

THE ASCAP NEWSLETTER

Across-Species Comparisons And Psychopathology Newsletter

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"Developing a plausible theory...is only the first step in successful scientific research. The second and far more crucial step of good science is to subject one's theories to rigorous criticisms, or at least to respond judiciously to the unfavourable evidence and arguments cited by other researchers."
Frank Sulloway¹

Newsletter aims

1. A free exchange of letters, notes, articles, essays or ideas in 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

The ASCAP Newsletter
is a function of the
International Association
for the Study of
Comparative Psychopathology²

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IASCAP Mission Statement:

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

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Letter

Aug 25, 1993

I like the new "phenotype" of The ASCAP Newsletter! The newsletter continues to "evolve" admirably both in format and substance....

*Henry Nasrallah, Ohio State U,
Columbus, Ohio, U.S.A.*

Conversation with IASCAP President, Paul Gilbert

by Russell Gardner

Trans-Atlantic words recently with IASCAP President Paul Gilbert brought me up-to-date with his leadership thinking about the organization:

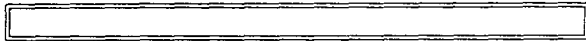
(1) Should it have a new name, one that is congruent with the aims and goals of the membership and yet recognizable for new potential members? Really, now, what does "comparative psychopathology" truly mean? Typically, Paul finds, after he explains it to someone, they have no trouble with the concept -- and are even interested, but initially there is an aversive reaction from the lack of immediate clarity.

(2) With such a change, the Association's leadership is more likely to reach a greater natural public, as with letters to editors, etc. He noted that he and John Price found in Larry Hartmann's 1992 American Psychiatric Association presidential address a reference to the neurobiology of fish in status hierarchies (that section of Dr Hartmann's address is replicated below). Such placement of an across-species allusion may indicate that the

Sperry RW: The Impact and promise of the cognitive revolution. American Psychologist 1993;48:878-885.

Abstract: *Opening a new era in science, psychology's cognitive revolution contradicts traditional doctrine that science has no use for consciousness to explain brain function. Subjective mental states as emergent interactive properties of brain activity become irreducible and indispensable for explaining consciousness behavior and its evolution and get primacy in determining what a person is and does. Dualistic unembodied consciousness is excluded. A modified two-way model of interlevel causal determinism introduces new principles of downward holistic and subjective causation. Growing adoption in other disciplines suggests the two-way model [top-up and bottom-up, not bottom-up only] may be replacing reductive physicalism as the basic explanatory paradigm of science. The practice, methods, and many proven potentials of science are little changed. However, the new scientific worldview becomes radically revised in a new unifying vision of ourselves and the world with wide-ranging humanistic and ideological as well as scientific implications.*

From the body of the article: *In the briefest possible terms, the new double-way model combines traditional bottom-up microdeterminism with novel principles of emergent, top-down macro and mental causation.*



The Significance of the Diving-Reflex in Human Evolution during the Littoral Double Niche Phase (6-2million B.P.)

by Michael Bujatti & Michael Chance

It is worth considering any extant unifying mechanisms that could have a supra-ordinate influence on brain function assisting the integration of intelligence and systems forming ability as part of creativity.

One of these is Michael Bujatti-Narbeshuber's³ explanation of the hedonizing influence of Transcendental Meditation (TM) based on an increased serotonin metabolism. In my own experience and from the publication of some 350 scientific papers since the arrival in the West of Mahareshi Mahesh Yogi 18 years ago it is clear that TM is a *wakeful hypometabolic mental state*.⁴

It eliminates, at an early stage, residual emotional conflicts subsequently enabling the person to resolve problems and conflicts encountered in the future and promotes health through improvement in many physiological and mental functions.

Bujatti points out that TM shares many important features with the *diving-reflex*, a finding which led him independently to a littoral double niche theory (DNT) which the Aquatic Ape theory of human evolution (some 6-2 million B.P.) predicts would be highly developed in us.⁵ He emphasizes that the aquatic existence was not just one of progressive adaptation to an aquatic way of life, but constituted one part of a life style of a shoreline double niche in which terrestrial arboreal life alternated with and coexisted with feeding on shellfish and the like from under the water.

This was located in the Danakil region of the southern Red Sea, which is contiguous with the Northeastern end of the Great African Rift Valley.⁶ Our ancestors were able to migrate along this valley into Africa by this route where most of the fossil bones have been found.

Essentially the diving reflex involves the restriction of the blood flow to a heart/brain circulation in which the rate of blood flow to the brain is greatly (perhaps as much as 25%) increased, and DNT suggests that diving could have been a factor leading to the enlargement of the neocortex in evolution by selecting for neoteny.

The diving reflex also requires the evolution of voluntary (ie premeditated) control of breathing, providing *ipso facto* one of the essentials of speech and acquires conditioned evocation by repetition of the mantra. Speech, once evolved, led to enhanced information flow.

The diving reflex also occupies an unusual status in the structure of the behaviour as, apart from its initiation by voluntary means, or if brought on by water on the face, once initiated it is an emergency reflex and so has a relaxing priority over all other instinctive behaviour.

In water the body is supported and posturally relaxed. Apart from vigorous action, parasympathetic--even trophotropic--conditions prevail. On land the sympathetic system is called into action to maintain blood flow in the vertical position, and ergotropic demands are all the time made on the autonomic system while walking, running or climbing.

The Littoral Double Niche therefore engenders oscillations between infrastructures which underlie Hedonic and Agonic Social Structures.



John Birtchnell replies to John Price

As pointed out in my letter published in the Aug issue, "ASCAP PRESS" omitted twelve words from my last contribution to the Newsletter and rendered my account of Beck's distinction between defeat depression and deprivation depression incomprehensible. This cannot explain all of John Price's (ASCAP Vol 6, #6) misconceptions of my theory (as presented in (ASCAP Vol 4 #9 & #12, Vol 5, #3, & Vol 6 #4). Admittedly, the theory is complicated; the book describing it, which may be out by the time this appears, runs to over 300 pages.⁷ One might say that understanding it is like learning a language, and at present John speaks a kind of "franglais" version of it, which enables him to get by, but which leads him into all kinds of tangles.

I am grateful for John's opinion that I am "a great improvement on Leary," but I do not agree with his reasons for this. I will not consider these here, but I discuss them in the book and in a paper called "The interpersonal octagon: An alternative to the interpersonal circle."⁸

A theory might be considered a tool which a person invents to do a particular job. The tool could be modified to do the job better, or someone else could invent a quite different tool for doing the same job. Various people think up their own particular theories which help them solve their own particular problems. Others can criticise these theories or invent new ones only if they are concerned with the same kinds of problems. What John is inclined to do is propose modifications of my theory in order to make it resemble more closely his own. It is best to leave other people's theories alone and let there remain a range of theories which overlap in various places.

John's priorities are not the same as mine. He appears to be interested in two particular, and probably related areas: (1) what is the evolutionary function of clinical depression? and (2) can evolutionary principles be used to explain why marriages break down? I am interested in developing a theoretical system which has its roots in the relating of animals and which explains the adaptive and maladaptive relating of humans. It is a global

theory for applying to all forms of normal and pathological relating. He has developed a theory of the evolutionary function of clinical depression. This has been taken up and developed by Paul Gilbert, who recently christened it ranking theory. He has also become preoccupied with Michael Chance's distinction between the agonic and the hedonic mode (which was originally applied specifically to monkey colonies) and extended it so that it can be applied to marital relationships and even to individuals (ASCAP Vol 4 #10).

The issue of depression

John and Paul's explanation of clinical depression is that it is a reaction to loss of status, particularly in response to the suppressive behaviour of another person. This they relate to the yielding of one animal to another during the ritual agonistic encounter. I think that there are many routes to clinical depression and this is only one of them. Also, although undoubtedly there is a continuity from the relating of animals to the relating of humans, to make a simplistic jump of this kind is to fail to take account of the fact that animal relating has undergone many modifications in its transformation into human relating.

Confusion between John's theory and mine arises because when John uses the term depression he has in mind clinical depression. When I use it I am considering depression as a regulating device. I maintain that, in keeping with all animals, we are constantly moving toward, or being moved toward by other people, what I would call relating objectives. I believe that in this process, our emotions have the special function of keeping us on course. When we move closer to a desired objective, we feel good (perhaps because of the release of a reward hormone); when we move further away from one we feel bad, i.e. depressed (perhaps because of the release of a punishment hormone). When we are in danger of going off course we experience anxiety (presumably because of the release of adrenaline). These are the kinds of emotion which we experience continuously in our daily interactions with others. Under extreme circumstances these same emotions assume clinical proportions, but the aetiology of clinical depression is more complex than this.

There are those who swing into profound and prolonged states of depression without an obvious precipitating event. It is likely that in the brains of some people the normal depression-releasing mechanism is too easily triggered off. When people swing into this kind of depression, quite of-

Sulloway FJ: Freud: Biologist of the Mind. Cambridge, MA: Harvard U Press, 1979, 1992, p. xii-xiii

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At this time this "informal" organization has no official budget.

3. a. Bujatti-Narbeshuber M, Riederer P: 1976;39:257-267. J Neural Transmission

b. Bujatti-Narbeshuber M: Paper read at 9th Int Congress on Dental Morphology, Florence Italy, Sep 3-5, 1992.

c. Bujatti-Narbeshuber M: Int J Neuroscience 1987;32(2):315

d. Bujatti-Narbeshuber M: Int J Neuroscience 1987;32(2):520

e. Bujatti-Narbeshuber M: A Unified Theory of Life (Transition theory of Evolution), Vols I, II & III. Stockholm: Intra-Publication, 1989.

f. Chalmers MA (Ed): Collected Papers, Vols 1-5. Scientific Research on Mahareshi's Transcendental Meditation and TM-SIDHI Program, Vol 2. Switzerland: Dean of Mahareshi Research University.

4. Lang R, Dehof K, Muerer KA, and Kraufmann W: Sympathetic activity and transcendental meditation. In: Chalmers MA, ed: Vol 3, paper No. 198 (originally appeared in J Neural Transmission 1979;44:117-135

5. Morgan E: The Aquatic Ape. Souvenir Press.

6. Roede M, Wind J, Patrick J, and Reynolds V (Eds): The Aquatic Ape: Fact or Fiction? Souvenir Press, 1991.