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"Metaphor. The figure of speech in which a name or descriptive term is transferred to some object different from, but analogous to, that to which it is properly applicable; an instance of this, a metaphorical expression." O.E.D., 1971¹

(c/o Russell Gardner, 1.200 Graves Building (D29), University of Texas Medical Branch, Galveston, TX 77550)²

For the philosophy guiding this newsletter, predicated upon combinations of top-down and bottom-up analyses, see footnote on pll³.

Newsletter aims: 1. A free exchange of letters, notes, articles, essays or ideas in whatever brief format.
2. Elaboration of others' ideas.
3. Keeping up with productions, events, and other news.
4. Proposals for new initiatives, joint research endeavors, etc.

Features: This issue is devoted to John S Price's paper on Metaphors of Submission and to what you think of it. We at this time would like to stimulate you to respond in order to heighten idea-exchange amongst ASCAP readers and to make writing here even more rewarding for the writer. If you are reading these pages, you are surely reacting. We ask you to please make that reaction public!

Would you therefore please write a two page double spaced response to JSP's manuscript? We're interested in your reaction: problems, agreements, disagreements, criticisms, additional thoughts. Your reply will be sent to him immediately and also published in ASCAP serially over multiple issues. Later JSP will respond.

METAPHORS OF SUBMISSION: An answer to the question "Do depressed patients get their own way?" by JS Price⁴

Abstract: According to the yielding hypothesis of depression, the depressive reaction (or syndrome) evolved as an involuntary yielding component of ritual agonistic behaviour. The

hypothesis is consistent with the fact that many depressed patients are submissive, self-effacing and passive. However, some depressed patients appear to be demanding, controlling and manipulative: the reverse of yielding. This paradox can be resolved by the concept of agonistic and hedonic modes that stems from primate ethology. In the agonistic mode when the dyad or group is oriented towards agonistic behaviour the depressed patient is a yielder; but in the hedonic mode when the dyad or group is oriented towards nurturant, affiliative or playful forms of behaviour, the depressed patient is not necessarily less manipulative than others. In fact, he or she may demand more nurturant behaviour because the yielding message of depression is sometimes expressed in the metaphor of physical illness, conveying the message, "I am no threat because I am sick" to competitors but at the same time eliciting from loved ones (in a manner which may appear coercive) the care, nurturing and privileges accorded those with physical illness.

The yielding hypothesis of depression.

Readers of ASCAP will be familiar with the hypothesis that depressive states evolved as part of the yielding component of ritual agonistic behaviour. The hypothesis has been outlined and examined in other publications, here summarized.

1. In group-living primates, conflict is resolved by the development of a rank order or social hierarchy within the group. Rank order is determined and maintained by ritual agonistic behaviour, which I shall collectively label yielding behaviour. Group cohesiveness depends on the subordinate components of

ritual agonistic behaviour, which I shall collectively label yielding behaviour, and which ensure that subordinate members remain in a state of sexual and agonistic inhibition, yielding usually takes the form of submission or escape, which are voluntary, conscious, rational behaviours. If submission and escape are blocked or do not work for some reason, so that a losing individual continues to receive punishment in the form of threat or attack, an involuntary, unconscious and apparently irrational yielding reaction is triggered, which previously we called a yielding subroutine and here I call depressive yielding. It is this depressive yielding, or an exaggerated form of it, which we recognize as depressive illness (or at least one form of it).

2. The depressive yielding reaction evolved because it permitted individuals to remain group members during periods when the social situation was not favourable to them. Those who did not have the capacity for depressive yielding were killed or driven from the group.

3. Ritual agonistic behaviour is so widespread in the vertebrate subphylum that its underlying mechanisms may well be homologous, so that the depressive state in humans may share the same neurochemistry as animal reactions, such as the defeat state described by Henry *et al*⁶. This resembles psallic theory developed by Russell Gardner⁷. According to this conceptual framework, "basic plan" propensities may underlie a variety of psychiatric disorders as well as normal communicational states that are their counterparts.

4. The implication for therapy is that we should look for relationships in which the patient is losing but is not yielding voluntarily. He or she should be encouraged to settle the cause of the conflict by peaceful means; or, if that is not possible,

to bring the matter to a conclusion, which he might do by conquering, submitting or escaping from the relationship. This approach is not included among current psychotherapeutic models of depression. Of course, we must bear in mind that our patients are men and not monkeys, and the conflict may be in a symbolic rather than a personal relationship. CS Lewis in The Problem of Pain proposed that the function of depression is to enable men to submit to God, and to take the difficult step of abandoning the attitude: "My will, not thine, be done."

Problems with the hypothesis

Although the hypothesis has face value in that it accounts for the "giving in/giving up" mental state of depressed patients, problems have prevented the hypothesis from influencing our thinking about depressive states and so from assisting in obtaining funds for research into them. These problems, it could be argued, are due to the very different social environment in which we now live, compared to the environment in which depressive yielding evolved and became integrated with other hominid behaviours. Rank order between two human beings of the same sex is seldom determined by ritual agonistic behaviour (except in places such as the street corner and the school playground) but rather it is determined by other group members external to the dyad. This means that it is unusual for depressive reactions to be directly due to losing in ritual agonistic encounters (except within the nuclear family, such as between husband and wife). This may account for the objection that whereas depression is more common in women, ritual agonistic behaviour has always been regarded as essentially male, and was actually classified by Moyer as "inter-male aggression"⁸.

Another objection is that depres-

sion tends to be triggered by "exit events" whereas the yielding hypothesis predicts that it should be followed by "entry events" (someone new to yield to), but since rank order in man is so dependent on patronage and alliances, the loss of a loved one is probably more likely than the arrival of a potential competitor to result in loss of rank.

Another serious objection, to which I devote this essay, is that depressed patients sometimes appear not to be submissive, but rather use depression to get their own way.

The depressed patient as yielder

Most writers agree that the basic attitude of the depressed patient is one of giving up and giving in. The patient feels inferior and is inclined to self-effacement. He is not likely to proclaim his objectives, still less to achieve them. Beck puts it well⁹:

The term "loser" captures the flavor of the depressive's appraisal of himself and his experience. He agonises over the notion that he has experienced significant losses, such as his friends, his health, his prized possessions. He also regards himself as a "loser" in the colloquial sense: He is a misfit - an inferior and an inadequate being who is unable to meet his responsibilities and attain his goals. If he undertakes a project or seeks some gratification, he expects to be defeated or disappointed. He finds no respite during sleep. He has repetitive dreams in which he is a misfit, a failure.

Not only does he not get his way in the present, he has no anticipation of getting his own way in the future:

The predictions of depressed patients tend to be overgeneralised and extreme. Since the patients regard the future as an extension of the present, they expect a deprivation or defeat to continue permanently. If a patient feels miserable now, it means he will always feel miserable. The absolute, global pessimism is expressed in statements as "things won't ever work out for me"; "life is meaningless... It's never going to be any different." The depressed patient judges that, since he cannot achieve a major goal now, he never

will. He cannot see the possibility of substituting other rewarding goals. Moreover, if a problem appears insoluble now, he assumes that he will never be able to find a way of working it out or somehow bypassing it^{9,p117}.

Thus, whether or not his objectives conflict with those of others, the depressed patient is not in a mood to realise them, and we could say that his mental state was ideally suited to a strategy of not getting his own way.

The depressed patient as non-yielder

However, various views have been expressed which conflict with the idea that depressed patients accommodate themselves passively to the wishes of others. Freud in his classic paper Mourning and Melancholia, wrote of his depressed patients:

They are far from evincing towards those around them the attitude of humility and submission that alone would befit such worthless persons; on the contrary, they give a great deal of trouble, perpetually taking offence and behaving as if they had been treated with great injustice.

Fenichel wrote¹¹:

The depressed patient, who seemingly is so extremely submissive, is actually often successful in dominating his entire environment.

Bibring wrote¹²:

It is hardly necessary to discuss the conscious and unconscious secondary gains which many patients derive from a depression. This may proceed on the external as well as internal level. By demonstrating their sufferings they try to obtain the "narcissistic supplies" which they need, or they may exploit the depression for the justification of the various aggressive impulses towards external objects, thus closing the vicious circle.

In his reconsideration of Szasz's Myth of Mental Illness, Birtchnell¹³ raised the question of whether psychiatric patients get their own way. Szasz used words like "domination" and "coercion" to describe their behaviour. Hooper et al¹⁴, commenting on their intensive study of marital interaction, wrote that "it is possible to see the whole depressive stance as a massive at-

tempt to exercise control over the marital relationship."

In the clinic and the psychiatric ward, one not uncommonly encounters depressed patients who do not yield as easily as one might expect. Sometimes, in clinging to depressive but grandiose delusions, such as that they are responsible for all suffering in the world, they refuse to be persuaded by the opinions of others. Some "stubbornly" decline to be treated with ECT or even with drugs. Nurses often regard the depressed appearance presented at ward rounds as "put on" for the sake of the doctors in order to avoid discharge or some other undesired outcome.

Relatives may also regard depression as a manipulation. Recently I treated a couple who used to spend alternate weekends with their respective parents. The wife's depression tended to be worse when the time came to visit the husband's parents; she was too depressed to prepare herself and too anxious to make the journey so that often they cancelled the visit. In another case the husband wanted to move house to be nearer his work, but the wife wanted to stay where she was; in the end they stayed; the husband felt that to move away from her few friends would make her even more depressed.

Do depressed patients wield paradoxical power?

Michael McGuire made some relevant comments. Introducing a session entitled "Evolution of mood and anxiety" at the 1988 Ann Arbor conference on psychiatry and psychology from the point of view of evolutionary biology, he raised six important issues which he exhorted the participants to bear in mind, of which:

The second issue deals with affect as a form of manipulation. While this may be minimally apparent among those persons considered to be "normal", the use of affect as a manipulation "tool" often seems apparent among persons suffering from psychiatric

disorders. To the degree that we encounter persons who are "effective affect manipulators" -- that is, they get us to change our behaviour -- we also encounter a potential paradox. Effective affective manipulation presupposes that the manipulator is capable of accurately "reading" how others will respond to particular affects. This possibility is not easily reconciled with what we assume when we encounter persons with psychiatric disorders.

McGuire points out that to use one's depression to manipulate others requires social skill, whereas lack of social skill is part of the impairment of function which characterises deregulation of psychophysiological systems in depression¹⁵.

Ethological studies of depressed patients have concentrated on speech and non-verbal communication and they have not addressed themselves to the outcome of conflict or the reaching of contested decisions. The simple question "Do depressed patients get their own way by virtue of being depressed?" cannot be answered from available data, and therefore it seems excusable to make a foray into theory and see if the problem can be reformulated in such a way that the paradox described above is resolved.

The agonistic and hedonic modes

It is useful to distinguish between situations in which a group or dyad is oriented toward agonistic behaviour on the one hand, and those situations on the other hand in which it is oriented towards sexual, nurturant or affiliative behaviour or to the performance of some task. In a number of publications recently summarized, Chance introduced the concept of the agonistic mode for a group which was oriented towards fighting (even if no fighting was taking place) and he pointed out that this mode affects a number of behaviours of members of the group, such as cognition (especially the type of interpersonal evaluation which is undertaken), attention, physiology and muscular tension; if

this mode is prolonged the members are liable to stress disorders and depression. In the hedonic mode, on the other hand, there is no orientation towards fighting; the members are relaxed and their attention is free to undertake learning, tasks and constructive thought. Chance gave the rhesus monkey as an example of a species which operates in the agonistic mode, and the chimpanzee which favours the hedonic mode (because fights are followed rapidly by reconciliation). It is clear that man lies between the two, and that a human group or dyad can switch rapidly from one mode to another.

According to the yielding hypothesis, depression as yielding behaviour evolved in relation to agonistic behaviour, and therefore it makes no predictions about who gets their own way in relation to sexual behaviour, nurturing behaviour, affiliative behaviour, etc.

Of course, the agenda of the agonistic mode is very conspicuously concerned with who gets their own way. Fights for territory and dominance rank are dedicated to setting precedents and rules which determine who gets their way in the future, not only in matters of rank but in "hedonic" matters such as feeding and sleeping. Moreover, when a conflict of interest arises between two individuals in the hedonic mode, the dyad may switch to the agonistic mode to sort it out, a process which Heard and Lake called "dissuagement". On the other hand, there are other ways of resolving conflict in the hedonic mode, even in animals. If one monkey wants a banana that another is about to take, he may threaten it (agonistic), but he may also beg for it (hedonic) or he may distract the other's attention (such as by giving the alarm call) and filch it (also hedonic). Goodall¹⁸ describes the interplay of agonistic and hedonic methods by which chimpanzees get their own way in relation to

grooming, copulation, feeding and direction of march^{18pp571-582}. In human beings the art of persuasion is so highly developed that conflict within groups is seldom settled in the agonistic mode (except within the nuclear family).

Signals as manipulation

Almost all signals can be seen as an attempt on the part of the sender to manipulate the receiver. This is particularly true of agonistic behaviour. When a dominant monkey stares threateningly at a subordinate, the latter is usually being manipulated into not doing something that it wants to do, like mating, eating or occupying a certain place. It is less obvious that a subordinate monkey is manipulating the dominant when it gives a submissive signal; the manipulation is in a very limited area, serving only to force the dominant to stop attacking. Submissive signals cannot force the dominant to yield rank or territory. It is interesting to note that submissive signals may be manipulative whether they are rewarding or aversive. Most submissive signals are probably rewarding to the recipient, but the chimpanzee has developed the infant's distress call into its submissive repertory, and this call appears to be so aversive to adults that they are quick to acknowledge the submission of other adults by giving signals of reassurance¹⁶.

In the domain of nurturing behaviour signals are also manipulative. The gaping mouth of the young cuckoo drives its foster-parents into a veritable slavery of food collection. The human baby's cry forces the parent to take some action, hopefully to feed or change it, sometimes to batter it. Much childish behaviour is designed to coerce the parent into protecting, feeding or in some way caring for the child. The same applies to sexual and affilia-

tive behaviour.

From the above argument, we would predict that depressed patients would fail to get their own way in the agonistic mode, when by definition the dyad or group is oriented towards agonistic behaviour ; but would get their way as much or as little as anyone else in the hedonic mode, when the group is oriented towards non-agonistic behaviour such as nurturant, sexual or affiliative behaviour. This does not quite answer all the objections, because there is an impression that depressed patients get their own way more than others, and that they actually use the depression to get their way.

I think the answer to this is that submission tends to be expressed as a metaphor, and the metaphor may involve non-agonistic forms of behaviour. If we want to convey the message "I am weaker than you", human beings can simply say it, but without language it is quite a difficult message to get across. It must be coded in symbolic form, and it is not surprising if evolution has used symbols which are correlated with weakness, and in order to find suitable symbols it has had to trespass on the hedonic mode and borrow metaphors based on childish behaviour or female behaviour. The message then transmitted in the agonistic mode is, "I am just like a child (or a woman) and not worth bothering about; ignore me, I am no threat to you." But, at the same time, the message may retain its hedonic meaning which is "Pay attention to me, I am a child in need of nurturing (or a woman in need of loving)" and this hedonic message may be responded to as well.

Metaphors of submission

Let us first consider metaphors involving nurturance-eliciting behaviour. In most animals agonistic behaviour and nurturance-eliciting behaviour are quite separate,

reflecting the fact that they are parts of separate biological systems, performing different functions, and presumably subserved by different brain mechanisms⁶. But in the wolf (and in the rat) there is overlapping. In the wolf, the nurturance-eliciting behaviour of the puppy has become ritualised as a submissive signal. The defeated and submissive adult wolf rolls over on its back and exposes its belly to the dominant animal, in the way that the puppy presents its perineal area to the parent asking for it to be licked clean. The recipient of this signal stops attacking, but it does no cleaning; the exchange of signals has been sufficiently ritualised for the nurturant response of cleaning to be dropped from the sequence.

The Sickness Metaphor

During human evolution the nurturing of sick adults has become part of our instinctive behaviour, possibly derived from the nurturing of children. Unlike the wolf, we do not respond favourably to adults behaving like children. But we do respond protectively to adults who are sick. It was Alfred Wallace, who with Darwin was the joint proposer of the theory of natural selection, who first suggested in 1864 that care of the sick might have been part of our evolved repertory of behaviour. Richards, a historian of science, describes how Wallace believed that evolution of human physical characteristics ceased, perhaps as early as the Miocene, to be replaced by the evolution of moral sentiments and reason:

He thought that once natural selection began to foster in those protomen reason and sympathetic feelings (especially moral sentiments which led them to care for their unfit brethren), selective pressures on their physical structures would cease. (emphasis added)

It seems likely that whereas childish behaviour has become ritualised

as a metaphor of submission in the wolf, "sick role" behaviour²⁴ has become ritualised as a metaphor of submission in man. The basic vertebrate depressive yielding reaction has come in our species to be expressed, sometimes, in the metaphor of "sick role" behaviour^{5k}. Therefore it is not surprising that many depressed patients both present themselves as, and feel themselves to be, physically ill. Sometimes the metaphor is so pronounced that depression appears secondary and a diagnosis of hypochondriasis or somatisation disorder seems appropriate.

In the agonistic (coercive) mode depressive behaviour conveys the message "I am no threat to you" and as a manipulation it has the limited effect of stopping the attacks of conspecifics. In the hedonic (affiliative) mode, and in the context of a caring relationship, it elicits the same response as other forms of sickness behaviour; namely, nurturance. It may be that the hysterical patients discussed by Szasz have the capacity to adopt the sick role by means of conversion symptoms, possibly before the pressures of life get intense enough to make them depressed. In either case their principal message is, "Stop attacking me, I am out of action". Of course, like any other sick people they can exaggerate their signals and become tyrants of the sick room; although in that case their empire is very limited, and does not lead to the acquisition of rank or territory in the main social arena; they are only getting their way in the hedonic mode, not in the agonistic mode in which rank and territory are determined.

If Wallace was right and we have an evolved tendency to nurture sick relatives, it may well be that this tendency is only elicited by apparent physical illness, whereas incapacitating emotional states such as depression are perceived in other

terms such as laziness or even rebellion (in the form of failure to carry out allotted tasks). To think that one's submissive signals were being interpreted as rebellion would be very anxiety-provoking, and this anxiety may underly the strong motivation of patients with, for instance, myalgic encephalomyelitis, to be categorised as physically ill.

Both the wolf and man have evolved metaphors of submission using care-eliciting behaviour; in one case the submissive individual presents himself as a child/puppy, eliciting parental care, in the other he presents himself as a sick person, eliciting the instinctive care which in man is given to sick relations. Perhaps this connection between submission and care-eliciting behaviour may be set in perspective by considering a metaphor of submission which has evolved in monkeys such as macaques and baboons and which is not related to nurturance. Whereas the submissive wolf says, "I am like a puppy to your adult", the submissive monkey says, "I am like a female to your male." He (or she) adopts the female form of sexual presentation, following which the dominant monkey gives a brief ritualised version of the male sexual response (mounting). Here the submissive metaphor elicits sexual rather than nurturant behaviour, but as with nurturance, we could say that the subordinate monkey is manipulating the dominant monkey to switch from the agonistic (coercive) mode to the hedonic (affiliative) mode. Some monkeys may use a dermal metaphor of submission, conveying "I am pale to your bright"^{5j}.

Another metaphor of submission uses the "vertical dimension" of directiveness/receptiveness. This occurs in man, monkey and wolf, and is probably widespread among vertebrates. The submissive individual says, "I am a small person to your big person." Forms of crawling, crouching, cring-

ing and prostration express this metaphor. The vertical metaphor is not drawn from another behavioural category and therefore the dominant has no specific response, equivalent to the mounting or the nurturance elicited by the other metaphors. For this reason, in using this metaphor the submissive individual does not appear to be manipulative except in so far as the other is manipulated into stopping his attacks.

Cultural submissive signals are recognisable because they mean different things in different cultures. In England if I put out my tongue at you it is an aggressive, putting-down, catathetic signal. If a Tibetan puts out his tongue at someone, it is a submissive, boosting, anathetic signal. This can cause serious misunderstanding in social relations. Another metaphor which one can sometimes detect is that which says "I am invisible to your visible" or "I am absent to your present"; this is a powerful metaphor because it carries the implication of "I am in the psychological position of already having fled from your presence." This metaphor has been examined in a novel by Christopher Priest (The Glamour. Sphere, 1985). The fact that the "absent" metaphor has not evolved in animals may be due to the limited communicational technology available to the evolutionary process. In man it is seen in various forms of self-effacing behaviour. Superficially, it might appear to be an extreme example of the diminutive metaphor, saying, "I have become so small that I have disappeared altogether" but this is logically different from saying "I am so afraid of you that I have already run away from you." The nearest that animals can get to this is actually to run away and then come back using some other form of submissive metaphor.

There is one important difference between the sick role metaphor and

the metaphors using females, childish, or diminutive behaviour. The latter occur at quite a "high" level of the nervous system, so that we might say that the actors in these cases "know" they are submitting, and possibly have some voluntary control over their actions. It is unlikely that the subordinate male monkey thinks it is female, or the defeated wolf thinks it is a puppy. But the sick role metaphor occurs at a "low" level of the nervous system; it is probably a modification of the basic vertebrate yielding reaction, one of agonistic and sexual inhibition, controlled in the reptilian brain²⁶. Therefore the individual using the sick role metaphor does not realise he is submitting. He thinks that he is sick. If we compare agonistic behaviour with temperature control, depressive yielding is to voluntary yielding as shivering is to switching on the central heating.

I am not saying that the sick role metaphor is the only submissive signal used by depressed patients. Even the wolf has more than one submissive signal: in addition to the puppy metaphor, and the vertical dimension (crawling on its belly), it has a submissive signal in Darwin's category of "antithesis" in which it exposes its vulnerable neck to the fangs of its enemy. Similarly, the submissive message of depressed patients may take many forms, all of which contain the message "I am in a category of persons who are of no threat to you." Some use a metaphor taken from commerce, "I am poor, even bankrupt, compared to your riches; there is no need to mobilise your commercial battalions against me." Some use expressions derived from religious behaviour, "I am sinful, compared to your saintliness, and I am not competing with you for a place in heaven." Depressed women may use a metaphor derived from the fashion world, "I am plain compared to your

beauty. I am not competing with you for the approbation of men." However the sick role metaphor is common and accounts for the frequent physical symptoms of depressed patients, the presence of somatic delusions and hypochondriacal preoccupations, and the fact that so many depressed patients consult doctors.

Patients often describe their depression to doctors in terms of metaphor. Metaphors and similes of being dead, a hibernating animal, a defeated boxer, a nonentity and suchlike are common. A recent patient expressed herself as a flat tyre or deflated balloon: "Normally you get kicked and you bounce back again, but I've been kicked too many times in the same place - there's a hole there and all the air's gone out." These statements are different from the submissive metaphors described above in which the patient acts out the metaphorical part. Different again are the submissive metaphors used in verbal flattery, eg, "I am a candle flame. You are the sun."

In conclusion, the fact that depressed patients may get their own way in the hedonic mode does not negate a hypothesis which states that depression evolved as a losing strategy in agonic interactions. The very fact that they use a sick role metaphor to express their submission ensures that they obtain the care and consideration which is normally given to physically ill loved ones. Depressed persons are sometimes said to be attention-seeking, and it is interesting to note the opposite message about attention which is given in the two modes. In the agonic mode, the message is, "Pay no attention to me. I am sick and therefore no threat to you." In the hedonic mode, the message is, "Pay attention to me. I am sick and require nurturing." In the hedonic mode, the message is, "Pay attention to me. I am sick and require nurturing." These messages

are complementary to the needs of the recipient, who in the agonic mode wants the other to be out of the way due to injury or death, but in the hedonic mode wants the other to be present and functioning normally.

This essay has had the limited aim of dealing with one problem facing the yielding hypothesis of depression. I have not attempted to deal with other problems, such as testability and refutability. However, I hope it has appeared to the reader that the hypothesis has heuristic value, if only because it reveals the virtual absence of a psychology of human submission. What is the relation between depressive yielding and voluntary yielding? Can voluntary yielding pre-empt depressive yielding? Does the experience of depressive yielding favour the occurrence of voluntary yielding, in the way that the experience of shivering may incline one to switch on the central heating, and if so, does the occurrence of voluntary yielding help to terminate the depressive yielding, as the central heating may help to terminate shivering? Can the termination of depressive yielding be achieved by voluntary yielding to a more powerful third party, who may have had nothing to do with the circumstances which led to depressive yielding? Could this be the basis of the antidepressive effect of cult membership²⁸, which involves profound submission of the individual to the group? Are there different forms of depressive yielding, such that some yield because they are too frightened, some because they are too exhausted, others because they feel themselves unworthy of victory? And perhaps most important of all, are the neurochemical changes seen in monkey ranking behaviour, such as those reported by McGuire and his coworkers¹⁵, homologous with the neurochemical changes which are thought to occur in human mood disorders?

1. The Compact Edition of the Oxford English Dictionary Vol I A-O. (1971) NY; Oxford University Press, p1781
2. For ASCAP Vol 3 (Jan through Dec, 1990) please send \$18 (US dollars) for the 12 issues. Make checks or money orders out to "Department of Psychiatry and Behavioral Sciences, UTMB"
3. ASCAP philosophy and goal. High scientific importance rests on comparing animal behaviors across-species to understand better human behavior, knowing as we do so that evolutionary factors must be considered for understanding properly such behaviors. To accomplish these comparisons, very different new ways of viewing psychological and behavioral phenomena are required. This in turn explains why we need new words to define and illustrate new dimensions of comparisons across species. We expect that work in natural history biology combined with cellular-molecular biologic research will emerge as a comprehensive biologic basic science of psychiatry. Both top-down and bottom-up analyses are needed. Indeed, this must happen if we are to explain psychiatric illnesses as deviations from normal processes, something not possible now. Compare to pathogenesis in diseases of internal medicine.
4. Acknowledgements: I am most grateful to colleagues who have taken an interest in the yielding hypothesis of depression and who have discussed these ideas with me, particularly Michael Chance, Leon Sloman, Russell Gardner, Jay Feierman, Paul Gilbert and John Birtchnell.
5. My own and jointly authored papers on the yielding hypothesis include the following:
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