ASCAP NEWSLETTER

Across-Species Comparisons And Psychiatry Newsletter
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> An interactional paradigm .. suggests .. that psychological events [stem] from:
> 1) continuously ongoing bidirectional .. interaction between individuals and environment
> 2) continuously ongoing reciprocal interaction [among] subsystems within the individual
> Ohman and Magnusson [1]

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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.

Notes: Well, what a surprise upon returning from the Evolutionary Psychology and Psychiatry (EPP) conference(3) to discover that the lead article of the 28 Oct issue of Science had been the lead presentation of the conference! Martin Daly and Margo Wilson (D&W) wrote "Evolutionary Social Psychology & Family Homicide"(4). In this survey of homicide patternings (who kills who with different degrees of relatedness), they found that the Hamilton-Trivers paradigm of inclusive fitness seems to operate: blood relatedness means less lethality (spouses and step-relatives die more often). They found also, for example, that fathers killed their Oedipal-aged sons about as often as same-aged daughters. D&W believe their data counters Freud's Oedipus complex and that Freud had a now outdated sociobiology. That clinicians have seen it in patient material when it really doesn't exist results from "positive attribution" (bias). Their own approach is strong, D&W feel, because homicide data are unbiased.

However, not only D&W at EPP experience clinicians as deceiving (including self-deceiving),but Jay Feierman, a psychiatrist-student of ethology (who tongue-in-cheek has studied clinicians), noted that psychologists and psychiatrists "are the highest point of the evolutionary spiral of deception."

The Hamilton-Trivers paradigm seems to have grown full form: the Michigan group has become a more cosmopolitan Evolution and Human Behavior organization with Dr Hamilton as its first president and Randy Nesse as its president-elect, fitting given his considerable ground-work.

Of course, this paradigm is hardly the only one for those interested in evolution and clinical issues. This became particularly evident for me on hearing Nancy Segal's gentle comment during a discussion part of a session on "Standards of Evidence for Evolutionary Hypotheses." She noted that on the one hand, geneticists had something to learn from the inclusive fitness ideas presented, but that those presenting in the session might learn from geneticists as well.

That is, another paradigm with which many of us are comfortable stems from physiology and cellular-molecular biology, such as that in genetics and DNA metabolism, with searches for mechanisms. Nancy's own work (from U Minnesota) was a nice example. She works with twins and presented data from monozygotic twins discrepant for handedness. Left-

handers heavier at birth than their twins show mirror-imaging of their R-handed counterparts in ways other than hand-preference (eg, counter-clockwise vs clockwise hair whorls), but neonatal lefties lighter than their R-handed twins do not. Rather, the lighter ones seem to be the products of pregnancies with trouble, eg, the mother smoked. The bigger lefties apparently separated from their twins after the embryos started dividing vs an earlier individuation of the lighter-leftie twins.

This work teases out mechanism such that, if there were disorder or disease, the story could be part of the "pathophysiology" of hand preference (though left-handedness is not pathology!) Of course, the two paradigms often overlap and, as Dr Segal pointed out, can and should mutually instruct each other.

A psychiatrist-clinician, Jim Kennedy, (who presented at EPP on social rank hierarchy in group therapy), has something in an upcoming issue of Nature on the genetics of schizophrenia. Such, studying familial linkages in mental illness, might be considered another face of the paradigm that NSegal represented, and one current in psychiatry. As put by Gary Chase:

[The] rapid increase in the knowledge base of psychiatric genetics offers the hope that the next ten years will see significant.. advances (in our] understanding of familial transmission of mental disorders ..

..[C]oncepts and methods [of the field] have diffused from a small handful of investigators to a much wider research community.(5)

Some of us involved with ASCAP sense that studying social rank heirarchical communication will be a method to simplify and codify behavior. Such simplification and classification is needed so that the behaviors of different species can be compared via the same common denominators, which is the major reason for the concepts so often fussed over in ASCAP: R (RHP), psalics and hedonic/agonic tones. Such common denominators are, we feel, needed to discern homologous vs non-homologous mechanisms as well as "degree of homology" via various eventual "top-down and "bottom-up" analyses of genetic programs that we believe to be partial determinants of normal and abnormal behaviors.

For now, I understand, there are no plans for future meetings with the "P words" coincident with evolution in the title. However, when such a meeting does occur again, placement of JS Price in an alpha (vs omega) position would be pleasing, as he is the pioneer who first connected psychopathology to social rank hierarchy in 1967.

Much else of interest went on at the EPP meeting and future issues will continue to summarize or otherwise present material from it, including Kalman Glantz and John Pearce on evolutionary translations of psycho-dynamics, Ricarda Mussig on an evolutionary hypothesis for why tiny children drawing persons always start first with a circle and two legs, Alfonso Triosi on behavioral predictors for amitriptyline response in depressed outpatients, and Dan Wilson (who works in a clinic that treats bipolar patients) on his version of how bipolar and antisocial disorders (which he too has linked together - compare to ASCAP #10) get inherited.

Letters; Oct.1, 1988

..I continue to read the ASCAP Newsletter with interest. I think you have hit on an important function. So, my full support...

Michael McGuire UCLA

Oct.8, 1988

Could you please put us on the ASCAP mailing list? Randy Nesse sent us a sample. Thanks.'

Judy Lipton

David Barash Redmond, Washington

Price-Reichelt Exchange

From exchange with Carolyn Reichelt (CRR) articulated in ASCAP #11, John S Price (JSP) outlined factors in depression that lead to changes between the depressed person and other(s) in the form of positive feedback cycles and run-away effects. To follow is more of this discussion:

JSP:Homeostatic aspects of depression

In view of the preceding discussion, we might expect that every depressed patient is accelerating towards disaster, but in practice the majority of depressed patients, certainly most of those seen in the out-patient clinic, seem to be very chronic and appear to the clinician to be "stuck" rather than in a state of change. This may be an illusion due to the highly variable time scale of the accelerating process (which may take minutes or years) but in many cases it seems to be the depression itself which is preventing the change from occurring. A man is depressed in his job, but he lacks the initiative to apply for another one; he is nervous about the interview situation, and he dreads the rejection of being turned down. As with a job, so with a marriage. One of the commonest presentations in my out-patient clinic is the woman who is married to an uncaring tyrant; her life is one of drudgery and service to a man who will give her no pleasure and denies her the opportunity of seeking pleasure elsewhere. These women are "stuck" in their awful marriages, and the depression makes it impossible for them to leave. They lack the energy and initiative to set up on their own, they lack the interest to look for an alternative partner and the depression makes them unattractive to any man who might come along.

As it was said of Hamlet, depression is the agent by which unfavourable circumstances take away one's capacity to deal effectively with those circumstances. In these cases it is acting as an agent of homeostasis.

Is there really a paradox?

Can depression be both an agent of change and an agent of homeostasis? I pondered over this apparent paradox for many years. Adopting the systemic approach had got over the difficulty about cause and effect, but gave one this even greater difficulty with change and homeostasis. Were there different categories of depression, some causing change and others homeostasis? This is what I thought at one stage [6]. A more likely explanation was that depression is causing change at one logical level but homeostasis at a higher level (as, for instance, a change of sweating may mediate homeostasis of temperature). I am interested at this point in seeing what CRR will think about the issues posed.

JSP's contribution in ASCAP #11 and the above was sent to CRR without the JSP's "solution" printed below.

CRR: Yes, Dr. Price, I agree there is an important question as to whether depression is an agent of change or of homeostasis, and I will get to that later, but first let me discuss a bit more my original observation that the patient's yielding response to catathetic signals is often not effective in ending them. I did not mean that the "acceleration towards disaster" is necessarily rapid or, indeed, inevitable - only that it happens. I agree that patients become "stuck", but they also sometimes get most inconveniently unstuck by committing suicide - after many years of apparent homeostasis.

After your remarks, I have further reflections on my original question: I wonder if the spouses in our examples criticized the patient's yielding responses because they ex-

perienced the consciously-meant-to-be-submissive responses catathetically. This can happen in two ways: 1) through guilt, as I suggested earlier (ASCAP #11), and 2) through a quality of falsity in the yielding response. The source of guilt and thus continued attack is pretty clear (unless the spouse is a sociopath): "Maybe there is something that I did to cause her depression - that possibility makes me guilty. So I also feel defensive, because all I really wanted was for her to give up that stupid job so I can have a clean house and a wife who isn't cavorting with other men. That's the right of a husband. She's only trying to get her own way by making me feel bad. I'm not going to let her get away with it. I'm going to tell her off."

Where the quality of falsity comes from is not nearly so clear, however. The patient certainly consciously means what she says (most of the time though depressed patients are capable to manipulation also, depending on how severely depressed perhaps). And she probably uses this method of deflecting attack, because she likely learned just this side of the cradle that fighting back is dangerous and yielding is a good defense. But all that yielding through life, when she often felt that she shouldn't have to, may produce rage-potential. And that anger in depressed patients is worth a look here.

Gardner's propensity states that he calls psalics (1c) are unlikely to live in some kind of splendid isolation at the reptilian level of the human brain unaffected by cortical activity. So our patient's life experiences will likely interact with all her genetically mediated qualities to determine her particular response to her environment. Hence, if her experience (especially early) had taught her to suppress vigorously the expression of her (sometimes) justified feelings, she may eventually no longer be aware of the anger but it may be there nonetheless. The anger is both at the people or fate inflicting the injustice, but it is also at herself for her weakness. She may not be aware of anything but misery and defeat, but in treatment the patient may discover that she experiences rage! So it seems possible that the spouses of whom we've been critical sensed some of that anger and weren't all that impressed by their wives' protestations of defeat (men of course aren't immune to these issues). To continue, catathetic signals go on until the aggressor senses that the patient is truly subdued. Of course, because the patient is still furiously angry and doesn't dare express it/feel it toward the aggressor, she targets her own weakness, and while the husband may achieve his goals, biological and otherwise, she may indeed become stuck, or with sufficient anger, suicidal.

Anger can explain a lot of the positive feedback loops you articulate. We usually need to understand what is happening to us. So if we are victims of aggression, we need to understand why. If the patient is programmed from infancy to believe that anger is a bad thing - powerful people told him/her that from birth after all - then anything bad that happens must be deserved punishment. So it follows that the glass will always appear deservedly half empty for such patients. Additionally, if the rage is so great and dangerous as to require constant punishment with so early an origin in infancy, it probably is so powerful as to "cause the IRA to attack" or hurricanes to strike. The need to control this dangerous fury, and the energy required to do so, may be factors in the other feedback loops you describe.

So there's lots of anger: what does this have to do with psalics? If the in-group omega (IGO) psalic has been

triggered to a pathologic extent in the patient, shouldn't she/he simply feel a wretch and submissively collapse? How can she feel angry, when anger expresses that she feels a degree of self-esteem? If there is any sense of injustice, and as the husbands feel, there is; there must be a sense somewhere in the patient that "I don't deserve this and if I don't, then there must be some good in me." And since the patient often feels that unless she/he controls her thoughts rigorously, she'll cause Yellowstone to be destroyed by fire or something equally disasterous, she has not only self-esteem, but at some level, she believes herself indeed omnipotent.

A self-description patients sometimes use is "I feel invisible." That seems to be meant as a statement of felt insignificance ("I have no R left" or "I am treated as if I have no R"). But while it describes the reduction of R to the vanishing point, it may at the same time express a wish: attack on invisibility is hard, so that it is also a magically derived defense. Only someone omnipotent can work magic.

Omnipotence and grandiosity are manic attributes and evidence more of alpha (A) psalic than IGO psalic. But I suggest that the A and IGO psalics are interacting in the depressed patient, or that there may be some kind of continuum or gradual extinguishing of one tendency as the other comes to the forefront. Or possibly, there is some kind of primitive memory of, or wish for, alpha status (a return to infantile omnipotence?) involved. At any rate, I wonder if in some way, the A psalic is affecting the depressed patient, even though all that is apparent to the observor is the IGO (except for the subtleties described above).

Let us examine ethological evidence for this: Rabb et al [7] describe a male alpha wolf who was deposed subsequent to removal from the pack and later return. Though he then became the lowest ranking animal the first year after return, and second to the lowest the second year, he continued to exhibit certain alpha behaviors such as patrolling. Other researchers describe similar occurrences, which implies that the propensity towards alpha behavior is not completely extinguished by a loss of status through catathetic changes in the environment. And higher ranking animals in the pack may continue to experience the former alpha (and other lower ranking animals) as potential threats to their status, because observations show that the animal may still be persecuted to death [8]. So, if the wolf retains vestiges of alpha behavior even in omega status, might humans also? Anger may be the visible component of a war going on within the patient between these propensities and the wish to express these conflicting self-assessments. But because the patient has been so effectively taught that anger is dangerous, it becomes part of the "conflict" within, strengthens the expression of the IGO communicational propensity state and weakens whatever A psalic is left.

This idea of a continuum could have relevance for bipolar disorder and mixed states as well. And, as I suggest for wolves, ritual agonistic behavior (RAB) is/can be part of the picture too.

Now, to return to depression's role as an agent of homeostasis or of change, I lean toward change in order to achieve homeostasis. Depression may begin as a response to some real or perceived change in the patient's R. And it may progress to the apparent homeostasis of being stuck in treatment, but I would suggest that even then, there would be change going on if the patient would permit it. Being stuck may be an expression of fear of what change could bring,

perhaps of the unleashing of fury within, rather than a true homeostasis. Fear of loss of the therapist is one of the reasons often suggested for an apparent cessation of progress in treatment. Perhaps the patient perceives the therapist as the only control for rage available.

There is a thread of change throughout depression: change from an undepressed state; change in the patient's environment; change in the patient's mental state, change for what? Change is sought, albeit clumsily and with ancient (?reptilian) methods via depression, to produce alteration from something intolerable. Perhaps that change is realized with successful treatment whether with medication or psychotherapy, by the patient being able to "take control" — in biological terms this means increasing experience of an appropriate alpha status. Depression motivates the patient to change things so that ascent in status can happen. Alpha wolves seem to remain so over much of their lives, though uneasily (since they are continually challenged). They exhibit a homeostasis perhaps, a sort of peace through control. Depression, I believe, gropes toward that end. Pehaps that is what patients unconsciously mean in their expressed wish for peace.

JSP: My solution to the change/homeostasis paradox (written before CRR's response was reviewed):

What changes, or does not change, is who gets their own way. The depressed person does not get his own way. If he formerly got his own way, then depression is an agent of change. If he formerly did not get his own way, then he continues to not get his own way and the depression is an agent of homeostasis.

In order to be clear about it, one has to distinguish between change and homeostasis in the relationship (with whomever the depressed person has been in conflict with) and change, or staying the same, in secondary matters, such as getting or losing a job, or staying together or getting divorced. The function of depression concerns change and homeostasis in the relationship. It is not concerned with whether or not there shall be a secondary change, it is concerned with whether or not there is a change in who decides whether or not there shall be change.

In my patient who lost her job, depression was an agent of change, not because she stopped work, but because stopping work represented a change from getting her own way about working to not getting her own way about working. In ray patient whose husband brought the baby sitter into the house, depression was an agent of homeostasis, in that she remained married in spite of what would have been an intolerable situation to most women. She had never got her own way, and the depression enabled her to put up with even more humiliation than usual. She could not leave, because her husband did not want her to; leaving would have meant getting her own way.

Other forms of change are secondary to the power issue, and may go either way. If the dominant partner wants change, such as a move of a house, there is change, and the depressed partner goes along with it. If the dominant partner wants to stay where he is there is no change, and the depressed person goes along.

In summary, depression is an agent of passivity, and the depressed person either becomes passive (change) or remains passive (homeostasis), putting up with the direction of the partner without fighting back or leaving.

Next issue will feature a contribution from The Birmingham Group: "The Balance of the Two Modes: Deficits or Excess?" and material from the Evolutionary Psychology and Psychiatry meeting in Ann Arbor.

Issues 1 through 11 are available on request.

1. Ohman A, Magnusson D (1987): Introduction: An interactional paradigm for research on psychopathology. In Magnusson D, Ohman A (eds) Psychopathology: An Interactional Perspective lew York: Academic Press.

2. A8CAP 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 seed 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 most 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. 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 "pot-down" whereas anathetic signals "build-up" the resource holding potential (R) of target individuals.

c) Russell Gardner, Jr.: "psalic" is a 2 way acronym: Propensity States Antedating Language In Communication and Programmed Spacings And Linkages In Conspecifics. This describes communicational states conjecturely seen with psychiatric disorder and normality (human and non-human), ie, alpha psalic seen in manics, high profile leaders and dominant non-human animals. Eight psalics are named alpha (A), alpha-reciprocal (AR), in-group omega (IGO), out-group omega (OGO), spacing (Sp), sexual (S), nurturant (N), and nurturant-recipient (NR).

All of the above new or renewed terms are initiated or elaborated in Chance, MRA (Ed) Social Fabrics of the Hind, due out in 1988, published by Lawrence Erlbaum Associates, Hove and New York.

3. Evolutionary Psychology and Psychiatry Conference, Ann Arbor Michigan, Oct 28-30, 1980

4. Daly H, Wilson M: Evolutionary social psychology and family homicide. Science 1988;242:S19-524.

5. Chase GA: Book Review of (eds) Dunner DL, Gershon ES, Barrett JE: Relatives at Risk for Mental Disorders HI: Raven, 1988. Hosp Comm Psychiat 1988:31:789,

6. Price J: Genetic and phylogenetic aspects of mood variation. Internat J Ment Health 1972;1:124-44.

7. Rabb et al: Social relationships in a group of captive wolves. American Zoologist 1967;7:305-11.

8. Mech LD (1970): The Wolf UMinn Press.