psychology. It turns out that he has been reading the likes of E. O. Wilson, Robert Wright, and Steven Pinker. The short story is the first chapter of his new novel, *Enduring Love*, which will be published in the U.S. this spring (he kindly sent me an advance copy). The novel is as great as the story, and without divulging its plot I can say that the protagonist is a science journalist who has become fascinated with evolutionary psychology. Here is a quote from the novel:

> I had set aside this day to start on a long piece about the smile. A whole issue of an American magazine was to be dedicated to what the editor was calling an intellectual revolution. Biologists and evolutionary psychologists were re-shaping the social sciences. The post-war consensus, the Standard Social Science Model, was falling apart and human nature was up for re-examination. . . . A few years ago, science book editors could think of nothing but chaos. Now they were banging their desks for every possible slant on neo-Darwinism, evolutionary psychology and genetics.

The protagonist's girlfriend is a humanities type who is threatened by these developments and calls them "the new fundamentalism". However, the novel is about evolutionary psychology in a deeper sense than the protagonist's job and the conversations he has with his girlfriend. It also explores the nature of love, forgiveness, altruism, and self-deception, all from a perspective that an evolutionary psychologist will instantly relate to.

I don't read as much fiction as I would like, but when I do I am always amazed at how often great literature harmonizes with evolutionary psychology. I interpret this as a confirmation of an accurate vision of human nature, arrived at by two very different pathways. This novel has been directly influenced by evolutionary psychology but it also is just plain wise in the way that characterizes all good fiction. It also suggests that evolutionary psychology is faring well in the popular intellectual imagination, regardless of how it fares in the various branches of academia.

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The HBES Home Page: http://psych.lmu.edu/hbes.htm

Mike Mills

If you have not recently surfed the web the HBES Home Page you will find some new areas there, useful information, and a long listing of new web sites for your surfing (and research) pleasure. Sections of the web site include:

How can modern evolutionary theory help explain human behavior? This area provides an overview of evolutionary psychology for the introductory student or the intelligent lay person. It includes an excellent primer by Leda Cosmides and John Tooby (which I have found useful as an initial reading assignment for my classes in evolutionary psychology and gender differences). Also included is an introductory chapter from Robert Wright's book *The Moral Animal*, a brief overview of evolutionary psychology by Frank Miele, and a brief introduction to Darwinian Medicine by Randy Nesse.

This section also has a link to a comprehensive list of relevant web sites, including other academics societies, journals, institutes and academic groups, books, software, Usenet newsgroups, mailing lists and discussion groups, links to web sites about memes, home pages of individuals, and other links to other web resources.

HBES Bulletin Board. The online HBES Bulletin Board is where you can read and post employment notices, academic position openings, teaching resources (including course syllabi), information about graduate programs, etc. There is also an area for general announcements. Feel free to post and download information

— the HBES Bulletin Board is a resource available for all HBES members to use.

Archived Conference Abstracts and HBES newsletters. Abstracts from previous HBES conferences are archived here, which you can download using your web browser. You can also do keyword searches of the conference abstracts using the Find function of your browser. Previous HBES newsletters are archived here as well.

Email any questions, comments or suggestions regarding the HBES web site to Michael E. Mills, Department of Psychology, Loyola Marymount University, Los Angeles, CA. 90045; email: memills@aol.com.

Teaching How To Answer 'Why' Questions About Biology

Tom Shellberg

By Tom Shellberg, Henry Ford Community College, Dearborn, Mich.

[Note: because of its general interest, we are reprinting Tom's paper from the 1997 HBES Meeting in Tucson.]

In all of my Evolution and Behavior sections and in my Introductory Biology class, too, I spend about an hour the first week of class on how to answer 'why' questions about common biological phenomena. My purpose is to introduce students to the rich explanatory power of selection theory, to show the distinction between proximate and ultimate evolutionary answers, and to discourage teleological thinking. It's important to do this at the start of the semester since it greatly influences how students think about most everything else they learn in the rest of the class. Understanding the difference between proximate and ultimate explanation is so basic to the scientific explanation of every biological phenomenon that every introductory biology text, and psychology texts, too, should thoroughly discuss this in the first chapters, but they almost never do. Most biology texts don't even mention this anywhere. Sometimes there is a paragraph or so about proximate and ultimate explanations in a text's animal behavior chapters. But these are rarely read since behavior is not often covered in high school or college biology classes. So this must be done in lecture.

I start with a list of 5 or 6 questions such as the ones below, with a grid of 3 empty columns which we fill in step by step as the students are invited to suggest answers. I don't tell the students right away that the first column is for teleological answers, the second is for proximate answers and the third is for evolutionary answers based on natural selection. Of course all sorts of different questions other than those I've listed here work just as well as long as they ask about common biological phenomena. They should be interesting though, and ideally include some which relate to behavior as well as anatomy or physiology, and one such as menopause which requires an inclusive fitness explanation. And at least a couple should be designed to elicit teleological answers like the first two or three on this list are almost guaranteed to do. It's necessary to explain what the Coolidge effect is. Students, incidentally, find this very interesting.

Why do snowshoe hares turn white?			
Why do we sleep?			
Why do women have menopause?			
Why do males show the Coolidge effect?			
Why do some people have dark skin?			

Almost inevitably most students answer the first question by saying "for protection" or "to be camouflaged," and they answer the second by saying "to be rested or rejuvenated." I write these in the first column and label it "teleological answers" "Wait a minute," I say, "These are not very good scientific answers. Camouflage and being rejuvenated are, at best, the *effects* of turning white and sleeping aren't they? So how can they be the causes?'' I then devote five minutes or so to explaining why teleological answers are not scientifically satisfactory. I explain that teleological thinking mixes up cause and effect, making it seem that the effect or supposed purpose is the cause, and that if we wish to understand why something biological is the way it is, we need to identify causes rather than describe effects or 'purposes.' The students typically seem startled that they didn't give adequate scientific answers. In my experience, it's rare that a student has ever heard of teleology or has ever considered what it means to ask 'why' questions about biology. This is all quite unfamiliar, even to most biology teachers. In fact, I've heard

many biology teachers say that it's not the business of science to ask why!

I tell my students not to feel bad about giving teleological answers; that E.O.Wilson and others have suggested that we may be predisposed by our evolutionary past to think teleologically. Even the great ethologist, Konrad Lorenz, was thinking teleologically all those years when he gave 'good of the species' answers to questions about animal behavior. But we can do better.

So we start over. I ask the students to tell me some causes the second time around, no effects or purposes, please. They catch on right away, and in the second round offer all sorts of preceding causes. Most everyone knows that dark skin is caused by more pigment (melanin) and genes for this. And they realize, with a little help, that snowshoe hares turn white because there are pigment changes in response to decreasing day length, and that there are centers in the brain and chemicals which cause sleep, and that women have menopause because the ovaries quit, and this in turn, occurs because the pituitary stops stimulating the ovaries, and so on down the ladder of causes all the way to the genes at the bottom rung. I then fill in our answers in the second column and label it 'proximate answers,' and explain that proximate answers tell the immediate preceding physical causes and mechanisms, such as hormones, brain circuits, muscles, developmental processes, stimuli, etc. I say that proximate answers tell us the what, where, when, how, and who, but not the 'why'. We still haven't answered these 'why' questions on the board!

As we start over again for a third round, I explain that in order to scientifically answer 'why' questions about common biological phenomena such as sleep and menopause and dark skin, etc., we need to explain how it came to be that these things are the way they are *rather than some other way*. We need to understand why it's women who have menopause, but not men, and not females of most other species, why it's males who show the Coolidge effect, but not females, why some animals sleep but others do not. We need to figure out the adaptive functions of these things, why genes for sleep and menopause and dark skin, etc., came to prevail here but not there. I then propose that the only way to do this is to apply our understanding of natural selection, that before 1859 scientists were limited to proximate explanations. Darwin's greatest contribution, I suggest, was not the discovery of evolution, but the realization of natural selection. It allowed us for the first time in the history of human thought to scientifically answer 'why' questions about ourselves and our biological world, and to finally understand the meanings of life, and therefore make good scientific predictions.

Since the proximate answers I've listed on the board don't tell us anything about ultimate causes, don't tell us 'why,' I label the third column 'evolutionary **why** answers based on natural selection'. At this point Socrates has to lecture more. I pretty much have to tell the students the evolutionary hypotheses about the questions. Very few students have any idea about what the evolutionary explanations might be, or even how to think about possible answers. Many of the students have had a high school biology class, but most say there was little or no evolution included! The few students who did learn about evolution know that natural selection is the main process which leads to the origin of species, but it doesn't seem that even one in a hundred realizes that understanding natural selection allows us to answer ultimate 'why' questions like the ones I've listed. Not surprising. Few biology teachers seem to understand these things, at least not the way we do in HBES. Maybe they do, better than it seems, but the implications are just too disturbing and threatening.

I usually begin the third round with the question about dark skin. The students easily understand the evolutionary explanations about why genes for more melanin were increasingly favored in populations closer to the equator and why there is a cline from northern Europe to Africa. And they realize how different the evolutionary answer is from the proximate answer. At last we're answering 'why.' The same is true with sleep. I present the theory that sleep has apparently nothing at all to do with restoration or rejuvenation, that it evolved, rather like hibernation, because it shuts animals down during periods such as night when it is not as adaptive to be active, thus conserving resources for periods when it is more adaptive to be active, that sleep may be vestigial in us, and that evolutionary thinking has finally made it possible to understand why some animals sleep so much and others do not at all, why baby mammals sleep so much, etc.

I use the same approach with menopause. Students again realize that the evolutionary answers finally tell us why it's women and not men. Why it's humans and apparently elephants but not most animals who have menopause. Again they see that the evolutionary explanation permits us to understand the meanings of life, make testable predictions and ultimately answer 'why' and they get an introduction to inclusive fitness explanations in the process. The Coolidge effect is a good one, too. It's so obvious why genes that stimulate males to be sexually interested in new partners will be favored by selection and why what works for the gander, in this case, does not work for the goose.

As the semester proceeds the students will learn a lot about genes and modern selection theory and its applications to understanding everything from psychology to medicine, but in the meantime they will at least have a good understanding of what it means to scientifically answer 'why' questions about biological traits.

[Ed. Note: Thanks to Gene Mesher who solicited and edited the contributions of Michael Mills and Tom Shellberg. Further suggestions for teaching material, such as course syllabi, a bulletin board for teachers, and book reviews can be found on the HBES Home Page at: http://psych.lmu.edu/hbes.htm

The Human Behavior and Evolution Society

The Human Behavior and Evolution Society (HBES) was formed in 1988 to promote the exchange of ideas and research findings among scholars of all disciplines who are using modern evolutionary theory in their studies of human behavior.. An invitation to join the society is extended to all who share its aims.

HBES is highly eclectic group, consisting of scholars from a great number of fields, including psychology, anthropology, psychiatry, economics, medicine, philosophy, literature, biology, sociology, artificial intelligence, art, law, and political science. Our membership is world-wide, including residents of North America, Europe, Latin America, Australia and the Far East.

Most of us are professional academics, but approximately 20% of us are students. As a way of encouraging student scholarship, there are special awards granted each year at our annual meeting to the most outstanding pre-doc and post-doc papers. To finance this award (and other student activities), *members are encouraged to donate to the HBES student Fund.* Every little bit helps.

Members receive

- ⇒ **Newsletter**
- ⇒ **Meeting Announcements**
- ⇒ **Reduced Meeting Fee**
- ⇒ **Membership Directory**
- ⇒ **Electronic Bulletin Board**
- ⇒ **Voting privileges in Society Elections**
- ⇒ **Subscription to *Evolution and Human Behavior***
- ⇒ **Reduced subscription rate for *Human Nature***

Subscription problems may be addressed to Elsevier Science Publishing directly, but the preferred method is to contact HBES Treasurer Patrick McKim who will pass on the information to Elsevier. This will enable the Treasurer to keep a record of subscription problems.

Evolution and Human Behavior (formerly *Ethology and Sociobiology*) has been the official journal of HBES since January, 1994. ***E&HB*** publishes six issues per year of 72 pages each. Membership in the society includes a journal subscription. Please note that ***E&HB*** subscriptions through the Society are for the individual use of HBES members only; copies may not be given to libraries. Also, please note that it takes Elsevier 8–10 weeks to get new subscriptions into the pipeline.

Members may also receive a reduced subscription rate to *Human Nature* of $50.00 plus a handling fee of $4.00 (domestic) or $5.00 (international).

Change of address should be sent to Patrick McKim, HBES Treasurer (his address is given on the reverse side). *Do not contact Elsevier for a change of address.* The reason is that Elsevier will not pass on that information to HBES

Policies on Dues and Memberships

HBES memberships are activated in January of each year and extend through the end of December. This holds true regardless of the date at which a member joins the society. That is, if one joins HBES in, say, June of 1998, his or her membership will expire on Jan. 1, 1999. The reason for this policy is that Elsevier Science, the publishers of our journal *Evolution and Human Behavior*, only handle "full volume" subscriptions which begin in 1998 with Volume 19, No. 1 and continue through Vol. 19, No. 6. So the member who joins in June 1998 will still receive the complete 1998 volume of *E&HB*. beginning with Vol. 19, No. 1 (the "January 1998" issue).

For most applicants, the Regular Membership applies. **A Student Membership is available to those actively enrolled in a degree-granting program. Students must attach a copy of a current student card or a letter from their major professor.** We also offer Joint Memberships in both Regular and Student categories. For Joint Members, both parties receive all the perquisites of membership except that only one subscription to the journal is sent to a Joint Membership pair. When applying for Joint Membership, please use two copies of the Membership/Application Form, providing complete data for each person. Also, designate who will receive the subscription to *E&HB*. **To make HBES membership more attractive to those residing outside the USA, Canada and Mexico, the $18.00 per year overseas postage fee is no longer in effect.**

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