

ASCAP NEWSLETTER

Across-Species Comparisons And Psychiatry News letter

Volume 2, No. 4, 15 April 1989

Biologists, and the journals that publish their papers, tend to dismiss theoretical work, let it be through ideas, not the acre generation of data, that the course of science is changed.

Huszagh and Infante [1]

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

ATTENTION! IF YOU HAVEN'T YET SENT IN THE SURVEY FORM ON THE END PAGE OF LAST ISSUE, BUT YOU WISH TO CONTINUE BEING AN ASCAP READER, SEND END PAGE OF THIS OR NEXT ISSUE. Details In last issue, ASCAP Vol.2,13,15 Mar 89

For the philosophy guiding this newsletter, see footnote on p. 7 [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.

Features: 1) Kalman Glantz and I respond to the "Birminghamers". 2) In keeping with our trying to stay with "conversations" on sustained topics, we publish John Price's response to Lubo Kanov's last issue's challenge about homeostasis and will hold for the June issue his response to David Hamburg's phylogenetic theory of anger and depression.

Readership survey Feedback:»...ASCAP ..is an important document. I enjoy it. I look forward to it.

If you wish some help, let me know.

Also, I will be glad to contribute.

M T McGuire, UCLA, LA, CA

» Outstanding. A high point of my professional reading.

A T Beck, u Penn, Phil, PA

» Excellent..Keep up the good work ..

E Barratt, UTMB, Galveston, TX

» Keep up the extraordinarily useful a totally unique work. Glad to pay for a sub[scription] if necessary.

M O Slavin, Cambridge, MA

» Thanks - !!

DX Freedman, UCLA, LA, CA

» I very much enjoy the newsletter, although my interests are more narrow. I am soliciting interest in a newsletter/exchange on evolution and psycho-analysis and/or psychotherapy.. However, I also like to read ASCAP to find out what the "rest of the world" is thinking and would be glad to contribute.

Thanks for all that you do.

A T Lloyd, Lathrup Village, MI

» Keep up the good work - looks like this is really taking off.

J Swanson, UTMB, Galveston, TX

» . .a good job and service with ASCAP

T Mackenzie, U Minn, Minn, MN

» For your information, I have enclosed the recent [just published!] chapter on family violence by Pat Draper and myself: Burgess RL, Draper P; The explanation of family violence: the role of biological, behavioral and cultural selection. Crime and Justice—An Annual Review of Research; Family Violence, vol. II (Eds) L Ohlin, MH Tonry, Chicago: U Chi Press, 1989.

» Thanks for ASCAP and knowing another author was a delight, ie, Lubo. Then I was very interested in reading C. Badcock on the evolutionary dimension of the oral phase and his ideas on survival for the infant due to stimulation of the nipple: in

my experience, the survival of the parent is important here as well in terms of emotional as well as biological terms. The nurturing process nurtures her worth as a woman, wife and mother In our culture and reinforces her being loved. ...Aloha!

MA Grover, Waipahu, HI

These comments are reinforcing as are the number of requests for continued reception of ASCAP. Moreover, the Department of Psychiatry and Behavioral Sciences at UTMB has expressed pride in the work.

Contributions are very welcome!

Book Announcement:

Badcock C: Bssential Freud. London and NY: Basil Blackwell, 1988.

In his preface, Badcock begins by a quote from Einstein to characterize his approach to Freud; I quote it too because it turned out to be apt for Badcock's refreshing volume: "In my view there is but one way to bring a great scientist to the attention of the larger public: it is to discuss and explain, in language which will be generally understood, the problems and solutions which have characterized his lifework." Whenever possible, Badcock avoids jargon, but does provide "a glossary of unavoidable technical terms with simple definitions." He de-emphasizes biography, therapeutics, and developmental issues, but rather discusses key Freudian concepts in terms of parental investment that have been "widely influential in bringing a dynamic view of parent-offspring relations to biology." To explain dream theory, he uses his own, not Freud's, dreams.

A passing thought: how interesting it would be someday to have Badcock and Hobson on the same podium debating their differing views of dreams (recall summary of Hobson's book in ASCAP Vol 2, #2). Hobson views psychoanalytic solutions negatively.

Notes: Speaking of Freud, we recall that he did early work on cocaine. In

Science [3], JB Justice describes his new dialysis device that measures extracellular small molecules in the brain without contamination by larger molecules such as enzymes. For example, injecting cocaine into rats, produces increases in extracellular dopamine that differ according to the frequency of injection. How interested Freud would be in such work.

Attending the annual meeting of the American Psychosomatic Society (8-11 Mar SF, CA) provided evidence that conspecific relationships influence immune function and blood pressure.

Immune work (done on cichlid fish) used a model situation of two males put together for 5 hours in a tank: at this point, one fish is clearly defeated with his cell-mediated immunity suppressed. Exogenous opioids reduced this suppression [1].

James Henry, physiologist emeritus, was on hand taking pleasure in this result and the area of study. He established some years ago that persecuted mice who cannot escape from dominant conspecifics become hypertensive, get renal infarcts and die. Hearing him speak at earlier meetings of the APS taught me first about the power of social rank hierarchy, territoriality, and other intraspecific communicational factors in the pathogenesis of illness, in this case cardiovascular. And for me the biggest gift of all was his book's mention of John Price's work! [5]

Dr Henry also took visible pleasure in the work of WW Dressier who determined in a southern community that high blood pressure may stem from an aspiring life style without ability to realize the aspirations [6].

A dimension of "cynical Hostility" turned out to be co-experienced more by identical than dizygotic twins[7]. (Cynical hostility is an attribute of

type A behavior more correlated with cardiac pathogenicity than other facets of the profile [8].)

One of the lasting presentations of the meeting was that of Lenore Terr, San Francisco child psychiatrist, who studied the victims of the Chowchilla kidnapping and many other children who have encountered disaster. She more than many deserves to be called a "human ethologist." And she speaks without jargon, has a matter-of-fact sensible approach, and provides a wonderful role model for the rest of us in dealing with children.

Lenore related the infectious nature of the games children play to master traumatic events. One child would suddenly emerge from the closet frightening her younger sister with: "Momma's gonna kill you!" Younger children, not yet born when the kidnapping occurred, are now impacted by that younger sister who does the same to them. Children play "Ring-Around-The-Rosy" still, such a game that has involved many generations since the plague that originally stimulated it. Recently in Houston the American premier of "Riddley Walker" played. A children's author, Russell Hoban, wrote the novel and screenplay about the survivors of the nuclear holocaust (1997) 23 centuries later, as they continued to re-enact that traumatic event in puppet shows.

Letters:

24 Feb 89

I have very much enjoyed the ASCAP newsletter. Enclosed please find an essay which may be of interest to you [9]. Laura Lane, U Chicago Pritzker School of Med, Chicago, IL

Drs Lane and Luchlins note three common methodological flaws in attempts to apply evolutionary theory to psychiatry: 1) confusing prevalence with adaptiveness, 2) "species-advantage thinking," and 3) ignoring proximate for ultimate explanations. They suggest three preconditions for developing meaningful evolutionary hypotheses: 1) the trait must be sub-

ject to evolutionary pressures; 2) the hypothesis must be testable and potentially disprovable; and 3) available evidence from sources such as clinical records or cross-fostering studies should be pursued and interpreted appropriately.

Such appropriate thinking and methods are important and the particular criteria are valuable, but we should not lose the importance of Paul Gilbert's hedonic science. Peter Elbow asserts that good writing involves two opposing muscle groups: creativity and criticism [10]. Perhaps something of the same obtains for science, especially science at such a tender stage as this application of evolutionary principles to the complex baffling symptoms we treat in psychiatry (hardly excluding psychoanalysis and psychotherapy). One ASCAP motive is to allow the first muscle to flex a bit; not that we're uncritical, but hopefully we deploy the second muscle carefully, with consideration and patience for the unconventionality that the first muscle's action often requires.

2 Mar 89

I much enjoyed the item on shyness in the recent newsletter (Vol2 #2). Having grown up in a home with Basenjis I was pleased to have them emerge as yet another animal model of anthropomorphic traits. They have already been studied by hematologists since they have a version of sickle-cell anemia which seems to have evolved in much the same manner as the human form - heterosis protective against malaria in a single recessive gene but deleterious in the homozygote form. Curiously, the name of the breed is Bantu for "monkey face and curly tail." The primatologic features were noted long ago !

The idea that they are shy is quite true as they are profoundly social creatures. Left entirely alone they can be exceptionally anxious and dysphoric. Any Basenji breeder *will* advise that they be kept in groupings of pairs at least. But they are also fearless in the band setting. Packs of males are reported by natives to attack virtually any animal including lions with great success: as fast as greyhounds, one dog will bite at the *hunted animal's feet* until the large creature turns whereupon others lunge toward the throat. The risks involved are modulated greatly by means of kinship selection. These behaviors are those, incidently, of a natural breed with little if any human co-evolution and no artificial selection until the past century. They should well attract further attention of ethologists. How ironic this dark-eyed African breed is behaviorally linked to Vikings. ... Daniel R Wilson, Mailman Research Center, Harvard Med Sch, Belmont, MA

One interesting feature of the Kagan story on temperature control, human evolution, norepinephrine system, melanin, and propensity to fear is that he juxtaposed adaptational hypotheses with those that we might call along-the-way hypotheses; some things have become that way perhaps because a system changes and "carries along with it" other changes that may very well not be at all, or not very adaptive.

Response to the Birminghamers
by Kalman Glantz

I'm writing about the article by the Birmingham group in the January issue (ASCAP Vol 2 II). Even though I was already convinced, in principle, that the notion of a transition from agonistic to non-agonistic behavior patterns explains [much] about human behavior, I was impressed by the many and various applications the Birmin-

ghammers were able to find. (Good positive Mirroring beginning, right?)

Nov for the reptilian stuff. I am a little concerned about elevating the agonistic/hedonic distinction to a dichotomy. I used the term "a little concerned" advisedly. I am not sure that any concern is justified. But I thought that I would share it anyway.

Is it possible that by talking about two different "modes", one is painting a somewhat idealistic picture of human behavior? Take this sentence, for example: "In cooperative/friendly interactions, it is the positive valuing response that facilitates the interaction. We seek mutually to add to and contribute to the interaction. In this way, we seek not to inhibit the other but to facilitate the exploration and development/welfare of the other and ourselves."

I have a sneaking suspicion that what is really going on in many such interactions is that people are jockeying for position and advantage, using methods that are different from those predominant in the repertoire of non-human species. Even though it is often true that people are NOT trying to defeat each other, there is still an element of competitiveness in any interaction. This competitiveness may be expressed very subtly, through understatement and irony, but is it really not there? Some people play this game better than others. Some people can't play at all, and so try to win power through phylogenetically older methods, such as bluffing and threatening.

I have no doubt that a lot of people..believe that they are behaving the way the quote says they are, but are they telling themselves the truth? Note that my concern here ties in with .. current interest in self-deception as a feature of human life.

In Exiles Prom Eden [11] John Pearce and I tried to describe what I think is the same phenomena the Birminghamers are talking about, using

a different language. Instead of talking about a shift from agonistic to hedonic mode, we spoke of a transition from dominance hierarchies to fluid, shifting dominance. In the hunting and gathering band, we argued, dominance operated in such a manner to allow all members to win. Winning didn't necessarily involve defeating anyone, but the game was still to win.

The result of this change is indeed a social organization in which people do spend a lot of time building each other up, but there is still a lot of self-interest in it. I would argue that what has changed is not the mode but the manner.

Perhaps I wouldn't be so concerned if it wasn't for some passages in Almost Human (in which) Shirley Strum demonstrated the importance of friendship among olive baboons. She showed that friendship helped to secure reproductive advantages for males who weren't dominant. She then argued that dominance wasn't important in olive baboon life. This was a mistake, and I think it would be [in error] to make the same .. mistake about human life.

I do not mean to imply that the Birmingham group is making the same mistake. But it does seem to me that their terminology risks giving the impression that there is discontinuity between two sharply divergent types of interaction. In my view, it would be better to talk about the "hedonic outcome" of new ways of competing and expressing dominance.

Note the fact that there are differences between male-male, female-male, and female-female interactions would also seem to require a language that maintains the continuity between dominance-related behaviors in human and prehuman societies. Is it possible, for example, that the type of ego-enhancing interactions described in the article are more likely to be found among women? This would fit in with what the women's study group at Wellesley College is currently main-

taining. (See, for example, Janet Surrey's article "The Self-in Relation: a theory of women's development". *Work in Progress* 11. Stone Center Working Papers, Wellesley College, Wellesley, 1984.)

With respect to the therapeutic implications, I would make a similar remark. It seems to me dangerous to promote to people the idea that others are seeking their welfare ("help the patient switch from experiencing the world in the agonistic mode to experiencing (sic) that is consistent with the hedonic mode"). Better, it would seem, teach that there are ways of interacting with others that promote (various kinds of) gratification and ways that don't; and (b) that people have different kind of impulses (aggressive, supportive, etc) that can be triggered by what the patient does.

I would like to stress that the objections I am raising here are relatively minor compared with what I perceive to be the similarities in our approaches. ...

Kalman Glantz, Cambridge, MA

Response to the Birminghamers #2 RG

I think that RHP, R and SAHP are becoming fundamentally different as the concepts evolve, perhaps each coming from a same basic tissue (to use Jacob's metaphor of the Xmas 88 issue - ASCAP Vol 1, 113), but having distinct later uses. RHP was meant by Maynard Smith initially to understand competition in a two animal situation which he mathematically modeled from game theory, in initiating anathetic and catathetic signals [2b] (as in the Emma Story in ASCAP Vol 1 12), J Price went beyond the constrained use; why not recognize that fact (and the change's strength) by referring to resources(R), not resource holding potential (RHP)?

R refers to a worth that we are constantly calculating in ourselves and others (remember the Image of the machine that spewed out such worth in dollar bills - ASCAP Vol 1, 17). Absolute and relative R are constantly assessed and acted on to adjust the level in a manner hardly limited to physical confrontations (nor to hostile/agonic circumstances). This adaptive ability (and need) to calculate relationships may be a way of understanding why we came to get enlarged primate heads with fast computers using parallel processing inside and to get language to adjust each other more adequately outside.

Concerning social attention holding power/potential (SAHP), I like the addition of "power" to the meaning of "potential" in the P. SAHP is parallel to RHP but expressed in the hedonic rather than the agonic environment. Is SAHP a display of R in such a way that audience members often get their R increased also. Dressier (see Notes) reminded us in his APS talk of Thorstein Veblen and conspicuous consumption/conspicuous leisure: in these individuals perhaps display R in order to aid the calculations of others observing them.

Kanov-Price Exchange about Homeostasis
by John Price

I am grateful for Lubo Kanov's comment that preventing change is not necessarily homeostasis. This motivates me to explain in more detail just how I see depression acting as an agent of homeostasis, in the sense of Gray [12].

There are two levels at which homeostasis is occurring, the individual and the social. Let me use temperature control as an analogy, when temperature rises, there is sweating and vasodilation, which correct the rise. When temperature falls, there is shivering and vasoconstriction; lowered temperature is counteracted so that the temperature remains constant. This is

homeostasis. Likewise with mood in a complementary relationship. Let us say that a wife is subordinate to her husband. If her mood rises and she becomes more self-assertive, her husband starts putting her down with all those little remarks which McLean[13] calls microstressors (and I have called catathetic signals) so that her mood falls to its original level. If her mood falls and she becomes less self-assertive, and more self-effacing, her husband either puts her down less than usual, or starts boosting her up (sending her anathetic signals, such as approval and praise) so that her mood rises to its original level.

Of course there is a difference in the setting. In the case of temperature and other homeostatic physiological variables, the setting is an internal one. But in the case I am arguing concerning mood, the setting is external, being situated in the husband. The husband has an idea (probably largely unconscious) of the level of self-assertion/self-effacement he requires in his wife, and he adjusts this level *by* adjusting her mood, raising it when necessary with anathetic signals and reducing it when necessary with catathetic signals. A better temperature analogy would be that of a patient and nurse in the intensive care unit. If, for any reason, her patient's temperature rises above the level she considers desirable, she takes the blankets off him.

This model does not take care of the fact that if the husband is feeling very good himself, he can afford to allow his wife to feel better too, and vice versa. In fact, the variable which is kept constant is not the mood of the wife, but the difference in the mood between them, what we might call the mood gap (equivalent to what elsewhere I have called the RHP gap). This is homeostasis at the

social level, because it is a social deviation rather than an individual variable which is kept constant, A deviation from the normal setting of the mood gap may arise because of a change in mood of either the husband or wife. If the husband becomes depressed for any reason, such as getting a bad time from his boss at the office, the mood gap narrows and the homeostatic mechanism is brought into play; that is, the husband puts the wife down (or stops being nice to her). This is consistent with the well known phenomenon of "redirected aggression." If the husband has a good day at the office, the mood gap widens and when he gets home he is nice to his wife, boosting her up with anathetic signals until the mood gap is restored to its usual setting.

We see this homeostasis occurring in the course of therapy. If we are treating a depressive wife and she becomes less depressed, the husband observes a narrowing of the mood gap and his catathetic signals are increased. On the surface he probably expresses great delight at his wife's improvement, but underneath he is in the grips of the homeostatic mechanism and cannot help lowering her mood again, possibly by sabotaging treatment in some way. The homeostasis is probably controlled from a very low level of the brain, but in its service are the very highest centres which mediate such activities as sarcasm, teasing and the most subtle forms of undermining of another person's self-confidence.

Of course I am not saying that all, or even most, depressions in wives are maintained by this mechanism. Many couples have symmetrical marriages, in which there is no mood gap to be maintained. Many wives are depressed because they have put down by their mothers (or others), and in these cases the husband is genuinely trying to raise his wife's mood and narrow the gap. The same applies to depressions which are triggered by losses, viral illnesses, accidents,

etc. But in treating patients it is difficult to avoid the conclusion that many spouses (particularly husbands) like to maintain a mood gap which is somewhat greater than the subordinate spouse would like, and that is why the subordinate spouse so often feels (and is) "put down" by her partner.

Change occurs when the subordinate spouse achieves a successful revolution. Then there is a reversal of dominance in the marriage. Positive feedback, "runaway," snowballing, vicious circle processes then occur, lowering the mood of the dominant spouse until the mood gap is reversed. I have seen two such cases recently; in one the wife used her new power to get out of *the* marriage; in the other she used it to "do her own thing," which took the form of a mixed sex competitive sport previously vetoed by her jealous husband, and in this case, the husband became depressed and required treatment. It is possible, but difficult, for a wife (or other subordinate member of a relationship) to work her way up to a position of equality (symmetry) with the previously dominant partner; Rippere and Williams (14) give some examples. In the "change" depression there has to be an end-point in which the old system changes to a new system; I think the biological end-point is a reversal of dominance, but there are other end-points such as going for help or hospitalisation, or suicide, or other ways of "exit from the gene pool" which seemed to be the majority verdict in the discussion after Klerman's excellent but (I think) misguided paper [15]. In these cases the patient seems to be spiralling downwards, and, as Lubo Kanov says, there is an impression that "the system as a whole is declining and deteriorating."

Old ASCAP Issues available on request. The May issue: features Roger Master's summary of a Dartmouth conference on "Serotonin, Social Behavior and the Law."

1. Huszagh VA. Infante JP: The hypothetical way of progress, Nature 1989;338(9Mar89):109.

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 history of biology combined with cellular-molecular biologic research will emerge as a comprehensive biologic basic science of psychiatry. Indeed, this is what happens 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 sane species) i.e., relaxed and fun-loving versus tense and competitive. First initiated with CJ Jolly in 1970, this term is referenced fully in ASCAP #1, Footnote 1.

b) John S. Price: 'anathetic' and "catathetic" describe conspecific communications. Catathetic messages "put-down" whereas anathetic signals 'build-up' the resource holding potential (I) of target individuals.

c) Russell Gardner, Jr.: "psalic" is a 2 way acronym: Propensity States Antedating Language In Communication and Programed Spacings And Linkages In Conspecifics. This describes communicational states conjecturally seen with psychiatric disorder and normality (human and non-human), ie, alpha psalic seen in mania, high profile leaders and dominant non-human animals. Eight psalics are named alpha (a), alpha-reciprocal (AR), in-group omega (IG0), out-group omega (OG0), spacing Up), sexual (S), nurturant (W), and nurturant-recipient (MR).

All of the above level or renewed terms are initiated or elaborated in Chance, MRA (Ed) Social fabrics of the Mind. 1988, Lawrence Erlbaum Associates, Hove and New Jersey.

d. Paul Gilbert: Social Attention holding Power/Potential (SAMP) 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, love, East Sussex: Lawrence Erlbaum, 1989.

3. Pool R: Research News. Probing the chemistry of the brain. Science 1989;243:1555-6

4. Faisal M, Chiappelli F, Weiner M: Social confrontation in Tilapia suppresses cell-mediated immunity: evidence for the role of endogenous opioids., (Abstract) Psychosomatic Medicine 1989;51(2):247

5. Henry JP, Stephens PM: Stress, Health and the Social Environment: A Sociobiological Approach to Medicine. Berlin: Springer-Verlag, 1977.

6. Bressler WW: Lifestyle, stress, and blood pressure in a southern black community. (Abstract) Psychosomatic Medicine 1989;51(2):249

7. Smith TV, McGonigle M, Turner C: cynical hostility in adult male twins. (Abstract) Psychosomatic Medicine 1989;51(2):24-50.

8. Williams RB Jr, Maney TL, Lee KL, Kong Y, Blumenthal J, Whalen RE: Type A behavior, hostility, and coronary atherosclerosis. Psychosomatic Medicine 1980;42:539-50.

9. Lane LW, Luchins DJ: Evolutionary approaches to psychiatry and problems of method. Comprehensive Psychiatry 1988;29:598-603

10. Elbow P: Writing with Power Techniques for Mastering the Writing Process. NY: Oxford V Press, 1981
11. Glantz K, Pearce JK: Exiles from Eden: Psychotherapy from an Evolutionary Perspectite. WW Horton, due out Spring 1989.
12. Gray W (1969) History and development of General System Theory. In General Systems Theory and Psychiatry. (Ed) W Gray, FJ Duhl, WD Rizzo, Boston: Little Brown and Co, pp-31
13. McLean PD (1976) Depression as a specific response to stress. In Stress and Anxiety (Eds) 16 Sarason, CD Spielberqer, NY: John Wiley.
14. Rippere V, Willians R (1985) Wounded Healers Chichester: John Wiley.
15. Klerman GL (1976) Depression aid adaptation. In The Psychology of Depression (Eds) RJ Friedman, MM Katz. Washington DC: V.H. Winston, pp 127-145.

Please cut at line ^

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