#### Response to Dylan Evans

I was both pleased and chastened to read Dylan Evans thoughtful article. The reason I felt chastened was that we do not seem to have stated the hypothesis clearly. Dylan Evans says, for instance, "By signalling the intention to look for another niche, the submission cues indicate that the depressed individual does not pose a threat to the established dominance hierarchy in the current niche." What we have actually been saying is that depression helps the individual to accept a low rank in the "established dominance hierarchy of the current niche" and one of the obligations of low rank is to do what one is told by higher ranking people. If higher ranking people want the depressed person to go off and look for another niche, all very well. But if the "powers that be" want the depressed person to stay, the depressed person stays. To "signal the intention to look for another niche" is a signal of social initiative, and the depressive is (or should be) signalling not initiative but incapacity. I will try to elaborate this point, at the risk of some repetition. The reader is also referred to other sources (1,2,3).

## Finding a new niche?

Some theorists have suggested that the function of depression is to get the person out of their existing niche into a new niche in which they will function better and have more success (4,5,6). This is not our view. Our reasons are partly the nature of depression itself, and partly the nature of the task it has to perform.

One of the main features of depression is its pervasiveness. It affects all goals and incentives. It takes away the power of logical thought and the capacity to make decisions. Everything seems black and hopeless to the depressed person. This is not the state of mind in which to choose a new niche. Possibly emotional/limbic de-escalation might serve this function - in this case there is an object for the depressed emotion, the person is depressed about something, and may be able to formulate a strategy which will avoid the painful emotion. But depression as we see it in the clinic - what we have called instinctive/reptilian de-escalation (or the yielding subroutine, or the involuntary subordinate strategy) - this is either unfocused on an object, or self-focused, and it is globally incapacitating, and it appears to be the sort of state in which the depressed person will be unable to get out of the existing niche, however bad.

And this is exactly the role we have postulated for depression. It is not to change one's niche, but to accept one's niche however bad. In a hierarchical society, the bad niche is associated with low rank. Depression inhibits rebellion, and it also inhibits the desire to find a new niche. How many wives have we all treated who were too depressed to leave their husbands? The depressed wife may allow herself to be swept off her feet by a knight in shining armour, but she is not well equipped to find new accommodation for herself and her children, and to support herself and be independent. Nor is she likely to be sufficiently assertive to chuck her unsatisfactory husband out. Nor indeed is she likely to be attractive to a "knight in shining armour", nor to be found in those social arenas in which knights in shining armour are likely to congregate. Depressed wives are able to carry out the day-to-day household drudgery, but they are too depressed to take any initiative or change their situation. And, as a matter of interest, they are too depressed to mirror their children's "grandiose selves" and so are unable to inculcate a life-long high self-esteem strategy in their children.

In summary, the depressed person accepts the definition offered by the other. If this definition is to stay in the existing niche, then the role of the depressed person is to stay. If the other wants the depressed person to go, they go (responding to some such command as, "Get off my patch!"). This is what "yielding" is all about.

# The cue which triggers depression

I would like to take up Dylan Evans point about the cues which trigger depression, or rather, the cues which trigger the module which causes the behaviours which we call the Involuntary Subordinate Strategy (ISS) which we sometimes recognise as "major depression". We all presumably have some sort of module which monitors whether we are getting what is due to us, or what we deserve, or what we want, or whether we are getting our own way, or, more technically, whether our definitions of relationships and situations are being accepted by people around us. Or, conversely, whether we are being thwarted and unsuccessful, and having unacceptable definitions forced on us. Are our escalating strategies being successful? If not, there may be advantage in a change of strategy. It seems likely that the final common path of this module is loss of self-esteem (RHP and/or

SAHP; or mate value; or, simply, R).

Our module also needs to predict whether we are likely not to get our own way in the future. Some events are good predictors of loss of rank. Loss of an ally, for instance, must be a good predictor of loss of rank, in view of the fact that most human rank depends on a balance of alliances. Also childbirth is a good predictor of the possibility that one's own desires may have to give way to the desires of others. Not every baby born is wanted by the group, and infanticide is common in most cultures. To kill one's own baby, or to permit others to kill it (rather than fighting like a tigress for her cub) is an experience which a significant proportion of post-partum women have to undergo, and because of the strength of the maternal instinct, may require a strong incentive to submit to group pressures. This may be provided by depression, and we know that depressed post-partum women not infrequently kill their own babies. It seems likely that, for a certain period after childbirth, the module that triggers depression has a lowered threshold.

### Rates of depression

We have suggested that depression is a failsafe way of getting people to accept low rank. There are other, more effective, ways of accepting low rank - using the rational/neocortical brain, or Birtchnell's outer brain. For instance, one can be humble, and take the view that one does not deserve any higher rank than one has. If everyone was humble (de-escalating at the rational/neocortical level), we would predict that rates of depression would be much reduced. If you get as much as you expect, or more than you expect, you tend to be happy. If you get less than you expect, you are angry or unhappy (the emotional/limbic agonistic strategy set is accessed). This may be a reason why everyone is not depressed.

The sort of upbringing which is likely to predispose to depression is one in which the child is told he (or she) could become President of the United States. Then most must fail. We see it happening now in marriage. Girls are led to expect equality with their husbands, but often they do not get it - the boys have been brought up with cultural models based on male dominance, such as "The Godfather", and behave as if the wife is subordinate. There is often a clash, and the marriage may break up, or one of the spouses may get sufficiently depressed to acquiesce in the dominance of the other.

This marital problem is exaggerated in marriages of couples from different longitudes. We know there is a high correlation between eastern longitude and the cultural expectation of female subordination. Therefore, if men marry to the east, the wives get more equality than they expect, and are happy. If men marry to the west, the wives are forced into a cultural role of subordination they were not prepared for, and are likely to get depressed. This prediction is borne out by clinical experience, but I know of no epidemiological work which has addressed the problem.

### Voluntary submission

In summary, according to the social competition hypothesis of depression, the goals of the depressed person are given up (or, at least, not effectively pursued) but they are not replaced by new personal goals, but rather by the goals of other more powerful group members. Then, ideally, the depressed person adopts these new goals, so that their goals become identical with the goals of the group (or of its powerful members). Then there can be acceptance and reconciliation. True submission (at the rational/neocortical level) means identifying oneself with the goals (and beliefs) of the person one is submitting to. Then the seeds of rebellion are no longer present, and depression is no longer required.

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