

ASCAP NEWSLETTER

Across-Species Comparisons And Psychopathology Newsletter

Volume 5, No. 9, 15 Sep 1992 (Cumulative #58)

"Mendel wasn't the first to work with pea plants or the first to perform cross-fertilizing...What he was the first to do was focus...on only one trait at a time and count how often these traits appeared. By quantifying his observations, he was able to proceed from systematic simple studies to more complex examinations and he developed a model of genetic inheritance that still forms the cornerstone of modern genetics." Abel¹

The ASCAP Newsletter²
is
a function of the

International Association
for the Study of
Comparative Psychopathology
(IASCAP)³

Correspondence with IASCAP is c/o
R Gardner, secretary, and editor
of ASCAP Newsletter
1.200 Graves Building (D29), UTMB,
Galveston, TX 77555-0429, U.S.A.
Phone: (409) 772-7029
FAX: (409) 772-4288

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.

IASCAP Mission Statement; The society represents a group of people who view forms of psychopathology in the context of evolutionary biology and who wish to mobilize the resources of various disciplines and individuals potentially involved so as to enhance the further investigation and study of the conceptual and research questions involved. This scientific society is concerned with the basic plans of behavior that have evolved over millions of years and that have resulted in psychopathologically related states. We are interested in the integration of various methods of study ranging from that focusing on cellular processes to that focusing on individuals to that of individuals in groups.

Features: (1) Thanks to Michael Chancel by John S Price. p.2
(2) Price-Gardner exchange ... p.4
(3) The IASCAP proposal for a scientific meeting with the American Psychiatric Assoc annual meeting in San Francisco 22-27 May 1993 ... p.5
(4) Review of Paul Gilbert's Depression: Evolution of Powerlessness p.7
(5) ESS (European Sociobiological Society) annual program and organisation descriptions. p.9
(6) Excerpt from The New Yorker on the nature of biology. p.11
(7) Excerpt from Stephen J Gould on operations of evolution in DNA .p.11
(8) Summary of an article on marital aggression p.10
(9) Response to Aaron T Beck's comments on depression and evolution by William T McKinney ... p.11
(10) Response to Michael Waller by Michael R A Chance ... p.12

Editorial: We have a request from a reader who wishes to remain anonymous that Mike Waller make explicit his reference to what was to him a classic study but isn't to us (at least to the reader and myself). It stated "that many authoritarian bosses would sooner see their company go bust than

make personal, behavioural adjustments necessary to cope with a shift to a more volatile market."

There are two editorial points to be made: (1) what is the reference, Mike? Not that there is disbelief, but a desire to confirm what the reader had been a hunch but not to that person's knowledge documented in a formal study. (2) ASCAP is a scholarly effort and contributors should document references for maximal usefulness. The reader said: "Ask all contributors to give adequate references to sources of information --please!"

Not to get too serious, however. One of the charms of a newsletter is that the same degree of compulsivity doesn't have to prevail as would be true of a refereed journal. We wish to keep this 'hedonic' using the word of our first president, Michael Chance! Following Dr. Chance, we should stay humorous, relaxed, playful, careful but not up-tight.

Announcements: (1) Immerman RS: Sexually transmitted disease and human evolution. Human Ethology Newsletter 1992;7:(June issue)6-10.

(2) Blancet A, Mirabel-Sarron C: Therapist and patient speech in cognitive depression therapy: assessment and discussion. Eur Psychiat 1991;6: 147-151.

(3) We have just received two important books sponsored by the Institute of Medicine: Pechura CM, Martin JB: Mapping the Brain and Its Functions: Integrating Enabling Technologies into Neuroscience Research. Washington DC: National Academy Press, 1991, and Ackerman S: Discovering the Brain. Washington DC: National Academy Press, 1992.

These are user-friendly books allowing updates on important topics for our area on not only the whole organism-level of discourse, but the brain and neuronal levels too.

Thanks to Michael Chance by JS Price

Michael Chance has now completed his year of service as president of IASCAP, and as the new president it falls to my happy lot to propose a vote of thanks to him and to wish him well. It was very appropriate that he should have been the first president of a society devoted to across-species comparisons and psychopathology. At a time when the other great names in animal behaviour such as RA Hinde and SA Barnett were expressing pessimism about the value of across-species comparisons, Michael was demonstrating several areas in which they were invaluable, not least in the relation between the agonistic mode and psychopathology. It may be difficult for ASCAP readers to remember that twenty years ago, it was thought that depressive and anxiety states were related exclusively to attachment behaviour, or rather, the failure of attachment behaviour. It was a matter for speculation how much of psychopathology could be accounted for by the failure of parent-child bonding, how much due to inappropriate pair-bonding or the breakup of pair-bonds by death, how much by failure of affiliative behaviour and how much by mismanagement of reciprocal exchange. All forms of competitive behaviour including agonistic behaviour were simply ignored. Bowlby and Hinde had spoken, and only Michael Chance had the intuition and courage to speak out and demonstrate that the various dysphoric states that constitute the bulk of human psychopathology make much more sense in the context of agonistic behaviour. His concepts of agonistic and hedonic modes, linked to his concepts of attention structure and reverted escape, have illuminated both animal and human behaviour.

This is not to say that the failure of attachment behaviour is not important in psychopathology. We know clinically that many depressive

states follow loss of some sort. But this is proximate causation. Underlying attachment behaviour, at a phylogenetically earlier level of the brain, the mechanisms for agonistic behaviour are "pulling the strings" and give an ultimate explanation for the paradoxical apparent maladaptive-ness of depression such as the incapacity, the cognitive distortions given an ultimate explanation in terms of malfunctioning attachment behaviour, because they actually exacerbate any affiliative malfunction that already exists; only in the case of the rejected suitor can some function be seen, in that depression may inhibit what would otherwise be inappropriate courtship behaviour of the type we read about in the papers, in the form of a rejected suitor getting sent to prison for pestering or harming the person who has rejected him. On the whole, however, depression is maladaptive in cases of attachment malfunction, when usually increased affiliative and other activity is required. Only in the role of the yielding reaction with inhibition of agonistic behaviour can the strange phenomena of depression be understood in an evolutionary context.

Most ASCAP readers will be familiar with Michael Chance's book Fabrics of the Mind, and his previous books are still well worth reading. His latest initiative has been to edit a symposium on the two modes for World Futures; The Journal of General Evolution due to appear in the Sep 1992 issue; contributors are: Chance, Gilbert, Kemper, Power, Stevens, Wedgwood-Oppenheim, Hold-Davell and myself. I look forward to reading this symposium and I wish it were possible to circulate copies to ASCAP readers. Anyone with difficulty getting access can get a copy of the symposium by writing to Gordon and Beach Publishers, Inc, Frankford Arsenal Building 110, 5301 Tacovy St, Box 330, Philadelphia, PA 19137 and

asking for the symposium edited by Michael Chance in World Futures. Vol 35 #s 1-3, pp 1-175.

In my contribution to the symposium I point out how the mode concept is applicable to marital relationships. The way a marriage can switch from the agonic mode to the hedonic and back again is something that is clearly described by novelists but is not conceptualised by social psychologists or marital therapists because, lacking the two mode concept, they could not talk about the pattern even if they could see it. See, for instance, Steve Duck's Human Relationships, 2nd Ed (London, Sage Publs, 1992) where on pp87-101 he discusses what happens when things go wrong in long-term relationships; having no concept of the agonic mode, the nearest he gets is "What happens when disagreements are detected is that people talk them out, so once again in everyday life conversation is an important tool for developing and sustaining relationships" (p87); the only possibility which Duck considers apart from this hedonic resolution by discussion is separation, preceded by a period in which each party runs down the other to other people; there is total agnosia for the agonic mode. In my contribution, I mention the novel September by Rosamund Pilcher, and I have just read The Rector's Wife by Joanna Trollope⁵ in which a clerical marriage switches to the agonic mode after the rector's wife takes a job against the rector's wishes - rather unfairly the author sidesteps the resolution of the agonic episode by killing the rector off in an automobile accident (although she is right in emphasizing the adverse effect of the agonic mode on attention and concentration) - and also, the novel is an excellent description of a struggle for autonomy and the acquisition of the capacity for saying "no." I think it is true to say that the

agonic mode in marriage is currently only described in novels, being too subtle for the laboratory and even for the consulting room. After all, in the nineteenth century novelists were the only psychologist they had, and I do not think they have been entirely replaced.

It is interesting to contrast the agonic mode in humans and in Michael's long-tailed macaques. We know from introspection and the reports of others how it feels to be in an agonic relationship. One feels angry with the other, wants to hurt them and wants to lower their RHP/SAHP/prestige/status. Macaques have little in their behavioural repertoire to express these feelings apart from actual fighting and possibly withholding affiliative behaviour such as grooming. Human beings, on the other hand, have quite an armoury of agonic techniques short of agonistic behaviour. We can, for instance, run the other down to a third party, thus lowering their prestige. We can hurt the other with a variety of techniques, and this is particularly true when the agonic episode occurs in a relationship characterised by affiliation such as a marital relationship. We can withhold love, or make statements denying love, or we can be unfaithful, all actions which appear to be part of affiliative behaviour but are in fact motivated by agonistic behaviour. This is one of the complex interactions between attachment behaviour and agonistic behaviour. So the agonic mode, which is one of orientation towards agonistic behaviour in the absence of overt fighting, is far more complex in humans than in animals and deserves intensive study.

Having said thanks to Michael, who stays on the executive committee of IASCAP in the capacity of past-president, it is my pleasure to welcome John Pearce on to the committee

in the capacity of vice-president. Any ASCAP readers who have not read the book he co-authored with Kalman Glanz, Exiles from Eden, should certainly do so as it is full of ideas and represents a pioneering attempt to apply evolutionary biology to psychotherapy. I think he will be a very valuable addition to our committee. During the year of my presidency I hope to set in motion the arrangements for a meeting of our society beyond that of the APA (see below), possibly as part of a larger meeting; if anyone has any ideas on this, they would be most welcome. I would particularly like to bring together clinicians who are interested in across-species comparisons and scientists who are actually working with animals.

In the meantime, I would like to ask for the help of ASCAP readers in compiling an anthology of episodes of agonic mode from fiction. If you encounter an episode in which friends, marriage partners or family members switch into the agonic mode, are described in it, or manage to get out of it by reconciliation or other means, please make a note of it and let me know. Apart from the novels mentioned above, my list so far includes The Forsyte Saga, Trollope's Daniel Deronda, Somerset Maugham's Merrygoround, Albee's Who's Afraid of Virginia Woolf? and Daphne du Maurier's Jamica Inn. I suspect there is still far to go.

A novel and poem that illustrate agonic mode and raise questions RG

(1) A novel: Hannelore Valencak wrote When Half-Gods Go which describes a young woman on holiday in Greece with a politely arrogant young man. He condescends to her so she sets off on her own. The Praxiteles statue of Hermes at Olympia spies her problem, takes half-human form and accompanies her on a nice tour of

Greece, respectfully valuing her so that her previous escort (more-or-less also on the tour) gets the idea that he should imitate Hermes, and does, for an agreeable end. Problem: the communications are subtle and the agonic forms sometimes implicit because the characters are mostly polite, not overtly scrapping like the couple in Albee's Virginia Woolf. Does polite arrogance qualify for agonic mode? We humans with subtle catathesis mingled with seeming anathesis pose definitional problems.

(2) Here's a poem of Anne Sexton, who was at times a patient:

The Fury of Hating Eyes

I would like to bury
all the hating eyes
under the sand somewhere off
the North Atlantic and suffocate
them with the awful sand
and put their colors to sleep
in that soft smother.
Take the brown eyes of my father,
those gun shots, those mean muds.
Bury them.
Take the blue eyes of my mother,
naked as the sea,
waiting to pull you down
where there is no air, no God.
Bury them.
Take the black eyes of my lover,
coal eyes like a cruel hog,
wanting to whip you and laugh.
Bury them.
Take the hating eyes of martyrs,
presidents, bus collectors,
bank managers, soldiers.
Bury them.
Take my eyes, half blind
and falling into the air.
Bury them.
Take your eyes.
I come to the center,
where a shark looks up at death
and thinks of my death.
They'd like to take my heart
and squeeze it like a doughnut.
They'd like to take my eyes
and poke a hatpin through
their pupils. Not just to bury

but to stab. As for your eyes,
I fold up in front of them
in a baby ball and you send
them to the State Asylum.
Look! Look! Both those
mice are watching you
from behind those kind bars.

Ms Sexton's poem reminds me of patients I have seen who were abused when young. One such person in treatment with me often cringes when I prepare to speak (softly, with mild intent) as though I were about to lay a blow as had her mother when the patient was young, using a coat-hanger. A major work of the therapy is the mismatch: that my comments in form, tone and content are in fact more hedonic than agonic is a distinction she therapeutically learns.

IASCAP Proposal for Symposium
American Psychiatric Association (APA)
Annual Meeting.

Some of us have been working on a plan for the first scientific meeting of IASCAP (subsequent to its formation) which we hope will be held in conjunction with the APA in May, 1993, in San Francisco. Holding the meeting will be contingent upon positive action by the program committee of the APA. Hopefully our status as independent organization will assist in a positive decision. Our disappointing rejection by the Brighton meeting for the Royal College of Psychiatrists was a potent factor in Leon Sloman's proposal for IASCAP's July, 1991, origination at Odintune in Sussex, England.

The symposium co-leaders are RG and Mark Erickson (newly moved to San Francisco from San Diego). The title is "From genes to behavior: evolution and psychiatry."

The Executive Council will be represented completely except for our President-Elect, Paul Gilbert, who informed us that he regretfully must stay in England next May. However, we

have one reference to list on the APA application and that naturally is that of Paul Gilbert's new book reviewed below.⁹

The abstract reads as follows:

Fundamental and less fundamental genes have influenced behavior over evolutionary time, but how the genetic basis of behavior is transduced and how in turn it has influenced the abnormal behavior that we call psychiatric is far from understood. This symposium addresses this by focusing on (1) evolutionary biology (diversity of genotype/phenotype, natural selection of adaptive features, and hereditary mechanisms), (2) some genetically determined mental retardation syndromes that exhibit stereotypical variations of eating and communicational signals and therefore allow inferences for chromosome 15 as a candidate site for oral basic plans that influence human communications, (3) comparisons of non-human animal behavior and relational patterns with human variants (the Oedipus complex may reflect less a learned incest barrier than a breakdown of familial bonding), and (4) use of phenomenological features of psychiatric syndromes as probes for evolved adaptive features: (a) has depression evolved to conserve survival through self-deceiving communications of harmlessness? and (b) does dissociation allow people when overpowered to win nevertheless through a form of deception? These pathways of investigation may allow a new science of sociophysiology to emerge that helps order pathophysiologic observations, investigate normal counterparts of psychiatry, and guide clinical intervention.

Proposed presentations with tentative titles include: (1) "Evolution & the genes that cause mental disorders," by Randolph Nesse, Ann Arbor, MI; (2) "Evolutionary epidemiology: disease or design?" by Dan Wilson, McLean Hospital, Belmont, MA - now on sabbatical at Oxford, England! (3) "Chromosome 15 and genetics of communication" by Russell Gardner, Galveston, TX; (4) "Incest avoidance: An evolutionary view," by Mark Erickson, San Francisco, CA; (5) "Mood swings: adaptation or failure of homeostasis?" by John Price, Odintune, Sussex, England; and (6) "Dissociation: strategies of adaptive deception," by John Beahrs, Portland,

OR. Two discussants agreed to react to these papers: John Pearce, Cambridge, MA and Leon Sloman, Clarke Institute, Toronto, ON.

John Pearce has already reacted to the plans as so far developed, as follows:

It seems to me that the most striking ideas in evolutionary psychology are:

1. Getting food is all important for all animals. Reproduction is essential and details of reproduction are powerful selective pressures, but mating is occasional. Eating must be constant. All creatures must be wired to strive to get food, and select what they have evolved to decide what is the best food. We must keep this powerful truism in mind. To be sure, humans are flexible about what they are out to get, what for them constitutes "good stuff," but they are constantly orienting themselves to get that good stuff. Understanding what constitutes "good stuff" for each person is essential for the understanding of that person. (As for me, I go for evolutionary insights.)

2. The amazing centrality of deception. Hand-in-hand with getting good stuff is deception as a strategy. In ordinary thinking, deception is a glitch, an annoying complication in what should be straight-forward living. In biology, it is as fundamental as its motivation, goal-directed behavior.

3. Goal directed behavior is controlled by multiple brain modules. Psychoanalysis is crippled by its dualism. Better they should talk of many unconsciousnesses. Consciousness vs unconsciousness is a crude and unfortunate dualism. There are many modules in the mind and they often conflict. Psychoanalytic thinking assumes what is not there -- a central ego that processes everything. The mind is fundamentally modular. This is an important clinical idea.

4. Darwinian algorithms. Cosmides has shown that people are good at figuring out reciprocity and judging frequency of events. Research on detecting counterfeit money has demonstrated that people have a special knack for recognizing small differences in faces. People are good at talking.

As a practical matter, all this comes as no surprise. As science it is big deal.

It seems clear to me that trauma produces super-learning, using the biological substrate of learning. Learning can be thought of as a Darwinian algorithm, an adaptation, and Beahrs does, but this blurs an essential distinction between recent,

primate adaptations, and early pan-biologic adaptations. Learning is obviously very old. I don't understand why John Beahrs, a very smart fellow, takes the position that PTSD is an adaptation.

We need real scientific progress on understanding trauma and treatment of post-traumatic disorders. We need studies of the population of PTSD patients. The habit of typological thinking is a big drag. Did you see the lead article in the latest Am J Psychiat on biology and dynamic theories?¹¹ The author tells some good stories, but then gives no indication of how representative they are.

Psychiatry must use population biology methods, even if roughly and impressionistically.

To continue, we are encouraged by Henry Nasrallah, Chairman of the Department of Psychiatry at Ohio State University, a new IASCAP member who writes (7/24/92), "...you can bet I will be sitting in the front row. ...By the way... the APA frequently asks the chairs of well constructed symposia to edit a book on the topic, using both the symposium speakers plus others as chapter contributors. This would give your [group] the opportunity to put together a thought-provoking volume with many contributors. ...I wish you the best as you put the symposium together."

Review of book by President-Elect Paul Gilbert; Depression; The Evolution of Powerlessness.⁹ by RG

This clearly written book which is the primary reference to the APA symposium proposal summarized above works hard at helping the reader. Paul Gilbert speaks in a direct unpretentious manner. Each chapter covers summary points and he expands these with often eloquent concluding comments. He acknowledges his debts, especially to the remarkable English group that has met regularly for several years (mentioned as the "Birmingham group" in earlier issues of ASCAP). Paul provides us with a major full scale rendering of the evolutionary hypothesis of depression

in the context of other theories of this extremely prevalent disorder.

There are 16 chapters divided into three parts: I. Types: History, Diagnoses, Epidemiology, and Personality, II. Concepts: The Evolution of Mental Mechanisms and the Needs for Power, Belonging, and Self-value, and III. Past and Current Theories.

The key to the evolutionary facets of the book are in the chapters of II: 5. The Evolution of Mental Mechanisms, 6. The Evolution of Social Power and its Role in Depression, 7. Notes on the Evolution of the Self, and 8. Patterns of Depressive Self-organisation: Shame, Guilt, Anxiety, Assertiveness, Anger and Envy.

I believe the following "Concluding Comments" for chapter 6 provides a sampling of Paul's prose and his central points (this begins p185):

We humans like to think that we are created anew. Maybe we have never really come to terms with Darwin's dethronement of us. It is true of course that humans are capable of much more than other animals and we shall address this issue in the next chapter. However, evolution is conservative, a bit of a hoarder; it does not throw things away but rather adapts them to new purposes (Lorenz, 1989,¹² gives some fascinating examples of this.) Most of us are aware of our appendix, for example, that does not do much, but can kill you nevertheless. If we take the idea of the triune brain seriously then, as Maclean (1977, 1985) and Bailey (1987) point out, these different structures of the brain do not always work smoothly with each other. Second, it is probably incorrect to assume that cognitive evaluative processes only go on in cortex or some high level. Many brain structures seem to be responsible for specific forms of evaluation (Ornstein, 1986).¹⁵

In this chapter we have explored the idea that there are primitive "potentials" that exist within the brain that (mostly) are now...maladaptive. Modified versions of the defeat programme may be adaptive to the extent that we give up pursuing the unobtainable. But such adaptive responding requires that the subsequently evolved moderating aspects be working. Hence, a disappointment is not turned into a major defeat. But if, for some reason, these modifications don't work too well, then more primi-

tive and crude changes may take place. Furthermore, we may have internal working models of ourselves, built up from previous interactions with others, that actually facilitate their recruitment rather than inhibit them (eg, being labelled or treated as inferior, or subordinate, by siblings or parents). And more often than not, we may inhabit a social world were we in reality constantly being subjected to various forms of put-down--in our marriages, at work and in the economic structures of living--that convey a sense of inferiority in more subtle terms.

Only now are psychologists beginning to wake up to the enormous importance of social power, something that philosophers have been concerned with for hundreds of years. And even those who profess to be interested in power usually do not recognize how large a role social power (accommodating oneself to get it, and to those who have more of it) has played in the evolution of brain mechanisms. The de-biologising of humans has exacted a high price in my view for we have turned a blind eye to the biological consequences of power exerted over others and ourselves. The rest of this book attempts to move to the human level and to articulate how the problem of power can be understood in terms of attractiveness and how it lurks in the depressive experience.

An important point that Paul makes elsewhere in the book and indeed in the pages of *ASCAP*, is that social attention holding power (SAHP) is a mark of leadership, earning approbation is more important than imposing it, replacing only harsh dominance in the more pleasant (hedonic) groupings for which humans have often geared themselves. And he illustrates it himself with this lucid book.

His last words in the fourth appendix (Appendix D: Culture and Change) focus on the wider implications of this concept which I see as an important facet of his thinking.

Paul justifiably displays skepticism that depression is simply an antidepressant-deficiency disorder; he states early on that "While I have great respect for my biological colleagues it is quite untenable to believe that in the majority of cases we are dealing with a disease and can now drug our way out of trouble."^{p.5}

While one cannot quarrel with the comment, I wonder if a deficit of Paul's commentary nevertheless hinges around a neglect for his analysis of the effects that these powerful drugs do have including their capacity to reverse profound states of depression, whether one calls such states a disease or something else.

This illustrates how Paul's approach may perhaps be too much a top-down deductive approach that takes little into account that the body is not only made up of highly evolved structures, but microsecond by microsecond they operate with genetically driven metabolic machinery that causes mood and reacts to it. Some pace-making cells are responsive to important information, as from significant other people, and in turn direct the actions of other cells, such as those influencing body posture and muscle activity as Tyge Schelde has described. This hopefully illustrates that body-cell machinery interacts with the factors that Paul lists and that he instructs us on very well. But we need to project to the future: how do depression and the onset of loss of powerfulness or the onset of powerlessness be translated on the second-by-second cellular and molecular level that we later experience on the whole organism level as the slumped non-moving expressionless defeated person?

His fundamental neglect of this is exemplified by the following: in the subject index, for example, no listings exist for the following items: antidepressants, medications, tricyclics, fluoxetine, drugs! should we feel comforted that MAOIs (the rarely used monoamine oxidase inhibitors) do make it! They merit mention on 4 pages.

Another issue deals with correlates of depression that stem from increased biochemical sophistication. Charles Nemeroff, chairman of psychiatry at Emory University in At-

lanta, for instance, has just sent me a review of corticotropin-releasing factor, a 41 amino acid-containing peptide secreted in the brain to influence the pituitary. This powerful body agent is hypersecreted in depression, as well as being involved in anxiety and the mechanism of action of benzodiazepine medications.

I'm aware that Paul wrote much more than his editors let him put in. But I think I know Paul's more conceptual answer and wait with eagerness to his rebuttal to learn if I'm correct: his was but a facet of a very large picture; since he doesn't pretend to be a biologist, he doesn't cover that. I understand, but I'm nevertheless troubled by his lack of attention to and seeming lack of interest in not only top-down but bottom-up approaches as well, to cover that they exist at least. While he may not provide the answer, he should demonstrate his Olympian grasp of the issue by pointing it out, by discussing the entire science as one in transition. This means sketching in future dimensions as well as those of the past and present.

But on the positive side of this, we should be grateful: Paul leaves something for the rest of us to work on and like the Olympian gods themselves, we should be grateful that he has a human side (I'm also aware that he likes to vacation in Greece!)

This is otherwise an encyclopedic work: at some point, Paul notes in his Acknowledgements section that he didn't read until he was 10 years old. How extraordinarily he has benefited all of us in making up for lost time!

Belated Announcement for ESS: Even as this goes to press in mid-September, 1992, the 15th meeting of the European Sociobiological Society is commencing Sep 11-13 in Augsburg, Germany, on the topic of Child Abuse,

Incest and the Changing Patterns of Parental Care. Unfortunately, it was received too late for this announcement to help publicity.

Prof Dr Peter Meyer was the program organizer and there is hope that the proceedings will be published.¹⁷ The material in the program flyer is interesting and is therefore replicated here in part:

Sociobiology and the Human Family

Economics and communication have caused both modern and traditional societies to be rapidly changing. This applies particularly to family structures and functioning. Westernized societies witness an erosion of traditional family structures, particularly by a decreasing (grand)parental functioning due to marriage breakups. Next to abortion, issues like child abuse and neglect, especially child sexual abuse, have increasingly become a focus of attention -- both to the general public and to professionals. Questions that arise include: is childhood abuse and neglect, including incest, on the increase? Or do we just pay more attention to it? Is the reaction by the state agencies to this alleged increase effective?

Similarly, the developing countries witness -- together with urbanisation -- the traditional extended family and tribal structures changing to smaller units. Increasingly mothers not only face the task of raising their children without the fathers and grandparents, but also lack of proper education, medical care and housing. Should we aim at restoring traditional social systems (including, for example, infanticide), or rather intensify present developmental strategies aiming at westernising these countries?

Questions pertaining to both the developed and the developing nations include: should protection of children be effected primarily by the State or rather left to the traditional family or small group structures? Does the seeming ubiquity of child abuse and neglect -- including sexual abuse -- indicate its evolutionary adaptivity? Or is abuse only a recent phenomenon?

The organisers of this meeting hope that contributions both from evolutionary-biological, anthropological and social sciences will clarify these questions (and the associated taboos).

In the same mailing, additional information about the European Sociobiological Society (ESS) was in-

cluded. Its objective is to serve as a forum for studying the role of biological factors in behaviour with special emphasis on evolutionary aspects. The society will, according to its statutes, refrain from using or abusing such studies for political purposes.

Membership is open to anyone within the scientific community interested in the topic of sociobiology or evolutionary aspects of human or animal behaviour. Membership dues are D.fl. 40.- or \$15.-, preferably paid via the international postal system to the account mentioned aside. If bank cheque (check) is used include an additional \$3 for bank costs. Payment by VISA or Eurocard is also possible. Benefits of membership include 3 or 4 *ESS Newsletters* per year which include book reviews, annual update of members and *Books on Sociobiology*, plus the book of abstracts for the annual meeting.

Publications of past ESS conferences include: *Essays in Sociobiology in 2 vols*, *The Sociobiology of Ethnocentrism*, *The Sociobiology of Sexual and Reproductive Strategies*, *Sociobiology and Conflict*, and *The Aquatic Ape Theory*. And, as we see from the above, we can look forward to *The Sociobiology of the Family*.

Report: An article by Cascardi, Langhinrichsen, and Vivian entitled "Marital aggression: impact, injury, and health correlates for husbands and wives" contains data relevant for the Price/Sloman concepts of depression as defeat (though they didn't reference this work--their measures of depression, though, were those of our Aaron Tim Beck.¹⁸ The P/S theory predicts that losers would be expected to register more depression.

The abstract reads as follows (first and last sentences omitted):

Participants were 93 consecutively presenting clinic couples and 16 maritally satisfied control

couples from the community. Overall, 71% of clinic couples reported at least one act of marital aggression during the past year. Although 86% of this aggression was reciprocal between husbands and wives, impact and injuries sustained as a function of this aggression differed between husbands and wives. Specifically, wives were more likely than husbands to be negatively affected and to sustain severe injuries (eg, broken bones, broken teeth, or injury to sensory organs). Additionally, wives who experienced marital aggression reported clinical levels of depressive symptomatology.

Fig 3 from the article is replicated. They note that "mean amount of depressive symptomatology reported by the aggressive wives meets criteria for moderate levels of depressive symptomatology" using as their baseline statistic a review published in 1987 by Dr Beck and co-workers of 25 years of experience with the Beck Depression Scale.

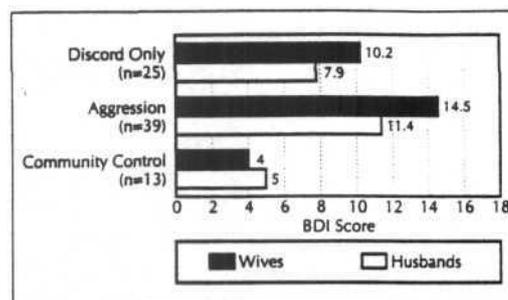


Fig 3. -- Mean Beck Depression Inventory (BDI) scores for wives and husbands.

Statistics applied to the data in Fig 3 using a 2 (gender) x 3 (group) mixed-design analysis of covariance controlling for age revealed a very significant main effect but only for group ($F([2,57]=7.791)$, $p<.001$). That is, both husbands and wives of the aggressive group felt significantly more depressed than either of the other groups. Does this mean that they felt defeated for having lost control and resorting to physical violence?

From the article it was unclear whether depression antedated the aggression or resulted from it. Depression could have spurred aggression, as noted by CR Reichelt in an early

issue of ASCAP, "the depressed person's low self-esteem, as expressed in self-denigrating remarks, [may cause] anger."¹⁹

The New Yorker presents on biology with prose by Diane Ackerman:²⁰

As digitalis (foxglove), quinine (chinchona), aspirin (willow), and countless other drugs have shown us, the forest's pharmacopoeia is indeed richly healing. But this is only so because a chemical Esperanto is spoken by all life forms. A segmented worm seems radically different in shape, function, and form from a hydrangea or an ocelot or a college swim team. We picture life on earth as a feast of wildly different entities. But on the molecular level there is little difference between them. They all have cells, organs, fluids, which all contain similar stuffs, perform similar functions. Earth's chemicals can cancel, inflame, dilute, calm, deflect, powerfully alter one another's effects--just as pigments do when you mix them--because, essentially, they all consist of the same raw materials. A chimpanzee seems radically different from a human being, but human genes differ from chimpanzee genes by only about one percent. There is a deep-down kinship among all living things--not just spiritually, or morally, or through some happenstance of our being neighbors, but physically, functionally, in our habits, in our hungers, in our genes.

Some central facts about the evolution of DNA are excerpted from This view of life; Magnolias from Moscow by Stephen Jay Gould in Natural History's Sept issue.

Each position of a DNA string may contain any of four base pairs (called A, G, C, and T, for adenine, guanine, cytosine, and thymine). Each sequence of three base pairs codes for an amino acid (and a chain of amino acids makes a protein, the building block of organic matter). The DNA code is "redundant" in the third position--that is, a change in base pair in the last position of a triplet code does not alter the amino acid built from the triplet, whereas most changes in the first or second position do lead to a different amino acid. Base-pair changes that do not alter the amino acid are called silent substitutions because they

don't change the chemical structure of the organism--and natural selection, working on organisms, will not notice them. Since natural selection regulates rates of evolution, and since the stability of good design is vastly more common than change, selection works to maintain existing arrangements almost all the time. Therefore, silent substitutions (which natural selection can't detect) should be far more common than those first and second position changes (called nonsynonymous) that yield a different amino acid, thereby altering the resulting protein.

Response to Aaron T Beck stimulus essay in April ASCAP on Personality Disorders by William T McKinney

"Biological Psychiatry" is at a crossroads in terms of its identity. Earlier phases of this heterogeneous field's development have been extremely uneven. There has been the search for magic substances that might be too high or too low in bodily fluids. This has generally proved fruitless, and initial expectations and prizes have typically given way to disillusionment and subdued withdrawal. The results of somewhat more sophisticated approaches has been only marginally better. In more "modern" times we look for different spots or colors in the brain of people afflicted with psychiatric illness. We talk of molecules or sub-molecules, cloning, receptors *ad infinitum*, "messengers", transduction factors, etc. Where is the field going? I fear that history is likely to repeat itself unless we come to grips with some fundamental issues and conceptualizations. We cannot grind and bind, transcripts, image just because the techniques are available if we do not know what kind of conceptual framework to put such studies in.

Professor Beck's groundbreaking treatise in the Apr 92 ASCAP Newsletter provides such a framework. Though it is entitled "Personality Disorders: Evolutionary and Struc-

tural Perspectives," it is about much more. It is a view of psychopathology which starts with an evolutionary perspective and goes on to include genetic influences, temperament, development influences, and current social stressors or challenges.

His basic idea is that evolutionary pressures or goals make us susceptible to both Axis 1 (Syndromal) and Axis 2 (Personality) Disorders. What are the basic evolutionary goals he refers to? They are survival and reproduction. He contends, however, that the environment in which we must operate to achieve these goals has changed from a wild to a technologically advanced society resulting in a poor fit - the "Evolutionary Friction Rub" as he terms it.

Noxious events threaten individual resources, and when this happens, there can be a variety of results depending on the nature of the event (negative events, losses, etc. vs. threats). However, one's reaction also depends in part on the persistence of evolutionary based patterns further shaped by genetic and developmental influences.

The interaction of genetic endowment (including phylogenetic influences) with environmental influences can produce two negative sets of core beliefs: the self concept of "I am helpless" or "I am unlovable." I would add additional possibilities of more positive outcomes but this paper is dealing with disorders, hence its focus. He then goes on to discuss how personality traits or dimensions can get expressed as disorders.

One of the new concepts in this paper is the development of the theory that strategies which have come to be part of us may no longer be adaptive in our different environment and that this failure of fit can lead to syndromal disorders. We then need to determine how to adapt our strategies to the current environment

rather than continue to use outmoded strategies.

How does this relate to "biological psychiatry"? It illustrates how evolutionary considerations cannot be ignored in our premature rush to molecular psychiatry. Otherwise, we will never understand such things as gene flow across generations and how this is shaped by environmental pressures, how phylogenetic considerations may be equally potent as shapers of behavior as cross sectional biological parameters. Finally, evolutionary considerations help remind us of how behavioral demands in the environment can shape behavior and in turn drive "biology". When we then, in cross section, measure substance X and think we understand the disorder or that we have something specific for that disorder, we are deluding ourselves and are doomed to repeat the unfortunate history of his field.

In conclusion, Professor Beck's treatise is extremely important in clarifying in very plausible ways for clinicians how evolutionary forces can be related to mental disorders. He does not stretch too far nor provide strained linkages. His examples are real and psychiatrists of all "persuasions" would find this paper helpful.

Isolate Formation in the Study of Human Behavior; Waller-Chance exchange
by MRA Chance

I want to discuss "isolate" formation in the study of human behaviour. This links to Michael Waller's concern with "the psycho-pathologist as clinician and the psycho-pathologist as scientist" in Aug ASCAP. His point is taken completely, and relates to the therapeutic interview for which other distinctions are relevant.

There is *first* of all, the question of what type of isolate is the therapeutic interview. How much or

what parts of the subjects' real lives does it represent, ie, how do they really behave at home, at the club, or at leisure?

Later on, Waller notes "the legal and professional requirement" in our society is "the mission to heal the sick," but this omits the possibility that our definition of sick may be due to our cultural perception making exceptions (ie, labelling sick) of individuals whose behaviour in the Hunter-Gatherer phase of our evolution could have been adaptive.

I have a friend who in his late teens and early twenties was recognised as needing social support; for one thing, because he was reckless with money. But for a period of nearly a year, he lived on his own till he went into a hostel. He was very pleasant and skilled at getting himself accepted. So much so was this the case that he was accepted as a student in the English Department of Birmingham University where he attended lectures for about a year. Later, he left the English Department, but kept up with his friends in the Student's Union whom he visited frequently. Now comes the behaviour which could have been adaptive to hunter gatherers. He bought himself an expensive pedal bicycle and used to ride off as far as towns 60 miles away, over night, spending part of the night sleeping rough. This was a compulsion which he could not explain. When he visited our home he was only too glad to help in the garden, often with great persistence and he took a strong interest in it--as would have been the case in a Hunter-Gatherer Society where willingness to undertake and persist in exceptionally vigorous physical exercises could be (and are in present day counterparts) put to use.

One similar example is the working at the top of a very high tree extracting honey for the tribe on the part of some tribal members. So genes

that produce compulsive behaviour, especially in vigorous young adults, will have adaptive advantage for the tribe and would enable the individuals to be kept by the tribe at least until he was able to father some offspring. Life expectancy then was 30 years or less.

Tom, as we will call my friend, has since been ill and put on drugs to control frightening visions and is a fully hospitalised schizophrenic now. An hereditary disposition to be compulsive is found in the American Rodent *Peromyscus* and other mammals.²²

The *second* distinction concerns the way a therapist relates to his patient. Is he/she aware of this dimension; if so, does the therapist actively change not only his verbal behaviour, but also his non-verbal prosemic signals; tone of voice, facial expressions, body posture, etc, as part of his strategy for finding out about his patient.

The *third* is to what extent is the patient free to move, especially initially to locate him/herself at different distances from the therapist (Pace Freud's couch!). 'Diffidence', 'shyness', etc, are expressions of flight motivation and can be seen in the way people enter a room. This reflects the view of the therapist taken by the patient (for an extreme instance see a 1992 article on Bruno Bettelheim).²³ Controversy over the nature of 'autism' results from whether or not the clinicians concerned are aware of the fact that autistic children are unable to approach adults and therefore remain at a distance, avoiding eye contact. These are all considerations relating to the overt (motor) behaviour of the patient, (or should we now use the word 'subject' if we are being scientists). The ideational behaviour of such subjects is the behaviour of the sensorium. This requires separate discussion that I hope will continue in future issues.

1. Abel EA: Behavioral Teratogenesis and Behavioral Mutagenesis: A Primer in Abnormal Development. NY & London: Plenum Press, 1989, p3
 2. c/o R Gardner, 1.200 Graves Building (D29), University of Texas Medical Branch, Galveston, TX 77555-0429 FAX: 409-772-4288. For ASCAP Newsletter Volume 4 (Jan through Dec, 1991) please send \$18 (or equivalent) for the 12 issues. For subscription to the ASCAP Newsletter, make checks or money orders out to "Department of Psychiatry and Behavioral Sciences, UTMB."
 3. EXECUTIVE COUNCIL:
 - President: John S Price
 - President-Elect: Paul Gilbert
 - Vice President: John Pearce
 - Secretary & Newsletter Editor: Russell Gardner, Jr
 - Treasurer: Leon Sloman
 - Past-President: Michael R A Chance
- At this time this "informal" organization has no official budget.
4. Waller M: Problems with basic plans. ASCAP Newsletter 1992;5:(Aug)9
 5. Trollope J: The Rector's Wife London: Bloomsbury Publishing, 1991; Black Swan, 1992, paperback
 6. Glantz K, Pearce JK: Exiles From Eden: Psychotherapy From An Evolutionary Perspective. NY: Norton, 1989.
 7. Valencak H (Translator: Crampton P): When Half-Gods Go. NY: William Morrow, 1976.
 8. Sexton A: The Complete Poems. Boston: Houghton Mifflin, 1981, p.364.
 9. Gilbert P: The Evolution of Powerlessness. NY: Guilford, 1992.
 10. Beahrs J: Unity and Multiplicity: Multilevel Consciousness of Self in Hypnosis. Psychiatric Disorder and Mental Health. Bruner/Mazel, 1982
 11. Gabbard GO: Psychodynamic psychiatry in the "Decade of the Brain." Am J Psychiat 1992;149:991-998. (August issue)
 12. Lorenz K: The Waning of Humaneness Unwin Paperbacks, 1989.
 13. a. Maclean P: The triune brain in conflict. Psychotherapy and Psychosomatics 1977;28:207-220.
b. MacLean P: Brain evolution relating to family, play and the separation call. Arch Gen Psychiat 1985;432:407-417
 14. Bailey K: Human Paleopsychology. Applications to Aggression and Pathological Processes. Hillsdale, NJ: Lawrence Erlbaum, 1987.
 15. Ornstein R: Multimind: A new way of looking at human beings. London: MacMillan, 1986.
 16. Nemeroff CB: New vistas in neuropeptide research in neuropsychiatry: focus on corticotropin-releasing factor. Neuropsychopharmacology 1992;6:69-75.

17. Prof. Dr. Peter Meyer
Buchenstr. 19
D-8902 Neusafs 4
Germany

18. Cascardi M, Langhinrichsen J, Vivian D: Marital aggression: impact, injury, and health correlates for husbands and wives. Arch Intern Med 1992;152:1178-1184

19. Reichelt CR: Reichelt-Price Exchange. ASCAP Newsletter 1988;1:(Oct issue)3.

20. Ackerman D: Insect Love. The New Yorker 1992;Aug 17 issue:34-54.

21. Gould SJ: This view of life: Magnolias from Moscow. Natural History 1992;101:(Sept issue):2-18

22. a. Chance MRA: The role of compulsions in behaviour. Behavioural Science 1957;2:30-45.

b. Driver PM, Humphries DA: Protean behaviour; The biology of unpredictability. Oxford: Clarendon Press, 1988.

23. Weekend Guardian (UK) 1992;Aug 15-16 issue:pp10-11)

24. Tinbergen N, Allen EA: Autistic Children: New Hope for a Cure London: Unwin, 1983