The Expression of Hostility in Complementary Relationships

Change due to Depressed Mood

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### <u>Summary</u>

A hypothesis relating depression to the yielding component of ritual agonistic behaviour predicted that the expression of hostility by depressed patients would depend on the relative rank of the object of the hostility. A literature review showed that relative rank was not a variable which had been considered in the many studies on the expression of hostility by depressed patients. Therefore a study was made of 21 outpatients who had developed a depressive episode since marriage. When rank relative to spouse was compared with change in hostility expressed to spouse, there was a not significant tendency for dominant spouses to express more hostility and subordinate spouses to express less hostility than before the onset of the depressive episode.

# Introduction

In the tradition of applying the methods and data of comparative ethology to psychiatry (Feierman, 1987) we recently put forward a hypothesis which related episodes of human depression to the yielding component of ritual agonistic behaviour (Price and Sloman, 1987; Sloman and Price, 1987). According to this hypothesis the biological function of the depressive episode, which has been responsible for its selection during evolution, is to enable the individual to accept a subordinate social rank. The depression achieves this end in two different ways: firstly, it inhibits the expression of hostility and aggression (or, rather, what we have called catathetic or "putting down" behaviour) towards higher ranking individuals; and, secondly, it signals low competitive capacity, or Resource Holding Potential (Parker, 1974) on the part of the depressed individual towards those of higher rank, so that the latter are reassured that the depressed individual is not a threat to them, whereupon they desist from lowering the depressed person's Resource Holding Potential further, and the social group is able to switch from the agonic to the hedonic mode (Chance and Jolly, (1970) and get on with other matters which are important for survival, such as generating resources and competing with other groups. Most of the features of depression, which otherwise appears a totally maladaptive form of behaviour, can be accounted for in this way (Price and Sloman, 1987). The hypothesis is a subdivision of that of Gardner (1982, 1988) which attributes a number of psychopathological states to innate communicational patterns or "psalics" (Propensity States Antedating Language In Communication) in which depression appears as an "in-group omega psalic".

One prediction of the hypothesis is that, during an episode of depression, expressed uphierarchy aggression is reduced whereas expressed down-hierarchy aggression may be increased. In this paper we present briefly the derivation of the prediction from the hypothesis; then we look at the literature to see whether existing studies on the expression of hostility in depression can refute or confirm our prediction; then we describe a series of cases which were studied from the point of view of the prediction; and finally we discuss the problems likely to be encountered in making a more rigorous test of the hypothesis.

# Derivation of the prediction

The function of ritual agonistic behaviour is to convert a symmetrical relationship between two individuals into a relationship which is complementary for agonistic behaviour, one becoming dominant or higher-ranking and the other becoming subordinate or lower-ranking. In the terminology of Gregory Bateson and his colleagues in Palo Alto (Watzlawick et al., 1967; Bateson, 1972) the subordinate accepts the definition of the relationship provided by the one who becomes dominant. Such a definition may be offered in many different ways. It may be offered physically by threat or attack, or it may be claimed in words, or it may be insinuated subtly by implication. Since the asymmetry of human relationships is more complex than mere dominance and submission, we will use the term Definer for the one who imposes his definition on the other, and the term Acceptor for the one who passively accepts the definition of the other.

The allocation of roles between Definer and Acceptor may occur without argument at the

beginning of a relationship, as when a protege signs on with a mentor or when for any other reason there is an obvious disparity in rank between the two; or the allocation may be the result of some sort of mutual negotiation, such as a fight.

In a symmetrical relationship, an offered definition by one party elicits an alternative definition from the other, just as attack elicits attack, so that there tends to be an escalating level of hostility, as in an arms race, and the relationship is unstable. In a complementary relationship, an offered definition by the Definer elicits acceptance of the definition from the Acceptor, just as attack by a dominant elicits not attack but escape or submission from a subordinate; and a display of acceptance by the Acceptor means that the Definer needs to define less, in the way that a display of submission by a subordinate reduces the expression of hostility by a dominant. Whereas in a symmetrical relationship, a signal elicits "more of the same" from the other, in a complementary relationship a signal elicits "less of the same" or "something different" from the other, and this makes it stable. The ability to form complementary relationships is probably a necessary condition for living in groups.

The analysis of complementary relationships may be facilitated by the introduction of a self-concept called Resource Holding Potential (RHP) as a hypothetical construct used as an intervening variable in the calculations. RHP is a term derived from behavioural ecology and is a measure of the fighting capacity which an individual can mobilise to defend his resources (Parker, 1974). We have adapted this term for use in psychology as an alternative to less well defined terms such as ego strength and self confidence (Price and Sloman, 1987). RHP consists of a substantive component such as material resources and allies, and a ritual component which is conferred and taken away by others; it also has an endogenous component which reflects mood. Thus RHP can be lowered by loss of resources or allies, by receipt of hostility from others, and by endogenous lowering of mood. The relation of the variables is such that receipt of hostility (which is not returned in full measure) lowers RHP, and lowering of RHP (beyond certain limits) triggers a depressive state, part of which consists of a further lowering of RHP. In systems terms the relation between RHP and depression is similar to that between the value of a currency and devaluation. Outside scepticism of RHP (value) leads to hostility (selling) by which RHP (value) is reduced from outside in a manner which escalates to the end-point of depression (devaluation), in which RHP (value) is reduced from within.

The main "output" of RHP is reflected in the decision to attack or flee/submit. involves comparing "own RHP" with "other's apparent RHP" to give "relative RHP". To take the simplest case, it may be obvious that "own RHP" is superior to "other's RHP" in which case a judgement of "favourable relative RHP" is made, and then (assuming the context is an agonistic one) the individual attacks. If, on the other hand, "own RHP" is clearly less than "other's RHP", a decision of "unfavourable relative RHP" is made, and the individual flees or submits. We can now define relationships in terms of RHP. A symmetrical relationship is one in which both parties make a judgement of "favourable relative RHP" and are therefore both oriented to attack, whereas in a complementary relationship one of the two makes a judgement of "unfavourable relative RHP" and is therefore oriented to flight or submission. In a complementary relationship the Definer signals that he has made a decision of "favourable relative RHP" by attacking, or offering a definition (which are both "catathetic signals"); whereas the Acceptor signals that he has made a decision of "unfavourable relative RHP" by submitting, or accepting the offered definition without argument (both of which are "anathetic signals"). It is the perception of favourable relative RHP, plus the evidence that the other has accepted the role of Acceptor, that confirms the role of Definer, and enables the Definer to decide that the difference in RHP is sufficient (i.e., the "confidence-gap" is large enough). The Definer then stops attacking (and any Definition statements are seen by both parties as redundant) and the relationship can switch from the agonic to the hedonic mode through a process of reconciliation.

### An attempt at mathematical formulation

The difference between a symmetrical relationship and a complementary relationship can be expressed, somewhat crudely, in the following equations. In a symmetrical relationship:

$$H_1 = R_1 H_2 + RHP_1$$

$$H_2 = R_2H_1 + RHP_2$$

where  ${\rm H_1}$  and  ${\rm H_2}$  represent the amount of hostility expressed by the two individuals,  ${\rm R_1}$  and  ${\rm R_2}$  are constants which represent the retaliatory tendency of each individual, and RHP $_1$  and RHP $_2$  represent relative Resource Holding Potential (Price and Sloman, 1987) which roughly expresses the degree to which each individual feels more powerful than the other. It can be seen that each individual's hostile behaviour increases, the more he is attacked by the

other and the more confident he feels. The system escalates until some change occurs in the equation, and the simplest change is a change in the sign of the terms, to those we have suggested as the basis of the complementary relationship. In a complementary relationship:

$$H_D = R_D H_A - RHP_D$$

$$H_A = RHP_A - R_AH_D$$

where  ${\rm H_D}$  and  ${\rm H_A}$  represent the hostility expressed by the Definer and Acceptor respectively, etc. The Definer increases his expression of hostility if he is attacked, but reduces it if he feels confident (the Acceptor then being no threat). In contrast, the Acceptor reduces his expression of hostility if he is attacked, but increases it if he feels confident enough to challenge the position of the Definer.

It can be seen from these equations that a drop in RHP has the effect of increasing the hostility expressed by the Definer to the Acceptor, whereas it reduces the hostility expressed by the Acceptor to the Definer.

### A less mathematical derivation

Paraphrasing the above, we can say that the function of hostility is to create and maintain confidence gaps within couples. If a husband is "one-up" on his wife, he feels more confident than she looks, she feels less confident than he looks. The bigger the gap, the less hostility is shown. If for some reason (such as the wife going into therapy, or the husband getting a bad time from his boss) the confidence gap narrows and the husband becomes insecure about his one-up position, he "puts her down", using sarcasm or criticism, or possibly even verbal or physical abuse. If she sees him as less confident, or feels more confident herself, she is likely to say to herself "Why should I put up with that from  $\verb|him?"|$  and  $\verb|she|$  asserts herself by "answering back". Then if the husband feels more confident or he sees his wife as being depressed and lacking in confidence, he has no need to put her down any further, the confidence gap being sufficiently large, and he refrains from hostility. When he does criticise or abuse her, she lacks the confidence to answer back. Thus, if depression occurs in the dominant spouse the confidence gap is reduced and the hostility of the depressed spouse increases; if depression occurs in the subordinate spouse the confidence gap is increased and the hostility of the depressed spouse is reduced. We can talk interchangeably of a confidence-gap, an RHP-gap or a control-gap. The gap is monitored by the Definer who ensures that it is sufficiently large to ensure that he (or she) is comfortable.

#### Testing the hypothesis

It follows from the above argument that, other things being equal, when a (one up) Definer gets depressed his expressed hostility to the (one down) Acceptor should increase, whereas when an Acceptor gets depressed, his expressed hostility to the Definer should be reduced. Our first attempt to test this hypothesis consisted of a review of previous studies of the relation between depression and hostility.

### Depression and hostility

The relation of hostility to depression has been a subject of debate since Karl Abraham in 1911 formulated depression as aggression turned inward against the self (Abraham, 1927). Early studies showed that aggression was reduced in depressed patients, as might be predicted from Abraham's hypothesis. However, more recent studies have failed to confirm these early findings, probably because the subjects were out-patients with less severe forms of depression. In fact, the relation between depression and aggression has been the subject of considerable debate (Kendell, 1970).

Gottschalk et al. (1963) used verbal samples to generate scales which measured "hostility inward", "hostility outward" and "ambivalent hostility" (the last measured hostility directed by others to the self); in a series of psychiatric patients they found that ratings of depression showed a low positive correlation with "hostility inward" and a low negative correlation with "hostility outward". Using the same scales, Gershon et al. (1968) confirmed the correlation between depression and "hostility inward" but found a zero correlation between depression and "hostility outward". Fernando (1969) and Millar (1983) used Foulds' Hostility and Direction of Hostility Questionnaire (Caine et al., 1967) which is mainly concerned with distinguishing between Hostility-In and Hostility-Out. Cochrane

(1975) used a projective test, the Object Relations Technique, in which the subject identified both agent and victim of aggressive acts, but there was no measure of their relative rank, or of their rank relative to the patient.

Weissman et al. (1971) compared a sample of depressed women with a control sample and found no difference in overall "hostility outward", but the depressed women showed more hostility to close relatives and particularly to their children and less hostility to distant relatives; data for hostility to husbands were not presented separately and dominance relations were not determined. Hooley at al. (1986) confirmed work by Vaughn and Leff (1976) that depressed patients were more likely to relapse if their spouses expressed critical comments about them to the investigators, but again in neither study were dominance relationships within the marriage considered.

In studying communication between depressed patients and their spouses, McLean (1976) found that items which were received as hostile were usually not recognised as such by the sender. As an example he gives the statement "You'd feel better if you didn't weep so much". This was intended as a constructive comment but was perceived by the recipient as criticism. It is of interest that in McLean's study 61% of the communications between spouses were rated by the recipient as hostile.

In summary, apart from an increase of hostility to their children by Weissman and Paykel's depressed women, we can find no evidence to bear on our hypothesis from published data. This is because the studies reported have not included as a variable the relative rank of the patient and the object of the hostility.

### A clinical test of the hypothesis

The relationship most available for the psychiatrist to study is the marital relationship and therefore we formulated the hypothesis in terms of the expression of hostility within marriage. It is almost folk knowledge that a man gets depressed at work after receiving criticism from his boss and comes home and takes it out on his wife. This is in accord with ethological ideas on aggression redirected down the hierarchy, the only difference being that the boss and the wife occur in different social environments. However, aggression is not redirected up the hierarchy, so what happens to the man who is subordinate to his wife? Folk knowledge tells us that he takes it out, not on his wife, but on the dog, the children, the furniture or preferably the firewood. Our hypothesis states: in those marriages in which the husband and wife exist in a complementary relationship, the onset of a depressive episode in the dominant spouse (the Definer) causes an increase of expressed hostility to the marriage partner, whereas the onset of a depressive episode in the subordinate spouse (the Acceptor) causes a reduction of expressed hostility to the marriage partner.

## Method

During a six month period one of us (JSP) screened the patients referred to him by general practitioners and selected those patients who were currently cohabiting (with the same partner for at least two years) and who were undergoing a depressive episode whose onset post-dated the commencement of cohabitation (regardless of the actual reason for referral).

These patients were interviewed together with their spouses and separately and were rated on the following two variables:

- 1. Patient is: a. Definer b. symmetrical to spouse c. Acceptor.
- 2. Expressed hostility to the spouse since the onset of the depressive episode is: a. increased b. unchanged c. reduced.

The observations were made in a clinical setting in the course of normal clinical work and therefore it was not possible to make any assessment of the reliability of the measures used. Although there was more than usual exploration of marital relationships and expression of hostility this was within the range of normal history taking and was relevant to patient management and therefore no informed consent was sought, nor was permission obtained from the hospital ethical committee.

### Results

Of 86 patients referred during the 6 month period 22 did not keep the appointment and of the remaining 64, 28 were either unmarried or had been cohabiting with the current partner for less than 2 years. Of the remaining 36 patients 21 were judged to be suffering from a depressive episode which had started since the marriage. In four cases it was not possible

to interview the spouse, but these cases have been included. In only three cases was there no change in hostility, and these were all accepting wives who showed no hostility to start with; they have been included in the "hostility reduced" column. The results for the twenty one couples are given below:

	hostility increased		hostility reduced	
	male	female	male	female
Definer	2	1	0	1
Symmetrical	1	2	1	4
Acceptor	1	0	4	4

Combining the data for husbands and wives into a 2 by 2 contingency table of Definer/Acceptor by hostility increased/hostility not increased, the results just fail to support the hypothesis at the .05 level of probability (chi square with correction for continuity = 2.73, p = .0984; Fisher's exact test, p = .0517).

The results are subject to observer error in that the same person evaluated both complementarity and hostility with full knowledge of the hypothesis. In addition, there is the problem of circularity of reasoning because it is difficult not to take expressed hostility into account when judging complementarity, and although the comparison of complementarity applied to the situation before the onset of the depression, whereas the change in hostility applied to the period after the onset of the depression, in practice it was not always easy to discriminate between the two time periods. We regard this very much as a pilot study, in which the clinical details are likely to be more valuable than the statistical result.

### Clinical details

Of the two defining husbands whose hostility was increased, one was referred because he had been charged with sexual abuse of his step-daughter; he was a primitive, chauvinistic man who treated his wife like a chattel and frequently beat her up; he was depressed because of unemployment due to physical disease; the other came because his wife had threatened to leave him on account of his violence to her which had made her terrified of him; he was depressed because his employer had required him to do work which he considered too menial. These two cases accord with our previous experience that men who take their depression out on their wives with physical violence are not likely to come spontaneously for treatment.

One defining husband had never shown any hostility to his wife and when he became depressed he became less supportive in terms of praise, encouragement, compliments and interest in her activities, but he did not express hostility.

The defining wife whose hostility was increased appeared to be depressed because of aggravation from her mother, to whom she related as Acceptor, and her hostility to her husband presented as premenstrual irritability.

Three of the accepting husbands whose hostility was reduced were depressed in relation to work, and their behaviour at home was characterised by social withdrawal. One spent most of his time in bed, one retired to the garage and the other was described as "going quiet". None of them had ever been very assertive at home. The fourth had been Definer in the early days of their marriage and had been violent to his wife on many occasions in the context of morbid jealousy; three years ago they joined a sporting club where, much to his horror, his wife excelled at the sport and was chosen for the club team; the pain he suffered when she went off to play mixed doubles in away matches was excruciating, but instead of attacking her he resigned from the club, spent his spare time alone at home, and soon became too depressed to go to work.

The accepting wives whose hostility was reduced or absent were dominated creatures who were stuck in unhappy marriages, constantly exposed to "angry, controlling behaviour" as described by Hauck (1977).

The accepting husband whose hostility was increased is of particular interest. He had married two dominant women and during his marriage to the first wife she had a son by a man of different race. This son was now nine and although the racial difference from his parents was obvious he had not been told about his parentage. Although his second wife was faithful and kind, he felt excluded by her close relationship with his stepdaughters, and he was depressed because he had avoided approaching his first wife to discuss how to break the difficult information to the son. As part of his depressive syndrome he started having attacks of expressed hostility at home which he described as follows: "Like when you're a kid, you have a tantrum, you know you're not going to win......You're on the roller

coaster, there's no way of stopping (thumps table with fist)......I take myself away, hurt - I go outside." His wife was frightened by these outbursts but she did not perceive them as a threat to her dominant position in the family.

One accepting wife who was also bossed by her mother and who had not expressed hostility was able, with the help of therapy, to obtain a part time job where she formed a close relationship

with her female employer who was going through a divorce. This lady gave the patient a lot of support and self-confidence so that she was able to stand up to her mother in a non-aggressive way and completely redefine the basis of their relationship. Having done this her depression of ten years duration cleared up and she decided to divorce her husband and at the time of writing is living in a symmetrical relationship with him until the house is sold. He is bewildered by what has happened and hopes that she will soon "come to her senses".

In general, patients and spouses found it very difficult to give the details of a hostile interaction. The episodes were first described in such terms as "Then he lost his cool" and it often took many questions to discover what actually happened or was said. The facts often seemed very banal in comparison with the emotion accompanying the general description, and gave us the impression that the subject had been affected by the ritual aspects of the hostility rather than by the actual words or actions.

### Assessment of Marital Asymmetry

# Research studies

A lucid and detailed review by Gray-Little and Burks (1983) emphasises the difficulty of measuring the power relationships in a marriage. Three methods have been used:

- 1. Reporting of decision-making processes by the marital partners. Most studies divide the marriages into husband-dominated, wife- dominated and egalitarian; some divide the third category into syncratic (in which decisions are made jointly) and autonomic (in which some decisions are made by the husband and others by the wife).
- 2. Observations of couples performing tasks, or interacting in some other way. The number of directive statements, and the proportion obeyed, give a division into husband-led and wife-led marriages.
- 3. Assessment of relative resources, such as age, popularity, income and capital, socioeconomic status of family of origin.

As yet, there is no valid instrument for assessing complementarity in a marriage. What is very much needed is a study which will show a correlation between complementarity as assessed by self report inventories and complementarity as assessed by direct observation of the couple interacting together. A step towards this might be a self report instrument which would show reliability between husband and wife.

#### Clinical studies

Clinicians have found it possible to assess the direction of complementarity in marriage and to distinguish complementarity from symmetry. Lidz et al. (1957) identified "marital skew" in which the husband was subordinate to the wife, and they distinguished this from "marital schism" in which the relationship was symmetrical and antagonistic; both these states in the parents were associated with schizophrenia in the children. Cohen et al. (1954) found marital skew in the parents of manic-depressive children, in that there was "a rigid splitting of parental roles: the mother was usually seen as the decisive, orderly and prestigious parent, the father as a rather weak outsider and as despised (overtly or covertly) by the mother." Stierlin et al. (1986) found marital schism among the parents of manic-depressive children, in that "we frequently observed a symmetrical struggle in which each parent seemed intent to devalue and hurt the other." Other family therapists have found disorders in the children of parents who do not fight openly but nevertheless fail to define the relationship as either symmetrical or complementary (Palazzoli et al., 1978) and Minuchin (1974) has stressed the importance of a clear and unambiguous hierarchy for family functioning. Also pathological for the children are symmetrical marriages in which one of the children gets "triangulated" into the marital power struggle in what Haley (1963) has called a "cross-generational coalition". Some family therapists have associated depression with the "one down" position in a marriage (Haley, 1963; Hoffmann, 1981).

#### Who defines the relationship?

The concept of dominance in dyadic relationships has been subject to criticism over the past twenty years, and ethologists have even suggested that among primates it may be an artifact of captivity (Rowell, 1974). The concept depends on the fact that certain variables are stable over time and are consistently correlated with each other. The dominant member of a pair takes precedence over the other, receives attention from the other, expresses hostility to the other, displaces the other and has gait and posture which are upright and "jaunty"; whereas the subordinate is slouched and furtive, and avoids the other. More recent studies have supported the dominance concept (Deag, 1977; Kaufmann, 1983) and it may well be that the previous failure to find consistent dominance relationships was due to the observation of groups operating in the hedonic mode when dominance relationships are minimally expressed (Chance and Jolly, 1970).

However, the above considerations, together with problems which arise due to human language and conceptual thought, incline us to avoid the word dominant, which has the added disadvantage of carrying overtones of dominating behaviour. Hinde (1979), who uses the terms higher-ranking and lower-ranking, has pointed out that, due to delegation, one can get an infinite regression in the determination of rank order. For instance, the wife may make the decision about where they should go on holiday, but the husband may have told her to choose; but, again, the wife may have delegated to the husband the decision about who should choose; and so on, ad infinitum. The nearest one can get to ultimate power is the definition of the relationship. For instance, a man who says to his fiancee "I insist that we both have equal power in our marriage" is giving a unilateral definition of the marital relationship, and thus assuming the dominant role. This is an example of a "double bind", in which the form of the statement invalidates the content. It is interesting that the only way the fiancee can get out of it (other than by metacommunicating) is by offering a "counter double bind" with a statement such as "On the contrary, I insist that you adopt the dominant role in our marriage", by means of which she herself makes a bid for the dominant role. It does not matter what the actual definition of the relationship is; the one who makes the definition has the power, the one who accepts the definition (even of himself in the "dominant" role) concedes the power. Can the power to define a relationship be delegated? In practice this does not appear to occur, and therefore in talking of Definer and Acceptor we feel that we have got as near to the ultimate distribution of power as is necessary for our hypothesis.

### Assessment of Hostility towards Spouse

There is no valid instrument for assessing the expression of hostility towards a particular person. In thinking about hostility expressed in a dyadic relationship we have found it helpful to avoid the terms hostility and aggression, which are not technical terms, and to speak instead of catathesis or catathetic signals (or messages, or behaviour). catathetic signal is defined both according to sender and according to receiver (Price, 1988). For the sender it is a signal of favourable relative RHP, and it says "I have assessed your fighting ability in relation to my own, and have decided that mine is superior; I therefore require you to submit to me or to leave the field, otherwise I shall continue to attack you". For the receiver it is a signal which lowers RHP unless it is returned in full measure. In common parlance, it is a signal which threatens to "put down" the other person, who can either retaliate or "swallow the insult" (and by doing so lose RHP). One advantage of the term catathesis is that it enables us to exclude a number of forms of hostility (such as temper tantrums, homicide and running amok) which are not related to ritual agonistic behaviour, and at the same time to include some types of behaviour which do not appear hostile but are effective in causing or maintaining rank asymmetry (such as criticism, patronising behaviour, unilateral relationship definitions and the taking of unnegotiated precedence). It also facilitates cross-species comparisons in that we can talk about catathetic behaviour in animals and man without fear of either anthropomorphism or of reducing man to the level of animals. The following is a list of various forms of catathetic behaviour which are used by human beings:

### 1. Non-verbal

# a. Non-contact

threat stare curled lip raised fist, wagging finger obscene gesture taking precedence omission of expected deference or attention patronising behaviour (e.g. tipping)

#### b. Contact

pushing, hitting, punching
chasing
corporal punishment of children, servants, etc.

#### 2. Verbal

statement of superiority
threat of hitting, wounding or killing
unilateral definition of relationship
criticism, disapproval
sarcasm
insult, insult to mother or other allies
use of swear words
lying
omission of expected deference or attention
patronising statement
ordering, commanding
some forms of boasting

It can be seen how the use of words adds considerably to the repertoire of catathetic signals, both in directness and elaboration, so that one can have, at one extreme, a bald verbal statement of superior relative RHP (such as "I am better than you"), and at the other, the mutually abusive singing competitions of Eskimos which raise the expression of catathesis to an art form (Service, 1971). The expression of competence or achievement, as in art or literature, is not a catathetic signal but a signal of absolute RHP (rather than relative RHP). For a detailed discussion of the relation of RHP to catathesis and anathesis, see Price (1988).

In one of the few experimental studies of conflict in marriage, Raush et al. (1974) were able to precipitate exchanges of catathetic signals (quarrels) in a proportion of couples, and they noted the repetitive, stereotyped quality of the verbal material expressed at such times; the descriptions of the exchanges were reminiscent of ethologists' descriptions of ritual agonistic behaviour in animals.

# Choice of Couples

It may well be that depressed patients attending a psychiatric clinic are not the best subjects for study. Any "blind" study adopting validated "instruments" would require to be treated as an experiment to which the patients and spouses would have to give informed consent, and the procedures involved would not be a good way of commencing therapy with such patients.

One alternative would be a study of patients attending a specialised clinic for premenstrual depression. Such patients attend frequently, are sometimes in normal health while attending, and might be expected to be more sympathetic to research. We would, of course, predict that Definer wives would express premenstrual hostility to the husband, whereas Acceptor wives, if they express hostility at all, would express it only to the children (probably at times the husband is not present). There would also be a possibility of directly observing interaction between the spouses both during the depressive periods and during periods of normal mood.

## <u>Conclusions</u>

We have presented suggestive but not statistically significant evidence that the expression of hostility by depressed patients is affected by the dominance relationship between the patient and the object of hostility. Both the conceptual issues underlying the hypothesis and the methodological problems of measuring the relevant variables are such that we feel it appropriate to present the findings at this stage, particularly as more stringent work might be a considerable imposition on patients attending an out-patient clinic. Therefore a stage of peer review seems appropriate before more experimental work is done.

In spite of the tentative nature of the results we claim some success in using an ethological frame to approach a problem of human psychopathology, an activity which has been regarded with considerable scepticism by commentators too numerous to document. The

inherited mechanisms of ritual agonistic behaviour are so widespread among vertebrates that it would be most surprising if they were not operating in competitive human interactions, particularly those within the family. It is well known to ethologists that for any primate to threaten or attack another member of its group is a matter which depends for its result most importantly on the relative rank of the attacker and attacked. The fact that relative rank has not been taken into account hitherto in studies of the expression of hostility by depressed patients suggests that there is still considerable scope for the application of ethological ideas to research in psychiatry.

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