ASCAP NEWLETTER

Across-Species Comparisons And Psychiatry Newsletter
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"No single group of hunter-gatherers can legitimately be used as an analogue for understanding our ancestors." Hill and Hurtado[1]

(c/o Russell Gardner, 1.200 Graves Building (D29), University of Texas Medical Branch, Galveston, TX 77550)

Note 1990 subscription policy!! For ASCAP Vol 3 (Jan-Dec 1990) we will need $18 (US dollars) for the 12 issues. See subscription form at end.

For the philosophy guiding this newsletter, see footnote on p10[2]

Newsletter aims : 1. A free exchange of letters, notes, articles, essays or ideas in whatever brief format.
2. Elaboration of others ideas.
3. Keeping up with productions, events, and other news.
4. Proposals for new initiatives, joint research endeavors, etc.

Notes: For this month's feature, Kalman Glantz shares with us on p. 3 his impressions of the Chicago meeting of the Human Behavior and Evolution Society (HBE). He feels behavioral ecologists and evolutionary psychologists were at odds.

Can medical pathology isolate features of communication? For some interesting though troubling patients, I found this week about how happiness and laughter occur out of context in a "happy puppet syndrome" and with "laughing seizures." I share with you a short piece I found myself writing.

Kalman also relays on the following project presented at HBE:

Professor Hiram Caton and Dr. J.M.G. van der Dennen from Australia and the Netherlands respectively have initiated "The Bibliography of Human Behavior: An International Collaborative Project" dedicated to research on human behavior based on biological models, methologies or findings. Since animal models of behavior figure prominently in this literature, animal research, particularly primatology, will be selectively in cluded. Cognitive science and artificial intelligence, excluded for a preceding Caton and Salter bibliography (1988), are now included as will human biology in a more fulsome manner. Systems theory, science policy and human biotechnology will be omitted. The authors are supported by the European Sociobiology Society and the editors of five journals.

Happiness and Laughter by RG

A visitor to UTMB from Mexico City, Isabella Kuthy, M.D., tells us of a pair of sibs with the "Happy Puppet" syndrome of Angelman. These children, whom she saw at the genetics clinic of Gea-Gonzalez General Hospital, have severe mental retardation, seizures and inability to speak. But making such children relevant for discussion here is that they laugh much of the time for little apparent reason. Their happiness, seen as such from their smiling expression and laughter, accompanies an ataxic gait and a posture that includes arms bent at the elbow (hence "puppet") .

A mother in the literature related about her afflicted two year old that his laughter had started about five months of age: "It is a nice, natural, healthy laughter, resembling the laugh of a more mature child. But I am afraid of this laughter, it makes me uneasy, I cannot rejoice in my baby." The clinician reporting this case added: "Indeed, the quality of the laughter was not strange; what was strange was that it came from a baby."[4]

Most such children have seemingly normal chromosomes on even high resolution karyotyping but at least two unrelated children in the 50

cases reported in the world literature have gross deletions in the long arm of chromosome 15.[5] More subtle deletions may exist but not be seen. By 1987, four pairs of siblings with concurrent illness (not including the Mexico City pair), had been reported in the world literature (including one pair of identical twins).

Walter Meyer, director of UTMB's psychiatric clinical research center, is also a pediatrician; when I mentioned Dr. Kuthy's new (to me) information, he told me in turn of gelastic or laughing seizures reported by him and two UTMB colleagues.[6] About 150 such patients exist in the world's literature. Their patient was a shy 8 year old girl with precocious puberty and a posterior hypothalamic tumor, who developed generalized convulsions about 2 years of age which later were preceded by short periods of laughter; then, still later, isolated short laughter episodes began to occur with amnesia. On craniotomy, the tumor was too vascular for removal; her laughing seizures persisted on followup, unresponsive to anticonvulsant drugs.

They noted in literature review that mechanisms for laughter involve several levels of brain organization, but that the hypothalamus may play a role. A conscious patient undergoing craniotomy burst into laughter when the floor of the third ventricle was swabbed; for another patient an aneurysm in the same region caused forced laughter.

In these patients, taken-for-granted communicational signals seen out of context provide fragmented evidences of a biologic basic plan that is flexibly deployed in normal persons. Adaptive features that have neuronal programs underlying their existence and that we inherit may be less adaptive with wrong timing or otherwise wrong circumstances.

We realize from such examples the truth that

> ...mosaic evolution .. results because different parts of an animal's body can evolve separately and at different rates, so organisms can be (and are) combinations of primitive and advanced features.[7]

Where did laughter, smiling, and other humorous exchanges originate in our ancestral species? Darwin noted expressions of pleasure and joy in non-human primates:

> Young chimpanzees make a kind of burking noise, when pleased by the return of any one to whom they are attached. .. If a young chimpanzee be tickled--the armpits are particularly sensitive to tickling, as in the case of our children,--a more decided chuckling or laughing sound is uttered; though the laughter is sometimes noiseless. The corners of the mouth are then drawn backwards; and this sometimes causes the lower eyelids to be slightly wrinkled. But this wrinkling, which is so characteristic of our own laughter, is more plainly seen in some other monkeys... But [chimpanzee] eyes sparkle and grow brighter...[8]

M. Gazzaniga studies the cerebral cortex,[9] the expansion of which contributes to human brain s:lze being 3.5 times greater than that of monkeys and apes.[7p.171] Gazzaniga recently stated that

> Particular mental capacities, such as the ability to form visual images, the ability to attend and to remember, the capacity for language, and a host of other cognitive skills, have been analyzed in terms of the "components" or modules :hat interact to produce what seems a unitary skill.

That is, a single psycholcgical attribute may have many components on neuronal and cellular levels. What we experience as good humor, enthusiasm, evidences of pleasure may have features that can be analyzed, at many levels besides the cortical components of Gazzaniga. With the cases of Drs. Kuthy and Meyer, we see how laughter and the face of happiness may have chromosomal and subcortical roots. Of course we all recall the "pleasure" centers of Olds in which rats worked to stimulate themselves electically after electrodes were placed in their subcortical areas. At what point in the common ancestry of humans and rats did the communicative attribute of laughter begin to help adaptation by becoming an attribute of such systems?

Chance's "hedonic" atmosphere is evidenced by the pleasant, playful, and relaxed qualities that smiling and laughter signal. To refer also to the language of John Price, the sig-

nal power of laughter is often anathetic, enhancing the resource holding power/potential (RHP or R) of the receiver, although condescending laughter can have opposite (catathetic) effects. We recognize that deceptive smiles occur contingent upon circumstances, culture, occupation. A primate may appear more happy than he or she is. Cerebral cortical analysis, a way in which humans differ from other animals, may contribute to such complex signal formation.

Happiness is a facet of attactiveness, an attribute that Leon Sloman has emphasized and the importance of which Paul Gilbert has emphasized in his description of social attention holding potential/power (SAHP). Laughter is attractive even in these children, probably, but in the one whose mother we quoted where "happiness" signals were out of context and experienced in isolation from meaningful communicational flow, the usual signal of happiness was painfully disturbing to the mother, as she wished that she could rejoice in her neuronally and/or chromosomally deficient baby. The mother-baby dance, the interaction of nurturance and nurturance recipience, was grossly disturbed.

Also less hedonically, at least for communicational recipients. many of the happy puppet children are also aggressive, hitting and slapping family and others. We know that for persons who are neurologically intact, hostile, taunting smiles and laughter occur in agonic situations, signalling triumph, superiority, dominance. However, whether deployed in hedonic or agonic groups, laughing and smiling communications are more evident with alpha or alpha-reciprocal psalics than when the psalics are experienced as painful subordination or discriminated against out-group status. And how pleasant for parents (and we assume for the baby too) in normal children to experience the baby's first smile.

** Featured Essay **

Conference Report by Kalman Glantz

Here's my report on the Human Behavior and Evolution Conference at Northwestern, Aug 25-27, 1989. It goes without saying that this is subjective and reflects mostly the meetings I could attend plus a few that friends reported on. I hope I don't misrepresent anybody, but if I do, I'm sure ASCAP will give each an opportunity for scathing reply.

First, an overall impression. Many people at the conference talked about the sense of excitement they had about being around so many others who shared their assumptions about human behavior. It was a thrill not to have to defend oneself, not to have to begin at the beginning in order to get across a point. Especially for those who were attending for the first time, there was a strong sense of kinship, belonging and shared endeavor .

But all that good stuff doesn't make for exciting reportage, so I focus on controversy. For me, the Conference eventually began to seem like a boxing match in which the contestants were in differert rings. Nobody--with a few dramatic exceptions, of which more later--seemed to be fighting. At first, the punches--excuse me, the papers--didn't seemed aimed at anybody. It wasn't until about half way through the weekend that any disagreement broke out into the open.

The major issue of the Conference turned out to be the differences of opinion between the Behavioral Ecologists (BEc's), whom Donald Symons calls Darwinian anthropologists, and who seem to have pretty much the same outlook as those who call themselves sociobiologists, versus the evolutionary psychologists (EP's). The basic point of disagreement is this: Is current human behavior adaptive (i.e., does it function to maximize inclusive fitness)?

The BEc's seek to show that it is. They go out and study different societies, in an attempt to discover

the underlying adaptive advantage of cultural mechanisms and institutions in both traditional societies (kin-based but not hunter-gatherer) and modern industrial societies.

The EP's" of whom I am one, say that it isn't always, and shouldn't be expected to be. Evolution, the EP's say, has crafted psychological mechanisms which produced adaptive behavior in the environment of evolutionary adaptedness (EEA -- also read "the Pleistocene", or "hunter-gatherer society"). These mechanisms may or may not produce adaptive behavior in other environments.

There were two BEc sessions and two EP sessions.

The format of the BEc papers is generally as follows: Analyze a trait and show that it promotes fitness. Here are some typical examples from the section on the behavioral ecology of advanced societies, presided over by Sara Blaffer Hrdy.

Lisa Pesce, who works with Mildred Dickemann, presented a beautifully written and researched paper on castrati singers of the Italian baroque period. Now there is a challenge that the opponents of Darwinism love: how could castration contribute to inclusive fitness? Pesce's answer: it is a strategy adopted by the parents to maximize their fitness. Pesce was able to demonstrate that castration increased the wealth and status of certain families, an interesting finding in and of itself. But she had no data showing that economic success led to an increase in fitness.

Ekart Voland and Claudia Engel presented evidence indicating that the way Krummerhorn women (Germany, 1720-1874) chose their men was well-designed to increase their material welfare. The younger the bride, the more likely she was to have a high-status, land-holding husband. They did have data showing that land ownership correlated with the reproductive success of a family.

Gary Johnson's paper was a striking example of the kind of analysis that drives evolutionary psychologists to drink. Johnson presented data showing that winning American presidential candidates had more reproductive success (measured at the third generation) than losing ones. He concluded that cultural success does indeed act to increase reproductive success.

I heard two other papers; in this section. Debra Judge and Sara Hrdy presented information on how people distribute their estates. They found some interesting sex differences. For example, women were more likely to be generous to more distant relations. Judge and Hrdy also noted some deviations from behavior that would be expected on the basis of kin selection and reproductive value theory. Hrdy indicated that she would eventually look at her. data to see if any effect of paternal uncertainty could be discerned.

Finally, Helen Fisher, in a very stimulating session, presented the data underlying her recent writings on the evolutionary antecedents and significance of serial monogamy cum adultery in modern societies. She was convincing on this point, but she ended with some controversial assertions. For example, she stated that monogamy developed along with bipedalism, and when someone objected that ancestral species were sexually dimorphic, she seemed, at least to me, to say that she didn't think the existing bones proved it. This produced a strong reaction from the bone and stone folk. Fisher also cast doubt on a correlation between sexual dimorphism and polygamy, widely considered to be one of the strongest correlations in sociobiology.

In the section on traditional societies, presided over by Napoleon Chagnon, there were more papers demonstrating adaptive effects of cultural traits. Emanuel Polioudakis, in a paper I didn't hear, argued that some of the changes going on in Southern Thailand today are adaptive. Beverly Strassmann tried to show that the institution of menstrual huts among the Dogon increased the fitness of the women who

went to them, presumably by advertising either a) when they would be ovulating, or b) that they hadn't yet conceived. Austin Hughes, if I understand his thesis correctly (I didn't hear the paper), found that institutionalized feuding is adaptive under certain circumstances --when a society is subdivided into numerous small units in which both wealth and relatedness are concentrated on a chieftain. Lee Conk presented data indicating that reproductive success was positively correlated with wealth and status among the Mukogodo of Kenya. And so it went.

In an unrelated paper, Patricia Draper updated us on the fate of the !Kung. Since they became sedentary and dependent on the Bantu, the young men pay no more heed to the elders and are drinking heavily. The young women are marrying later and having children out of wedlock with Bantu men. No one familiar with the fate of the native Americans will be surprised.

No one at any of the BEc sessions addressed evolutionary psychology directly, but the organizers did book one BEc, Paul Turke, into the session entitled "Evolutionary Psychology: Advocacy and Critique". Turke presented a stirring defense of BEc. He also included some critical comments on the work of specific EP's.

The surprising thing was that no time had been set aside for a reply. None of the evolutionary psychologists on the program had been scheduled to address the overall theoretical issues. It was as if the boxer from one ring suddenly ran over to the other one, got in a sucker punch, and skipped back to his own ring. Jerome Barkow was particularly incensed, and he rose to protest.

Much of what Turke said wasn't that controversial. He argued that knowledge of the contexts in which people do or do not behave adaptively provides important information about the nature of the mechanisms that constitute the human psyche. [Furthermore], studies that indicate that people behave adaptively in at least some contemporary environments cast doubt on many non-evolutionary constructions of human behavior.

No disputes here. Turke seemed to be saying that behavior today is sometimes adaptive and sometimes not. Evolutionary psychologists agree. They don't argue that contemporary humans never act adaptively. They simply point out that you can't assume that people are acting adaptively.

But Turke also criticized the notion of domain-specific mechanisms in the mind, a basic tenet of evolutionary psychology, at least as it is being elaborated by Cosmides and Tooby. Turke restated the notion that the brain is a general purpose processor, i.e., that it can work equally well on all kinds of problems. Now why is this important? If the brain is set up as a general-purpose processor, it can work just as well in all kinds of environments, so it can be expected to produce adaptive behavior in all kinds of environments . The brain, in this perspective, is a great big machine that is designed to take all inputs, whatever they might be, and find the solution that maximizes inclusive fitness.

If, on the other hand, the brain has special purpose sub-processors that are designed to deal with specific types of problems, it is likely to do much better in some environments (those where such problems are crucial) than in others (i.e., those where new kinds of problems have arisen).

You need the general purpose hypothesis in order to assert that behavior is always adaptive, even outside the natural environment. You don't need it if you believe that behavior is sometimes adaptive and sometimes not. Since Turke seemed to accept the latter idea, I didn't understand why he was so enamored of the general-purpose hypothesis. Perhaps he will let us know.

Not being an expert, I have a question: Is it necessary for evolutionists to prove that people

Not being an expert, I have a question: Is it necessary for evolutionists to prove that people today are maximizing their fitness? To me, it doesn't seem that this is a proper test of Darwinian theory. There are other ways to show the operation of adaptive mechanisms in human life. It's enough to show that adaptive mechanisms continue to exert some influence over current behavior.

It seems to me that when BEc's find that some strange cultural complex leads to the increased fitness of those who participate in it, they are showing not that the cultural trait arose because it maximizes fitness, but rather, that vestiges of adaptive mechanisms crafted to deal with the EEA are still operating. This is worth showing. It is intrinsically interesting. Is there need to prove more?

I think that the difference between the two positions can be illustrated by two versions of the "central theorem" of sociobiology. The standard version reads as follows: "On the average, all organisms act in such a way as to maximize their inclusive fitness." The EP version might read:

On the average, all organisms have mechanisms which cause them to act in such a way as to maximize inclusive fitness as long as they are living in their natural environment (remember environment of evolutionary adaptedness [EEA]?). Outside of EEA, the mechanisms may or may not produce adaptive behavior.

The latter foundation does not, as is sometimes argued, give humans a special status. It applies to all species, from the musk oxen who form a circle when threatened, thus making themselves perfect targets for high-powered rifles, to the flies who, in trying to fly to the light, bash themselves endlessly on the window pane, to very rich men such as Rockefeller, who, unlike Haile Selassie, choose to have very few children even though they have wealth enough to support a horde.

From my point of view as a psychotherapist, the differences between BEc and EP seem crucial. If BEc is correct, evolutionary theory is of little use in therapy. Clinicians deal all day with behavior which seems self-defeating and which produces distress. What good would it do to say to someone: Well, you are unhappy, but your misery is really leading you to have more genes in the next generation?

Not only is this unhelpful, it throws no light on what distressed people are doing. It doesn't make sense of anything.

The evolutionary psychologist has a very different intervention: You know, your behavior is making you a lot of trouble today. What you are doing might have served you well in a hunter-gatherer band. But you're living in a changed (unnatural) environment. You have to change your behavior to improve your situation.

I may have oversimplified the differences between the two sides. It was sometimes difficult to fit a presentation into a mold. For example, John Beahrs, in a paper on Post Traumatic Stress Disorder, argued that various features of the disorder (dissociation, blurred interpersonal boundaries, cognitive distortion, rigidification, and affect-driven behavior) might have been adaptive in the Pleistocene. Here is how John Pearce sums up Beahrs's argument (I wasn't there). ...what made for illness in men who have served in a war and had now returned to civilian life was appropriate for the EEA, in which dangers did not go away. Pleistocene dangers, mild or S;evere, were continuous... The evolving man needed to be ready to fight all year...

This seems like an EP position. But are Beahrs's five features really psychological mechanisms? Or are they behaviors which result from the failure of other mechanisms? For example, dissociation may be a byproduct of the capacity to shift attention to what is relevant; dissociation, in that light, would best be understood not as something crafted by natural selection, but rather as an inability to shift attention flexibly, a pathological process representing an inability to cope with all the horrors of modern

life (horrors for which there is no evolutionary precedent). In other words, Beahrs may be postulating an adaptive function for behaviors which are not adaptations at all--just what the EP's say the BEc's do. Note that I'm not proposing that my interpretation of dissociation is better; I'm simply trying to show that evolutionary psychology allows one to formulate specific and precise questions about the processes of evolution.

The same EP session in which Turke appeared was marred by another strange bit of scheduling. A professor of philosophy, James Fetzer, gave a paper in which he attacked the work of Leda Cosmides. In a voice that seemed to tremble with rage, Fetzer accused her of undermining the very foundations of Western thought and rationality, and of ignoring immense piles of evidence contradicting her views. Apparently, he had equated Cosmides' arguments against the general-purpose processor theory of the brain with attacks on reason itself. His remarks, which had nothing to do with evolution, were clearly designed to discredit Cosmides' work on technical (logical) grounds--grounds that virtually no one in the audience had any familiarity with. I was stunned and shaken; Cosmides, obviously familiar with the medieval-sounding apparatus Fetzer brought into play (Modus tolens???) replied with apparent unconcern, using the 10 minute question period. Again, no time had been set aside for a rebuttal. Later, Mary Beth Moehl, a one-time philosophy student who had chopped a lot of logic in her day, told me that philosophers routinely tear each other apart, in order to generate enough controversies to fuel their paper writing. So perhaps what seemed like an outburst was really just a display of proper philosophical mores.

At the afternoon EP session, Cosmides presented evidence showing that humans apparently have specialized procedures for reasoning about aggressive threats. Again using the Wason Selection Test, she showed that people are much better able to get the right answer when faced with a problem involving threats than when faced with a logically-similar problem not involving threats. One interesting finding: there are differences in the way men and women reason about threats, differences that can only be explained through reference to the evolutionary history of our species.

Earlier in the day, John Tooby had proposed that there might be more than one kind of cooperation, with separate specialized information processing procedures for the different selection pressures (adaptive problems) that created them. Unfortunately, he had a lot to say and had to say it fast. One salient point did emerge: tit for tat (which Axelrod and Hamilton placed at the center of human evolution) is not an adequate description of all human cooperative relationships. Often an individual gives repeatedly over a stretch of time, before getting anything in return. So, says Tooby, there has to be a separate processing procedure. "Doesn't that relate to kin-selection types of relationships?" I asked him. The answer wasn't clear. Was the question?

David Buss and David Schmitt presented some evidence about sex differences in courtship patterns. Their data, if I can rely on John Pearce's report, confirmed expectations based on evolutionary theory. Women turn out to be more choosy, less inclined to want to have sexual flings for the fun of it, and less interested in having lots of sex partners. Note that Buss didn't argue that these behaviors currently maximized fitness. He simply documented the continuing effect of adaptive mechanisms created by natural selection sometime in the past.

Other papers in the EP sessions: Christopher Boem proposed that what was universal in humans was not behavior, but specific ambivalences. People don't always behave the same way, but they are always ambivalent about the same things. Together with

John Pearce and Mary Beth Moehl, I presented some evidence indicating that the cognitive skills which Piaget observed developing in children underlay, not generalized logical thinking, but rather specifice social skills that children had to master in hunter-gatherer societies. Gary Bernhard (in a different session) showed that reference to hunter-gatherer bands could illuminate the theory of organizational development.

Randy Nesse proposed that the capacity to regulate mood--the range from normal happiness to normal sadness--may best be conceptualized as specialized modes of operation that allow the organism to respond appropriately to different types of situations. In particular, he suggested that mood made it more likely that the organism would correctly assess the probable rate of return on an investment of energy. The latter point led to some interesting discussion. Rob Aronow suggested that since mood is linked to the reward system, it may have played a more significant role in facilitating group life. However it comes out, Nesse's proposal is intriguing.

There were other quiet dramas. Over in the session on "Evolutinary Psychodynamics" could be found those who want to use evolutionary theory to enrich (or save) psychoanalysis. They are arrayed against those of us who want to create "evolutionary psychotherapy", using whatever is valid from all existing schools. Mel Slavin and Dan Rriegman have been most active in revising psychoanalysis in the light of evolutionary theory. Their paper made several points. 1) The "relational" tradition (Winnicott, Fairbairn, Kohut, Bowlby) is much closer to evolution than classical psychoanalytic drive theory, but naively underestimates the role of conflict, intrapsychic and otherwise, in human life. Evolutionary biology makes possible a synthesis between the classical and the relational views. 2) Evolutionary psychology will remain "relatively superficial and overly abstract if it does not make use of the intrapsychic models and vast clinical observations of psychoanalysis".

That is quite an agenda. They are trying to fix psychoanalysis with evolution, trying to fix evolution with psychoanalysis. Can one serve two masters?

From my many conversations with them, I suspect that Slavin and Kriegman may be struggling to develop their own position on the EP/BEc controversy. They seem to have a foot in both camps. On the one hand, they welcome the idea that there are domain-specific psychological mechanisms in the human psyche. Indeed, they claim that psychoanalytic defenses such as repression are in fact domain-specific mechanisms. On the other hand, they argue that these mechanisms are not uniquely linked to the Pleistocene, but rather, function equally well in the modern environment. They apparently believe that with respect to the family, psychological growth and the vicissitudes of development, the modern environment is not essentially different from that of the hunter-gatherers. If Slavin and Kriegman had a central theorem, it might read: Organisms have domain-specific mechanisms that are adapted to permanent features of the human environment, and so function the same way in today's environment as they did a hundred thousand years ago.

At the same session, there were some papers that I can't work into my overall theme. Dan Wilson gave a spirited defense of the value of the hypothetico-deductive method in psychiatry. Alan Lloyd talked about reconciling Freud's view of dreams and that emerging from modern biology. Emanuel Garcia, in a. paper I didn't hear, argued that Freud relied heavily on phylogeny in developing his theories. My colleague Dan Wilson very much liked John Wylie's paper, which, he said,

smoothly linked inclusive fitness to the line of psychiatric theory involving dominancs/submission models dating to John Price's seminal work.

On the "Evolutionary Philosophy" section: unfortunately I missed most of it so I will again quote Dan Wilson, who found the session very exciting:

> Michael Ruse was terrific in discussing the ramifications of evolution in ethics and epistemology. He deftly linked evolution to neither Kant nor Hegel, but rather to Hume and the British empirical tradition which always stressed links between animal and human behavior... David Hull... gave an understated but important affirmation of the humanistic and emancipating aspects of evolutionary thinking when he emphasized how the central evolutionary concept of variability is consistent with issues of genes and rights but is not related to, or informing of, questions of norms or deviance. Evolution, he seems to say, is a libertarian sport.

The big debate over there seems to have been between those who think evolution can throw light on ethics and those who don't, but I'm really not sure I understood. My impression is that Robert Richards ("Resurrection and Salvation") and Paul Thompson ("Evolutionary Ethics and Ethical Naturalism") were both arguing that somehow, somewhere, there must be some way of saying what IS right. This is a belief that some prominent evolutionists apparently share. Others, fearful of committing the naturalistic fallacy, argue that evolution can only tell us what FEELS right, and insist that this knowledge sheds no light on what IS right.

My remark on this subject, made from the floor, led into still another area of disagreement. I said: "If we are serious about evolution, we have to see morality as a strategy that evolved to enhance fitness." This led Randy Nesse to say: "What would happen if we started to teach high school children that morality is a strategy"? I was surprised at his ambivalence about the desirability of disseminating knowledge of our subject, but I later discovered that this attitude is shared by some other important people. Bill Hamilton himself, in one of his addresses, commented favorably on Nesse's remark, and expressed some fear about our becoming too public. On the other hand, Irenaus Eibl-Eibesfeldt commented negatively on Randy's position, at the closing Round Table.

Other interesting points were brought up at the Round Table, which wasn't really a Round Table at all, but a series of statements by various Fathers (none of the Mothers participated). Ed Wilson suggested that the future of evolutionary studies would lie in the relationship of biological evolution to cultural evolution, and called for more research on the basic unit: of culture. Richard Dawkins, responding in part to the persistence of notions about group selection, reminded us that anyone wishing to provide an adaptive explanation for anything is obliged to state which replicator is becoming more frequent. Dawkins insisted that there were only two candidates for replicator status: genes and memes (not groups and not organisms) . He also noted that he wasn't sure about memes... George Williams reminded us that it isn't the physical quality of the replicator that is important, but rather its informational content--not the medium but the message.

There was more, much more, but space forbids.

A sad note. No one was awarded the newly-created Bill Hamilton prize for the best just-so story.

A chilling note. Zhang Boshu had submitted an abstract on "Sociobiology in China" which mentioned a critique of orthodox Marxism. He wasn't on the program. Casualty of Tienanmen Square?

November's issue on obsessions features Daniel Friedrian and the anal period and also includes some quotes from J Rappoport and R Pitman; in December, we return to HBE (more of Dan Wilson's impressions - and anyone else with opinions or "corrected" representations!)

1. Hill K, Hurtado AM: Hunter-Gatherers of the New World. American Scientist 1989;77:437-443.

2. ASCAP philosophy and goal. High scientific importance rests on comparing animal behaviors across-species to understand better human behavior, knowing as we do so that evolutionary factors must be considered for understanding properly such behaviors. To accomplish these comparisons, very different new ways of viewing psychological and behavioral phenomena are required. This in turn explains why we need new words to define and illustrate new dimensions of comparisons across species. We expect that work in natural history biology combined with cellular-molecular biologic research will emerge as a comprehensive biologic basic science of psychiatry. Indeed, this must happen if we are to explain psychiatric illnesses as deviations from normal processes, something not possible now. Compare to pathogenesis in diseases of internal medicine.
Some neologisms that hopefully will help implement these goals are those of:
a) Michael R. A. Chance: "hedonic" and "agonic" refer to the tone of groupings of conspecifics (members of a same species) i.e., relaxed and fun-loving versus tense and competitive.
b) J.S. Price: "anathetic" and "catathetic" describe conspecific messages. Catathetic messages; "put-down" and anathetic "build-up" the resource holding potential (R) of target individuals.
c) Russell Gardner, Jr.: "psalic" is a 2 way acronym: Propensity States Antedating Language In Communication and Programmed Spacings And Linkages In Conspecifics. This describes communicational states conjecturely seen with psychiatric disorder and normality (human and non-human), ie, alpha psalic seen in manics, high profile leaders and dominant non-human animals. Eight psalics are named alpha (A), a alpha-reciprocal (AR), in-group omega (IGO), out-group omega (0G0), spacing (Sp), sexual (S), nurturant (N), and nurturant-recipient (NR).
These new or renewed terms are initiated or elaborated in Chance, MRA (Ed) Social Fabrics of the Mind. Hove and NJ: Lawrence Erlbaum Associates, 1988.
d. Paul Gilbert: Social Attention Holding Power/Potential (SAHP) focuses upon the non-aggressive facets of leadership when this is deployed in the hedonic mode. See ASCAP v.2, #1 and his new book: Human Nature and Suffering. Hove and NJ: Lawrence Erlbaum, 1989.

3. Angelman H: 'Puppet children': a report of 3 cases. Develop. Med. Child. Neurol. 1965;7:681-688.

4. Elian M: Fourteen happy puppets: Two new cases and a review. Clinical Pediatrics 1975;14:902-8

5. Magenis RE, Brown MG, Lacy DA, Budden S, LaFrancis S: Is Angelman Syndrome an alternate result of del (15)(q11q13)? Am J Med Gen 1987;28:829-838

6. Matusik MC, Eisenberg HM, Meyer WJ: Gelastic (laughing) seizures and precocious puberty. Am J Dis Child 1981;135: 837-838.

7. Radinsky LB: The Evolution of Vertebrate Design Chicago: U Chicago Press, 1987, p 18

8. Darwin C: The Expression of The Emotions in Man and Animals. NY: D. Appleton and Company, 1873, pp.132-133

9. Gazzaniga MS: Organization of the human brain. Science 1989;245:947-952