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## *ISHE and ESS Unite*

During the last business meeting of the European Sociobiology Society (ESS) in Washington DC, on August 31, 2000, the members present voted almost unanimously in favor of a merger with the International Society for Human Ethology (ISHE). This decision was anticipated in discussions between ISHE and ESS officers and members at the ISHE conference in Salamanca, and was viewed at that time as a means of strengthening our international societies through a strategic union.

Many ESS members are already members of ISHE and continue to be members until your regular ISHE expiration date, indicated on your mailing label. For those ESS members who are not already members of ISHE, we cordially extend you an invitation to join us. The 2000 September and December issues of our quarterly, the Human Ethology Bulletin, (HEB) have been mailed to all ESS members to get acquainted with ISHE. With membership you will continue to receive the HEB quarterly, which contains articles, reviews of major contributions to evolutionary thought, and a listing of all research publications on issues related to evolutionary perspectives on human behavior. The international membership of ISHE, its quarterly Bulletin, its biennial conference, all make it an invaluable organization for those interested in the study human ethology, broadly conceived.

To apply for ISHE membership just mail the application form on the back of this bulletin to ISHE treasurer Dori LeCroy.

The last meeting of the ESS (a joint meeting with the Association for Politics & the Life Sciences) celebrated the 25th birthday of Wilson's opus "Sociobiology: A New Synthesis" and welcomed twenty new members to the society, including honorary member E.O. Wilson.

The ESS was officially established in 1983 by Jan Wind and Vincent Falger. ISHE vice-president and president-elect, Johan van der Dennen succeeded Jan Wind after his tragic death in 1995 as its secretary and Newsletter editor. For a more details on the society, see the ESS website (<http://rint.rechten.rug.nl/rth/ess/ess.htm>). The ESS published eleven volumes covering the proceedings of ESS conferences, the last being: J.M.G. van der Dennen, D. Smillie & D.R. Wilson (Eds.) "The Darwinian Heritage and Sociobiology", Westport: Praeger, 1999.

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## *What? Me Worry? The Status of Ethology in the Year 2000*

### *ISHE Presidential Address*

*August 2000, Salamanca Spain  
 Linda Mealey*

In the six months since I have been President of the International Society for Human Ethology, the editor of the Human Ethology Bulletin and the year-2000 conference organizers have discovered what my close friends have known for a long time... that I worry about everything. Sometimes I worry needlessly; other times I worry in vain. I suspect, however, that "worry" is one of those emotions that evolved because it was of use to us: worry stimulates us to look forward, to plan ahead, to correct past errors and to prevent future mistakes. Worry also helps us to determine where to put our effort and what to leave well enough alone and, since the theme of this year's conference is "emotion", I have decided to share my worries outloud, in the hope that doing so will, ultimately, be beneficial. By sharing with you some of my worries about the state of ethology in general, and about ISHE in particular, I hope that I will stimulate you to think about some of these issues. If we address our worries collectively, we can stride forward into this century with confidence, rather than be swept along by circumstance.

#### *Problems confronting the discipline-*

First of all, most of us agree that there are not enough active ethologists. There is an especial dearth of young, newly trained ethologists. Most of us work alone or with colleagues trained in other disciplines. Often our own students train for other, more practical or more visible occupations. To a large extent this circumstance can be attributed to external pressures: ethological studies take a long time to do and they are often hard to publish; it is hard for ethologists to find academic positions; it is difficult to compete with high-tech disciplines for limited funding; and, to some extent, we get bad press (or no press at all). I have heard many personal stories, from Australia to Norway to

England to North America: they all suggest that ethologists are getting short shrift from potential colleagues, administrators, and funding agencies.

There are, on the other hand, internal contributions to this state of affairs, as well. Within the evolutionary sciences (perhaps not unlike in any other enterprise), there has been wasteful and costly infighting, status jockeying, and narrow-mindedness. Rather than cooperating with one another, we have at times established artificial barriers to communication and collaboration. Dogmatism rather than pluralism, has too often been the flavor-of-the-day. Certainly by addressing some of our internal problems, we can go a long way towards remedying problems in the way others view us.

A second problem involves tracking the status of, and relative friendliness of, journals and journal editors. Some of us have the perception that too few journals are willing to accept manuscripts based on evolutionary principles or ethological methods. On the other hand, some perceive that there are now so many journals in which evolutionary and biobehavioral manuscripts appear, that it is too hard to keep track of them all. Do we want to encourage the ongoing specialization of journals such as Ethology, Evolutionary Anthropology, Evolution and Human Behavior, and Human Nature? Some have suggested that our own quarterly, the Human Ethology Bulletin, be transformed into a peer-reviewed specialty journal. Yet others would consider our enterprise to have been more successful if and when we see the more traditional journals becoming increasingly biobehavioral and evolutionary.

A related issue is that for some ethologists, particularly in those in Eastern Europe, Africa and South America, even a single journal is too expensive for a personal subscription, and academic libraries are hard-pressed to subscribe to anything but the most widely-read, high-profile publications. Being in one of the finest places in the world in terms of the financial subsidies given to education, I am privileged to have access to any published manuscript in the world literature for a mere two bits-- which translates into about 5 1-millionths of my annual salary, or about 30 seconds worth of my paid time. An aspiring ethologist in India on the

other hand, might need to work a week to gain the equivalent funds even if publications were widely available, which they often are not.

A third problem is that travel to international meetings is financially prohibitive- especially for students- yet the practical benefit of holding regional meetings is significantly compromised by the lack of cross-pollination that can only happen at larger venues. At large venues, on the other hand, attendance may be too high to allow everyone time to talk or to allow time for one-on-one interchanges. Going to several small meetings is too expensive and too time-consuming for all but the comfortably retired or the substantially endowed.

#### *ISHE's relationship with other organizations-*

Related to the issue of meetings is the issue of whether there are enough evolutionarily oriented professional organizations. Alternatively, might there be too many? Among the organizations to which I personally belong are: ISHE, HBES, ESS, APLS, ASCAP and SEAL. Do they each have their own niche? Are they competing? Should they be cooperating? Are they redundant?

Our own society, *ISHE*, has a small but stable international membership. It has an excellent and growing quarterly publication, but there are very few members who regularly contribute to the Bulletin or who attend our small biennial meetings.

HBES, the *Human Behavior and Evolution Society* has a larger and rapidly growing membership, as well as a high profile, relatively exclusive peer-reviewed publication (Evolution and Human Behavior). On the other hand, the HBES membership is predominantly American and is less diversified than the ISHE membership in terms of background and research interests. HBES has been enjoying increasingly larger annual meetings and will, for the first time in 2001, hold a meeting somewhere other than in North America (the next meeting is in London). This presents a significant change in our landscape, as the HBES and ISHE membership overlap by about 1/3.

ESS, the *European Sociobiological Society* has always been smaller than ISHE, with even fewer

active members. The ESS newsletter has been significantly shorter than the Human Ethology Bulletin, but ESS has held annual (rather than biennial) meetings. Compared to ISHE members, who tend to focus on phenomena at the level of the individual, members of the ESS have tended to focus on higher level interactions. As with HBES, the ESS membership also overlaps significantly with that of ISHE. Indeed, the editor of the ESS newsletter has just been elected as the next Vice President / President-Elect of ISHE, and as of September 2000 when the ESS held a joint meeting with APLS (discussed below), they have merged with us.

APLS, the *Association for Politics and the Life Sciences* is also small but is rapidly growing. Once a section of the American Political Society, APLS is now independent. Further, it has an excellent peer-reviewed publication. Yet, despite its undeniable success, because of its extreme interdisciplinary nature, APLS seems unable to find a fit anywhere-- neither political scientists nor biologists, nor sociologists, nor anthropologists, nor health scientists seem willing to embrace APLS, and the current organizer/editor, Gary Johnson, is having difficulty finding a new home for the journal.

Another wanderer is ASCAP, a group whose unfortunately awkward moniker not only has a more visible prior namesake (in the music industry!), but also stands for the not-so-descriptive mouthful: *Across Species Comparisons and Psychopathology*. This tiny specialized society has a quite a few active and renown members, an informal newsletter, and a relationship with the Beck Institute that supports the annual Aaron Beck Young Investigator Award. To date, however, ASCAP membership has consisted mostly of practising or retired psychiatrists who do not directly work with students and, as a result, membership recruitment has been restricted to the horizontal (and excluded the vertical) transmission of memes. ASCAP has, so far, remained too small to have other than satellite meetings (most generally, but not always, in association with HBES). ASCAP members are, at this very moment, contemplating rebirth in terms of a name change and an expanded mission statement.

SEAL, the *Society for Evolutionary Analysis in Law*, is a brand new organization. So far it is

highly specialized, with membership being almost exclusively American, and consisting mostly of academic lawyers. SEAL has already sponsored several highly successful meetings, but so far has not sponsored its own publication. Its future relationship with respect to HBES, APLS, and the *Gruter Institute* (another group which promotes the integration of evolutionary studies and law), is not yet clear.

In addition to all of these societies- each of which focuses on human biobehavioral social science- there exists a gamut of other organizations, large and small, which focus on parallel studies of non-human species. I refer to the *International Ethological Congress* (which publishes Ethology), the *Animal Behavior Society* (which publishes Animal Behaviour), and the various primatological societies. ISHE has had official and unofficial relationships with each of these in the past, and ISHE members have published in their journals. We need to consider our potential future relationships with all of these and with other related societies (e.g. the *Behavior Genetics Association*, the *Society for Study of Individual Differences*, and the *International Society for Research on Emotion*) as we plan who we want to be and where we want to go in the 21st century.

#### *Ethology: past and present-*

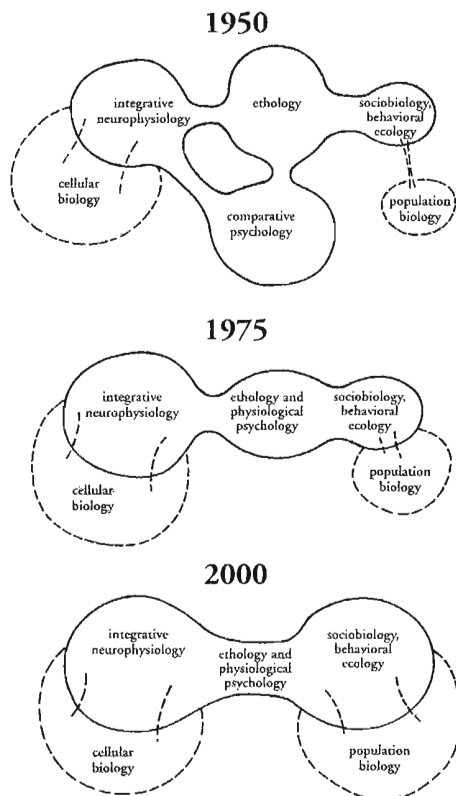
As I contemplated questions pertaining to the relationships between our various professional organizations, I realized the analogy with questions in taxonomy- i.e., the ongoing debates between "splitters" and "lumpers". To carry the analogy further, I reasoned that if we are to take a position on this issue, we really should do a historical, "phylogenetic" analysis of our discipline- human ethology.

To undertake such an analysis for individual organizations is beyond the scope of this address, but in terms of a history of related disciplines, E.O. Wilson already did something of the sort in "Sociobiology: The New Synthesis" (Wilson, 1975; see also Jaynes, 1969 and Mealey, in press). I quote:

"Although behavioral biology is traditionally spoken of as if it were a unified subject, it is now emerging as two distinct disciplines centered on neurophysiology and on sociobiology,

respectively. The conventional wisdom also speaks of ethology, which is the naturalistic study of whole patterns of animal behavior, and its companion enterprise, comparative psychology, as the central, unifying fields of behavioral biology. They are not: both are destined to be cannibalized by neurophysiology and sensory physiology from one end and sociobiology and behavioral ecology from the other" (p6).

Wilson presented a series of diagrams (below) to express this view. We can conceive of the horizontal axes as representing something akin to the level or unit of analysis of a discipline, with the center representing analyses at the level of the individual, the left representing analyses at sub-individual levels, and the right representing analyses at supra-individual levels. The vertical axes then display the "conventional wisdom" of Wilson's quote, i.e., the historical independence of / antagonisms between ethology and comparative psychology. The first diagram depicts the relationship between disciplines circa 1950.



Then, between 1950 and 1975, two things happened. First, the animal sciences experienced something of a merger of ethology and comparative psychology. This change was illustrated (and facilitated) by Robert Hinde's (1966) book, "Animal Behaviour: A Synthesis of Ethology & Comparative Psychology". The resulting "synthesis", however, did not lead to growth. Rather, growth came from within the disciplines of population biology and sociobiology, largely in response to the works of Bill Hamilton (1964a&b) on kin selection. This was the second, and more crucial, event. Of course, it was in 1975 that Wilson published "Sociobiology", the book where this diagram first appeared, and which provided stimulus for even further growth of the disciplines depicted on the right. Here is how Wilson saw behavioral biology circa 1975.

At that time, Wilson also made a prediction with respect to the further "cannibalization" of ethology and comparative psychology by neurophysiology and sociobiology that he anticipated. His prediction of the state of affairs in the year 2000 was this.

I think Wilson was spot-on, especially as relates to American practise. As Bill Charlesworth documented in his 1994 ISHE Presidential Address, there has been a significant decline in the number of published observational ethological studies in the American journal formerly called Ethology & Sociobiology (now Evolution and Human Behavior). Further, as you might have read in my interview of Robert Hinde in the June 1999 Human Ethology Bulletin, the term "ethology" does not even exist in modern North American computer spell-checkers! Instead, we have seen increasing emphasis on "high tech" lab science (depicted on the left of Wilson's diagram) and on quick-and-dirty questionnaire studies (depicted on the right). In terms of human evolutionary studies, there seems to be not much recently in the way of naturalistic observation...

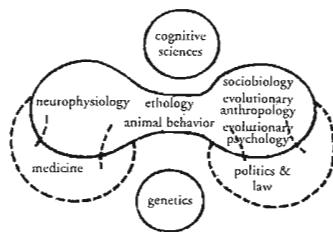
*Human ethology: today and tomorrow-*

Below, I have updated Wilson's diagram of the year 2000 as I see it today. First, I have changed a few things so as to make it refer specially to the study of humans (Wilson's diagrams depicted all of the biobehavioral sciences).

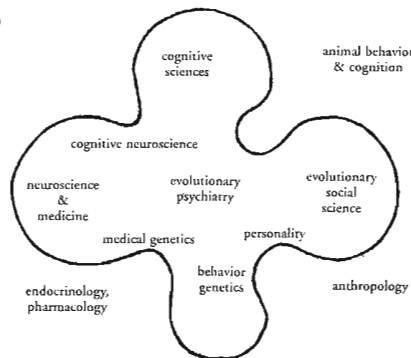
Note, therefore, that "medicine" (on the left) replaces "cell biology", and that "politics & law" (on the right) replaces "population biology". Second, I have listed under "sociobiology" the two terms we more commonly use today, i.e. "evolutionary psychology" and "evolutionary anthropology". Third, I have added two rapidly growing fields which have seem to have drawn significant financial backing and mind-power in recent decades, both of which are sometimes seen as our competitors: to wit, cognitive science and genetics.

Some of the external problems to which I alluded at the beginning of this essay relate to fact that ethology is being "squeezed out" of "the picture" by big-money, high tech endeavors (depicted at the left, top & bottom of the diagram). Others relate to political and other "pressures" coming from applied social sciences (lower right). Worse, are the internal problems related to divisiveness between "us" (center right).

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Given this history and current state of affairs, what is my prediction of the future? First of all, I see further synthesis. Specifically, although I foresee a disappearance of the term "ethology" altogether, I expect to see increasing penetration of, and spread of, evolutionary approaches in the social sciences (right), the cognitive sciences

(top), and medicine (left). I also foresee a rather smaller-than-desirable exchange between those studying humans and those studying other animals (upper right), and a continued distancing of anthropologists from the biological sciences (lower right).

One positive change that I see coming is something of a working detente between geneticists and evolutionists, both via the behavior genetics-personality-social sciences link, and via the behavior genetics-medical genetics-evolutionary psychiatry link (bottom). Evolutionary psychiatry plays something of a centerpiece in this vision, being related to virtually everything else on the map! Indeed, evolutionary psychiatry has been a prominent topic at the last several ISHE meetings, reflecting a shift toward applied science that I believe will be even more dramatic in the next twenty-five years.

*Promoting our future-*

As I discovered in the course of this exercise, I'm a lumpner... I want to see more links, more synthesis, more cooperation. Since I believe that this will eventuate naturally between disciplines, if we are to promote a particular vision, I would like to see us work to promote links geographically.

Please forgive my omissions, but the following describes the geography of our discipline as I see it. (1) In North America there are currently: intensive enterprises in sociobiology, including evolutionary psychology, evolutionary anthropology, and animal behavior; neurophysiology, and the cognitive sciences; small, growing enterprises in evolutionary law and politics, and evolutionary medicine and psychiatry; but virtually no major efforts devoted to traditional ethology. (2) In Europe, research enterprises are much more diversified, including the traditional ethology that is absent in North America, and excellent programs in behavioral genetics. (3) In other parts of world, including Brazil, Russia, Japan and Australia, I see a smattering of rather isolated enterprises that could use our help.

I see our long-term tasks as two-fold: (1) to encourage the natural integration of evolutionary sciences within geographic areas; and (2) to work

to connect geographic areas together-- especially as facilitates integration of different approaches and methodologies. In this regard, I see the merger of ESS and ISHE in positive light, and I look forward to the establishment of more connections between European and North American scholars. With the merger and the election of Johan van der Dennen as the new ISHE Vice President / President-Elect, we have an increased possibility of having another ISHE meeting in The Netherlands, a country with great strengths in evolutionary psychiatry, evolutionary politics, and primatology.

We also need to reach out to our Scandinavian members, who have enviable strengths in behavioral and medical genetics, evolutionary psychiatry, evolutionary demography, and animal behavior. ISHE member Iver Mysterud is near to finishing an expansive book (in Norwegian) covering modern-day evolutionary social science; its publication will undoubtedly stimulate further interest in the evolutionary aspects of Scandinavian biosocial science.

Russia, too, has a core group of evolutionists with whom we need to make stronger contact. Perhaps ironically, the lack of funds for Russian science has facilitated an increase in the time-consuming, but low budget observational studies traditionally the mainstay of human ethologists. To nurture this growing interest, ISHE members Marina Butovskaya and Frank Salter have secured international funding for a series of lectures to be given in Moscow in 2001 and 2002, and have offered to host a future meeting. ISHE needs to take make an active effort to support and encourage student scholars who are poor in funds but rich in ideas.

Evolutionary social science is also fast growing in Brazil. Two ISHE members there have expressed interest in hosting a future meeting, and one new member (who found us on the World Wide Web) has joined us in Salamanca. The 2003 meeting of International Ethological Congress will be held in Brazil, and ISHE members have been invited to organize one or more special sessions on human ethology. The IEC has also invited us to submit abstracts of papers or symposia for their 2001 meeting in Tuebingen Germany. (Please contact them or me soon, as the deadline for the August meeting is in February; details appeared in an

announcement in the September issue of the Human Ethology Bulletin.)

Finally, Australia has fewer ISHE members than I have fingers on one hand. Yet, despite its weakness with respect to evolutionary sciences, Australia is strong in cognitive neuroscience and in behavior genetics-- two areas which we should bring into the evolutionary fold. To that end, U.S. ex-patriot evolutionary anthropologist Jim Chisholm is planning to host a series of lectures on evolutionary social science soon in West Australia; German ex-patriot evolutionary cognitive scientist Thomas Suddendorf has offered to host a future ISHE meeting at the University of Queensland in Brisbane. Evolutionary social science is also growing rapidly in Japan and other parts of Asia, where primatology has maintained a long tradition of excellence.

#### *Summary-*

I have put forth a few generic suggestions for a few generic problems, and although not all of our problems will be easily or quickly solved, I am much more optimistic now than when I first sat down to formulate these ideas. I encourage all of you to help promote ethology with concrete action: run for office in one of our societies; volunteer to host a meeting; set up an ethology panel or symposium at another meeting that you plan to attend; write a book review for the Human Ethology Bulletin; share your Bulletin with a friend; better yet, get a library to subscribe; link your homepage and your e-mail signature to the ISHE website; send books and reprints to members in Russia, Brazil, and South Africa; initiate international collaborations; recruit new members; recruit new students; write new textbooks!

I want you all to think about these things over next few days, weeks and months. Please share your thoughts with the ISHE officers (by e-mail) or with the full ISHE membership (in the Bulletin), and then let's continue the conversation over the next two years and on into our next meeting in 2002. Let's all share our worries, and let them motivate concerted and directed actions toward bettering the future climate for ethology and evolutionary science.

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## *Don't Worry, Be Happy! A Response to the Presidential Address*

By Ullica Segerstrale, Illinois Institute of Technology, Dept of Social Sciences, 8255 S. Dearborn, IL 60616, USA

I want to respond by telling Linda "Don't Worry, Be Happy!" I believe there are currently good prospects for human ethology, broadly conceived, for a number of reasons.

First, let's look at two important competitors: sociobiology and evolutionary psychology. Sociobiology deals in ultimate explanations, and is basically connected to the idea that there are genes "for" behavior. Meanwhile card-carrying evolutionists, such as Richard Lewontin and Stephen J. Gould, keep reinforcing the impression that gene selectionist and adaptationist

explanations are both politically dangerous and scientifically wrong (e.g., Segerstrale, 2000). Sociobiology's recent offspring, evolutionary psychology, now seems to have inherited much of the old criticism of sociobiology and generated some of its own (e.g., Rose and Rose, 2000). (1)

What is it that these avid critics would like to see? It seems they want an approach that:

- 1) employs a holistic or systems-theoretical, not reductionist, gene-centered, explanatory framework,
  - 2) takes into account developmental aspects,
  - 3) takes into account interaction effects,
  - 4) takes into account learning and culture,
- In other words, they emphasize a multi-level, complex approach, with plenty of room for action and interaction at different levels.

Well, there already exists such a field, and that is, of course, ethology. Ethology did not get swallowed up by sociobiology, as Wilson predicted in his famous 1975 "dumb-bell model" of the future.

This makes me think that among those who are dissatisfied with sociobiology and evolutionary psychology, there may exist a real clientele for human ethology! But there is potentially another, much larger clientele. The evolutionary psychologists have not made friends with the social sciences, with their rhetorical attack on the so-called Standard Social Science Model (SSSM) (Cosmides and Tooby, 1992). This creates a false Us/Them dichotomy, with Us as enlightened and scientific, and Them as hopelessly misguided, biophobic social scientists.

But have they got the picture right? At least in sociology, some types of biological explanations have in fact been incorporated: the idea of inborn sociality (Harry Harlow's monkey experiments), the idea of inborn capacity for language, and the notion of critical periods in development. Some celebrated sociologists (e.g., G. H. Mead, Ervin Goffman, Randall Collins), are linked to an ethological approach. Finally, for many sociologists, social psychology is an important explanatory tool, and it is at least partly grounded in evolutionary considerations. I think we need to better understand sociology's relationship to biological explanation. In addition, we need to (gently!) correct typical



misconceptions, such as the widespread view of an opposition between innate and learned behavior. I personally see nonverbal communication as a crucial missing link between the social and biological sciences and believe that findings from this interdisciplinary field will help make sense of much social theory (Segerstrale and Molnar, 1997).

The third and most unexpected constituency for human ethology may be a political one. Ethicist Peter Singer in his much-quoted *A Darwinian Left* (2000) encourages the Left to move away from its recent extreme environmentalism or culturalism and support certain central ideas - equality and cooperation - with arguments from biology. (2)

Ethology as a field may actually be morally "in" right now. This is signaled by the success of books such as Frans de Waal's *Good Natured* (1996), portraying the moral side of animals (and by extension, us). This is surely a far cry from the late 1960s' debate with its emphasis on aggression and the negative sides of man.

So, let's grasp the current opportunity. Let's give the starving masses what they need! Social scientists, holists, leftists, and others can be our allies, if we treat them right and "understand them as friends," as Eibl-Eibesfeldt once described the ethologist's proper approach to his subjects. Don't worry, be happy - and let's get physical, physical, with nonverbal communication!

#### Notes

1. This is ironic, since this field saw itself as deliberately trying to avoid many of the pitfalls of sociobiology, dealing with the evolutionary architecture of the mind rather than with 'genes.'
2. See other recent books that provide biological rationales for egalitarianism and cooperation: Christopher Boehms (2000) and Elliot Sober and David Sloan Wilson (1998).

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## *Shouldn't We Tell The Freshmen The Basics of Behavior?*

By Tom Shellberg, Henry Ford Community College, Dearborn, Mi. or 17615 Redwood, Lathrup Village Mi. 48076, email: BioTom@aol.com

Dazzling growth of the biobehavioral sciences (Ethology, Sociobiology, Evolutionary Psychology, Behavior Genetics, Neurobiology, etc.) has revolutionized Pope's "proper study of man." There's been a flood of research, books, and articles since the 60's, and new upperclass and graduate curricula from California to Austria. But it seems nobody's telling the freshmen. Traditional intro. psych. and soc. classes are offered everywhere, but comparable no-prerequisite intro. behavioral biology courses

are virtually nonexistent. The formal behavior education of nearly all students is thus, still today, shockingly limited to the mostly abiological, often antibiological, pre-Lorenzian and even pre-Darwinian perspectives typical of most introductory social science classes. Only about one in twenty introductory high school and college biology courses includes even a brief unit on behavior and about half don't even include a unit on evolution. When evolution is taught it's almost always pre-Hamiltonian and rarely demonstrates the power of modern selection theory for answering 'why' questions about biological phenomena. In fact, many biology teachers believe it's not the business of science to try to answer 'why.' And, in those courses where evolution is taught, rarely is there any discussion of human behavior.

As a consequence, it's a rare college grad who knows what natural selection has to do with human sexual behaviors or homicide statistics, or why understanding modern evolutionary theory is critical for understanding philosophy and medicine. It's a rare pre-law student or political science major who learns anything about primate behavior, or the biology of motivation, and it's a rare biology teacher who knows much about behavioral biology or who could even explain the difference between a proximate and ultimate answer. We have not provided suitable educational opportunities for most students to learn the basics of behavioral biology. For the last twenty-five years articles on the revolutionary perspectives of sociobiology and evolutionary psychology have been frequently featured in the national press, from Discover magazine to The New York Times and have many times been the cover stories of Time and Newsweek. But still even our best colleges do not offer appropriate introductory courses. Of course we at ISHE and HBES and ABS should not be surprised if our educational system does not exist for the good of the species.

Since 1980 I have been teaching a big (150 students per semester) no-prerequisite, broad-based intro. course in behavioral biology. It focuses mainly on the introductory basics of classic and modern ethology, sociobiology, evolutionary psychology and behavior genetics, with a bit of essential neurobiology. General principles are stressed, but there is constant reference to human, as well as 'animal' behavior.

Student response has been consistently very enthusiastic. From psych. and philosophy, art, and criminal justice students, to pre-law, pre-education, and pre-med majors, most students on anonymous evaluations say the subject matter of this class should be required or strongly advised for most all students. **I will not, in this very condensed version of the talk I gave in Salamanca, include an outline of the topics I cover, but will be happy to send this to anyone interested.**

What can we do about this abysmal state of evolution and behavior education affairs? I have some suggestions:

1. Organizations like ISHE and HBES and ABS, albeit primarily research organizations could become much more proactively involved in reforming evolution and behavior education.

2. **We should be developing separate introductory classes in behavioral biology at most all of our colleges, usually offered in biology departments.**

- These courses should require no prerequisites if they are to compete effectively with traditional social science classes.
- They should be broad-based introductions to the basic principles of ethology, sociobiology, evolutionary psychology, behavior genetics, and neurobiology.
- The main focus should be upon general principles of animal behavior but application of these principles to understanding human behavior should be a major objective.
- These should be unambiguous science classes with science credit. If a lab is offered it should carry separate credit even if taken concurrently in order to compete with traditional psych., soc. and anthro.
- They should be designed for all majors with frequent application of the subject matter to many careers from art and advertising to elementary teaching, philosophy, law and medicine.etc.

**The Editor invites further discussion in the form of brief letters in reply to the various positions taken in the Presidential address and the two replies.**

# Announcements

## Reminder to ISHE Members:

To renew your ISHE membership just mail the form on the back of this bulletin with your payment to ISHE treasurer Dori LeCroy.

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## XXVII International Ethological Conference August 22-29, 2001

Eberhard-Karls-Universität  
Tübingen, Germany  
International Council of Ethologists  
Ethologische Gesellschaft e.V.

### 2001 Deadlines:

- |          |   |
|----------|---|
| Feb 28   | Submission of Abstracts;<br>Budget Registration;<br>Financial Aid Application |
| April 30 | Notification about acceptance<br>and allocation of contribution               |
| July 15  | Standard Registration   |

Please see their website for more information  
and new developments.

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## AWARD OF THE YEAR 2001

### ETHOLOGY and CULTURAL ANTHROPOLOGY

The Jean-Marie Delwart Foundation will award in 2001 a Prize for an original work or series of works, individual or collective, realized in the joint perspective of Ethology and Cultural Anthropology.

Candidates can send themselves their own application or be presented by a person competent in the field considered.

The Prize, \$10.000 in amount will be attributed to works written or translated in french or in English, which should be sent for March 15th 2001 to the following address†:

**Fondation Jean-Marie Delwart  
A l'attention de Raphaëlle Holender  
U.C.L. B, timent Pythagore  
4, Place des Sciences (Bte 4)  
B-1348 Louvain-la-Neuve  
Belgique**

The applications should be accompanied by a letter, a curriculum vitae and a complete list of publications, as well as by the works (letter, C.V. and list of publications in triplicate).

The Jury is composed of members of the scientific committee of the Jean-Marie Delwart Foundation and of members of the AcadÈmie Royale des Sciences de Belgique.

The Prize will be awarded in December 2001 at the occasion of the Public session of the AcadÈmie Royale des Sciences de Belgique.

The candidates are requested to send copies of the works they consider most linked with their application

## BOOK REVIEWS

### *Indoctrinability, Ideology, and Warfare : Evolutionary Perspectives*

Edited by Irenäus Eibl-Eibesfeldt and Frank K. Salter. Berghahn Books, November 1998, 490 pages, Hardcover \$59.95; ISBN: 1571819231. A Paperback edition will be published in January 2001 by Berghahn Books; ISBN: 1571817662, \$29.95

Reviewed by Otto. M.J. Adang, Dutch Police Academy, Apeldoorn, the Netherlands, email: oadang@lsop.nl

Indoctrinability, ideology and warfare deals with the "burning issue of why humans are susceptible to indoctrination for ideologies which lead to intergroup hostility". It is based on a symposium organized at the Max Planck Research Centre for Human Ethology in Andechs, Germany in 1994 and contains an introduction by the editors and 20 chapters, divided over six parts, as well as notes on the contributors, a list of figures and tables, an index of persons and a subject index.

**Part 1**, "Evolutionary precursors and models", devotes four chapters to the theme of phylogeny. **Eibl-Eibesfeldt** (Us and the Others: The Familial Roots of Ethnonationalism) argues that ethnonationalistic ideologies owe their universal appeal to the way they hook into species-typical dispositions that evolved to elicit bonding and "we-group" identification between mother and child, and other family members. Indoctrinability facilitates acceptance and identification with a group's characteristics and thus serves we-group demarcation.

**Ploog** (War and Peacemaking: The Fusion of Two Neighboring Captive Monkey Colonies) addresses the question of how far back in human's evolutionary history the strategic assessment necessary for planning peace and war emerged. He describes the aggression and appeasement involved in the experimental

fusion of two captive colonies of squirrel monkeys and combines this with data on preschool children to argue that the strategies employed in initiating or resolving conflicts between groups are functionally homologous across the primate order. **Richerson and Boyd** (The Evolution of Human Ultrasociality) review the game theoretical literature on social behavior. They compare humans to the social insects and corals and argue that cultural group selection appears more feasible than genetic group selection. In support they present a model grounded on the ethnography of the New Guinea highlands. Finally, **Tiger** (Notions of Nature, Culture, and the Sources of Indoctrinability) argues that our species' facility at adopting cultural solutions to group adaptive problems is a low-cost alternative to changing our body shape or neural wiring. Cultural variation is evidence of a natural propensity for cultural adaptation but not for the extreme "culturalist" position that humans have somehow freed themselves from their phylogeny. Indoctrinability serves cultural adaptation by homogenizing social values, facilitating cooperation within groups.

In **Part 2**, "Traditional cultures", indoctrination in noninstitutionalized societies is examined. **Schieffenhövel** (Indoctrination Among the Eipo of the Highlands of West-New Guinea) describes indoctrination practices among the Eipo of New Guinea. These serve to cement loyalty within the village and its allies, while directing aggression towards outsiders. As Schieffenhövel puts it: "Indoctrination in quasi-Stone Age New Guinea works towards ... making dead sure that everybody knows exactly to which group she or he belongs". **Wiessner** (Indoctrinability and the Evolution of Socially Defined Kinship) compares two egalitarian societies and shows how indoctrinability predisposes individuals to become culturally homogenized. She hypothesises that indoctrinability evolved to counteract, not enhance, family solidarity, because strong family loyalty could inhibit the formation of exchange networks, necessary as "insurance policies" (see below). **Van der Dennen** (The Politics of Peace in Primitive Societies: The Adaptive Rationale Behind Corroboree and Calumet) reviews the social mechanisms underlying peace and war in many preindustrial societies and concludes that indoctrination can serve both of these group activities.

**Part 3, "Individual behavioral mechanisms"**, examines proximate causation in four chapters on individual behavioral mechanisms. **Frey** (*Prejudice and Inferential Communication: A New Look at an Old Problem*) reports on research which suggests that prejudices may develop without being mediated by some senders' verbal output, solely on the basis of visual information processing. Firmly held prejudices about a person may develop after only a quarter-second exposure to his or her image. **Grammer** (*Sex and Gender in Advertisements: Indoctrination and Exploitation*) employs an evolutionary theory of sexual selection to generate hypotheses about how we should expect advertisers to exploit images of men and women to indoctrinate consumers to buy products. His analysis of 357 advertisements in a large-circulation glossy Austrian magazine found that, as expected, women were presented as being friendlier, more submissive and sexier than men, who are presented as of higher status but not aggressive. **Schubert** (*The Role of Sex and Emotional Response in Indoctrinability: Experimental Evidence on the "Rally Round the Flag"*) studied the effect of presidential speeches announcing military action by US forces. The study found such speeches to be effective in changing attitudes, well after the fact. Viewing videos of the speeches was more effective than listening to audiotapes. A pronounced sex difference in response was found. Females were more discriminating than males in supporting a call to arms, being most responsive to humanitarian concerns, consistent (according to Schubert) with the more "caring and nurturant" approach to social relations characteristic of females. Males were more responsive to justifications based on vital national interests. **McGuire, Troisi, Raleigh and Masters** (*Ideology and Physiological Regulation*) present some interesting propositions about the proximate mechanisms in the brain that could underlie our receptiveness to indoctrination. They hypothesize that acceptance of an ideology correlates with the degree to which embracing it increases the likelihood of attaining physiological homeostasis. Successful ideologies organize and prioritize thought, raise self-esteem, demarcate in-groups and out-groups, regulate in-group exchange and rituals and promote desirable emotional states.

**Part 4, "Symbolism"**, contains two chapters, analysing symbolism in the service of indoctrination via art and television. **Sütterling** (*Art and Indoctrination: From the Biblia Pauperum to the Third Reich*) argues that art has special advantages as a means of communication and hence of indoctrination. Looking at ideological stereotypes she identifies symbols of identification. She traces human sensitivity to certain visual and auditory "key stimuli" back to archaic biases built into our perceptual apparatus. Art can use these biases to release simple aesthetic pleasures and different moods, it can also employ these same mechanisms to trigger messages of a nonaesthetic but political or ideological character.

**Deutsch** (*Probing Images of Politicians and International Affairs: Creating Pictures and Stories of the Mind*) argues that indoctrination into joining one side in hostile intergroup relations is possible because people need to belong and feel powerful. Strategies of persuasion can be built into communications that can seize upon this emotional need, totally bypassing rational thought. Using examples from televised press conferences, speeches, interviews, news broadcasts during international crises and political advertisements, Deutsch describes the general process by which world leaders gain ascendancy in public opinion, again emphasizing the importance of the visual rather than the verbal mode of communication.

**Part 5, "Group processes"**, is concerned with the adaptations that equip us to integrate into groups and accommodate to their internal social structure. **Caton** (*Reinvent Yourself: Labile Psychosocial Identity and the Lifestyle Marketplace*) rightly points out that indoctrination serves to integrate individuals into work and social groups. Where **Eibl-Eibesfeldt** argued that mother-child signals evolved and became available for adult bonding, Caton is struck by the "childishness" of indoctrination and states that the process of indoctrination involves infantilization because this facilitates imitation and learning of new social scripts. He sees evidence for this argument in the famous Patty Hearst abduction/ conversion to terrorist and the activities of the motivation movement. **Macdonald** (*Indoctrination and Group Evolutionary Strategies: The Case of Judaism*) identifies culturally based evolutionary group strategies to create and maintain groups that impose high levels of altruism on their members

and punish or exclude cheaters. He sees Judaism as a highly cohesive group evolutionary strategy, characterized by intense socialization pressures (indoctrination) directed at producing within-group altruism and economic cooperation. **Rushton** (Genetic Similarity Theory, Ethnocentrism, and Group Selection) argues that genetic similarity mediates human relationships, both within and between families. People tend to marry and befriend similar others and the genetic mechanisms that purportedly underlie these findings may constitute a biological substrate of ethnocentrism, enabling group selection to occur. Indoctrinability might be biased to accept ideas and practices disseminated by genetically (e.g. ethnically) similar indoctrinators. **Silverman and Case** (Ethnocentrism vs. Pragmatism in the Conduct of Human Affairs) reject similarity theory and maintain that preferential treatment between genetically related individuals is restricted to direct kin. They present data in support of this view. They conclude that both studies point to pragmatism rather than ethnocentrism as the more compelling motivating force in human affairs and that ethnocentric attitudes are outcomes rather than antecedents of group conflict.

**Part 6**, "institutional mechanisms", deals with the political implications of indoctrinability. **Geiger** (Ideology, Indoctrination, and Noncognitive Foundations of Belief in Legitimacy: A Biobehavioral Analysis of Legitimate Violent Social Action) reinterprets the sociologist Max Weber's theory of charismatic authority in ethological terms. He concludes that indoctrinability is a preadaptation that allows integration in large social units, even though it may not be adaptive in reproductive terms for the individual being indoctrinated. Ideological mobilization exploits human biobehavioral dispositions even for purposes for which they have not been shaped by natural selection, e.g. making the social order of modern large-scale societies look legitimate or eliciting voluntary compliance with war. The co-editor **Salter** (Indoctrination As Institutionalized Persuasion: Its Limited Variability and Cross-Cultural Evolution) reviews several methods of indoctrination (defined as the purposeful inculcation of an identity or doctrine) to test the hypothesis of a universal trait of indoctrinability: Chinese communist

brainwashing, totalitarian indoctrination, cult recruitment, "deprogramming" from cults, traditional initiation and political advertising. He finds that these techniques are highly transferable across cultures and eras, and repetitive in the subroutines they deploy. The lack of variety of effective paths to indoctrination tends to confirm the hypothesis that the means of indoctrinating humans, no matter how technically developed, are constrained by the necessity of keying into the human sensory and cognitive apparatus. In the final chapter, **Masters** (On the Evolution of Political Communities: The Paradox of Eastern and Western Europe in the 1980s) reminds us that it is not typical for humans to help strangers indiscriminately. The institutions of the centralized state, which require such helping behaviour of the citizen, taxpayer and soldier, are relatively recent and surprisingly fragile events in the broad scope of human history. Only when this fact is fully understood do we realize how mythical recognition markers – such as the fictive kinship of the modern nation – serve as a basis for the development of economic and social infrastructures on which large scale markets depend. **Masters** presents a mathematical model of the evolutionary underpinnings of indoctrinability to the symbols and myths of "the State", using measures of present satisfaction and hope for the future. The model is applied to the rise of ethnonationalism in Eastern Europe during the breakup of the Soviet Union.

#### I. Indoctrination

There is no concluding chapter to this interesting multidisciplinary display of modern evolutionary social science, which is a pity. As the editors indicate in their informative introduction, although all contributions take seriously the potential of the life sciences, including evolutionary models, there is no consensus, not even about the definition of indoctrination. As many authors do not specify what "indoctrination" means to them, this makes it sometimes difficult to establish whether or not the different arguments and theories presented are conflicting, complementary, or relate to different issues. The first editor sees indoctrination as any formal or informal process leading to socialization, a special learning mechanism serving bonding and we-group demarcation; the second editor sees it

as political socialization, performed in a purposive manner by an external, specialized institution or staff. The editors indicate that these issues were discussed at the conference, but not resolved. That is not surprising, since the concept of indoctrination is laden with values. It is taken for granted that indoctrination is something bad, and even when it is has a "positive" function, it is "childish" (Caton). Of course it all depends on the perspective one wishes to take, and whose interests are being served. After all, George Orwell wrote in 1984 that propaganda comes from the Ministry of Truth.

Although the proposed definitions of indoctrination could just as well refer to persuasion, teaching or social learning in general, almost all authors implicitly or explicitly assume that:

1. indoctrination in premodern societies has served to weld groups with a tight loyalty and
2. that indoctrinability is a universally found characteristic of humans and
3. involves the predisposition to be inculcated with values or loyalties that run contrary to immediate individual interest. (Schoolchildren might argue that this is exactly what teaching is all about).

Consequently, indoctrinability poses problems for evolutionary explanations: how could such a tendency spread in a population if those who are susceptible to indoctrination risk their lives for a cause that benefits others? Several authors (notably Eibl-Eibesfeldt, Richerson & Boyd, Rushton and Macdonald) find the solution lies in group selection.

## II. Group selection

Rushton explicitly discusses group selection in the special case of human ultrasociality, referring to the familiar arguments by E.O. Wilson (1975) and D.S. Wilson and Sober (1994) of groups so tightly cemented that they became "vehicles" of selection. Richerson & Boyd rightly point out that the trouble with a group selection hypothesis is our mating system. Few group boundaries are without considerable intermarriage, and wife capture is one of the main motives for raids on neighbors. Human groups that compete are demographically very open and violent conflict increases migration rates. Instead, Richerson and Boyd think

culturally based strategies are more plausible motives of group selection than genetically based strategies. According to them, group selection is based on cultural variation and the marking of group boundaries by cultural symbols. Using these cultural devices, humans are able to create and maintain groups that impose high levels of altruism on their members and punish or exclude cheaters. MacDonald thinks he has found a group (Jews) which has been able to effectively follow a cultural group selection strategy. However, the attempt to make group selection more palatable by invoking "culture" does not help. With Eibl-Eibesfeldt, one cannot see any real differences between "cultural" and "genetic" group selection, since the outcome remains the same.

In an interesting contribution, Wiessner proposes an alternative hypothesis for the evolution of indoctrinability that does not invoke group selection. She argues that indoctrination is required to counteract family solidarity, because strong family loyalty could inhibit the formation of effective exchange networks, necessary as "insurance policies" to reduce risks outside the group. However, Schiefenhövel notes that indoctrination can be directed to partly overcoming ethnicity to build larger alliances, traditionally aimed at creating large-scale networks that serve the ambitions of powerful males. But this ideology did not have the same everyday effects as the one stressing ethnicity and Wiessner recognizes this, stating that indoctrination is also used to close boundaries and bind competing social groups.

## III. Warfare

As a logical correlate of group selection, the evolution of indoctrinability is linked to our proneness to collective aggression and intergroup competition in the form of warfare. However, indoctrination is not only used as an instrument of group antagonism. In relation to the susceptibility of humans to indoctrination for ideologies which lead to intergroup hostility, the conclusion must be that the biopsychology underlying indoctrination seems to be a rather versatile instrument, allowing different solutions to a multitude of ecocultural challenges (see Schiefenhövel). Also, as van der Dennen aptly reminds us, a Darwinian approach should also look at the possibility of (indoctrination for)

peace and nonviolence as an adaptation to particular political ecological circumstances.

#### IV. Development and social learning

The volume gives little attention to the development of indoctrinability and to the distinction between social learning, teaching and indoctrination. According to Eibl-Eibesfeldt humankind's identification via symbols bears much resemblance to imprinting phenomena, whereas Salter calls spontaneous imprinting the polar opposite of indoctrination. Several authors implicitly assume that indoctrination serves to enhance already existing tendencies. Others (Salter, Wiessner) indicate that indoctrination is used to inculcate beliefs for which subjects show low indoctrinability, although the difference may be partly due to differences in perception of what constitutes "indoctrination". Several contributions (Schubert, Deutsch, Sütterlin, Frey) point to the importance of the visual rather than the verbal mode of communication in indoctrination.

This collection of papers contains interesting and, for the most part, highly readable contributions. If any conclusion could be drawn, it would have to be that the predisposition for indoctrinability (however defined) seems to have a biological basis, but its content is culturally stipulated. Perhaps it is more fruitful to focus future research and debate on what behaviours, rules and norms we learn more readily than others (without value laden labels) and which require more active teaching efforts. Schiefenhövel sees a way out of the indoctrination dilemma: indoctrinate (teach?) children to be vigilant so that the forces of indoctrination do not overpower them.

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## *That Complex Whole: Culture and the Evolution of Human Behavior*

By Lee Cronk. Westview Press, 5500 Central Ave, Boulder, CO 80301-2877, USA, 1999, \$20.00 (paper), 160 pp., ISBN 0-8133-3705-4

Reviewed by W.C. McGrew, Anthropology & Zoology, Miami University, Oxford, OH 45056, USA. E-mail: wcgrewwc@muohio.edu

"That Complex Whole" are the first words of E.B. Tylor's classic definition of culture, published in 1871, written by the first person to be appointed to a chair in anthropology, anywhere (Oxford). Tylor's definition goes on: "...which includes knowledge, belief, act, law, morals, customs, and any other capabilities and habits acquired by man as a member of society." It remains a serviceable definition 130 years later, although some would dispute its being reserved to *Homo sapiens*.

The title signals Lee Cronk's starting-point, which is mainstream socio-cultural anthropology, but that is only a taking-off point, for he now considers himself to be a human evolutionary ecologist. Given this, he is one of the few scholars willing and able to straddle the social versus natural science divide, and that is the great strength of this slim volume.

In 130 pages of text over seven essay-like chapters, he covers much ground, from the basics of scientific method as applied to human action to the limits of cultural relativism. Evolutionary theory is presented in down-to-earth terms, just as are the post-modernist challenges. His viewpoint is truly biocultural, and though well versed in evolutionary psychology and mimetics, he does not regard these as sufficient, unless culture is involved. (This may come as a relief to anthropologists, who can be forgiven for occasionally feeling that their core concept has been hijacked.) He writes cleverly, with fresh turns of phrase and a light touch. There are 9 pages of notes and more than 250 references, many unexpected, but there are no illustrations.

Cronk's view is provocative: If we seek to explain human behavioral diversity in all its



richness, we may need to start with human universals. For him, this also means that behavior will not supply an explanation for behavior, for this is circular. Culture is the pervasive context for behavior; it is the mud in mud wrestling, to use his metaphor. Furthermore, culture is an emergent phenomenon. (Lest biologists balk at this apparent anti-reductionism, recall that to a chemist, animate life itself is an equally mystifying emergent property). Again and again Cronk cleverly and economically shows how culture dovetails with nature, sometimes with standard sources (e.g., Buss on mate choice), sometimes with telling but painful examples (e.g., female circumcision), and most entertainingly, with cases from his own field work on the Mukogodo, a pastoralist society in Kenya.

The take-home message is this: Culture has escaped the confines of social science, but the concept cannot be abandoned, if we are truly to understand ourselves. Culture is much more than social learning or behavioral diversity, but to tackle it scientifically cannot be done simplistically. Urge your students to read this book and discuss it with them.

## New Books

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- Sloman, L., & Gilbert, P. (2000). Subordination and defeat: An evolutionary approach to mood disorders and their therapy. NJ: Erlbaum Assoc. 256p. ISBN 08058-3298X (hdbk). \$59.95
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## CURRENT LITERATURE

December 2000

Compiled by Johan van der Dennen

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