For evolutionary psychiatrists, psychologists and others interested in sociophysiological Integration

ASCAP

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"What matters from the point of view of a healthy psychic development is not always the actual behavior and personality of the mother as Bowlby supposed, but the archetypal experiences actualized by her in the child."

Anthony Stevens[1] (suggested by Michael Chance)

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Concerning paleobiology, sociophysiology, interpersonal and group relations, and psychopathology

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ASCAP Society Mission Statement:

The ASCAP 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 psychopathologi-cally related states. We are interested in the integration of various methods of study ranging from cellular processes to individuals in groups.

The ASCAP Newsletter Aims:

- A free exchange of letters, notes, articles, essays or ideas in brief format.
- Elaboration of others' ideas.
- Keeping up with productions, events, and other news.
- Proposals for new initiatives, joint research endeavors, etc.

***The ASCAP Newsletter* is a function of the ASCAP Society.**

Editor-in-Chief: Russell Gardner, Jr.
Dept. of Psychiatry & Behavioral Sciences
Room 4.450, Marvin Graves Building, D-28
University of Texas Medical Branch
Galveston TX 77555-0428
Tel: (409)772-7029
Fax: (409)772-6771
E-Mail: rgardner@utmb.edu

European Editor: John S. Price
Odintune Place, Plumpton East
Sussex BN7 3AN, ENGLAND
(01144)1273-890362
Fax: (01144)1273-890614
E-Mail: john.price@lycosmail.com

Managing Editor: Frank Carrel
Dept. of Psychiatry & Behavioral Sciences
Room 1.103, Marvin Graves Building, D-28
University of Texas Medical Branch
Galveston TX 77555-0428
Tel: (409)772-3475
Fax: (409)772-4288
E-Mail: ascap@utmb.edu

Previous volumes are available. For details, contact Frank Carrel, the Managing Editor of *The ASCAP Newsletter,* at the address above.

World Psychiatric Association

http://www.wpanet.org

The World Psychiatric Association is an organization of psychiatric societies aimed at advancing psychiatric and mental health education, research, clinical care and public policy.

The basic members of the WPA are 110 national psychiatric societies, representing more than 140,000 psychiatrists worldwide.

*The **ASCAP Newsletter*** is **the official newsletter of** the *Psychotherapy Section* of the *World Psychiatric Association.*

ADDRESSED TO & FROM ...

Bylaws of the World Psychiatric Association Psychotherapy Section

by John Price & Russell Gardner

We need some rules to operate by and together, after a fruitless search for previously written bylaws, or even some model bylaws of other sections, we have formulated the ones following. Please tell us of any changes or alterations. Otherwise we will assume that these will go into effect on April 1,1999.

BYLAWS OF The Psychotherapy Section of the World Psychiatric Association

Section 1: Purpose of Bylaws.

These bylaws for the Psychotherapy Section provide guidelines for activity of the group. They operate in the context of the WPA and its bylaws. The present statement will replace all previous statements of bylaws for this section.

Section 2: The specific objectives and purposes of the Psychotherapy Section of the WPA shall be to:

1. Arrange one or more symposia at the triennial congress of the WPA as well as various other meetings to foster the Section's mission;
2. Foster scientific and scholarly examination of psychotherapy in all its forms;
3. Study the differences in the practices of psychotherapy in the various member countries;
4. Compose articles for appropri ate publications, and distrib ute relevant commentary in the official publication of the Psychotherapy Section, and
5. Make use of the World Wide Web and other components of the Internet as well as other educational venues.

Section 3: Membership.

Members of the Psychotherapy Section shall be those individuals who register with the Executive Committee and who pay yearly dues the amount of which will be fixed from time to time. Members will be psychiatrists or possess a terminal degree in an allied field equipping them to practice as a licensed professional.
Non-clinicians who are especially qualified will be assessed by the Executive Committee on a case-to-case basis.

Section 4: Officers.

There will be the following officers: Chairperson, Co-chairperson, Secretary, Treasurer, Just-past-chairperson, and three Officers Without Portfolio. Officers must be physicians with specialty training in psychiatry.

The officers of the section will be elected by the voting membership at the Congress of the WPA which occurs triannually. Voting privileges will be conferred not less than one month after application for membership.

Section 5: Executive Committee.

The officers of the section will constitute the Executive Committee of the section. The chairperson will call on the Executive Committee from time to time using various venues, such as provided by the Internet or telephone.

Section 6: Official Publication.

The principle instrument for exchange of information amongst members of the section will be *The Across-Species Comparisons and Psychopathology (ASCAP) Newsletter.*

Section 7: Principal Office.

The principal office of the Psychotherapy Section will be in the keeping of the Current Chairman of the Section. Official records will transfer to the incoming chair when the term of office has been completed. Copies of key documents will be in the possession of each member of the Executive Committee as well as the editor of the official publication.

Paul D. MacLean Festschrift Planning

by Russell Gardner & Gerald Cory

Planning continues for the two ASCAP meetings of 1999. Today, I focus on the one in Boston, Massachusetts, U.S.A., that will celebrate the work and thinking of Paul D. MacLean. This will take place on Friday & Saturday, 16-17 July 1999.

Mark your calendars and make your reservations. The meeting will be at the Backbay Hilton, (800) 874-0663. Attendees should contact the hotel directly to make their own room reservations. Mention the ASCAP group to obtain special group discount room rate of $185+tax for a single or double room, for the nights of Thursday & Friday, 15-16 July 1999.

*The History of Neuroscience in Autobiography*Included Paul D. MacLean as one of the great names in the discipline. MacLean is a pioneer, a trail-blazer, a scientist, and thinker well ahead of his time. He started out studying philosophy but was unable to find satisfactory answers to questions such as why humans in spite of their unrivaled intelligence, often behaved in seemingly irrational ways, so he turned to medicine and the study of the human brain. He anticipated that the brain, as the biological substrate of these behaviors, held the key to better understanding of these fundamental questions.

MacLean was, for many years, Chief of the Laboratory of Brain Evolution and Behavior of the National Institute of Mental Health. In 1952, here-introduced the conceptual term limbic system into the neuroscientific literature (reviving Paul Pierre Broca's original use from 1878). In 1970, he introduced the concept of the Triune brain, which became widely popularized and aroused great interest in psychiatry, education, and the lay public.

His detailed well-documented volume, *The Triune Brain in Evolution: Role in Paleo-cerebral Functions* came out in 1990. Joseph LeDoux in his recent book, *The Emotional Brain* (1996), notes that "Few if any theories in neuroscience... have been as broad in their scope, as wide ranging in their implications, and as long-lived."

There have been negative reviews, however, although the documentation for the criticisms is much less substantial than is that of Dr. MacLean himself.

These reviews became red flags that may have inhibited the use of MacLean's research. Besides raising questions and doubts within the medical community, they have also diminished use of MacLean's documented and important work to other academic disciplines, e.g., psychology and social sciences. Cory recently documented and critiqued the red flag reviews (*ASCAP,* July 1998).

At the ASCAP Annual Meeting held in Davis, California, on 8 July 1998, the membership unanimously voted to convene a festschrift or celebratory meeting of scholars not only to offset the injustice done by inaccurate and prejudicial reviews but to acknowledge and revitalize academic interest in MacLean's half century of contributions to neuroscience and his wide-ranging influence on other disciplines.

The conference and published collection should be of great interest to scholars as well as educated laypersons across a range of disciplines including medicine, neuroscience, evolutionary biology, ethology, psychology, sociology, anthropology, political science, education, philosophy and literature.

A published collection of the proceedings will be edited by the authors (Gardner & Cory). We are preparing a prospectus currently. Also, one of the invitees, Hagop Akiskal, has assumed the Editor-in-Chief role of the *Journal of Affective Disorders* and will publish shorter versions of those presented papers that relate to affective illnesses.

<u>Presenters additionally include</u>:

C.U.M. Smith, James C. Harris, Glenn Weisfeld, Seymour Itzkoff, John Price, James Brody, Leon Sloman, Dan Levenson, Allan Mirsky, Vassilis

Koliatsos, Alan Swann, Steven A. Peterson, Dan Wilson, Allan Mirsky, Neil Greenberg, and Kent Bailey.

We are also working on means to support or partially support the conference. If you have ideas, please let us know.

Genetic Classification of Mental Disorders?

I've alluded to psychiatric classification as the assembly of a moth or snail collection, each sample arrayed according to size and color. Current practice can be unwieldy when you consider digital traits; fortunately, nature often gives us a mix of analog regulators under many digital features, regulators that may be independent of any particular characteristic. Thus, we can sort a collection of shells according to analog characters even while puzzled by the digital jumps. Charles started us with incremental change; we continue that tradition.

Psychiatric diagnosis — another sorting that we do of each other into varied classes — currently has 410 boxes, a spot for each one of us and perhaps multiple possibilities for some.

Samuel Barondes, *Harvard Mental Health Letter,* November 1998, "Will Genetics Revolutionize Psychiatry?", concludes that it surely will. I have foreseen that we may supply a toenail at birth and provide a career map of our vulnerabilities to arrays of misfortunes of varied intensities and durations as well as a map of adverse reactions, medication of choice, and responsiveness to social alliances as a part of our coping systems.

Multiple genes offer more stable traits than single-gene mechanisms; polygenic foundations also imply a greater range of "normal" variability in a trait at the same time they assure that it will be present to at least some degree. Thus, we have a model of genes that handles environmental input and has enough flexibility to encompass vexing data such as the child of a bipolar parent having 1 chance in 10 of developing BPD of the identical twin of bipolar having at least? only? a 60% chance to get same diagnosis. DNA scans may become standard practice at the time of a psychiatric interview. One motivator will be that of confirming a diagnosis or choosing between several possibilities. Psychiatry, however, is a mechanic's enterprise like the rest of medicine; gene scans will probably be more valued for their help in choosing suitable medications than for their diagnostic contributions.

Psychiatric classification could well move from an infancy wherein disorders are classed by behaviors (sorted consistently with the observer's psychological adaptations for making classifications) through its current stage of sorting illness by the medications that work, and into genetic trees. All of which means that palliative treatment can occur without considering hierarchies, evolution, and whetherwe are having difficulties with mechanisms derived in our lizard stage of ontogeny. We may become ever more efficient sanding, trimming, and wedging people into niches that — without the gifts of genetics and medications —would never be tolerated.

James F. Brody
JBrody@compuserve.com

ANNOUNCEMENT:

Clinical Sociobiology: Darwinian Feelings and Values

John Price, Russell Gardner, John Fentress, & James Brody

20th Cape Cod Institute

July 19-23,1999

There is value in knowing about evolution beyond its nastiness. Cooperation and competition are a crystal structure but we often focus more on harm while taking nurturance for granted. Bad news is on the front page, the good stuff is in the back sections and sale papers. Furthermore, every client has judgments in regard to bad and good and attached to his emotional tools. Feelings, thoughts, and values are tightly linked; it helps to understand their biological roots.

Evolutionary findings describe events in our lives, marriages,

and families and in principles that can be used responsibly with clients. They outline a map for constructive lives and for intervening in anxiety and depression, abuse, violence, and infidelity. They also give details of when we are most likely to betray others or to abuse our children or mates. Confidence for our clients also grows with the anecdotes that we offer as seasoned teachers and therapists.

This symposium elucidates the clinical implications of evolutionary psychology. It is designed for those new to the subject as well as old hands such as Robin Walker who will join us again from the UK.

Participants will receive a 300-page course manual, pre-publication copies of Dylan Evans' introduction to evolution (if available) and a T-shirt with Charles and William. Following the morning sessions on Monday through Thursday there will be optional follow-up discussions in small groups and three optional evening sessions will be offered on diagnostics, complexity theory and genetics.

John S. Price, D.M. is the President of the World Psychiatric Association's division on psychotherapy. Co-author of Evolutionary Psychiatry and author of many publications on evolutionary mechanisms and psychopathology, he may have been the first to analyze mania and depression as hierarchic tools. He is in the Psychiatric Genetics Unit, Medical Research Council in London and a consultant at NHS where he is still fondly remembered. He and Gardner and Brody will speak at the nearby Paul MacLean Festschrift, July 16-17,1999.

Russell Gardner, Jr., M.D. is the Harry K. Davis Endowed Professor of Psychiatry at the University of Texas, Galveston. He has produced many writings on evolutionary psychiatry and sociophysiology. He is at work on *Sociophysiology: Evolution, Behavior, and Psychiatry in* which he advocates " *Sociophysiology"* as the foundation science for psychiatry. He is active in the Human Behavior and Evolution Society as well as ASCAP (Across Species Comparisons and Psychopathology) and is the founder/editor of this *Newsletter (a* monthly in 11 volumes).

John Fentress, Ph.D. is professor of psychology and neuroscience, Dalhousie University. He studied ethology with R.A. Hinde and W.H. Thorpe at Cambridge. His interests include animal communication, neural control and development of movement patterns. He has known many leaders in ethology and biology including Jane Goodall, Carl Jung, NikoTinber-gen, and Konrad Lorenz.

James Brody, Ph.D. is the developer of this interdisciplinary symposium series. He employs evolutionary principles in his private practice. He is the author of some 300 essays on the Evolutionary Psychology Forum of Behavior OnLine at **www.behavior.net** and Webmaster for the International Paleopsychology Project: **http:// www.paleopsych.org.** He is nearing the completion of his second book about evolution in therapy.

Monday:

Natural selection and human psychological adaptations. Domain specificity. Cheater Detectors, our emotional and moral tools, retargeting the idea of "Mismatch."

Tuesday:

Social behavior as an expression of our adaptations; evolutionary foundations for sociophysiology as a basic science of psychiatry and psychology; story telling and the transmission of values, gossip, and group monitoring.

Wednesday:

Hierarchy regulation: Anxiety, mood disorders, personality disorders. Origins, expressions, and interventions.

Thursday:

Marriage and child rearing, male/female conflicts of interest, power balances, children — who's really in charge?, abuse, reconciling what is good with what seems natural.

Friday:

Genes as conversationalists with our settings; tuning genes & finding places to be ourselves.

Continuing Education Units available. $435.00 (discounts if you take multiple courses; $285.00 for graduate students and interns). Further details and other courses at **http:// www.cape.org/1999.** Contact Jim for further information at: **JBrody@compuserve.com.**

The International Paleopsychology Project

The International Paleopsychology Project is a multi-disciplinary group of scientists dedicated to mapping out the evolution of complexity, sociality, perception, and mentation from the first 10-32 seconds of the Big Bang to the present. The International Paleopsychology Project derives syntheses which can next be published for a general audience in our New Paradigm book series, or in essay form via our occasional columns in the German/English web publication Telepolisat: **http:// www.heise.de/tp/english.** Paleopsychology's analytical tools come from physics, microbiology, paleontology, endocrinology, neurobiology, anthropology, history and human ethology. Its media of concept fermentation is the Internet. In other words, we are a goal-oriented *"chat group"* doing what Dr. Timothy Perper calls *"Science Online".*

For more information on this project, write, call, or E-Mail the following:

Howard Bloom
International Paleopsychology Project
705 President Street
Brooklyn, New York, U.S.A.
11215

Phone: (718)622-2278
Fax: (718)398-2551
E-Mail: howard@paleopsych.org

ABOUT BEHAVIOR ONLINE

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Behavior OnLine is a gathering place for professionals in mental health and the applied social and behavioral sciences. At this time all Behavior OnLine services and features are provided without charge and access is open to all who are interested.

In the future, BOL intends to charge for some of its services and to restrict access to some of them. Behavior OnLine aims to be as inclusive as possible — few things are more frustrating than being excluded from a discussion to which one can contribute. Yet few things are more inhibiting than concern about being overheard in a discussion one believed was private.

Please E-mail any contributions to ascap@utmb.edu, or mail hard copy and 3.5" HD diskette to: Russell Gardner, Jr., c/o Frank Carrel, Department of Psychiatry & Behavioral Sciences, University of Texas Medical Branch, Galveston, Texas 77555-0428, USA. WordPerfect, Microsoft Word or ASCII format preferred. Diskettes will be returned to you. Thank you.

ARTICLE:

by Dori LeCroy

Female Emotionality: An Evolutionary Speculation

Accumulating evidence leaves little doubt that men and women differ with respect to certain skills and cognitive abilities. During the 1998 meeting of the International Society for Human Ethology, Doreen Kimura reported research showing greater male spatial ability, targeting accuracy, and math reasoning and greater female verbal fluency, verbal memory, fine motor skills and perceptual speed correlate with circulating testosterone and estrogen respectively. Such differences likely reflect sexual divisions of labor as part of differing reproductive contingencies during our ancestral past.

Similarly, sex differences in social interaction are evident. Same sex aggressive interactions are more common for males (human and other primates). Male social manipulations tend to be motivated by competition and status seeking more than is the case for women who tend to focus more on the emotional qualities of relationships.

Compared to men, women are more expressive verbally, gesturally, and facially, and are better able to read others' moods.[1] Moreover, women are more comfortable with emotional exchanges that don't emphasize anger. This paper speculates that sex differences in behavior during human male-female conflict are evolved tactics. It will explain why it might be the case that men tend to avoid, and women tend to pursue, emotional negotiations with one another.

Women frequently complain that men are unwilling to talk about conflicts in relationships. There appears to be good biological reasons for this difference since physiological measures indicate that men become far more aroused during arguments than do women. By leaving the scene or clamming-up, what some call stone-walling, this arousal is ameliorated.[2] It's, of course, infuriating to women who want to get on with talking through the problem, but given the aroused male tendency for violence, they might well be grateful for this alternative male tactic. Wife beating may be the result of insufficient use of it.

In discussions about conflict during counseling, men report feeling trapped and enraged and the women speak of outrage and grief. As the tension mounts during the session men typically become quiet and women more openly distressed. Some consider men to play a passive-aggressive role where unresponsiveness drives women into a frenzy of frustration that can then justify discounting them as irrational and neurotic. Indeed the comfort of being able to write-off an unhappy, demanding woman as crazy might have played a part in the long history of denigration of females as psychologically weak.

Yet, a man's discomfort with his own soaring arousal and the threat of violence it brings may also indicate that male withdrawal when in conflict with a mate is more a protective (of self and other) tactic than an aggressive one. The male tendency to deal with conflict by violence would prove a genetic disadvantage without some checking mechanisms where close relatives or mates are involved. Likewise the more open display of female distress may be an evolved tactic.

Intense displays of emotional distress was called hysteria by the Greeks because it was associated with women. Freud also associated it with women. Otto Kernberg describes a hysterical personality disorder as a pseudohyperemotionality emerging in areas of conflict, particularly in heterosexual relationships.[3] He doesn't explicitly limit it to women, but his description is decidedly framed around them.

During couple counseling, withdrawn and defensive men along with tearfully, pleading women, is a

common occurrence. Sitting well back in the chair with crossed arms, men typically turn slightly away from their mates while avoiding eye contact and speaking little. Expression in face and voice varies little from a baseline of restrained irritability. In contrast, women usually speak a great deal in a whiney tone, tearing-up or crying frequently, while sitting in a position oriented toward the husband or boyfriend with hands in the lap, lying palms upward, clutching a wet tissue.

When I see these same women alone they evidence distress but not nearly to the same degree as they do when their mates are present. In my experience, women are more inclined to "break down" than are men, and it tends to be more intense in the presence of a mate (since I've never worked with lesbian couples, I speak of women with male mates) who is frustrating, hurtful or disappointing compared with discussion of the same subject matter when the mate isn't present.

On the face of it one might imagine that an individual wishing to maintain the esteem and support of another person who is important to them would attempt to present the most reasonable and emotionally constrained "mature" demeanor. Therefore if there is a shift in the intensity of women's emotional display when in the company of an important male, it seems sensible that it be less emotional rather than more, as seems to be the case. This has led me to speculate that increased intensities of female emotional displays in the presence of mates may serve a purpose. Indeed that it might represent an advantageous signal function.

Male dominance is a long-standing fact of human social life. So female social manipulations have tended to be restricted to machinations other than open confrontation. Hence female emotionality may have served female negotiation. As such it could be a judiciously applied tactic commonly and voluntarily employed because of the ubiquity of male dominance. However, women frequently report that their emotional bouts are unwanted and embarrassing. In their esteem for the stoic, male model of maturity, modern women tend to feel demeaned by their emotionality. In addition, they worry about the very real compromise in authority an emotional display in the workplace brings. So we may conclude that female displays of distress have an involuntary quality. This appears to echo Victorian characterizations of women as by nature the "weaker sex", it may, alternatively, suggest that the impact of male dominance upon women infantilizes them. But I argue differently. Male dominance not only pervades modern human life, but also all of primate life including that of our hominid ancestors. So this several million-year history of oppression argues as well for a specifically evolved mechanism as it does for an exclusively experiential cause of gender differences in distress displays.

Consequently, an argument that female distress displays may be an involuntary (though not immutable) human female strategy that evolved to effectively cope with the conflict of reproductive interest between females and males remains seems worth making. Hence, I propose that:

1. Emotional displays emerge in females when they are threatened by loss of support by males upon whom they depend because they tend to induce renewal of male commitment,
2. They may constitute involuntary, unconscious signals which were advantageous during our hunter-gatherer ancestry on up to the recent past when direct female access to resources increased, and
3. They constitute evolved mechanisms for strengthening male commitment.

In exploring this speculation, the question arises about why such female displays would be effective in altering male behavior. I suggest that the effectiveness of female emotional tactics stems from the fact that they mimic the displays of distressed young, and that with this mimicry, women can exploit the adult tendency to nurture and protect, and to inhibit aggression toward, infants, as it has evolved in the male psyche.

The more infant-like delicacy of features typical for females supports this idea. Lorenz described the important social role for innate releasing mechanisms and suggested that "cuteness" is one that elicits care of young. For example, large eyes in a face otherwise containing small features elicit reactions such as affection, euphoria, patting, cuddling, high pitched voiced endearments, in addition to specific responses to needs such as for protection, hunger or other discomforts. The appeal to humans of certain breeds of dogs and cats is due to selected breeding for flat faces and large eyes. These animal breeders tap into a human innate releasing mechanism for childcare elicited by neotenous stimuli.[4]
Neotenous stimuli may also account for the adult impulses to comfort an adult or child "crying like a baby". Men as well as women are inclined to hold, pat, and reassure, a distressed individual, as one does a child, not in small measure, I suggest, because that person, momentarily at least, resembles a child.

At some point in our ancestral past, high male-parent investment became crucial. The complex societies of these large brained primates along with extended infancies meant that need for meat protein, for education, and for protection from predators and hostile conspecifics made the hominid mother-infant pair more dependent upon male resources than was the case for any other primate. Selection, therefore, favored male behavior that supported mates and offspring. Since proximate mechanisms are emotional, enduring positive feelings on the part of males for females one has mated with, and for her (and hopefully his) offspring evolved. A component of these positive feelings may be an inherent human male susceptibility to signals of dependency and need, not only on the part of offspring, but also on the part of females. As with many species, human males share with females a tendency to respond benignly to features indicating youth. So mimicry of childish emotionality may aid women in reaping the advantages of this male susceptibility.

It may even be that emotionality is only one way in which females have evolved to exploit male susceptibility to neotenous stimuli. In species with high levels of male-male competition, marked size dimorphism is the rule because selection favors large males who may triumph over other males and mate more frequently. However it's also possible that smallness of females represents a parallel selection. Smallness, or similarity to infants, may inhibit aggression in high testosterone males, and encourage feeding and protective impulses. Of course, such selection would be played off against opposing selection for greater female size serving female-female competition. It has been discovered that increased male size relative to females is related to male-male competition. A survey might also reveal that in species where female-female competition is minimal, the size of males relative to females is even greater.

My evolutionary argument states that when renewal of male commitment is desirable, female imitation of crying and pleading children may constitute an evolved tactic. In other words, an emotionally displaying female may appeal to male beneficence because it resembles the appeal of the very young. It states further that this is the case because the care-eliciting nature of immaturity, and female mimicry of it in form and behavior coevolved.

Psychodynamic views treat distress displays as regressive returns to immature levels of functioning. The Freudian legacy neglects consideration of the adaptiveness of a behavior during the hominid and prehominid early environment that could explain their existence. In contrast, when considering structures of the mind, Darwinian thinking obliges exploration of the fitness ramifications in the context of the environment of our evolution. A pattern of responsiveness in males that benefits youthful appearing individuals likely to be his offspring makes evolutionary sense. With its insensitivity to political correctness natural selection would have no compunction about favoring neotenous mimicry in females to take advantage of male susceptibilities and thereby augment male commitment to mates.

That youthful characteristics serve the female agenda is no news to those acquainted with

research that has described mate criteria in humans.[5] Hence it's also no news that women tend to represent themselves as younger than their years, e.g., slim figures that resemble those not yet stressed by parturition, made-up eyes that mimic the brightness of youth, etc. Mimicry of youth by behavior is but a short step from the display and simulation of youthful appearance. If it serves her fitness, why not? At least, why not at a time of living in bands of macho males designed to melt before the little, the distressed, and the cute?

So I'm not suggesting that females are the regressed or infantilized sex. Rather (merely) because of their evolutionary past, under certain circumstances, mechanisms within the mind incline them toward tactics that mimic distressed young. I see this as no more prejudicial than the fact that at times of conflict males are also inclined to recede from their best capacities for rational, considered judgement as they "revert to an immature level of functioning" by resorting to physical and psychological bullying.

It shouldn't go unnoticed that even though I'm positing concepts having to do with evolved tactics I use qualifying terms such as "under certain circumstances" and "tendency" or "inclined" when referring to them. For we are full of all kinds of proclivities, and circumstances, immediate and historical, can sort through them in all kinds of ways. I have noticed for example, that financially self-sufficient women display much less distress when dealing with heterosexual relationships in crises, and, perhaps, are even more stalwart when their mates are present.

However, symmetry doesn't seem in evidence as I have also seen that males financially dependent on females are still inclined more toward resentment and anger than distress and pleading when the relationship is in crisis. These last suspicions are based on a sample even tinier than the tiny one I've based my evolutionary argument upon. They are also seriously confounded by who it is that wants to get rid of whom. Yet it is in the direction of the idea that intensities of female distress displays and their augmentation in the presence of mates is an evolved tactic for fostering personal and genetic survival of the historically and archaically dependent sex. It's also in the direction of the idea that women are released from that legacy by self-sufficiency. Men, it seems, don't have the tactic of distress display as such a ready part of the repertoire. This is in spite of the fact that won^ft.as well as men are susceptible to neotenous stimuli. But it is in keeping with fact that some women have told me that they find dependent and childlike (childish?) characteristics in men disagreeable.

In summary, I speculate that due to inequities in direct access to resources during the time of our evolution, a relatively low threshold for invoking simulation of some specific characteristics of immaturity in females may have proved adaptive, and been selected for as a negotiation tactic. Childlike displays by women are sometimes considered culturally conditioned, or conscious, willful manipulations, in other words, a chosen tactic. That may be true, however they may also embody an involuntary component installed by natural selection as a strategy to cope with threatened loss of male support during the time of our evolution. *c8*

EMOTIONS & EMOTIONAL INTELLIGENCE

http://trochim.human.cornell.edu/gallery/young/emotion.htm

This page is an on-line bibliography in the area of emotions and emotional intelligence, describing current research findings and notes of interest. The main areas covered are:

Emotional Intelligence:

- What is emotional intelligence?
- Why is emotional intelligence important?
- Tests of emotional intelligence.

Emotions:

- Affect, Mood and Emotions.
- The Brain & the Neuropsychology of Emotions.
- Methods for Researching Emotions.
- References.

ARTICLE:

by Russell Gardner, Jr.

Mati: The Angry Depressed Dog Who Fought On and Won

By happenstance, I encountered the case of Mati, a female Springer Spaniel whose distress is partially explained by John S. Price's triune strategies model. I learned of Mati the day after saying good-bye to John with whom I had spent the previous two weeks. His journey to the Department of Psychiatry and Behavioral Sciences at UTMB was sponsored by the Harry K. Davis endowment.

Amongst his contributions was a Grand Rounds presentation to the department on the topic of "Elevation & Depression of Mood as a Function of Escalation & De-Escalation Strategies Mediated by the Ancient Forebrain." I helped him develop the computerized slide show so I especially reviewed his points along the way.[1] Then on the later airplane ride I learned of Mati from her owner, JF. But before I go on with this shaggy dog story, let me refresh you on the Price three-leveled strategies model.

John Price identified a similarity between low social rank and depression over three decades ago in a landmark paper in *Lancet.*[2] Depressives are often submissive, retiring, showing bowed heads and smaller body envelopes as do other animals in defeat, for instance, the lizards described by MacLean and Greenberg.[3] Many depressed people protest their badness and unworthiness. We and co-workers have called this de-escalation of interpersonal conflict and have seen depression primarily as a function of yielding or an involuntary subordinate strategy, involuntary as it happens far from awareness.[4]

A next step in his thinking occurred, however, in that he realized that some depressives are very angry (Leon Sloman especially emphasized this clinical fact in their discussions). This was a problem for the theory because according to it low rankers should be submissive. Anger escalates interpersonal conflict.

Another problematic clinical fact involves the fact that many people are depressed while holding onto an unrealizable goal, and are not submissive but indeed grandiose in their continuing hope for realizing it. Though the odds are great they fight on. John noted that Milton's Satan and Samson Agonistes remained splendidly stubborn and defeated or otherwise destroyed in contrast to Adam and Eve who submitted to God and were then able to start mankind.[5] He also discussed Job's battle with God as a similar "fighting on" at a higher brain level.[6]

From these puzzling features of the clinical picture of depression, John's thinking began to entail three levels, as illustrated in **Table 1** on the next page, and was reinforced by Paul MacLean's parallel three levels with correlated forebrain anatomy. Thus, if in conflict or anticipated struggle with another, one evaluates one's own abilities and also those of the opponent(s). This happens on three levels.

If in concert at the three levels, the results are obvious and one sees little. One escalates or de-escalates. The discrepancies cause difficulty as mentioned above: Why low status and anger simultaneously? Why lowly status with held-on to grandiose hopes of winning?

Price's three level formulation allows one to understand the varieties of depression as variations on two dimensions of interpersonal signals (level and escalation de-escalation), especially those in which escalation can show as stubbornness and anger even as, at the same time, the person feels worth very little.

Table 1 — Price's Triune Model for Escalation/De-Escalation

	Escalate		De-Escalate
Rational Level (Isocortex)	Decide to fight on (stubbornness or courage)	or	Decide to back off (submission or escape)
Emotional Level (Limbic System)	Feel assertive, angry or hostile	or	Feel chastened (shame/guilt)
Instinctive Level (Basal Ganglia)	Elevated mood	or	Depressed mood

Springer spaniel Mati is 1 ½ years old and belongs to JF, a woman perhaps in her late twenties who sat in my same row on an airplane flight, along with CJB, a man of similar age, also a stranger, who sat between us. Mati's name stemmed from the JF's avocation of painting, with a special liking for Matisse. She entered JF's life when she already had a steady manfriend of about three years. She broke off from him, however, at Mati's age of 1 year. Mati missed him, with anticipatory looking for him at times of expected arrival. He had not been a perfect match for JF as he was from Germany which offended her Jewish parents (whose objections she overruled for a long time, but JF found him increasingly mean. He said, for instance, that he didn't want dark-haired little brown offspring, indicating a sense of Aryan supremacy, so she said good-bye).

Mati's disorder began four months later when another manfriend (LD) entered her life. LD was Jewish and initially seemed most suitable. But Mati started repeatedly licking the floor and otherwise behaving in a distressed, agitated, depressed manner. Part of the problem may have stemmed from being displaced from JF's bed. We counted how many of the nine criteria for major depression in humans that Mati met. The answer was ample for the diagnosis as she had:

1. Depressed Mood,
2. Diminished Interests,
3. Decreased Sleep,
4. Reduced Appetite,
5. Reduced Concentration, and
6. Agitation.

The ones she didn't clearly have were guilt, reduced energy, and suicidal thoughts. So on Price's triune model she had de-escalated on the lowest or instinctive level. JF treated her dog with the antidepressant, Amitriptyline (Elavil™), which seemed to work. She had to do her own research on the World Wide Web as her Houston veterinarians knew little about this.

JF also pointed out that the dog was very angry. This emotion was especially evident via the action of urinating on JF's bed linens, as on pillows (since saying good-bye to the LD, she happily invested in fresh linens!). Mati was literally "pissed off," as in the vernacular. This led me to thinking of the middle layer of the Price model. Though depressed, Mati had also escalated in the middle level — she showed considerable assertion!

But Mati showed escalation on the top level too. She was unremittingly resistant to the new boyfriend which indicates that she was "holding on" to her former status as JF's most important housemate. That is, she escalated in her decision to "fight on" as John Price described for Job, Satan and Samson Agonistes.

To get relief from her depression, Mati would need to give up or win. Well, she did *win* in that the boyfriend's lack of love for dogs, amongst other problems, did him in with JF. He had suggested

getting rid of Mati but found himself leaving instead. But interestingly, although JF would like to get rid of the Amitriptyline (Mati is constipated), she hesitates because the dog shows some signs of continued symptoms (I believe some continued floor licking). To some extent, this fits with major depression which in people does not go easily away even with changes in social status. A propensity state ensues and stays with a life of its own (I have myself called this In-Group Omega PSALIC — the last word referring to Propensity State Antedating Language in Communication).[7]

Some would recommend Fluoxetine (Prozac™) for the combined symptom of depression and obsessive-compulsive disorder or OCD (dogs licking excessively, often their own bodies, is considered an OCD equivalent) often relieved by an selective serotonin reuptake inhibitor or SSRI. Though Prozac and other SSRIs are very expensive, they are also more effective against OCD. Depression is combatted with Amitriptyline but OCD seems to need the additional alleviation of a "worry circuit" in the caudate nucleus, frontal cortex and cingulate gyrus. Neuroimaging of these regions shows overactivity in OCD and other anxious states but the forebrain is overall cold and underactive in depression. JF protested that only Amitriptyline is within her means. "I'm only a social worker, you know."

But she listened when I mentioned that other tricyclic antidepressants might be less anticholin-ergic (less constipating) but still not expensive as I continued to talk with her and CJB, also single and unattached, the young but successful Houston lawyer sitting between us. He participated with great interest as we discussed these theories of depression and its variants because he owns a dog too. Also he is helping a woman sue a veterinarian for canine malpractice. JF mentioned another trauma in Mati's life that occurred just after the advent of the unfortunate LD. One month after his coming into the house, she had to move from a duplex with a front yard and another dog in the other apartment to a high rise. She speculated that the different surroundings with loss of the barking colleague might have augmented or even caused Mati's disorder. But we agreed, the three of us, that the specific focused behaviors declared the nature of Mati's competitive feelings about LD as more important than problems with loss.

In the meantime, with all this conversation, JF and CJB realized that they worked out at the same athletic club (though at different times). I began to realize that I was perhaps witness to an increase in mating psalic in each of the pair, though both also seemed highly cautious (upper level de-escalating) in undertaking anything like that. Like JF, CJB has had some counterpart problem relationships with women. So, given these previous experiences, neither in the least seemed resentful of my presence. But I was grateful for the window seat so that I could return to my own business much of the remaining time. And it did occur to me that if they eventually get married, I would appreciate an invitation as I was there at the relationship's beginning and so that amongst other things I could learn how they will eventually manage Mati who is still, after all, a young dog.

Subsequently I learned several other dog-human and dog-dog stories:

1. My brother and sister-in-law went on a long trip in their van with their two dogs who have their many details worked out with precision, such as who goes in the vehicle first, as well as other matters involving potential competition. Their Springer Spaniel lies only in a certain way with her head on the Golden Retriever. Once by chance, the usual second-entererwent in first; but then he stood aside as the usual first-comer came in; then, like a true gentleman, he awaited her choice of position before settling in himself. They seem highly affiliated in a best mammalian tradition and things on the long trip went smoothly.

2. A medical student couple (EG and MS) each with their own dog (Brady and Casey), dog-sat Oliver when a friend left him for a week. Previ ously Brady had been dominant over Casey, but Oliver successfully challenged Brady, faster

when chasing after a ball or stronger when obtaining free-choice food. Blood flowed in one altercation. Brady, defeated, withdrew. EG felt that he also missed his toys, put away because Oliver was destructive of such. So when EG took Brady into a separate room with his own toys he recovered quickly with high spirits and good fun, though Oliver again put him down when they emerged. But now Brady seemed to accept Oliver's dominance with more equanimity and the week ended with the rank order now established.

3. A psychologist colleague, PD, told of the relationship between her dominant female Labrador retriever (Gypsy) and her boyfriend of six years, commencing when Gypsy was 1 year old. Gypsy liked the boyfriend a lot and would give PD a dominance stare when he was about. Though PD remained dominant Gypsy repeatedly challenged her. Sexual pheromones, PD asserted, determined some of this. Three years after the end of the relationship between PD and the boyfriend, Gypsy still orients to a car that sounds like his once did, but otherwise behaves ordinarily, not challenging PD's authority.

In none of these three stories is dog-depression evident. Conflict and conflict resolution yes, but not depression nor mania. Thus Brady was de-escalated on the middle or emotional level (felt bad rather than angry) but when he knew that he had EG as his ally, the reassurance ameliorated his distress immediately (in contrast to Mati who remains somewhat disordered a month after ridding their house of LD even though now on medicine). Moreover, with Oliver's dominating behavior, Brady then accepted (on the top level) his subordinate status and was so less disturbed, just as my brother's two dogs have years ago worked out their ranking and can be comfortably affiliative even on a long across-country trip. Gypsy fueled with sex hormones mildly challenged her female owner somewhat (middle level) when a human male was in the room but otherwise accepted her status.

My final story of the essay features not a dog but a person and illustrates the more complex means of resolving conflicts available to humans as a result of their large brains and increased isocortex. Humans have more ways of thinking about resources. A 46 year old man whom I have treated (TM) called for appointment after a long summer. On hypertensive medications, he has been depressed (as his father had been also to a suicidal extent, dying when the patient was 10 years old). Also TM had been demoralized because he was a ranking executive; in the health care industry which produced severe job stress. Eventually the industry squeezed him out.

Thus, he had become depressed on the instinctive level and angry on the emotional level. The antide-pressant, Buproprion (Wellbutrin™) removed the depression and he began extensive planning in a steady fashion to acquire a dude ranch, a dream for some time. He went therefore from a de-escalating train of thought to a carefully orchestrated escalating strategy. His strongly supportive wife (also impacted by the health care business squeezes but with a more-or-less secure job in nursing academia) urged him to do all of what needed to be done. She would support the family until that was completed.

Part 1 occurred this summer when he worked in a Colorado dude ranch to see the business first hand. In his job he learned enormously and pleasantly, oversaw the group of teenagers who worked the ranch, met many people for networking in the business, and dealt with a toxic boss.

The story comes from an encounter with that boss, who also had left the health care industry. He had already alienated many people at the ranch. The boss's wife called the patient to fill in for an emergency about a month before the end of the summer. "Fly-fishing was scheduled but all of the experts were in the field. Would he provide the fly-fishing lesson for the afternoon?"

He agreed as he knew more rudiments than the guests so he and eight patrons went toward the river when the boss on his motorcycle appeared and challenged TM about what he was doing: "This is not your job description. Go back to what I'm paying you to do."

TM explained that he was doing what the wife requested, but the boss was obdurate, cancelling the expedition. TM was furious (escalation at the middle level) but held his tongue. That afternoon, three guests who witnessed his humiliation apologized for the boss (also they were not happy with him as they had paid many dollars for the vacation and fly-fishing was included). The boss was later slightly conciliatory as he shifted the blame from TM to his wife, stating his future requirement that she check with him before making such assignments.

But TM began to pack, transferring clothes from dresser to the cardboard box he had brought them in when traveling there in his truck. Though he continued to say nothing, others saw his action. He told me, "There are no secrets on a ranch like that." The next day he found the boss to be highly complimentary to him in a highly uncharacteristic fashion. TM stayed for the duration but dressed from the cardboard box. The boss continued to behave his very best issuing many compliments and indirectly signalling reconciliation (though never apologizing; if the boss were depressed we would say that he stubbornly "fought on" on the top level of the Price triune model, never truly taking the path to true reconciliation). At this stage none of TM's reactions involve depression nor mania. Rahter, I believe TM to be energized now at all three of his levels. That meant that he could indirectly deploy his considerable resources (R) to counter the boss. He was "in the right" widely perceived by the people in the situation.

John Price and I previously worked out the many sources of human R listed in **Table 2** below: [8]

Table 2 — Varieties of R

R-Source	Definition	Example
Substantive	Financial well-being, education and training.	Credit card rating, ability to pass examinations.
Territorial	Possession of place	House, office, place in line.
Individual Storyline	Self-conviction about place & standing; trait.	Mother felt offspring meant for high things & offspring feels that lifelong.
Mate Value	Reproductive capacity.	Sexiness, age factors.
Social Attractiveness	Social attention holding potential/power.	Social poise, friendliness, gregariousness.
Allies	People willing & able to aid.	Friends, family, aides.
Group-Conferred	In-group, out-group status, ranking, formal hierarchy.	Memberships, honors, demerits.
Thymic	Self-conviction about place & standing; state.	If depressed or defeated, show less R. If manic or high profile leader, show more R.
Fighting Ability/Athletic	Resource holding potential.	Speed, strength, skill, coordination.
Somatic Health	Presence or absence of physical handicaps/illness.	No diseases vs. the extent to which illnesses interfere with function.
Moral High Ground	"Being in the right" from values of culture & situation.	Righteousness means feeling empowered.
Interpersonal	Signals that elevate or diminish the other person.	Anathesis (boosting) & Catathesis (deflating).

When asserting that the patient behaved wrongly, TM's boss referred to "corporate standards" (remnants in his mind of the health care industry). Thus he deployed his group-conferred and territorial R stemming from his managerial position. He tried to assume moral high ground, believing that TM behaved insubordinately in order to have fun with the fly-fishing. But the patient felt reasonably strong (imbued with considerable cumulative R from multiple sources).

Compared to the widely disliked boss, he was more socially attractive and had allies well affiliated with him. In the particular incident, he himself had superior moral high ground as the situation turned out. Moreover, he found himself emitting no signals that diminished that status as might have happened had he gotten overtly angry. He said that this surprised him as he is often an upfront person who says things exactly as he feels them.

Instead, the posture of being strong and quiet while using action not talk caused the boss to emit anathetic (boosting) signals thereafter. The boss must have realized that his job-conferred territorial R would not compensate for the loss of group-conferred R that would have ensued should TM, popular with everyone and a superior resource for the business, have walked away.

Of course Mati and the other dogs also constantly evaluate the R of others as well as their own. This mostly gets done quickly and accurately because fighting and fate settle errors quickly when one fails to learn. Survival may be brief, as with primates in the wild with brain damage who can no longer compute their own and others' R.

Often, as with Oliver versus Brady, fighting and athletic capacity (RHP) may carry the day, although Brady's ally, his owner, helped restore his thymic R. My brother and sister-in-law's dogs had territorial R: they knew their place in the family grouping even it was a vehicle on a long journey. Sex hormones may have fueled a would-be increase in Gypsy's thymic R. She apparently used a catathetic (putting-down) dominance stare but didn't take it much further with PD because her place in the rank order was well fixed and she couldn't estimate likely gain.

John Price notes that appraisals of one's own and the other's R takes place on three levels simultaneously. If in line (as with Oliver, for instance), there is no trouble. When the large human brain brings the other levels in line, congruence and greater peace prevails.

But, the same large brain can foster discordance John feels that held-onto-ambitions or goals cause the major depressions of humans. Human story-using has its consequences or side effect. He asserts that if the stubbornly held onto idea can be given up, the depression will leave, even without antidepressants. However, given the data on recurrence of depression in those who are vulnerable, he and I both advise the medication continue in people with serious recurrent depression. Ominously named "survival curves" show that people go for longer periods without additional depressed episodes (and risk of suicide) if the antidepressant medication at the dose that brought the person out of depression continues to be used.

And, as we see with Mati, stubbornness is occasionally rewarded. We wait with bated breath for the rest of the story as the attractive and affectionate JF evaluates her mating R and continues to think of other potential mates in addition to the poorly fated LD. I sensed her to very much want a family. I'm sending her a copy of this for corrections, but I also hope that she stays in touch to tell us the rest of the story (as well, perhaps, because the whole topic will interest her).

Which future man will become acceptable to her? Like Job against God, will Mati push unrelentingly against any such antagonist? Or did Mati react specifically to LD who clearly didn't much care for dogs? Like my brother's family, might two dogs eventually help settle their dog-human issues? And amazingly for this inveterate matchmaker, might Mati's obduracy earn me an invitation to a wedding? *c8*

ARTICLE:

by John S. Price

Do Not Underestimate the Dog!

What a wonderful story! You certainly didn't waste your time flying to Philadelphia. I could not help wondering how one would advise CJB if he consulted one about his strategy if he wanted to enter JF's household. He would not want to meet the fate of his predecessor at the hands of Mati.

Looking at it from Mati's point of view, there are three things she could object to. She could object to an attempt on the part of CJB to dominate her, Mati. Then, she could object to an attempt by CJB to dominate JF. Thirdly, she could object to the closeness between CJB and JF.

The first possibility seems the most likely and also the easiest to deal with. On the whole, dogs don't mind being dominated. After all, they have been bred to be submissive for over ten thousand years. That must be one reason why they are so popular. However, I would recommend an organised plan of action on the part of CJB in relation to Mati.

First of all, the objective should be clear. CJB must be dominant to Mati. I have seen families in which the dog is dominant to the people, and they do not work well. Then, the relationship between CJB and Mati should be established in the absence of JF. He should take Mati for long walks, and encounter many adventures together. Their relationship should be hammered out well away from the emotional complications of JF's apartment. The crunch must come.

A decision must be made. And the guiding force should be respect on the part of Mati rather than intimidation on the part CJB.

Then, having established a benevolent dominance away from home, CJB should consolidate on the home base. Mati should be made to be completely dependent on him for food, water and affection for a period, with JF preferably going and staying with her mother for a bit, leaving man and dog together. I think this plan would work. It may sound a bit "too *much",* but the question is, does he want her or not?

Would Mati object to CJB being dominant to JF? This is an interesting question to which I do not know the answer. My hunch is that dogs have lived in hierarchies for so long that they have the mental capacity to make this sort of appraisal. Their thinking might go something like, *"If there's got to be a new group member dominant to me, let him at least be controlled by someone I know and trust to look after my interests."*

So Mati might try to gang up with JF against CJB, but JF might not recognise what was happening -partly because she might not object to CJB's dominance, and partly because she might not see Mati's behaviour as being relevant to her own dominance struggle with CJB. It is an argument for CJB being particularly nice to JF. However, if he is too nice to JF, he runs the risk of Mati's third possible objection, that she might resent the closeness between the two humans. In other words, she might be jealous.

The ultimate reason for jealously disruptive behaviour on Mati's part might be the strategy of preventing JF becoming pregnant, and producing a child who would impair Mati's fitness. Mati's behaviour sounds rather like the "terrible twos" which has been suggested to be a child's contraceptive device after the effect of non-nutritive sucking wears off.

I do not think it would help for the two humans to try to convince Mati that they were practising "safe sex" - there is a limit to the intelligence of animals, even dogs. I think the best answer for this problem

is for JF to be as affectionate as possible to Mati while CJB is moving into their lives.

Of course, Mati's situation is not unlike that of children contemplating the addition of a step-parent to the family. We can say that S joins a situation in which A and B are closely bonded and A is dominant to B. S wants to join the hierarchy above B, regardless of whether he is dominant or subordinate to A. We must all have seen families in which determined children have driven out potential or actual step-parents. I think, on the whole, the strategy for dealing with a potential step-child is the same as dealing with Mati.

Yes, I think Mati should join the ranks of those who have fought on with courage and determination, in spite of being weaker than the opposition to begir with, and in spite of being further handicapped by de-escalation on the part of their reptilian brains. Mati should be up there with Satan, Milton, Darwin (?) and Job. And hopefully Mati may be won over by CJB and you may get asked to a wedding. *c8*

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Direct any questions to:

Darren Long — Living Links
Yerkes Regional Primate Research Center
Emory University
954 North Gatewood Road
Atlanta, GA 30329

Phone: (404) 727—3696
Fax: (404) 727—3270
E-Mail: dlong@rmy.emory.edu

ARTICLE:

by Claire Russell and W.M.S. ***Russell***

Population Crises and Population Cycles
11. Some Societies without Recorded History

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The Incas suppressed the Chimu invention of writing, but their history was written just after the Conquest. We can now consider some societies without written records (or at least decipherable ones), but whose population crises and cycles can be revealed by spoken tradition, traveller's tales, and/or archaeological evidence.

In the Upper Palaeolithic (Late Old Stone Age) Europe, it is estimated that a population of about 150,000 hunter-gatherers were supplied with a wealth of natural resources. They produced a wonderful cultural flowering, with continent-wide peace and a culture that was reflected in the distribution of trade-goods and art forms (Mediterranean shells reached the Middle Dnieper), records on bone (probably made by women) of scientific observations on lunar phases and seasonal phenomena, and marvels of accurate representational art to teach game zoology in cave-universities. Then in the 9th millennium B.C., when the population had increased dangerously to over 200,000, the glaciers receded, the climate changed, and the big game herds dwindled and became extinct. Unable to reduce their populations in time, the Europeans suffered a major crisis. In Catalonian rock pictures battle scenes appeared, in the cave of Addaura near Palermo, bird-masked priests were depicted sacrificing garotted human victims, and overhunting probably hastened the extinction in Europe of the Musk-Ox, Mammoth, and Woolly Rhinoceros. The human population dropped substantially, until new types of food procurement developed, *"broad-spectrum gathering",* which used a great diversity of plant and animal resources.

In the 6th and 5th millennia B.C., the first farmers spread over Europe. They were confined to the loess soils which formed a corridor across the continent, well-drained, easy to till with stone tools, and covered with woodland sparser than that occupying the rest of Europe. They practised a primitive form of shifting cultivation, by simply moving on when the soil of a plot was exhausted. While there was still pleg^pf loess land to expand into, their villages were unfortified and their graves contained only peaceful tools. But, eventually they ran out of land, population crisis set in, and fortifications and weapons appeared. At Koln-Lindenthal near Cologne, an earlier village of 27 households was merely fenced against wild beasts; when the same site was later re-occupied, 35 households were protected by a defensive ditch and rampart, which must have cost nearly 3,000 man-days of labour.

As we saw in the 10th paper, in the wet tropics shifting cultivation evolved into the sophisticated system of swidden farming. In Europe, except (until very recently) in Sweden, Finland, and Russia, it was soon replaced by settled mixed farming with stock and crops. As we saw in the 6th paper, in historic times, the farmers concentrated on crops during population crises, and on stock farming during relief periods. In Iron Age Southern Britain, during the 1st millennium B.C., similar alternations of crop and stock farming can be demonstrated by archeological evidence. At one time, grazing paddocks appeared, whose earthwork boundaries cur across abandoned fields. Then paddock construction stopped for a time, and very large grain storage pits indicated a return to crop agriculture. At the end of the millennium, new kinds of cattle and sheep enclosures were being constructed, showing that stock raising was important again. We can therefore infer the occurrence in prehistoric Britain of population crises and cycles with the same effects on agriculture as those of medieval and early modem Europe.

Near the mouth of the Niger in what is now Nigeria, the Kingdom of Benin, founded in the 13th century A.D., was based on swidden farming, and reproduces on a small scale, the same kind of population

crisis as that of the Maya. In its earlier centuries, the kingdom produced bronzes, brasses, terra-cottas, and ivories which are among the glories of world art. In 1602, a Dutch writer compared Benin City, not unfavourably, with Amsterdam, then the greatest trading city of Europe. Eventually, however, Benin art and civilisation began to decline, and *"later degeneration seems to have gone hand in hand with kingly autocracy and an increase in human sacrifice"* (Davidson, 1959). When a British Punitive Expedition entered Benin City in 1897, their leaders found it "a *collection of half-ruined mud houses",* depopulated by civil war and human sacrifice — *"down every main road were two or more human sacrifices... blood was everywhere".* The forest that now covers much of this region bears abundant traces of past swidden clearance, present-day Benin soil is notoriously poor, and everything suggests that the kingdom experienced a Maya-type population crisis.

Another possible case of this sort, known only from archaeological evidence, is the group of complex cultures that flourished in the Amazon and Orinoco valleys in the 11th to 13th centuries A.D. They had elaborate ceremonials and excellent painted pottery, probably made by specialist craft workers. In the words of Josephy (1969), *"in the tropical forest environment, these cultures could not endure and continue their development to higher levels; inevitably, agricultural yields declined, villages were forced to move... and advanced cultures collapsed".*

In what are now the states of Utah, Colorado, Arizona, and New Mexico, a people known as the Anasazi developed an impressive culture between the 8th and the 13th century A.D., with fine pottery, textiles, and jewelry. They practised farming naturally irrigated by flash-floods, and dry farming in the uplands. Eventually, their populations grew far too large for their resources, malnutrition set in, and finally the populations crashed, with the survivors moving to new sites. This happened at different times in different parts of their range: the sequence on black Mesa in northeastern Arizona is shown in **Figure 1**. In southern Arizona, the even more impressive culture of the Hohokam flourished between the 7th and the 15th centuries A.D. They constructed enormous irrigation canals — one network covers 150 miles — carefully lined with c ay to prevent leakage, they made fine pottery, textiles, and figurines, and they *"developed a process of etching shells with fermented saguaro juice, making probably the first etchings cut in the world"* (Josephy, 1969). But they too, became overpopulated, experienced population crisis and crash, the culture collapsed, and the canals were abandoned.

We saw in the first paper that population crises in historic societies have often involved massive building operations, designed to absorb surplus labour. The building of stupendous mounds was a feature of 3 pre-historic cultures of the Eastern Woodlands of the United States, the Adena and the Hopewell peoples centred on the Ohio Valley, and the Temple Mound builders centred on that of the Mississippi River. The Great Serpent Mound in Adams County, Ohio, is probably an Adena construct and is formed like a huge snake, is *"nearly a quarter of a mile long"* (Silverberg, 1974). The Ohio peoples generally made conical burial mounds, the Mississippians made flat-topped temple mounds. All 3 cultures made fine works of art, and the Hopewell people were notable for trading as far as the Rockies, the Great Lakes, and the Gulf and Atlantic coasts. All 3 eventually showed the usual effects of over-population—the Hopewell in particular enormous fortifications — and all 3 finally experienced population crash and culture collapse, the Ohio cultures in the 5th century A.D., and the Mississippians (who began later) in the 12th century A.D. It is surprising that they achieved so much, since they were based only partly on farming and partly on broad-specturm gathering.

The islands of the Pacific Ocean began to be colonised from South-East Asia during the 2nd millennium B.C. The farthest islands were discovered and settled by the Polynesians, the finest seafarers in the world, who could (and still can) navigate hundreds of miles by the starts, and detect land 45 miles away by the pattern of ocean swell;.. The Marquesas in the eastern Pacific were settled

about 100 B.C. At first, the settlers lived in the well-watered eastern parts of the islands. Copious supplies of a high-energy food, the breadfruit, promoted a growth of population, which by about 1100 A. D., was far in excess of available resources. The islanders occupied the marginal arid areas on the west coasts, and colonised the smaller islands of the group, but this did not prevent a fearful population crisis from setting in. Massive temples and fortifications were built, sling-stones were produced in large numbers, and ferocious warfare and cannibalism prevailed for centuries. When the Europeans arrived in appreciable numbers after about 1790, the population crash was well under way, as shown in **Figure 2,** and general lowered resistance due to stress was probably, as in Mexico, as least as important as a lack of specific immunity in causing high mortality from imported European diseases. Warfare and cannibalism continued well into the period of European contact, and the population was finally reduced by over 90%.

In the 4th century A.D., a party of Marquesans colonised Easter Island. Here too, population was growing rapidly by the end of the 1st millennium A.D., giving rise to an outburst of building that produced temples with the famous gigantic heads that are today's main tourist attraction. By the 16th century A.D., the population had reached about 8,000, on a not very fertile island of some 160 square kilometres. Savage warfare, in which children and old people were massacred, cannibalism, famines, and epidemics reduced the population to its present-day number of about 2,000. But, meanwhile, the resources of the island had been virtually totally destroyed. The palm forests were gone by the end of the 17th century A.D., so that ocean-going boats could no longer be constructed to exploit the lavish off-shore fisheries, and the islanders had extinguished several bird species and had driven the others to next on off-shore islets that could only be reached by swimming through *"treacherous (and occasionally shark-infested) waters"* (Tilburg, 1994). The island's history shows very clearly that, as stated in our first paper, *"crisis responses in man have not been able to achieve their evolutionary function in time"* to prevent depletion and destruction of resources. It has been considered as a warning of what might happen to the natural environment of mankind as a whole. *c8*

Figure 2—The population estimates before 1790 A.D., are based on archaeological evidence. The islands were settled about 100 B.C. Population grew very steeply in the couple of centuries before 1100 A.D. There may have been a short crash before population rose again to its peak in about 1500 A.D. The following crash began long before the European impact began in about 1790 A.D., though it was then somewhat steepened by the import of European diseases and of fire-arms, which enabled the Marquesans' internecine wars to be even more destructive.

Errata — In The ASCAP Newsletter Volume 11, No. 06 (127), page 15, of article 8 of this series - Monsoon Asia, the next to the last paragraph of this article was left out inadvertently. We have re-printed it here.

Hydraulic civilization diffused from *India* all over Southern and Southeastern Asia, along with Hinduism, Buddhism, and strange mixtures, such as the cult of Shiva-Buddha in 13th century Java (A.D.). The kingdoms of the region were typical hydraulic states; except for Vietnam and Korea, influenced by China, they showed a specially close relationship between religion and water control. They flourished at different times **(Table 2),** but finally they succumbed to population crisis, preceded by massive building operations to absorb unemployed labour, and ended by invasions. The resulting neglect and destruction of the water control works sometime produced drastic environmental effects — soil erosion, the formation of laterite (a sterile soil condition to be discussed in our 10th paper), and the breeding of malarial mosquitoes in stagnant disused irrigation channels. This happened to the Khmers of Angkor and the Sinhalese of Anuradhapura **(Table 2),** (after invasions by Thai barbarians and the Cholas, respectively). They both had to evacuate their lands and withdraw to much less fertile areas.

Figure 1: The Anasazi on northeastern Black Mesa

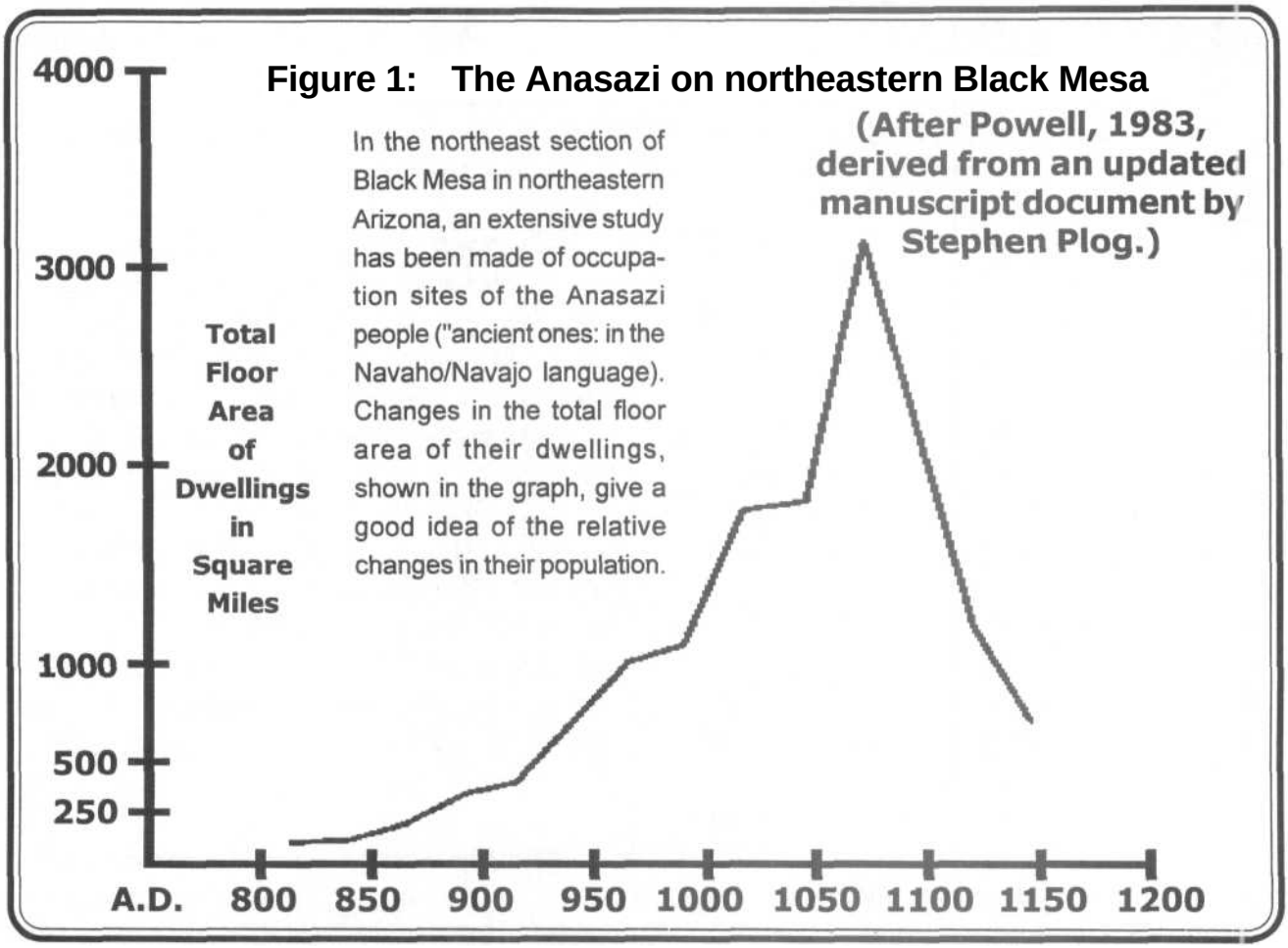
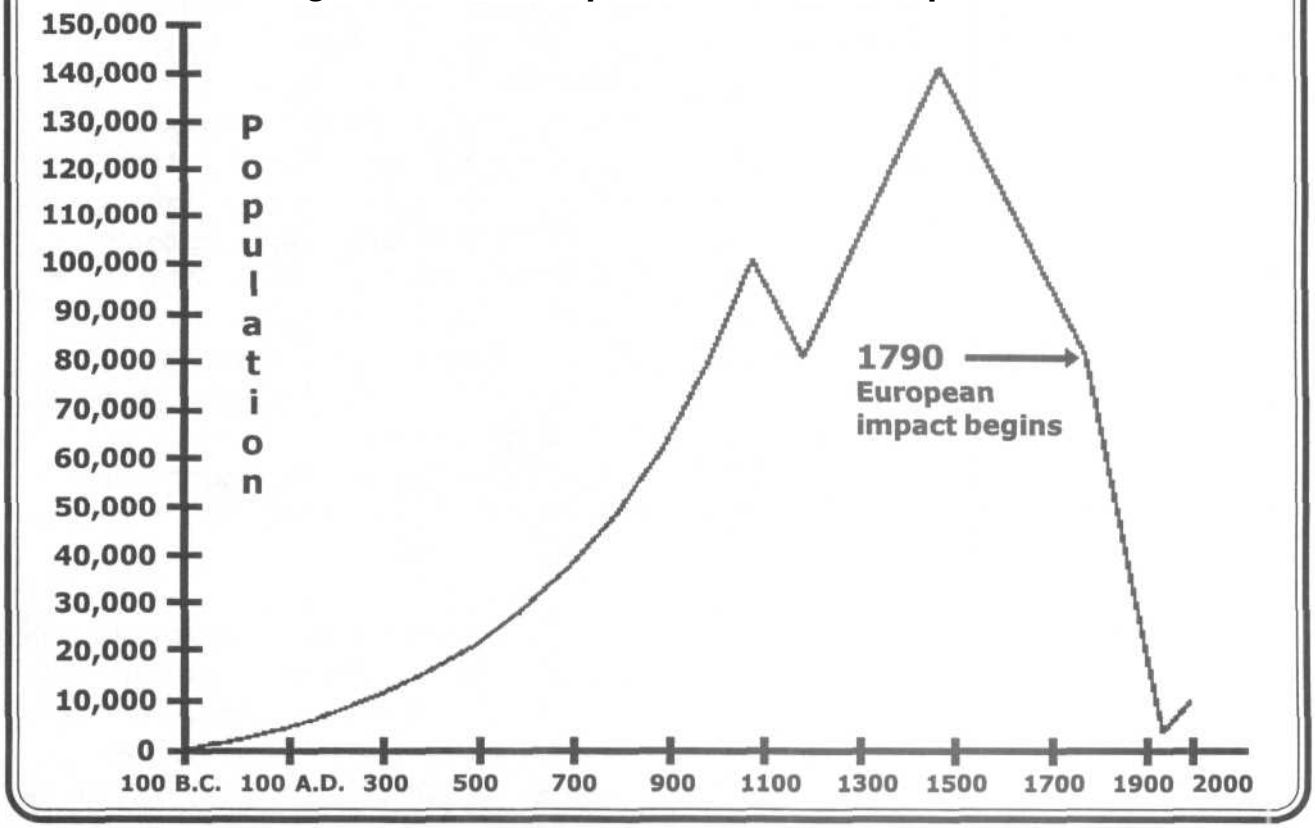


Figure 2: The Population of the Marquesas



ARTICLE:

by Claire Russell and W.M.S. Russell

Population Crises and Population Cycles 12. The Modern World: The Population Explosion in North-Western Europe

(Reproduced with permission from the Gaiton Institute Newsletter, September 1995.)

In the previous papers we have not attempted a comprehensive world history. But we have, in Dr. Johnson's words, *"let observation, with extensive view, survey mankind from China to Peru",* and considered enough cases to establish that population crises and cycles have been a regular feature of human societies in the past. It is now time to consider the modern world crisis, beginning with the population explosion in North-Western Europe.

In popular books on population, a curious fantasy is to be found, called the *"demographic transition".* This supposes that during industrialisation, first death rates fell (due to improved nutrition and public health) and soon afterwards birth rate fell to match, bringing an end to population growth. This fantasy has been demolished by Parsons (1977,1990). As shown in **Table 1** for the Netherlands, even the rate of population growth in the countries of North-Western Europe rose until the development of oral contraceptives in the 1960's. Far from falling, the birth rate rose, for instance, in England, Denmark, and Norway, until the end of the 19th century A.D. The combined falling death rates and rising birth rates produced an appalling population explosion, as is obvious from a glance at **Figure 1,** repeated from the 6th paper. As shown in **Table 2** of that paper, the population densities in the region rose from tens to hundreds per square kilometres, reaching the levels found in hydraulic societies.

From 1790 to 1850, North-Western Europe experienced an incipient population crisis, with inflation, unemployment, revolution, war, cholera epidemics, and famines, especially during the *"hungry 1840's".* Then, instead of crashing, the population exploded. How was this possible? Not, of course, directly because of industrialisation — you can not eat machine tools — but because of 2 massive increases in food supply, the first unrepeatable and the second unsustainable.

The first increase was provided by vast new croplands and pastures in North America, Argentina, Australia, New Zealand, and the Ukraine, the cropland becoming available because of the new steel plough, which could break up the tough sod of the world's great temperate grasslands. This bonanza will never happen again, for, as Mark Twain put it, *"they're not making land any more".* But it made possible the massive food imports in North-Western Europe in exchange for manufactured products. Britain was importing nearly 1/4 of its wheat by the 1850's, more than 1/2 by the 1870's; in the 1970's it was still importing nearly 1/2 of its food, and even in the 1990's, 1/2 of its temperate foodstuffs.

Except in Argentina (only slightly), and the Ukraine (not at all), the crops and stock in the newly-opened areas were mainly produced by the North-Western European emigrants. *"The neo-Europes became part of the European economy"* (Hobhouse, 1989), specifically the North-Western European economy. In what follows, we can consider the North-Western Europeans at home and overseas together. The United States, Canada, Australia, and New Zealand share the region's cultural heritage, and also its overpopulation. The optimum population of the United States has been estimated as 100,000,000. In 1995, the population was over 260,000,000, and growing at the rate of 1.0% per year. In Australia, with a growth rate of 1.3%, population pressure has already caused substantial deforestation, soil erosion, salinisation, and desert formation in the small fraction of the continent that is potentially productive.

The second food increase, that made possible the population explosion in North-Western Europe and its overseas extensions, was a massive increase in food yield per land area, made doubly necessary because population pressure not only increases the

demand for food, but the demand for land housing and motorways — over 17,000 hectares of farmland per years are lost in England alone. By the 18th century, as shown in Table 3 of the 6th paper, North-Western Europe had evolved splendidly sustainable systems of mixed farming.

To achieve the yield increase, these have been replaced, at home and overseas, by High-Energy-Input (H.E.I.) crop agriculture and factory farming of stock. H.E.I, crop agriculture uses huge amounts of agricultural chemicals — NPK mineral fertilisers (nitrogen, phosphorus, potassium) and pesticides (herbicides, insecticides, and fungicides). For lack of organic manures, the soil deteriorates, losing organic matter, and needs more and more mineral fertilisers, eventually with diminishing returns. The deteriorated soil is vulnerable to wind or water erosion. Nitrates and phosphorus compounds pollute lakes and even Chesapeake Bay in the Eastern United States, and nitrate pollution of groundwater threatens human heath.

Fertilisers cost vast quantities of energy to produce —over 80,000,000 gigajoules in the United Kingdom in 1993. Nitrogen fertilisers are made from petroleum, and thus doubly costly in energy. Pesticides increasingly fail to control harmful organisms (which acquire resistance), often kill useful organisms, and threaten human health directly (agricultural workers), in food, and by polluting the environment, especially water. Systems of H.E.I, crop agriculture *"are not sustainable, given their physical, chemical, and biological impacts on the soil, their excessive consumption of non-renewable resources, and their far-reaching side-effects on the global ecosystem"* (Lampkin, 1994).

Meanwhile, factory farming involves keeping animals crowded indoors, and the ultimate lunacy of feeding proteins to herbivores. Besides the atrocious suffering for the animals, this results in epidemics of bovine spongiform encephalopathy, which may affect human beings, and two pathogens that certainly do, are salmonella and campylobacter, which causes millions of food poisonings and hundreds of deaths per year in the United States. The animal wastes, instead of being spread over the land as soil-renewing manures, are so concentrated that they pollute water with solids and liquids and air with gases. The splitting of mixed farming into H.E.I, crop agriculture and factory stock farming recalls the division in the dry belt, between the vast hydraulic crop monocultures and the stock-raising nomads. As Heichelheim already observed in 1957, now that North-Western Europe has reached hydraulic population densities, it comes to resemble hydraulic societies much more than its own creative past. After a *"warring states"* period like that of China, the region (except Britain) was brutally unified by the Nazi regime, as horrible as any of the water-shed empires, and is now being integrated in a civilised but intensely bureaucratic union.

The growth of hydraulic-style bureaucracy in the region and its overseas extensions is striking. In the century 1870 to 1970, the British Civil Service increased 20-fold, and already by 1964, the percentage of employees in American business in office jobs had reached 26%. These earlier changes must have included an increase in rational administration and accountancy to cope with the growing popula -tions. But in the last couple of decades there has-been a pullulation of form-filling exercises—appraisal, evaluation, performance indicators, and short-sighted cost-effectiveness, meaning the ultimate waste of spoiling the ship for a ha'porth of tar. These exercises are actually destructive, since they waste the time and energy of people who we'e formerly wholly productive, and while resources are squandered on these drone activities they are withdrawn from public services, even those essential for public safety (in Britain, for instance pest control and even the fire services). Waste of resources, just when they are most needed, is a feature of population crisis.

However, North-Westem Europe and its overseas extensions have a cumulative heritage of past relief periods and renaissances. The combination of this with severe population crisis produces curious contradictions. For instance, former renaissance:; have shown a concern with art, nature, and the past,

yet all 3 were vandalised in crises. The modern societies show both unprecedented conservation and unprecedented destructiveness in these matters. For instance, several countries have adopted the excellent practice of listing valuable buildings, but in the European Architectural Heritage Year (1975) nearly 400 listed buildings were demolished in Britain. The contradictions are summed up in the phrase *"rescue archaeology"* — last-minute excavations on sites about to be developed. As a final example, the welfare states evolved as a heritage from renaissances are crumbling under the pressure of population and destructive bureaucracy.

But we can end this paper with the one great positive achievement of this century. Riddle (1997) has shown that many herbs were known to the Greeks, Romans, and medieval North-Western Europeans with contraceptive or abortifacient properties, as confirmed by modern experiments, and they were evidently used **(Table 2).** Many are listed in the medical treatises of Marbode, Bishop of Rennes (1035-1123 A.D.), and the physician Peter of Spain, who became Pope John XXI (1276-1277 A.D.). These herbs may have been somewhat unreliable, and may have had side-effects; anyway, they were largely forgotten by the 19th century, which may have contributed to the population explosion. Certainly, we now have much better birth control methods. The study of sex hormones began, like so much else, in the 19th century, but the fruits of this study were reserved for the 20th century. In 1950-1951, the great American feminist Margaret Sanger obtained funds for Gregory Pincus to develop the first modern oral contraceptives, based on the hormones Oestrogen and Progestin. In the 1960's, Morris and van Wagenen in the United States and Haspels in the Netherlands developed the post-coital oral contraceptive, based on Oestrogen. Extensive use of this by the Dutch, has given them the very low teenage pregnancy rate of 1.4%, compared with 4.5% in England and Wales, and 9.6% in the United States. In the 1980's, Etienne-Emile Baulieu in France developed the wonderfully versatile anti-hormone called RU-486, which opposes the action of progestin, and has its contragestive action from before fertilisation to well into pregnancy. This wonder drug is already in use in France, Britain, Sweden, and China. In countries where properly conducted abortions are not easily obtained, at least 70,000 women die every year from unsafe operations. The use of RU-486, may eventually virtually eliminate the need for abortions. There are of course, many other methods of modern birth control, and many more are being researched. But before we consider the marvellous opportunity that this gives to mankind, we must consider in the final paper some of the world-wide effects of the modern population crises, which is not confined to North-Western Europe and its off-shoots. OS

Table 1: Population Growth in the Netherlands, 1829 to 1995 (Data from Parsons, 1977, & UN Demographic Yearbook, 1997)

		Percent Annual Increase during Year
Population		Preceding Period
1829	2,613,000	0.72%
1859	3,309,000	0.80%
1889	4,511,000	1.18%
1920	6,865,000	1.45%
1950	10,200,000	1.35%
1971	13,100,000	1.10%
1995	15,451,000	0.70%

This table shows, for the Netherlands, that the rate of population growth (% of population) rose for many decades after industrialisation began. Apart from a small drop due to World War II, even the rate of growth only fell substantially after the development of oral contraceptives in the 1960's. By the early 1990's, it was back to pre-industrial level. But in absolute numbers, the annual growth was about 100,000 in the early 1990's compared with about 15,000 in the 1820's. So much for the fantasy (often expressed about today's poorer countries) that *"development* (industrialisation) *is the best contraceptive";* obviously, contraception is the best contraceptive!

Figure 1: The Population of North-Western Europe

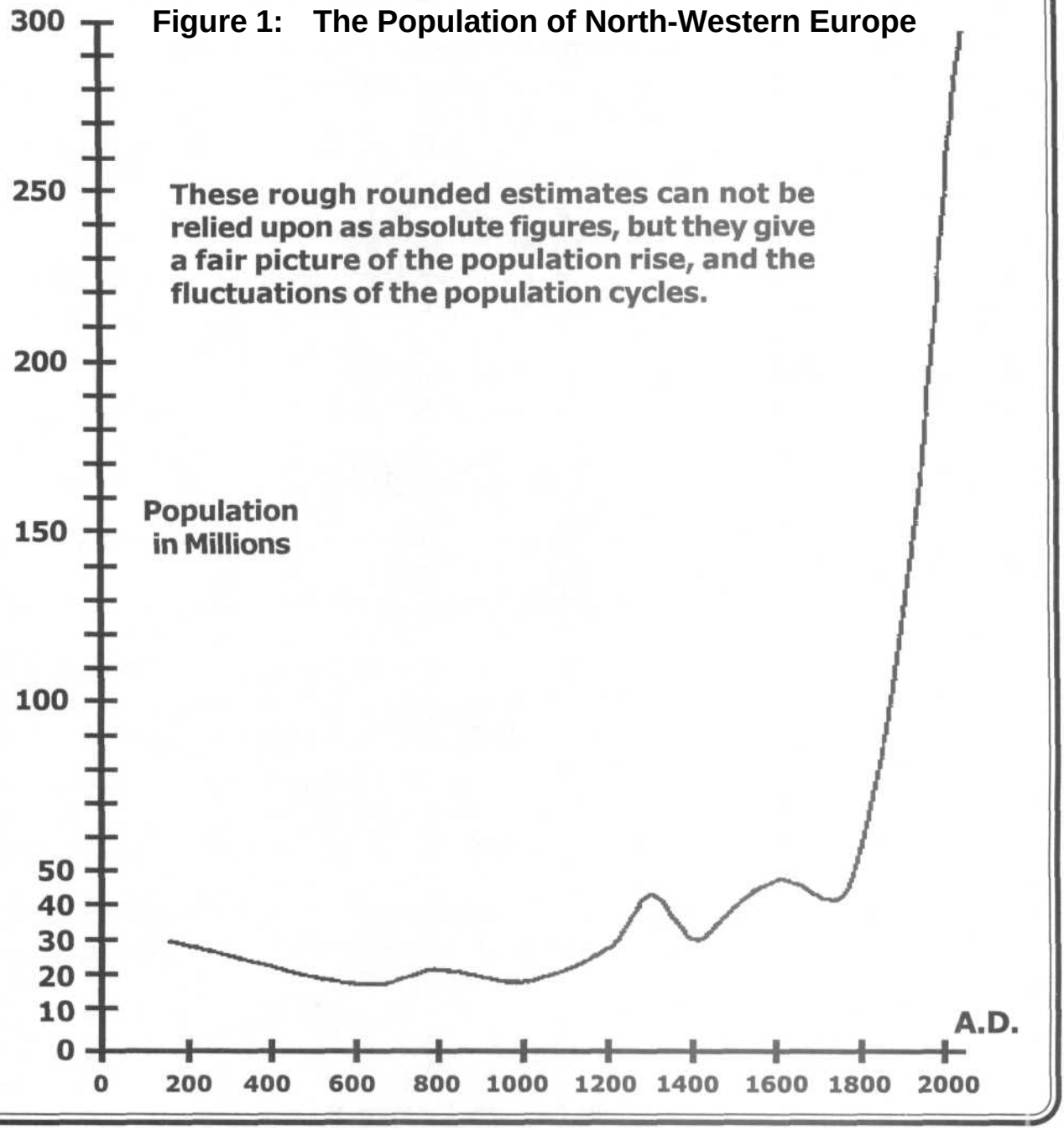


Table 2: Births per Woman in the Graeco-Roman World (Data from Wells, 1964, and Riddle, 1997)

Nature of Evidence	Date	# of Births per Adult
Skeletal evidence, Greek sites	300 B.C.	3.6
Historical records, 34 Hellenistic queens	3rd - 1st centuries B.C.	3.6
Skeletal evidence, Herculaneum	79 A.D.	1.8
Skeletal evidence, Greek sites	120 A.D.	3.3

From the marks on the skeleton, the number of times a woman has given birth can be inferred. Even the larger figures in the table make it virtually certain that birth control methods were being used. The increased use of birth control, at least in Italy, in the 1st century A.D., may have helped to produce the succeeding period of relief from population pressure in the early 2nd century, mentioned in the 5th paper.

Bibliography for Article 11—Some Societies without Recorded History

Armstrong EA: *The Folklore of Birds.* New York, New York: Dover Publications, 1970.

Bardet J-P & Dupaquier J (editors): *Histoire des Populations de l'Europe. 1. Des Origines aux Premices de la Revolution Demographique.* Paris, France: Fayard, 1997.

Behrensmeyer AK; Damuth JD; DiMichele WA; Potts R; Sues H-D & Wing SL (editors): *Terrestrial Ecosystems through Time: Evolutionary Palaeoecology of Terrestrial Plants and Animals.* Chicago, Illinois: University of Chicago Press, 1992.

Clark G & Piggott S: *Prehistoric Societies.* Harmondsworth: Penguin, 1970.

Collins RO (editor): *Problems in African History.* Englewood Cliffs, New Jersey: Prentice-Hall, 1968.

Corliss WR: *The Unexplained: A Sourcebook of Strange Phenomena.* New York, New York: Bantam, 1976.

Davidson B: *Old Africa Rediscovered.* London, England: Gollancz, 1959.

Eggan F: *Social Organitation of the Western Pueblos.* Chicago, Illinois: University of Chicago Press, 1950.

Fage JD & Oliver RA (editors): *Papers in African Prehistory.* Cambridge, England: Cambridge University Press, 1970.

Gould RA (editor): *Man's Many Ways: The Natural History Reader in Anthropology.* New York, New York: Harper and Row, 1973.

Kuhn H: *The Rock Pictures of Europe,* (translated by A. H. Brodrick). London, England: Sidgwick and Jackson, 1956.

Leason PA: Obvious Facts of Quarternary Cave Art. *Medical and Biological Illustration,* 1956;6:209-214.

Lewis D: *The Voyaging Stars. Secrets of the Pacific Island Navigators.* Sydney, Australia: Colllins, 1980.

Marshack A: *The Roots of Civilization.* London, England: Weidenfeld and Nicolson, 1972. Murray J:

The First European Agriculture. Edinburgh, Scotland: Edinburgh University Press, 1970. Oliver R & Fage

JD: *A Short History of Africa.* Harmondsworth: Penguin, 1962.

Powell S: *Mobility and Adaptation: The Anasazi of Black Mesa, Arizona.* Carbondale, Illinois: Southern Illinois University Press, 1983.

Riddell WH: Palaeolithic Paintings: Magdalenian Period. *Antiquity,* 1942; 16:134-150,359-360.

Russell C & Russell WMS: Cultural Evolution. 4. The Similarities between Cultures. *Social Biology and Human Affairs,* 1984;49:64-80.

Russell WMS: Art, Science and Man. *The Listener,* 1964;71:43-45, 99-101,113.

Russell WMS: Women as Innovators, with special reference to Mathematics, Science and Technology. *Biology and Human Affairs,* 1974;40:21 -36.

SilverbergR: *The Mound Builders.* New York, New York: Ballantine, 1974.

Suggs RC: *The Island Civilizations of Polynesia.* New York, New York: New American Library, 1960.

Suggs RC: *The Hidden Worlds of Polynesia.* New York, New York: New American Library, 1965.

van Tilburg JA: *Easter Island: Archaeology, Ecology and Culture.* London, England: British Museum Press, 1994.

TorbruggeW: *Prehistoric European Art,* (translated by Guterman). New York, New York: Harry N. Abrams, 1968.

Ward RG (editor): *Man in the Pacific Islands.* Oxford, England: Clarendon Press, 1972.

Wittfogel KA & Goldfrank ES: *Some Aspects of Pueblo Mythology and Society.* Journal of American Folklore, 1943;56:17-30.

Editor's Note: References for Article 12 will appear in next month's issue (January 1999).

ABSTRACTS a EXTRACTS

Abstracts for World Psychiatric Association Symposium from the Psychotherapy Section: "The Significance of Attachment Theory and Research for Psychotherapy."

Symposium Summary:

by Mauricio Cortina, Chairperson
Center for Adult Development, Washington, D.C.

Co-Chairperson is Marco Bacciagaluppi

There is a greater interest among clinicians in learning about attachment theory. Research informed by attachment theory not only has confirmed some of the basic postulates of the theory, but also has extended these findings from normal to clinical populations. Some of the these findings have important implications for clinicians. Unfortunately, unless one is familiar with the burgeoning literature spread in many specialized journals and edited books, there is no easy access to this body of research. The presenters are all familiar with this literature and have integrated their clinical practice with some of these research findings and theoretical concepts from attachment theory. Presenters will use these concepts to explore how they can be used in individual, group and family therapy.

References:

Bowlby J: *A Secure Base.* New York, New York: Basic Books, 1980.

Goldberg S; Muir R; Kerr J: *Attachment Theory: Social, Developmental and Clinical Perspectives.* Hillsdale, New Jersey: Analytic Press, 1995

Individual Abstracts:

The Significance of Attachment Theory and Research for Psychotherapy, by John Southgate, Centre for Attachment-Based Psychoanalytic Psychotherapy, London, United Kingdom.

This presentation argues that psychoanalytic psychotherapists and psychiatrists with an attachment perspective can work with what has popularly been called the Multiple Personality (now called Dissociative Identity Disorder in DSM-IV) within the ordinary psychoanalytic frame. Multiplicity is defined with a brief history. The major defence of dissociation is described, followed by attachment models for working with trauma. The nature **of** the splitting of the psyche and the general nature of multiplicity is discussed. The latter part of the presentation is concerned with clinical work and descriptions.

Reference: Steinberg M: *Handbook for the Assessment of Dissociation — A Clinical Guide.* Washington, D.C.: American Psychiatric Press Incorporated, 1995.

Attachment and Metacognition in Borderline Patients, by Giovanni Liotti, Rome, Italy

According to Kemberg's psychoanalytic model of borderline disorders, splitting in the representation of the self and others is the key feature to be dealt with in psychotherapy. According to Linehan's cognitive-behavioural model, the dysfunction of emotional regulation, which is related to defective metacogntive abilities, is the key problem of borderline patients that must be corrected in psychotherapy.

Disorganized attachment provides us with a model of borderline pathology that integrates both emphasis on split recognition and concern with defective metacognition in an original way of understanding and treating borderline patients. Multiple, split representations are the likely outcome of early disorganized attachment. Metacognitive monitoring is seriously hampered in the "unresolved" category of the Adult Attachment Interview (a category closely related to infant disorganized attachment), as it is in borderline patients.

Towards a Secure Family Base, by John Byng-Hall, London, England

The concept of a secure family base will be discussed. This is a whole family concept that allows family therapists to think about the significance of the attachment pattern within the whole family. The influence of dyadic attachments on each other will be considered, as well as elements that are shared between all family members, such as the shared working model of attachments in the family. Research data relevant to the secure family base will be discussed. Implications for family therapy will be explored, including:

1. How to help the family to create a secure family base,
2. How to deal with factors that undermine the secure family base, and
3. How to relate attachment to other behavioural systems in the family such as authority. If time permits, videotape will be used to illustrate these issue.

Reference: Byng-HallJ: *Rewriting Family Scripts: Improvisation and Systems Change.* New York, New York & London, England: Guilford Press, 1995.

Group Psychotherapy with Severely Disturbed Inpatients in the Light of Attachment of Theory, by Klaus Hoffmann, Zentrum fur Psychiatrie, Reichenau, Germany

Both John Bowlby's attachment theory and Sigmund Heinrich Foulkes' group analysts provide tools for working with severely ill patients, even those who have to undergo psychiatric and psycho-therapeutic treatment over years due to a crime they committed. Long-term intensive treatments including individual psychotherapy, special nursing care, group therapy, work therapy, and milieu therapy are performed on the psychotherapeutic ward of the forensic department in Reichenau Mental Hospital. The group analysis with forensic inpatients is presented in theory and practice.

Relations between patients (analogous to family members) of this ward are often discussed in this group as well as interactions between therapists, nurses and patients. In the course of several months — the group therapy takes place once a week — the mutual trust grows. By reflecting the power structures from the side of the therapists and by the analytic frame, e^e^sychotic and borderline functions presented by the patients can be contained quite well. The psychopathologic improvements created by the whole ward setting and by the group analysis are presented.

Reference: Sroufe LA: An Organizational Perspective on the Self. In: D. Ciccetti & M. Beagly (editors), *The Self in Transition: Infancy to Childhood.* Chicago, Illinois: University of Chicago Press, 1990; pages 281-304.

Clinical Implications of an Organizational Model of Attachment, by Mauricio Cortina, Center for Adult Development, Washington, D.C., U.S.A.

Attachment theory and research have moved beyond attempts to discover simple continuities or discontinuities of attachment patterns to understand how relational patterns, emerging from the caregiving matrix, organize needs, affects, cognition, values and meaning into enduring models of self and others. This shift has been described as . the "move to the level of representation" and has led to investigating the *organization* of mental schemata that integrate the attachment relationship with developing cognitive and emotional capacities. This line of research uncovers organizational patterns that having been internalized, significantly influence how we think, feel, and interact with ourselves and with others.

From this organizational perspective on attachment, we listen in psychotherapy for adaptive patterns that organize experience as they developed in the past, as they are carried forward in daily life, and in the therapeutic relationship. Clinical examples are used to show how listening for these organizing principles can guide the psychotherapy process.

The Social Context of Erickson's Familial Bond,
by Marco Bacciagaluppi, Milano, Italy.

Erickson suggested that an innate bonding process establishes childhood attachment behavior, kin altruism and incest avoidance. Conversely if familial bonding is weak—which is an evolutionary anomaly — family members would be perceived as less kinlike, resulting in diminished altruism and incestuous behavior. At a social level, Riane Eisler suggests that there are two basic models of society: the first she calls the partnership model, based on linking, the second she calls the dominator model, based on ranking. Recent archeological evidence suggests that the first model characterized the Upper Paleolithic and the early Neolithic. It would thus be the result of biological evolution and the social context of Erickson's familial bond. This culture was destroyed by successive invasions of pastoral nomads whose culture was based on the second model. Though apparently similar to animal models, this is really a successful cultural variant, which provides an unnatural environment inimical to familial bonding.

Reference: Erickson MT: Rethinking Oedipus: An evolutionary perspective of incest avoidance. *American Journal of Psychiatry,* 1993; 150:411-416.

End of WPA Abstracts Section...

Martin I & Baker BS: The Evolutionary Dynamics of Sex Determination. Science, 1998;281(5385):1990 • **1994.**

There is substantial cytogenetic data indicating that the process of sex determination can evolve relatively rapidly. However, recent molecular studies on the evolution of the regulatory genes that control sex determination in the insect *Drosophila melanogaster,* the nematode *Caenorhabditis elegans,* and mammals suggest that, although certain sex determination regulatory genes have evolved relatively rapidly, other sex determination regulatory genes are quite conserved. Thus, studies of the evolution of sex determination, a process that appears to have elements that undergo substantial evolutionary change and others that may be conserved, could provide substantial insights into the kinds offerees that both drive and constrain the evolution of developmental hierarchies.

Vacquier VD: Evolution of Gamete Recognition Proteins. *Science,* 1998;281(5385):1995 -1998

Although fertilization has been studied for more than a century, the cell surface proteins mediating the process are only now becoming known. Gamete interaction in animals appears to be molecularly complex. Although it is difficult to generalize at present, diversity of structure may be a recurring theme in the evolution of fertilization proteins. Examples of rapid evolution of fertilization proteins by positive selection are known, and concerted evolution can influence the differentiation of gamete recognition proteins between closely related species.

Ryan MJ: Sexual Selection, Receiver Biases, and the Evolution of Sex Differences. *Science,* 1998;281(5385):1999 - 2003.

Recent approaches to analyzing the evolution of female mating preferences emphasize how historical influences on female receiver systems can bias the evolution of male traits that females find attractive These studies combine animal behavior, sensory biology, phylogenetics, and artificial neural network models. They attempt to understand why specific phenotypes involved in sexual selection have evolved, rather than merely determining whether such traits and preferences are adaptive. It is now clear that traits and preferences often do not coevolve via genetic correlations, that female mating preferences for a given male trait are influenced by adaptations and constraints outside of the context of female responses to that particular trait, and that receiver biases can explain much of the diversity in male signaling phenotypes. It also appears that an understanding of historical effects will prove valuable in investigating why neural and cognitive systems respond to sensory stimuli as they do.

AS CITED BY.....

Cover page

[1] Stevens A: *An Intelligent Persons's Guide to Psychotherapy.* London: Duckworth, 1998, page 146 (ISBN 0-7156-2820-6).

Female Emotionality: An Evolutionary Speculation — page 8

[1] Buck R: *The Communication of Emotion.* New York, New York: The Guilford Press, 1984.

[2] Goleman D: *Emotional Intelligence.* New York, New York: Bantam Books, 1995.

[3] Kernberg O: *Borderlline Conditions and Pathological Narcissism.* New Jersey: Aronson, 1985.

[4] Eibl-Eibesfeldt I: *Ethology: The Biology of Behavior.* New York, New York: Holt, Rinehart and Winston, 1970.

[5] Buss D: *The Evolution of Desire: Strategies of Human Mating.* New York, New York: Basic Books, 1994.

Mati: The Angry Depressed Dog Who Fought On and Won — page 12

[1] Price J & Gardner R: The paradoxical power of the depressed patient: a problem for the ranking theory of depres sion. *British Journal of Medical Psychology* 1995;68:193-206.

[2] Price JS: Hypothesis: The dominance hierarchy and the evolution of mental illness. Z.anceM967;2:243-246.

[3] MacLean PD: *The Triune Brain in Evolution: Role in Paleocerebral Functions.* New York, New York: Plenum Press
1990.

[4] Price J; Sloman L; Gardner R; Gilbert P & Rohde P: The social competition hypothesis of depression. *British Journal of Psychiatry,* 1994;164:309-315.

[5] Price JS: Agonistic behaviour portrayed by Milton. The ASCAP Newsletter 1998; 11 (6):7-11.

[6] Price JS: Job's battle with God. *The ASCAP Newsletter,* 1997;10(12):19-22.

[7] Gardner R: Psychiatric Syndromes as Infrastructure for Intraspecific Communication. Chapter in Michael R.A. Chance (editor), *Social Fabrics of the Mind,* Hove, East Sussex, England: Lawrence Erlbaum Associates, 1988, pages 197-226.

[8] Gardner R & Price JS: Homeostasis of R-gap: theory, preliminary study and early results. *The ASCAP Newsletter,*

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Russell Gardner, Jr., M.D., Editor-in-Chief
Frank Carrel, Managing Editor
Department of Psychiatry & Behavioral Sciences
Marvin Graves Building, Room 1.103
University of Texas Medical Branch
Galveston, TX 77555-0428
Tel: (409)772-3475
Fax: (409) 772-4288 or (409) 772-6771
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