ASCAP NEWSLETTER

Across-Species Comparisons And Psychiatry Newsletter
Volume 2, No. 3, 15 March 1989

> ...to understand the fabric of the mind is to understand what we all have in common.
> Michael R.A. Chance [1]

(c/o Russell Gardner, 1.200 Graves Building (D290, University of Texas Medical Branch, Galveston, TX 77550)

ATTENTION! IF YOU ARE AN ASCAP READER. PLEASE SEND IN SURVEY ON P,9 OF EITHER THIS OR NEXT TWO ISSUES.

For the philosophy guiding this newsletter, see footnote on p. 8 [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. Badcock's essay (p.6) rationalizes Freud's "oral phase" according to Robert Triver's concepts. 2. The Reichelt-Price exchange continues with Lubo Kanov (p.4) and John Price (p.4) making contributions.

Notes: To this point, ASCAP issues have arrived without cost to the recipient. Mailings have been to friends known personally, persons asking for inclusion on the mailing lists, and still others likely to be interested because they were on one or another additional mailing list. However, a number of those now receiving ASCAP may not read it. Even with interest and good intentions, there is so much to read these days that it may stay on the bottom of the pile. Even if directly requested, the contents and approach may differ from expectation so that the effort may have been abandoned. That is ok, no hard feelings, but we wish now to start from scratch to determine a true readership list.

Costs still exist of coarse regardless of who pays them so that this may eventually become a subscription, depending on readership and interest. We are not interested in sending this to folks who don't use It. Fewer issues means less cost.

Over these next months, we plan to come to a more solid mailing list than the one currently cobbled together. Please return the form at the end of this issue or, if you procrastinate, one from one of the two next Issues, if. you wish to continue ASCAP. Not hearinq from you by 6/1/89 means you will not get June's nor later issues.

ASCAP's mission is as listed and its ideas and reports are centrally focused on across-species comparisons (Including Insights into human behavior stemming from other animals) that seem directly or Indirectly relevant to psychiatry. ASCAP's central concerns are not in being an apologist for evolutionary factors in determining behavior (of course they do; working on how is the critical part), do not concern social systems more generally (though communicational mechanisms take central importance for many levels of analysis), and is not only humcan ethology (though ethology applied to patients is sorely needed - see Troisi's letter for an example, p.3)

This newsletter is not an organ of an organization, such as the International Society of Human Ethology nor the Evolution and Human Behavior or-

ship) defines itself as a loosely linked set of somewhat like-minded friends who like to brainstorm.

Some notes on publication policies as these seem to be emerging are that short manuscripts not published elsewhere are particularly welcome, especially when sparked by something in ASCAP or is on one of ASCAP's core problems. Already published pieces will get listed, usually little more, though if a point seems critical to readers, brief quotes or a summary may get put. Making your own such would help accuracy. Similarly something of what a new relevant book is about via a summary, quote, or table of contents helps out.

Let me briefly allude to two recent "Research News" from Science on our concerns: Controversy over methods and findings used in linguistics [3] have evoked powerful "normal" expressions of territoriality, xenophobia and struggle for dominance. ("Abnormal" expressions, we suggest, are seen in paranoia and mania).

To reconstruct language history, a linguist named Greenberg applied to primitive American languages [4] a technique he originated with African languages called mass comparisons. A limited list of words that change slowly and are borrowed by other languages rarely, eg, words for parts of the body and pronouns, are compared across a large number of languages. Although he accumulated enormous data on American languages and has arrived at some novel conclusions about the relationship of the different groupings, he has been attacked by linguists who do things quite differently. A traditional approach examines a few languages with great care, building up possible relationships carefully with the big picture planned from a "bottom up" view. Sound correspondences of key phonemes are core data. Greenberg's top-down contrasting view has caused traditional critics to say about him that his thesis should be shouted down, that the book has a detrimental impact on the field, and that he "is an Africanist, not an Americanist." Apparently with his broad brush approach, some mistakes are evident (especially to the detail-oriented experts), but the Research News sumnarizer feels that "the real disagreement comes down to ... methodology, and what constitutes proof of language relationships."

This dispute about a particular intraspecific animal communication system (human language) may be relevant to us even more basic types. Linguists think they get conceptual troubles with human languages: what would they do with our comparisons of sub-language animal communicational systems? And how should comparisons get made of basic mechanisms of coramunicational states of many species, not mere within-species cultural groupings? Without knowing the linguistic field, this report stimulated a certain sympathy for Dr. Greenberg's broad brush approach as that is what ASCAP generally uses.

The other report [5] about the gene linkage studies in psychiatry notes distress over difficulties in replications: susceptibility loci found in one or several families are not found in others. This result seems hardly surprising to those of us impressed with the final common pathway qualities evident with expression of the different psalics.

We need to know the DMA coding of communication more generally. Let us determine first normal processes and let the abnormal as a variation show itself as we work on pathophysiology as variants of physiology. Compare to pneumonia and anemia which are final common pathway variations from normal breathing/air exchange and oxygen transport mechanisms. Such variations can come about from many many causes, which is also true of course for psychiatric syndromes and symptoms.

Publications

Gilbert P, Trover P: The evolution and manifestation of social anxiety. To appear in Crozier R. (Ed) Shyness and Embarrassment: Perspectives from Social Psychology. Cambridge U Press.

Troisi A, Pasini A, Bersani G, Grispini A, Ciani N: Ethological predictors of amitriptyline response in depressed outpatients. Accepted for publication in J. Affective Disorders

Letters Jan 6, *1989*

The following reference could be possibly useful in your [work]:Rahim MA: The development of a leader power inventory. Multivariate Behavioral Research *1988;23:491-503.*

E. Barratt, UTMB, Galveston, TX

A quote from the first paragraph is relevant to the discussion in ASCAP Vol 1 #10 on Disorders of Leadership: ..."The concept of power is as ancient and ubiquitous as any that social theory can boast [6] .." Power is certainly one of the major areas of study in organizational behavior and manaqement.

Jan *30,* 1989

I have just had my first *chance to* read your newsletter (vol.2, #1). The occasion, a long airplane flight, must be symptomatic of the curious *evolution* of modern scientific reading behavior !

Whatever, I wanted to tell you how much I enjoyed the reading and how much I appreciate your efforts to foster more informal and direct communication.

Enclosed are some writings of possible interest. Keep up the good work.

J. Allan Hobson, Harvard, Boston, MA

Thank you. As you have already realized, the referenced publications were listed in Vol. 2, #2 along with your book's summary. Your views on dream origins should spark some interested, potentially contrary views.

Jan 1989

Enclosed is the paper I presented at the Evolutionary Psychology and Psychiatry conference in Ann Arbor. The manuscript has been accepted for publication in the Journal of Affective Disorders.

Thank you for putting me on the ASCAP mailing list. I think that the newsletter is a valuable source of information because it combines reviews of recent studies with penetrating commentaries. In addition, I really like thu fact that a psychiatrist had the idea of providing evolutionary oriented students with a means for free exchange of information.

Alfonso Triosi, Rome

In this ethological study of the non-verbal behaviors of 22 videotaped unipolar depressed pat Lents, non-responders were significantly more assertive and showed more affiliative behaviors. Dr. Triosi points out, with respect to the issues raised in ASCAP, that studies of behavior are trivialized and unstudied in contrast and in counterpoint to detailed and precise measurements required of biochemical data.

Feb 22, 1989

Sure - no problem if you have the space/interest to reproduce the conference summary [Serotonin, Social Behavior, and the Law - scheduled for May issue]; I'd be very interested in feedback from your readers.

Really liked the note by Ricarda Mussig. I'd add only that the existence of separate facial IRM schemata (eg, for reassurance, .anger, etc.) are certainly confirmed by Mortimer Mishkln's work, and are consistent with the display effects in our experiments using videotaped displays of political leaders [7].

Roger Masters, Dartmouth,,Hanover,NH

Response to the Reiehelt-Price Exchanges . by Ljubomir Kanov, UTMB

I find myself with some thoughts about JS Price's "stuck-in" theory of depressive behavior (ASCAP Vol 1#12): Is "homeostasis" indicated by the "inability to get out," the lack of energy to pursue change, and the docility of the depressed victim who continues to expose her or himself to abuse thereby exemplifying "self-defeating" behavior?"

a) Preventing change is not necessarily homeostasis. To my understanding, homeostasis is a dynamic cybernetic state where changes do occur but tend to counteract, or correct, each other. The main agent of homeostasis in biological systems is so-called negative feedback (even in an enzyme-regulated biochemical reaction, the end product regulates the rate of this reaction effectively, so there is homeostatlc equilibrium set at specific set-points characteristic for the reaction.)

It seems that the depressive inaction in fact encourages the destructive elements, be it an abusive spouse or adverse circumstances, to eliminate the depressed individual. Instead of stimulating change which would cancel the adverse effect and would keep the individual in homeostatic balance, the depression acts as "positive feedback", augmenting the adverse effects of depression. "Giving-up" from the point of view of cybernetic homeostasis means departure from the main principle of life itself, which is preservation of the living system by the use of homeostatis "loops" on every level. The passive behavior of the depressed, lacking resistance and energy to counteract, is in fact resignation from the life itself and a rendition of the linear downhill course observed in mechanical systems subjected to the second thermodynamic principle. The depressed person seems to have him or herself "out" of circulation and a common aspect or sign of that is anhedonic impotence and sexual indifference (which eliminates the probability of reproducing one's genes) and a other much more dramatic aspect is the termination of one's own life in a suicide.

Briefly, then, the depression does not seem to be homeostasis, but in fact seems rather to be a cancellation of corrective changes which would normally occur and as a result is an example of a system which is not anymore a biological homeostatic system, but one in which "sensors" for "feedback" are defective showing that the system as a whole is declining and deteriorating.

Some other thoughts: a) What is the essence of laziness? Is it related to depression? Are there links between weight, appetite, serotonin and depression?

b) What are the relations between obsessions, ruminations, depressive and hypochondriacal thoughts to compulsive behaviors and thoughts? to the phobias?

Is it not true that all of the above have the characteristics of repetitious, circular intrusive phenomena that cannot be controlled on ideational levels although it is still possible to control them on the level of motor acts (with the price of increasing anxiety)? So not the content, but the regularity of the vicious "circularity" is what makes these (and other) entities similar to each other. Shall we speak of "intrusive reverberatoses?"

Ljuborair Kanov, UTMB, Galveston,TX

Still More on the Relchelt-Price Exchanges:_A Postscript to Comment on CRR's First Contribution. by John Price, Milton Keynes, England. On rereading [Carolyn Reichelt's first contribution(ASCA1? Vol 1#11)], I see that I have not answered CRR's comments; they triggered a related

but separate concern of mine, and I went off on my own hobby horse. (ASCAP Vol. 1, issues 11 & 12). CRR makes the point that sometimes, in a complementary relationship where there is already an RHP gap, the system operates in a "runaway" fashion rather than homeostatically. She gives two examples.

In one case the husband reacts to his wife's submissive signal as though it were a catathetic signal; it makes him angry and he attacks her so that she get more depressed, becomes even more submissive, angers him even more, etc. In this case, the wider the gap, the more catathetic is the signalling of the higher-ranking partner, which is the opposite of what the theory predicts.

I think what might be happening here is that the husband is so identified with his wife that he interprets her own attack on herself as an attack on himself. Her statement to the effect that "I, your wife, am worthless" is the equivalent of saying "We are a worthless couple" or "You are a bad husband" or, to the extent that he sees his wife as a possession, her self-denigration is the equivalent of someone saying "Your car is a heap of junk."

The wife can get round this by remembering that the submissive signal is a signal of unfavourable relative RHP and can be signaled in any of three ways. It can be a comment on her own low RHP, as above. Or it can be a comment on his high RHP such as "You are more competent than me." These latter two ways of expressing submission are less likely to be misintrepeted as catathetic signals.

The second example is a husband who is angry with his wife and giving her catathetic signals in attempt to widen the RHP gap (by lowering her RHP), but in doing so he falls short of his image of himself as the ideal husband who is courteous to his wife and he loses RHP- The more he tries to widen the gap by lowering her RHP with catathetic signals, the more he lowers his own RHP by deviating from his ideal self. If the transaction lowers his RHP more than hers, they are in a runaway situation and one end-point could be reversal of dominance. Paul Gilbert has pointed out to me that this situation often happens with mothers who scream at their children - the loss of self-respect on the part of the mother is often greater than the subduing effect on the children. *.It* may end up with mothers who are subordinate to their children.

In the second example, the runaway can lead to a change of dominance because the situation to be explained is paradoxical loss of RHP by the dominant partner so that change is possible. In the first example, however, change is not possible because the situation is one in which the wife continues to be put down and she is already subordinate. Where does it end? In CRR's example the wife learns not to express self-denigration. No doubt there are other possible outcomes, such as suicide or hospitalization.

The first example is an instance of "Incomplete yielding" described by Sloman, Gardner and Price (unpublished manuscripti. In order for yielding to be completed, at least four stages must occur.

1. The yielder must yield. To do this he must stop sending catathetic signals to the winner, and react to the winner's catathetic signals not with catathetic signs l but with escape or submission (anathetic signals). Also he must signal low RHP. Also he must give whatever yielding signals are appropriate for his culture. Also he must give up whatever the fight was about. This last requirement may be particularly difficult, because he may not be able to provide the goods, for Instance, if he is required to provide love, or

something else over which he does not have control. In one case of mine a depressed wife was required by the husband to give up visits that were required by her mother, to whom she was even more subordinate than to her husband.

2. The winner must recognize the yielding signals and accept them as sufficient. This probably did not happen in CRR's first example.

3. The winner must acknowledge receipt and acceptance of the yielding signals. In some species there are Inherited signals for this, eg, mounting in some monkeys and feeding in some birds.

4. The yielder must recognize the acknowledgement of the winner.

Sometimes all four stages are included in a ceremony of "conditional reconciliation" as Franz de Waal has described for the chimpanzee in Fabrics of the Mind [2].

Incidently, I must clarify one point about the effect of a catathetlc signal on the sender's RHP. Sending a catathetic signal and thus (by definition) lowering the recipient's RHP does not in itself raise the absolute RHP of the sender, only if it elicits an anathetlc signal from the recipient. To the extent that it lowers the recipient's RHP (widening the RHP gap) it raises, or rather makes more favourable, the relative RHP of the sender. The effect of this rise in relative RHP depends on whether the relationship is symmetrical or complementary. If the relationship is symmetrical, it increases catathetic signaling; if the sender is the dominant member of a complementary relationship, it reduces catathetic signalling. This follows from the sender's definition of the catathetic signal: in a symmetrical relationship it is a signal of favourable relative RHP; in the dominant member of a complementary relationship it is a signal of insufficiently favourable relative RHP (see my chapter in Social Fabrics of the Mind [2]).

The Evolutionary Dimension of the. Oral Phase by Christopher Badcock, London School of Economics and Political Science, U London

One major respect in which psychoanalysis and socioblology resemble one another is; that both adopt an approach which evaluates social and sexual behavior from the point of view of its costs and benefits to individuals, rather than some presumed benefit to the group or species. Freud felt justified in attributing libidinal aspects to the young child's oral activities because they seemed to be largely motivated by their intrinsic pleasure, rather than need for food, eg, thumb-sucking for its own sake. Again, adult oral perversions — where the oral region supplants the genitals as the main source of erotic gratification — seemed to leave no doubt that the mouth, tongue etc constituted an erotogenic zone.

As so often seems to be the case, Freud's "theory" of the oral stage of libidinal development looks more like an observation than anything suggested by logic. Nevertheless, Robert Triver's theory of parental investment may provide an evolutionary rationale which explains Freud's finding. According to this view, offspring evolve *means by* which they contrive to maximize parental investment in themselves, as judged by themselves, rather than the parent. From this point of view, oral behavior as reported by Freud may be; the human infant's response to lactational amenorrhea in its mother. Presumably this evolved in mammals — where it is a widespread adaptation — because, having made such an enormous investment in internal sestation of the offspring, it is in the mother's self-interest not to start another

[gestation] until an existing offspring is well established. Since provision of milk is the mammalian mother's chief post-natal form of investment in young offspring, temporary infertility linked to lactation seems an obvious adaptation aimed to bring this about.

Studies show that "afferent neural inputs to the hypothalamus following nipple stimulation seem to cause a local release of beta-endorphin, which in turn inhibits hypothalamic secretion of gonadotrophin-releaslng hormone and dopamine, thereby suppressing gonadotrophin secretion and ovarian activity while stimulating secretion of prolactin."[8] Since offspring almost always have a self-interest in receiving more investment from parents than the parents' self-interest dictates, human infants may be adapted to stimulate the nipple in their own interests by the evolution of oral behaviour. However, quite apart from stimulating milk production, studies show that the "duration of breast feeding explains 96% of the variance in the duration of postpartum amenorrhoea."[81 Postponing further conceptions by the mother dramatically increases the survival chances of any existing offspring: a second birth within one year increases risk of the older child dying by age 5 by at least 77%; a further birth by age 2 raises the same risk by 55% [9]. In other words, it seems clear that oral behaviour may have been selected because of the enormous benefits which it might confer on the survival of infants who stimulated the mother's nipples as often and for as long as possible.

Recently, Blurton Jones and de Costa suggested that night waking in toddlers may have evolved in relationship to this postponement of conception in the mother [10], but the limitation of this effect to nighttime seems an unnecessary restriction of the theory, the importance of night-time suckling notwithstanding. Furthermore, although this cannot in itself explain oral attachments that linger on into adult life as they are known to do, it does throw some light on the fact that analysts find that such fixations - regressions of the libido to earlier stages of development - are often associated with the character-trait of envy. This makes sense if oral behaviour originally evolved to secure enhanced parental investment in the offspring as a result of threats posed to it by potential siblings.

Looked at from this point of view, behaviour associated with the oral phase as described by Freud may be only one half of the picture - the other being provided by evolutionary considerations, rooted in the theory of parental investment, unknown to him at the time, but now being rapidly integrated with Freudian theory. Parental counter-ploys appear in the form of provision of substitute nipples (dummies, bottle-feeds, wet-nurses, etc), enforced weaning, repression of memories of their own oral period and denial of infantile sexuality in general, and the reality of the oral phase in particular. On the theoretical level, prejudice against the Freudian perspective with its emphasis on the infant's point of view seems a further elaboration of parental self-interest. Comparable analyses to this one are now being carried out for Oedipal, anal and latency behaviour [11].

Earlier issues of ASCAP are available upon request.

Next issue features responses to the Birmingham Group (Vol 2 #1) by Kalman Glantz and by RG. Also John Price brings us "A Note on Hamburg's Hypothesis on the Function of Anger and Depression."

1. Chance NBA: Introduction. In Chance MRA (Ed.) Human Nature and Suffering, Hove, East Sussex, London, and Hillsdale, MJ: **Lawrence** Bribaum, 1989, p 1.

2. ASCAP philosophy and goal. Hiqh scientific importance rests on comparing animal behaviors across-species to understand better haman behavior, knowing as we do so that evolutionary factors last 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 if comparisons across species. We expect that work in natural history bioloqy 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) John S. Price: 'anathetic' and 'catathetic' describe conspecific communications. Catathetic messages "put-down" whereas anathetic signals "build-up" the resource holding potential (R) of target indlvidnals.

c) Russell Gardner, Jr.: 'psalic' is a 2 way acronym: Propensity States Antedating Language in Conmunication and programmed Spacings And Linkages In Conspecifics. This describes commanicational 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. Bight psalics are named alpha (A), alpha-reciprocal (AR), in-group omega (IGO), out-group omega (OGO), spacing (Sp), sexual (S), nurturant (N), and nurturant-recipient (HR).

ill of the above new or renewed terms are initiated or elaborated la Chance, MRA (Ed) Social Fabrics of the Mind, due out in 1988, published by Lawrence Erlbaum Associates, Hove, East Sussex, London and Hillsdale, NJ

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, #I and his new book: Human Nature and Suffering Hove, East Sussex, London, and Hillsdale, NJ: Lawrence Erlbaum, 1989.

3. Levin R: Research News: American Lanquage Dispute. Science 1988;242:1633-4

4. Greenberg JH: Language in the Americas, Stanford: Stanford **U** Press, 1987.

5. Barnes DM: Research News: Troubles encoantered in gene linkage land. Science 1989;243:313-314

6. Dahl RA : The concept of power. Behavioural Science 1951;2:**201**-215

7. Masters RD, sullivan DG, Lanzetta JT, McKugo GJ, Englis BG: The facial displays of leaders: Towards an ethology of human politics. J. Social Biol. Struct. l986;9:319-343

S. Thapa S, Short IV, Potts M: Breast feeding, birth spacing and their effects on child :survival. Nature l988;335:679

9. Hobcraft J: Background Paper, Internatlonal Conference on Better Health for Women and Children through Family Planning, Nairobi, 1987.

10. Blurton Jones M, de Costa E: A suggested adaptive value of toddler night waking: delaying the birth of the next sibling. Ethology and Sociology 1986;8: 135-42.

11. Extracted and condensed from Badcock C: Oedipus in Evolution: Three Essays on the lev Theory of Sex. Blackveil, Oxford, forthcoming, 1)8).