

# ASCAP NEWSLETTER

## Across-Species Comparisons And Psychiatry Newsletter

Volume 2, No. 9, 15 September 1989

"Charles Darwin was the first to propose that natural selection alters behavior and vice versa."  
Gerald Edelman<sup>1</sup>

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

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

For the philosophy guiding this newsletter, see footnote on p.9<sup>2</sup>

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.

Feature: Christopher Badcock has offered the text of his paper presented at the International Human Ethology Congress in Edinburgh, Aug, 1989, on psychoanalysis, sociobiology and oral behavior. This is an expansion of an abstract contributed earlier.<sup>3</sup> At this time, he emphasizes Triver's and Freud's notions of the baby as an actor, not just a passive recipient of parental influence, as other schools of thought have had it.

Letters: 9/7/89  
..The August ASCAP was exceptionally interesting! I especially applaud you for your clear exposition of what you mean by a basic plan in psychiatry.  
CR Reichelt, Wadena, Minnesota

Aug 7, 1989

Your newsletter/study group was mentioned to me at the Congress of the Human Ethology in Edinburgh, Scotland, last week.

Could I have a sample copy and information about subscription - both personal and institutional?

23.08.1989

... I am very interested in continuous to: a. be a member of 'The

Your work was described as extremely important.

Seymour W. Itzkoff, Smith College, MA

Human Behavior and Evolution Society.' b. to receive the ASCAP Newsletters. ...

Svend Kjeldsen, Arhus Univ, Denmark

### Response to Letters:

ASCAP is a small informal publication, so only individual subscriptions are requested to cover cost of the publishing. You are on the mailing list for 1989.

Notes: A recent article on bipolar disorder contributes to the idea of mania as a "disorder of leadership." I recall Dan Wilson mentioned that in his experience patients with major bipolar disorder often possess poor status (secondary to their illness), but that their relatives are often highly accomplished. Now the NIMH Collaborative Program on the Psychobiology of Depression has published in the Aug issue of the Amer J Psychiat<sup>4</sup> that "...the first-degree relatives of probands with bipolar disorders had significantly higher mean levels of achievement than did those of probands with nonbipolar illness. This pattern applied whether or not the relatives themselves had bipolar illness. The authors conclude that the socioeconomic advantage previously associated with affective disorder in general may be limited to the bipolar forms."

This result relates to basic plan concepts and implies congruence with the notion that what is inherited in these families is a lower threshold for stimulation of leadership behaviors, some adaptive, some not, rather than illness unrelated to normal behavior. ASCAP has assumed that the substrate for behavior results from a variety of different structures, some more general and more ancient than others. We have assumed that alpha psalic is reflective of an ancient neural structure (a basic plan) that each of us has inherited, that is, more general than mania, hypomania, charismatic leadership, performance ability as in singing and acting, or responsivity to the early effects of alcohol, which are more specifically realized instances of the same basic plan.

**\*\* Featured Article \*\***

Psychoanalysis, sociobiology and oral behavior by Christopher Badcock<sup>5</sup>

Recent sociobiology and classical, Freudian psychoanalysis share things in common. First and foremost, both adopted an individualistic, reductionistic approach to explanation based on the primacy of reproduction. In the case of psychoanalysis, this stemmed from its individualistic method of research; in recent sociobiology this resulted largely from dispelling fallacies involved in so-called 'group selection', ie, the belief that selection acts at a level of family, group, or species. Again, resolving confusions about the meaning of 'fitness' in evolution has helped bridge gaps between Freudian findings and evolutionary theory. This is because in the past 'fitness' in a qualitative, everyday sense connoted personal health and wellbeing rather than an objective, quantitative evolutionary meaning centering on reproductive success and epitomized by the idea that organisms have evolved to be little more than the temporary packaging of the genes which they carry and which themselves

constitute the fundamental units of inheritance, mutation and selection.

This view of things makes libido theory look very right in its insistence on the primacy of sex and reproduction, and a number of sociobiologists have recently commented on the aptness of the Freudian id-ego-superego model of the mind :or understanding what might be called the 'gene-behaviour interface' in human beings.<sup>6</sup> Unlike traditional social sciences or group-selectionism which assumed that sex evolved for the good of the family, group or society, both psychoanalysis and sociobiology agree that, in words which are actually E.O. Wilson's, but could easily have been Freud's, 'sex is an anti-social force in evolution'<sup>7</sup>

Traditional anthropology and sociology seldom took much notice of individuals as such and the question of the individual's--not to mention the individual child's-- interests in social groups such as the family was almost never considered. This was because the predominant 'cultural-determinist' school of thought in sociology and anthropology assumed that children were the largely passive victims of *socialization*, understood as a process whereby cultural values are instilled into the young.

Academic psychology was just as bad. The doctrine of *behaviorism* taught that a human being, like any other organism, could be conditioned to perform more or less any action by appropriate punishment, reward and reinforcement. The child in particular - like Pavlov's captive dogs - was conditionable by stimulus and reinforcement, but largely passive in the process. Although psychology emphasized individual conditioning and sociology its collective equivalent, both amounted to the same thing: either way, the child counted for little, the conditioning influence for practically everything.

But sociobiology, like psychoanalysis, did take account of the interests of offspring. Psychoanalysis did

so implicitly from the beginning, because of its dynamic model of human psychology, and directly once modern child-analysis became possible. Sociobiology did so in its turn, largely thanks the insights provided by the theory of parental investment and its application to the issue of *parent-offspring conflict*.

Just as the theory of parental investment followed in the footsteps of psychoanalysis by looking at sex from the point of view of both the costs and the benefits to the individuals rather than in terms of some supposed benefit to the group, society or species, so it retraced the path of Freud in looking at parental care itself from the point of view of both parent *and* offspring.

Just as the theory of parental investment followed in the footsteps of psychoanalysis by looking at sex from the point of view of both the costs and the benefits to the individuals concerned rather than in terms of some supposed benefit to the group, society or species, so it retraced the path of Freud in looking at parental care itself from the point of view of both parent *and* offspring. As R Trivers pointed out in a classic paper which initiated this advance, 'once one imagines offspring as actors in this interaction, then conflict must be assumed to lie at the heart of sexual reproduction itself--an offspring attempting from the very beginning to maximize its reproductive success would presumably want more investment than the parent is selected to give'<sup>8</sup>

An example might be crying and smiling in human infants. As Trivers points out in his paper, an offspring cannot physically dominate its parents, but it can attempt to manipulate them by purely psychological means. For instance, it could cry when it wanted something like food or attention and smile when it was gratified. Evidently, human infants do both of these things, and one can well imagine socialization theorists and behaviorists agreeing with Trivers when he comments that both parent and offspring . . .benefit from this system of communication.

However, theorists of neither persuasion would go on to point out the obvious conclusion:

But once such a system has evolved, the offspring can begin to employ it out of context. The offspring can cry not only when it is famished but also when it merely wants more food than the parent is selected to give. Likewise, it can begin to withhold its smile until it has gotten its way.  
p257

Although behaviorists and sociologists might view such 'inappropriate' behaviour as crying when not really hungry and not smiling despite being physically satisfied as 'deviant,' 'pathological' or the outcome of some error in conditioning and reinforcement, from the child's neglected and despised point of view, it is entirely normal and completely natural. So natural is it that if infants amplify their distress-signals to the limit to get what they can, parents correspondingly re-calibrate their responses so that, for instance, they respond much less to cries of distress in a young child than they do to those in an older one or an adult. Common observation shows that adults . . .pass screaming children in the street without so much as a glance, but pay close attention to an adult who is quietly sobbing or showing even more subtle signs of distress (albeit not wanting to get involved).

Once we allow ourselves to entertain the possibility that, despite its lack of experience, small physical size and social subordination, the infant is in fact a significant participant in the interaction, rather than a mere passive recipient of parental care, it becomes evident that both parents and offspring are active protagonists and both interact dynamically on more or less equal footing. In the view of both socialization theory and psychological determinism this was not so. By ignoring the independent interest of the offspring and its ability to respond dynamically to the actions of

the parent these theories implicitly took the parental interest as the only one that mattered, assuming with what now seems astonishing naivete that parental and offspring interest were one and the same. But, just as new and surprising insights result if this complacent view of sex is abandoned for a more dynamic one which does take account of differences of interest in the parties concerned, so parent-offspring relations can be seen in a completely new light if a similar change of perspective is adopted. Furthermore, this new view of sexuality in biology has much in common with the Freudian one and we find even greater coincidences of insight in the case of parent-child relations which in psychoanalysis were from the beginning seen from a dynamic, objective viewpoint.<sup>9</sup>

One example of the convergence of sociobiological and psychoanalytic insights might be Trivers's suggestion regarding the possible evolutionary basis of *regression*.<sup>6, p. 257</sup> In species in which parental care involves active provisioning or protection of the young by one or both parents, investment in them is likely to be maximized early on and to decline with time, gradually or sharply as the case may be. Either way, younger offspring usually demand and get more investment than older more mature ones. But this means that any particular offspring might be able to secure more investment from a parent if it could mislead the parent about its exact level of development. In other words, an offspring which acted or appeared 'younger' than it really was might secure more in the way of parental care, provisioning, protection, or whatever.

As a behavioural adaptation, regression would appear to have a sound evolutionary basis, at least in the young. But regression is a factor long known to psychoanalysts and a central tenet of Freudian psychology. In the past it has been described from the three classical psychoanalytic viewpoints of psychological *dynamics* (where it is seen as an active desire to return to the past, *topography* or structure (where regression normally involves 'lower,' more primitive or repressed elements)

and *quantitative* factors (where it is often a question of past 'fixations' attracting the retrogressive desire). The development implied by Trivers's observation would add a fourth, *evolutionary* adaptive description.

Another, surprising new perspective on infantile behaviour might be drawn from another of Freud's controversial findings about children--his proposed 'oral' phase of infantile sexuality. Freud thought that he was justified in calling this early manifestation of pleasure in sucking 'sexual' because it appeared to be enjoyed for its own sake, independent of whether the child was hungry or not. When he took into account the fact that such intrinsic pleasure in sucking, licking, or kissing was a major factor in adult sexual activity and was promoted to the role of the principal pleasure in so-called oral sexual 'perversions,' the case for regarding this early phase as the first expression of the libidinal drive in human beings seemed persuasive.<sup>10</sup>

According to John Bowlby later: Though sucking is usually thought of as a means simply of ingesting food, it has a further function. All primate infants, human and sub-human alike, spend a great deal of time grasping and/or sucking a nipple or nipple-like object. In human babies sucking of a thumb or comforter is extremely common. In monkey babies brought up without a mother it is universal. When they are brought up with a mother, however, it is the mother's nipple that young monkeys suck or grasp...to suppose that nutrition is in some way of primary significance...would be a mistake. In fact, far more time is spent in non-nutritional sucking than in nutritional.<sup>11</sup>

Bowlby goes on to make much of what he calls 'attachment behaviour' in connection with sucking, but: if sucking for its own sake is all about attachment, surely we would expect oral attachment to be less important to primates than to other mammals because of the fact that they have grasping hands and - excepting human beings - feet with which to attach

themselves to the mother. Quadrupedal mammals by contrast, lacking such convenient attaching limbs, might be expected to make more of the oral point of contact. Yet, if anything, the reverse seems to be true and primates seem to suck even more compulsively than other mammals. Furthermore, while his theory might explain why the offspring attempts to attach itself physically to the mother using the nipple as a convenient point of contact, it does not explain why the infant should suck, rather than merely hold it. And finally, if attaching itself to the mother were the point of the need to suck, why suck compulsively when separated? Surely, this is when sucking would not be necessary, rather in the way in which keeping one's eyes open is not necessary when asleep.

Although these are obvious criticisms of Bowlby's theory, it seems to have been much more popular than Freud's, perhaps thanks to the latter's unfashionable insistence on the libidinal element in oral behaviour and its connection with adult 'perversions.' Yet from the perspective of parental investment theory, what Freud saw as polymorphous perverse infantile sexuality associated with the oral region or what Bowlby saw as attachment behaviour makes perfectly good sense as an adaptation in any particular infant designed to secure maximum supplies of milk and other forms of investment at the expense of potential competitors.

This is because evolution has already made the mother take one or two enormous strides to meet the young offspring in its demand for the exclusive enjoyment of her investment by way of the fact that in human beings, as in many other mammals, frequent suckling serves to inhibit ovulation in females, and thereby conception of further, competing offspring. As long ago as Aristotle it was known that

while women are suckling children menstruation does not occur according to nature, nor do they conceive; if they do conceive, the milk dries up.<sup>12</sup>

In a recent paper, Blurton Jones and da Costa have suggested that night-time waking in toddlers may have evolved for this kind of

reason.<sup>13</sup> Although they comment that 'a definite connection between crying at night and an increased tendency to suckle has yet to be demonstrated,' they also point out that there is some evidence that night-time suckling is especially critical to the contraceptive effect in question.<sup>11,p136-7</sup> Again, there is also evidence that 'in the lactating woman, an infant's cry stimulates blood flow to the aureolar area and dripping of milk from the breast'. However, they note in closing, that 'mechanical stimulation of the nipple, [not]..depletion of milk, has been suggested as the stimulus that elicits endocrine response.'

If 'the key to the short-term and long-term success of lactation as a contraceptive is therefore the frequency with which afferent neural inputs generated by the baby's stimulation of the mother's nipple reach the hypothalamus,' as a more recent review of the literature concludes, then it might pay any particular breast-fed offspring to continue to stimulate the mother's nipples as frequently as possible and for as long as possible, and not merely at night, but throughout the day. This is especially so since animal studies show that repeated stimulation 'not only helps increase milk production but may also provide additional contraceptive protection.'<sup>10</sup> Furthermore, studies of the chemical composition of human breast milk show that it is of the kind characterizing continuous mammalian breast-feeders, rather than intermittant ones.<sup>12</sup>

If this is so, I see no reason arbitrarily to limit the effect to night-time suckling and to concentrate on waking as the critical behaviour, rather than on the compulsive oral behaviour described by Freud. In my view Blurton Jones and da Costa are much more on the right lines when they recognize the possibility that 'nonnutritive suckling'

in general 'may aid the infant in delaying the arrival of its next sibling.'<sup>11, p140</sup> This is all the more compelling because, as a means of manipulating the mother's fertility, oral stimulation of her breasts by the baby seems to be extremely effective. Recent studies show that it is the duration of breast-feeding which explains 96% of the variation in the persistence of infertility after birth. These studies also show that a child's risk of dying in the first years of life depends on the preceding birth interval; mortality can be greatly reduced if it is born at least two years after its elder sibling...The effect of preceding birth interval on child survival is found to be even greater than the effect of declines in parity or the mother's age at childbirth. .. it has been estimated that a preceding birth interval of less than two years can raise the average chances of a child dying before age five by about 50%...The best estimate of the true influence is that a second birth within 12 months of the index birth raises the risk of dying between..ages..one and five by at least 77%, if the mother is pregnant by the index child's second birthday, this raises its risk of dying before ... five by 55%.<sup>10, pp 681-2</sup>

Again Blurton Jones and da Costa quote Howell's data on the !Kung which suggests that 'lengthening the interbirth interval from 2 years to 4 years reduces mortality from over 70% to around 10%.'<sup>11 p137</sup> If we calculate that the maximum four-year separation mentioned here requires a fertile period for the mother of about three years or so because the best part of a year will be taken up with conceiving and being pregnant to term again, it follows that infant survival is dramatically enhanced if the infant in question suckles compulsively for two to three years.

Although it is important to remember that evolution is driven ultimately by differential reproductive success and does not necessarily select for personal survival, the fact remains that, prior to an organism reaching reproductive age, survival is a necessary condition for any subsequent personal reproductive success. The consequence of this principle must be that if the figures quoted above for enhanced survival are in any way to be relied upon, they suggest that oral behaviour may have been powerfully selected because

of the dramatic impact which postponement of sibling conception seems to have on existing infants. If we notice that compulsive stimulation of the mother's nipples for its own sake seems by far the most effective method of bringing about such spacing of births, then oral behaviour, far from being merely a means of securing some 'attachment' assumed to be of equal benefit to both parent and offspring, becomes a chief adaptive features in the human infant's: competitive struggle for survival.

In light of this consideration, it can hardly be coincidental that the crucial two- to three-year separation period for conceptions suggested by these findings is exactly the time-span allotted to the oral phase by psychoanalytic investigations. In this respect psychoanalysis, .once again reveals its characteristic sympathy for the child's, as opposed to the parents', point of view, Well may parents resort to dummies, bottle-feeds or wet-nurses to outwit the child in its desire for exclusive enjoyment of its mother's breasts; and well may they enforce weaning and rationalize their self-interest by repression of their memories of their own oral behaviour and denial of the fact of infantile sexuality in general and its oral manifestations in particular. But the fact remains that young children do indeed have a special-interest of their own in stimulating the breast. Freud was first with insight about: breast-feeding from the infant's viewpoint.

Indeed, we can go further, for not only will stimulation of the mother's nipples above and beyond the child's need for food serve to postpone the appearance of competitors in the near future, it can on occasions become so compulsive an attachment that even if a new offspring should nevertheless appear, it may have to face considerable competition from an older child for access to the breast. For instance, among the primal hunter-

gatherers of the central Australian desert, psychoanalytically inspired observations show that new-born babies sometimes die because older siblings will not give way to them at the breast, quite apart from the fact that their mothers will not enforce any peremptory weaning of the existing child in favour of the newcomer. In this case, not merely before conception of potential rivals but after they have actually been born, the existing offspring has cause to want to monopolize the breast and finds what Freud called the oral attachment the means by which it is predisposed to do it.<sup>15</sup> Again, the observation that lingering oral attachments are often found strongly associated with the character trait of envy suggests that such factors as these can long survive childhood and can in certain persons influence behaviour decades later in adult life.<sup>16</sup>

If this interpretation of oral behaviour has anything to be said for it--and it does seem to be overwhelmingly vindicated by the facts--then it suggests that what may once have seemed to be the infantile equivalent of an adult perversion is in reality not in the least bit 'perverse' - at least in the sense attached to that term in relation to sexual behaviour. Far from being something contrary to biological and evolutionary imperatives or something which is merely an expression of attachment behaviour, compulsive oral stimulation of the breast of the mother by the offspring for two to three years irrespective of immediate hunger seems a classical Darwinian adaptation.

Furthermore, interpretations of this kind can hardly be seen as serving the collective interests of the family, culture or species as mere attachment can. On the contrary, once the modern, individualistic approach of the theory of parental investment is taken into account and we allow ourselves to envisage the possibility of conflict, not merely between parents and offspring, but among offspring themselves, then the infantile oral period seems less polymorphously 'perverse' than biologically natural and more a surprising product of

evolutionary dynamics than one of apparent ethological commonplace.

Finally, this analysis, if correct, suggests that Freud's findings may be about to undergo far-reaching re-interpretation in the light of evolutionary considerations and that what is true of the oral phase of psychosexual development may also be later of later stages, such as the Oedipal one. Indeed, it is possible that, following a historical 'latency period' of approximately the same length as that which Darwinism underwent between 1859 and its definitive modern formulation in recent sociobiology, Freudian psychology may be about to re-emerge with a comparable new clarity after a similar period of confusion, controversy and conflict. If this is the case, then what has passed for 'psychoanalysis' until now may eventually seem to be as misleading and as inaccurate a formulation of authentic Freudian insights as nineteenth and early twentieth century evolutionism is now seen to be where Darwin is concerned. At the very least, the history of science -in general--quite apart from the history of Darwinism in particular--suggests that those who have so confidently written Freud off so many times in the past may have been mistaken. Far from having been discredited by scientific progress, authentic Freudian psychoanalysis may be about to receive its definitive vindication from the most unexpected source imaginable--modern evolutionary biology.

Next issue (October) features Kalman Glantz's impressions of the Chicago meeting of the Human Behavior and Evolution Society Meeting held in late August, 1989. He promises to highlight the controversies!

In November David Freedman discusses what he feels to be the still viable developmental formulation of obsessions (they stem, he argues, from anal stage problems).

1. Edelman GM: Neural Darwinism: The Theory of Neuronal Group Selection. NY: Basic Books, 1987, p 10
  
2. ASCAP philosophy and goal. High scientific importance rests on comparing animal behaviors across-species to understand better human behavior, knowing as we do so that evolutionary factors must be considered for understanding properly such behaviors. To accomplish these comparisons, very different new ways of viewing psychological and behavioral phenomena are required. This in turn explains why we need new words to define and illustrate new dimensions of comparisons across species. We expect that work in natural history biology combined with cellular-molecular biologic research will emerge as a comprehensive biologic basic science of psychiatry. Indeed, this must happen if we are to explain psychiatric illnesses as deviations from normal processes, something not possible now. Compare to pathogenesis in diseases of internal medicine. Some neologisms that hopefully will help implement these goals are those of:
  - a) Michael R. A. Chance: "hedonic" and "agonic" refer to the tone of groupings of conspecifics (members of a same species) i.e., relaxed and fun-loving versus tense and competitive.
  - b) J.S. Price: "anathetic" and "catathetic" describe conspecific messages. Catathetic messages "put-down" and anathetic "build-up" the resource holding potential (R) of target individuals.
  - c) Russell Gardner, Jr.: "psalic" is a 2 way acronym: Propensity States Antedating Language in Communication and Programmed Spacings And Linkages in Conspecifics. This describes communicational states conjecturally seen with psychiatric disorder and normality (human and non-human), ie, alpha psalic seen in manics, high profile leaders and dominant non-human animals. Eight psalics are named alpha (A), alpha-reciprocal (AR), in-group omega (IGO), out-group omega (OGO), spacing (Sp), sexual (S), nurturant (N), and nurturant-recipient (NR).  
 These new or renewed terms are initiated or elaborated in Chance, MRA (Ed) Social Fabrics of the Mind. Hove and NJ: Lawrence Erlbaum Associates, 1988.
- d. Paul Gilbert: Social Attention Holding Power/Potential (SAHP) focuses upon the non-aggressive facets of leadership when this is deployed in the hedonic mode. See ASCAP v.2, #1 and his new book: Human Nature and Suffering. Hove and NJ: Lawrence Erlbaum, 1989.
  
3. This is an expansion of ASCAP Vol 2 #3 pp6-7
  
4. Coryell W, Endicott J, Keller M, Andreason N, Grove W, Hirschfeld RMA, Scheftner w: Bipolar affective disorder and high achievement: a familial association. Am J Psychiatry 1989;146:983-8
  
5. Extracted and adapted from Badcock C: Oedipus in Evolution: A New Theory of Sex. Blackwell, Oxford, forthcoming Oct, 1989.
  
6. For a full account of this point, see Badcock C: The Problem of Altruism: Freudian-Darwinian Solutions. Blackwell, Oxford, 1986.
  
7. Wilson EO: Sociobiology Cambridge: Harvard U Press, 1975, p414
  
8. Trivers R: Parent-offspring conflict. American Zoologist 1974;14:249
  
9. For further comment and substantiation on this point, see Badcock C: Essential Freud Oxford: Blackwell, 1986.
  
10. Freud S: Three essays on the theory of sexuality, first ed.: 1905; fourth ed.: 1920. Ir J. Strachey (Editor and translator): The Standard Edition of the Complete Psychological Works of Sigmund Freud. London: Hogarth Press, 1953, pp 125-243.
  
11. Bowlby J: Attachment. NY: Basic Books, 1982, p.249.
  
12. Quoted in Thapa S, Short RV, Potts M: Breast feeding, birth spacing and their effects on child survival. Nature 1988;335:679.
  
13. Blurton Jones NG, da Costa E:A suggested adaptive value of toddler night waking: delaying the birth of

the next sibling. Ethology and Sociobiology 1987;8:135-42

14. Quoted by Lozoff B et al: The mother-newborn relationship: limits of adaptability. J Pediatrics 1977;91:4

15. Roheim G: Psychoanalysis of-primitive cultural types. International J Psychoanal 1933;XI11:75.

16. Abraham K: The first pre-genital phase of the libido. In Selected Papers on Psychoanalysis. London, 1948.

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