

Another reply to Leon Sloman

I am pleased that so many people have accepted your invitation to comment on my essay. I should like to reply to each individually, but that would be hogging too much space in ASCAP. I will prepare an overall reply, but first I would like to deal with a slight difference in model between myself and Leon. This has been confusing me lately and may be confusing others too. Leon and I have a lot of common ground, particularly:

1. Depression evolved as one of the yielding components (yielding strategies) of ritual agonistic behaviour.
2. Ritual agonistic behaviour (including depression) is a means of amplifying small differences in capacity (RHP); and, in so doing, it increases the correlation between small inherited differences in capacity (such as intelligence) and reproductive success. Thus depression is of interest not only to psychiatry but to evolutionary biology as a whole, in that it is a mechanism for speeding the rate of evolutionary change.
3. Therapeutically, depression may be "reframed" as yielding and be given "positive connotation" as such (these are technical terms used in family therapy). In doing this we are following the example of the I Ching, approving the accommodating tendency or Yin, that which bends but does not break. Of course, depression may sometimes more usefully be reframed in other ways, such as nurturance-eliciting behaviour or physical illness. The choice of frame depends on therapeutic need, not on beliefs about evolution or adaptive function.

To turn to our differences, Leon is not impressed by the voluntary/involuntary dimension of yielding and in fact his model is one of increasing severity and duration along the dimension:

submission --- hypersubmissiveness --- depression.

The individual is driven to the right along this dimension by the strength of his angry feelings (dominating tendency). With mild anger, voluntary submission can occur and lead to resolution of conflict; with moderate anger, hypersubmissiveness is needed to overcome the anger, and with severe anger, clinical depression is required to achieve yielding. Without the hopelessness and helplessness of depression, mere voluntary submission would not be effective in the face of strong anger.

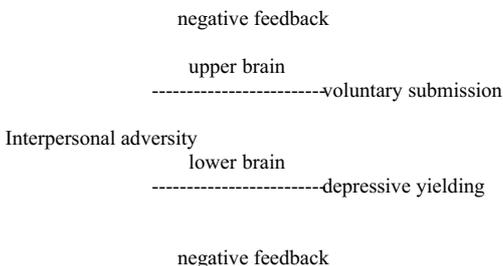
In my model, the two ends of Leon's dimension (voluntary submission and depressive yielding) are seen as alternatives which may to some extent operate independently. One has the choice to submit voluntarily, and in so doing one may pre-empt the need for depressive yielding. Any impediment to voluntary submission (of which excessive anger is one) may predispose to depressive yielding. (The word voluntary is a bad one, and is used as a shorthand for "presumed to be mediated at a high level of the central nervous system", as opposed to depressive yielding, which I think is mediated at a low level of the nervous system, in the "reptilian brain").

Analogy of temperature control

In order to clarify the (slight) difference between the two models, let me return again to the metaphor of body temperature control (see ASCAP, November, 1990). Consider all the ways we know about for combatting cold.

We can move our bodies (into the sun, out of draughts, to the other hemisphere, etc), we can put on clothing, we can light a fire or switch on the central heating; on the other hand, we can shiver, we can vasoconstrict, we can cut down sweating, we can generate heat in the liver. These two groups of responses are clearly occurring at two different levels of CNS organisation. For simplicity, I will just talk about switching on the central heating as the higher level response and shivering as the lower level response. Now, let cold be the equivalent of interpersonal adversity (originally, in evolution, the RHP signals of a rival; by derivation, stress, bad news, failure, punishment, frustrative non-reward, etc.). Then depressive yielding is to shivering as voluntary submission is to switching on the central heating. The central processes which mediate between cold and response are carried out at two different levels of the nervous system, one leading to the decision to "switch on", the other leading to the "decision" to shiver. Likewise, interpersonal adversity affects the brain at two levels, one leading to voluntary submission, the other to depressive yielding.

This model can be expressed in diagrammatic form as follows:



If the upper negative feedback loop is not effective in keeping interpersonal adversity below a certain threshold, the lower feedback loop is called into operation. (I have left out the strategy of elevation of mood, which is an alternative to depressive yielding.)

The difference of level underlies important differences between the two methods of combatting cold and between the two methods of yielding:

1. Access to different information in the decision-making process. The cold --- central heating sequence is processed at a level which can take into account information about weather forecasts, the amount of oil in the storage tank, government requests to conserve fuel, etc. This kind of information is not available to the cold --- shivering sequence. Other information may be available to the lower level process which is not available in deciding about the heating; for instance, body temperature, fat reserves, current level of vasoconstriction, etc.; but our conscious minds are not privy to the decision about shivering and therefore we have no "insight" into the information used to reach it.

Voluntary submission may be affected by various types of information which are not likely to affect the threshold of depressive yielding; for, instance, cultural values about the honourableness of yielding; is it a "discretion is the better part of valour" or a "death before dishonour" culture? In the determination of depressive yielding, we do not know what sort of information about adversity our lower brains are processing, just as we do not know what information is used in the decision to shiver. The basic information is a comparison of own RHP with opponent's RHP, and it may well be that the sums are carried out differently from a comparison of relative RHP at the higher brain

level. Possibly the lower brain has information about internal matters such as liver glycogen reserves.

2. **Reversibility.** Another important difference is that the central heating may be turned off again, even without any rise in the ambient temperature, if new information becomes available, such that there is a malfunction in the boiler or the fuel is running out. But shivering cannot be switched off, and nor can depression, and this is probably why it is more reassuring to see one's rival depressed than to see him submitting voluntarily.

3. **Timing.** Related to reversibility is timing. Voluntary submission is an act which may be of extremely short duration. Depressive yielding is a state which lasts a certain length of time.

4. **Variation in "willingness".** With voluntary submission, as with the central heating, there may be enormous differences in willingness. Imagine a man who, in the middle of winter, is demonstrating his new central heating system to his friends. He is highly motivated to switch it on. On the other hand, take a man who believes that only weaklings turn on the central heating before the first of November; he is presented with a sudden cold snap in October and the cold tempts him strongly to switch on; there is conflict between his feelings of cold and his feelings of manliness; then his wife moves in on the act, accuses him of stinginess, and drags him screaming to the thermostat, which he switches on under extreme duress. I would still call this a voluntary act, even if it is performed most unwillingly, because it is in a different order of "voluntariness" from shivering.

In the case of yielding, consider a wife who gives up her job at the request of her husband. She may do so with great relief, thankful that she now earns enough to maintain her as a lady of leisure. On the other hand, consider a wife who works because she likes it, who believes women have the right to work, and may even believe that "my job is the only thing that keeps me sane". The husband does not wish her to work, and nags her daily about it. She tries to persuade him to her point of view, but fails. The husband goes on and on at her to such an extent that she realises it is endangering their marriage. The only way she can save the marriage is to give up work, and so she does so, albeit with great reluctance. I still call this voluntary submission, because she had the choice of giving up the job or continuing until some other end-point is reached. This could be marital separation or it could be depressive yielding. In the latter case she gives up her job, not because she decides, either willingly or unwillingly, to do so, but because she is too ill to go to work.

With the involuntary responses of shivering and depressive yielding, the dimension of "willingness" is not relevant. It does not make sense to discuss whether or not a person is willing to shiver; nor does it make sense to discuss whether a person is willing to become depressed.

5. **Insight.** One always knows why one is switching the central heating on, but one does not always know why one is shivering. It could be cold, but it could be fear or sexual desire. One's attitude might be, "why is my body shaking like this?" In the case of yielding, one knows why one is submitting, but one does not know why one is depressed. In the case of the wife who gives up her job because she is driven into a state of depressive yielding, she probably does not realise that it is her husband's nagging which has made her ill, and nor, probably, does the husband; in fact, they are likely to attribute her incapacity to "the change" or the Pill or to 'flu or to myalgic encephalomyelitis, etc. This lack of insight into causation is one reason why depression is such an effective yielding strategy; if one doesn't know what it is due to, it is difficult to do anything about it.

6. **Directedness.** Shivering is not directed, whereas "switching on" is directed towards the objective of raising the temperature. Voluntary submission has an object, one submits to someone or something. Depressive yielding has no object. More technically, depression signals low absolute RHP; it is not associated with an increase in signals of unfavourable relative RHP.

The observations of Schelde (ASCAP, February, 1991) are important here; his depressed patients were high on passive yielding but low on active submission. Possibly this lack of active submission makes it difficult for critics to take the yielding hypothesis of depression seriously.

Causal relation between the voluntary and involuntary response

We should note that the relation between "switching on" and shivering is not symmetrical. Switching on prevents shivering, but shivering does not prevent switching on; in fact, if anything, it facilitates it - the shivering man is more likely to switch on than the non-shivering man. Do the same relations hold between depressive yielding and voluntary submission? Certainly, voluntary submission pre-empts depressive yielding, as in the case of the wife who decided to give up her job, and thus stopped the husband's nagging and the depression it would eventually have caused.

But does depressive yielding facilitate voluntary submission? On the one hand, the mood of "giving in and giving up" which is characteristic of depression would seem to do that; as Shand said (1), "sorrow abates pride". On the other hand, depression does not seem to facilitate "directed submission" in the sense of flattery, flowery speeches of submission, or even the task of going out and finding someone to submit to.

Returning to the wife who worked, let us say that she became depressed due to her husband's nagging, but was not yet sufficiently depressed to be unable to work. Then the depression might well facilitate her passive submission to her husband's wishes. She might say, "Oh, all right, I'll chuck it in, I'm really past caring." Her loss of interest (in the job and the feminist cause) and her reduced self-esteem (about her worth as an employee) would also facilitate the giving up. But this would still be voluntary submission, albeit facilitated by the depression, in the way that switching on was facilitated by shivering.

An example of depressive yielding facilitating voluntary submission can be seen in the film The St. Louis Blues about the jazz composer W.C. Handy, and in The Last Chronicle of Barset by Trollope; and depressive yielding not leading to voluntary submission is depicted in the film Rustler's Rhapsody and in Whip Hand by Dick Francis.

Are depressed patients likely to be in a posture of voluntary submission?

Are depressed patients likely to be in a state of voluntary submission, or are they, as Bibring (2) says, people who are clinging on grimly to unrealistic goals? The answer is not straightforward, and depends very much on one's sampling - it is similar to the question, are shivering people more or less likely to have the heating switched on? Shivering people consist of different subgroups: those who have decided not to switch on, those who have switched on recently and have not yet felt the benefit, and those who have tried to switch on but whose central heating does not work. Likewise, depressed people are likely to consist of those who have decided not to submit, those who have submitted but whose depression still has some momentum of its own which needs to "run its course", and those who have tried to submit but whose submission was blocked for some reason. On the whole people at the onset of depression are likely to be non-submitters, in the way that people at the onset of shivering are unlikely to have switched on; whereas at the end of a depression they are more likely to have submitted, in the way that people stopping shivering are likely to have switched on. People with very chronic depressions who reach the psychiatrist are likely to be people of such overweening pride (or such great anger, as Leon points out) that they will never submit (Bibring's cases) or people who cannot submit, because they cannot physically produce the goods.

Yielding decision and yielding task

In the case of the woman working, either voluntary submission or depressive yielding will achieve the end-point of her not working and thus cut off the husband's nagging. The woman may decide to submit, and her task is merely to refrain from working. But what if the husband's requirement is that she should go to work? Then she not only has to submit to his wishes, but actually to carry out the task of getting a job. She may not be able to get a job, and so even if she makes a decision of submission, she may not be able to carry out the submissive task. And continued nagging, by making her depressed, will make it even more difficult for her to carry out the task, even if it helps her to make the decision. The same applies to other yielding tasks, particularly those over which there is no voluntary control. If the husband is nagging because she does not respond to him sexually, then neither form of yielding is available to her (unless she is a very good actress, and even then she cannot simulate the physiological components of the sexual response); in fact the depressive yielding, by reducing her libido, actually makes voluntary submission more difficult. In such a case, the husband may not be aware that he is angry at her because of the lack of sexual response, and she may not be aware that she is depressed because he is nagging. The seeds of chronicity have been sown, and a final referral to Dr Bibring is more than likely.

If I may be allowed to return rather pedantically to the temperature control model, we can distinguish between the decision to switch on the central heating and the task of manipulating the switch. Even if the decision is made, the task may be impossible because the switch is faulty; then, if switching on is delayed, the onset of shivering may make the task of switching on even more difficult because of reduced manual dexterity.