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DEPRESSION AND FIELD DEPENDENCE

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the requirements for the degree of  
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NICHOLAS DRURY

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## ABSTRACT

A psychophysiological analysis of the development of psychological differentiation is presented and compared with the psychophysiological state of self-actualization. The psychological state associated with self-actualization is presented as the baseline for measuring all human behaviour.

The analysis of psychological differentiation suggests that both ends of this continuum represent a deviation from the baseline of the self-actualized state. It is suggested that one of the possible consequences of this deviation is the pathological state of depression. Thirty-one depressed patients from three hospitals were examined using a battery of tests which produced a number of significant correlations. The most important of these was that a significant difference existed between field-dependent and field-independent patients on comparison with psychiatric diagnosis suggesting that field-independence is closely related to exogenous depression and field-dependence to endogenous depression.

A critical review is made of contemporary theories of depression and a new model is presented. This model suggests the people develop habitual apperceptual modes of perceiving the world and fail to recognize a change of context. Reactive depression can be accounted for by a model of a subject who habitually perceives the world as an instrumental learning context and is placed in a passive avoidance context. A therapeutic strategy is suggested for treatment of the patient which consists of altering the informational component of behaviour encouraging the motivational component.

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BETWEEN BIRTH AND DEATH,  
THREE IN TEN ARE FOLLOWERS OF LIFE,  
THREE IN TEN ARE FOLLOWERS OF DEATH,  
AND MEN JUST PASSING FROM BIRTH TO DEATH ALSO NUMBER  
THREE IN TEN.

WHY IS THIS SO?  
BECAUSE THEY LIVE THEIR LIVES ON THE GROSS LEVEL.

HE WHO KNOWS HOW TO LIVE CAN WALK ABROAD  
WITHOUT FEAR OF RHINOCEROS OR TIGER.  
HE WILL NOT BE WOUNDED IN BATTLE.  
FOR IN HIM RHINOCEROSES CAN FIND NO PLACE TO THRUST  
THEIR HORN,  
TIGERS NO PLACE TO USE THEIR CLAWS,  
AND WEAPONS NO PLACE TO PIERCE.

WHY IS THIS SO?  
BECAUSE HE HAS NO PLACE FOR DEATH TO ENTER.

LAO TZU      TAO TE CHING  
VERSE 50.

## BEHAVIOURAL ANALYSIS OF PSYCHOLOGICAL DIFFERENTIATION

The move towards a field approach in the social sciences was a move towards describing the individual as not separate from his environment, but part of it. Sciences such as psychology, sociology, ecology, and even biology and physiology no longer describe the individual as a freely moving entity within an environment, but as a process of behaviour which is the environment also. In the behavioural sciences we have come to ignore intrapsychic processes in favour of focusing on what the environment is doing if we wish to understand what the individual organism is doing. We can in fact go as far as removing expressions such as "what the individual is doing" and "what the environment is doing", as if the individual was one thing and the doing another, and the environment as one thing and its doing another. If we reduce the whole business simply to the process of doing, then the doing, which was called the behaviour of the individual, is found to be at the same time the doing which was called the behaviour of the environment. In other words we can view this doing as a gestalt puzzle like the kissing-vase where focus finally comes to rest on the inline-outline which is common to both forms, except in this case it is a moving line. From a relativity viewpoint it makes equal or no sense to say that the movement was initiated from one side of this common boundary. More and more, it is becoming apparent that a relativistic field theory is necessary for all sciences.

Experimental evidence to support the development of a relativistic field theory of learning comes from the laboratory findings on the phenomena known as "autoshaping". It has been observed that when pigeons peck a disc in a Skinner box with grain used as a reinforcer their pecking actions are entirely different from when water is used as a reinforcer. In the former case, the action appears to be a classically conditioned grain eating behaviour towards the disc, whereas in the latter it appears to be classically conditioned drinking behaviour towards the disc. "Autoshaping" is perhaps the most impressive demonstration of a number of findings which have thrown into question the separation of classical conditioning from operant learning. Is the distinction

merely a laboratory and experimental artifact? (For a fuller discussion see Drury, 1978).

If we consider the famous New Yorker cartoon of one mouse saying to another, "Boy, have I got that guy up there fixed! Every time I press this bar, he gives me some food!" It seems that although the behaviouristic approach to learning theory espoused by Skinner and others seems to be stressing heavily the point of view that the individual is the puppet in the field in which he is involved, we find here the opposite view, that the individual organism, mouse or guinea pig, in the experiment is nevertheless determining the environment even when, as in the laboratory the environment is designed to control the specific organism. The environment of the rat running in a barn is not designed to control the rat, but the more it is so designed, the more the rat is involved in and shaping its environment. Unfortunately even though Skinner shows recognition in "Science & Human Behaviour" of the fact that we are not justified in assigning to anyone or anything the role of prime mover his behavioural philosophy is bent on demonstrating that it is a whole network of external causes operating on the individual that controls behaviour.

The problem with this philosophy is that even though it wishes to replace the popular conception of the inner self, the little man inside the head who is controlling everything, with a system of external causes, the philosophy is still left with the ghost of man as a something - presumably a conscious ego - determined by these external forces. This language, is still Newtonian and obscures a very simple thing, the nature of cause and effect. When there is a certain cause in the external environment whose effect is always a particular individual behaviour, you are using very cumbersome language for something you can describe more simply. For when you find these two things go together, you are actually talking about one thing. To say that Event A causes Event B is a laborious way of saying that there is one Event C. If I lift up a book by its corner, all corners are lifted up at the same time. If I lift up an accordian, there is an interval between cause and effect. Similarly when we study the individuals behaviour we are studying a system of relationships, but we are looking at it too close up. All we see is the atomic events, and we don't see the integrated system which would make them make sense if we could see it.

"Cause" and "effect" are simply two phases of, or two ways of looking at, one and, the same event. It is not then, that effects (in this case human behaviours) are determined by their causes; but rather that when events are fully and properly described they will be found to involve and contain processes which were at first thought separate from them, and were thus, called causes as distinct from effects. The ultimate reductio ad absurdum demonstration of cause and effect is to imagine a Martian following David Hume's definition of cause and effect watching a cat walk past a hole in a fence several times, he would have to conclude that the head causes the tail. The point here then is that man is not determined by nature, but man is nature. That is, the individual is not by any means what is contained inside a given envelope of skin; the individual organism is rather the particular and unique focal point of a network of relations which is ultimately the whole cosmos. The individual organism is a distinct feature of the environment but not separate from it, just as the crest and trough of a wave are distinct but not separate.

Our scientific methods of description still suffer then from a defective conception of the individual, for despite efforts to circumnavigate the notion of a little man inside the head, the behaviouristic philosophy still leaves the individual organism as a separate "thing". This is undoubtedly related to the colossal disparity between the way in which most individuals experience their own existence, and the way in which the individual is described in any field theory orientated science. The nub of the difference is this; the way the individual is described by these sciences if we take them to their logical conclusions as we have done above, is not as a freely moving entity within an environment, but as a process of behaviour which is the environments also. This form of description is at complete variance with the way in which we are trained by our culture to experience our own existence. We do not, generally speaking experience ourselves as the behaviour of the field, but rather as a centre of energy and consciousness which sometimes manages to control its environment, but at other times feels completely dominated by its environment. Thus there is a somewhat hostile relationship between the human organism and its social and natural environment, which is, expressed in such phrases as "man's conquest of nature" or "man's conquest of space", and other such antagonistic figures of speech.

It would obviously be to the advantage of mankind if the way in which we feel our existence could correspond to the way in which existence is scientifically described here. For what we feel has far more influence upon our actions than what we think. Scientists of all kinds are warning us most urgently that we are using our technology disastrously, consuming all the natural resources of the planet, creating incredibly beautiful but non-nutritious vegetables by altering the biochemical balances of the soil, spawning unbelievable amounts of detergent froth which will eventually engulf cities, overpopulating ourselves because of the success of medicine, and thus winning our war against nature in such a way as to defeat ourselves completely. All this advice falls on deaf ears, because it falls on the ears of organisms convinced that war against nature is the proper way of life. They have to be unconvinced and can be to some extent, by intellectual propaganda, scientific description and clear thought. But this moves relatively few people to action. Most are moved only if their feelings are profoundly affected. We need to feel this view of our individual identity as including its environment and this must obviously concern scientists who are trying to find ways of controlling human feelings.

One of the simplest ways of understanding why it is that man feels alienated from his environment is by considering the learning theory developed by Gregory Bateson (1972). He describes the outcome of prolonged exposure to a particular learning context resulting in the organism developing a "learning set" through the process of transfer of training. Thus an organism with prolonged exposure to an instrumental learning context comes to punctuate the flow of experience in that way, always being prepared to make the appropriate operant response.

"The subject will clearly expect the world, to be made up of contexts appropriate for instrumental response; his threshold for the recognition of such contexts will be lowered". (p. 216, Ruesch and Bateson, 1951). And in regard to the organism which has been exposed to the Pavlovian context. "... We may now state that he will learn to expect a world in which he has no control over the good and evil which may befall him; he will try to know when they are coming, and he can make appropriate

visceral precautions, readying his body for the food or pain. He can so to speak, look for the omens to tell him when the disaster will come, but it will not occur to him that he can do anything about the disaster, except, with his own body". (p. 216, Ruesch and Bateson, 1951).

To make this clearer consider the position of control in these two different contexts. For the Pavlovian dog, it makes little difference what he does, for it will have no effect upon changing the situation whereas the very opposite is true for the Skinnerian pigeon. Bateson is claiming no more than that besides the individual behaviour being learned, there is also a set of expectancies about the world being learned. In one case this set of expectancies could be expressed in terms of a belief in external control, the other, internal control. By far the most important research characteristic which concurs with the distinction is the work on psychological differentiation.

Psychological differentiation, as Witkin called the field-dependence-independence continuum, must be one of the largest areas of research in cognitive and social psychology judging by the sheer weight of papers generated to date. Field-dependence or independence is considered to be one's expression of a more general individual difference dimension, defined at one extreme by a global mode of field approach and at the other extreme by an articulated mode of field-approach (Witkin, et al., 1962). In people with a relatively global cognitive - perceptual style, experiences and hence behaviour, are governed, by the organisation of the field. By contrast, in people with a more articulated cognitive style, experiences can be analysed and structured in many ways, depending upon the task at hand. Field-independence has been operationally defined as the ability to overcome embedding contexts in perceptual functioning, and is considered then as an analytic and articulated mode of perception. Psychological differentiation is most commonly measured by some variant of the Embedded Figures Test or Rod and Frame test.

The inferential evidence is extremely strong for making the hypothesis that these two apperceptual styles are directly related to learning contexts. On the one hand is the passive spectator approach to life description offered by Witkin for field-dependents which concurs with Pavlovs description of several

of his animals after prolonged classical conditioning and on the other hand there is the active reward seeking approach to life description offered by Witkin for field-independents which would appear to be the outcome of a history of operant learning exposure. The most direct evidence offered of a learning link is the research offered by the writer showing a difference in classical conditioning learning abilities between field-dependents and field-independents (Drury, 1978).

For a long time the general impression conveyed by the research literature, sometimes implicitly, sometimes explicitly was that the field-independent personality was preferable. Since the mid 60's a spate of papers have appeared which have attempted to demonstrate and increase the development of a more articulated field-independent style and relate this to self-actualisation. This was undoubtedly related to the cultural misconception (myth?) that independence is equated to autonomy which in turn equals psychological health. However, this decade has witnessed growing doubt to this notion, especially from the women's movement as this dimension has shown (at times) a relationship with sex differences culminating in the recent paper by Witkin and Goodenough (1977). This paper shows the dimension to be value neutral by reviewing the numerous findings which demonstrate social co-operation and a generalised ability to get along with others to be more prevalent amongst field-dependents. There is some evidence to link this dimension with that of the distinction between task leaders and social-emotional leaders.

The sex differences in psychological differentiation are related to the socialization techniques it seems. Hamachek has suggested that with boys "...socialization practices are focused more specifically on directing him towards the environment, while with girls the emphasis is more on protecting her from the environment" (p 157, Hamachek, 1971). This difference in socialization technique is perhaps a more accurate reflection of the psychological differentiation dimension than it is of the sex dimension, especially in light of the current women's movement values, (where, if you will excuse the diversion, many are encouraged to imitate and embrace masculine values, thus becoming truly to be second class men rather than stressing the value

and importance of their own accustomed socialization patterns).

Unfortunately at this point in time there has been little research on the physiological concomitants of the differentiation dimension. This is perhaps regrettable in so far as the Rod-and-Frame test is based on presumably differences in physiological functioning, especially with regard to the use of proprioceptive stimuli. However, this is understandable as the dimension has been of chief concern to cognitive orientated psychologists; and they presumably share Witkin's belief that the physiological difference is due to "genetically determined sensitivity". Such a suggestion is naive when the cross-cultural evidence is considered for this lends strong support to the hypothesis that the degree of psychological differentiation an individual exhibits is a learned phenomena. It is perhaps fruitful for us to speculate as to the nature of what it is then that is learned that results in psychological differentiation.

If we examine the Pavlovian learning context we see that from a operational behaviouristic viewpoint it is similar if not identical to a "passive avoidance" learning situation. The term "passive avoidance" refers to the learning situation where the termination or non-performance of a response is reinforced, by resulting in the avoidance of aversive stimuli. It may be generally understood as a lowering of a particular or general overt baseline behaviours. Subsequently, it is no doubt assumed by many that no anxiety is to be associated with such a learned orientation to particular or all of lifes contexts as compared with an active avoidance response orientation. It should be noted that in passive avoidance learning there are conditioned associations between the aversive stimuli and both internal response cues as well as external situational cues. Termination of a response or lowering of baseline behaviour performance avoids response produced cues associated with punishment but does not avoid the external cues as the organism remains in the original situation in which punishment occurred. The organism is essentially in a conflict situation as Mowrer (1960) has emphasised because both responding and failing to respond leads to aversive consequences (a double-bind). Non-responding appears to be the temporary solution in this situation as it is the lesser of the two evils; it minimizes

but does not avoid aversive stimulation. Mowrer (1960) notes that the term "passive avoidance" is somewhat of a misnomer in that the noxious stimuli are not completely avoided in this kind of learning context as they are in active avoidance learning. This learning context might be equally well conceptualized as a conditioned emotional response characterised by inactivity; it is adaptive in that it readies the organism for inescapable stimulation of some sort.

There appears to be a welter of clinical and experimental evidence to relate this type of learning to the discriminatory behaviour of the field-dependent. For example, the conditioned emotional response we know as phobia towards dogs leads the phobic into being a very poor discriminator of dogs - as to whether they are old-young, safe-unsafe, various breeds, and may not even know what is indicated when a dog wags his tail. The simplest hypothesis (with all due consideration to William of Occom) to explain this phenomena would be to suggest that the phobic is orientated more towards 'punishment avoidance' than towards extrinsic positive reinforcement. A finding which is consistent with many studies of field-dependents cognitive behaviour (Bell and McManis, 1969).

To aid our understanding of the physiological processes involved in passive-avoidance and hence field-dependence it is of interest to note Pavlov's findings on prolonged classical conditioning. According to the Wednesday Discussions Pavlov was most surprised to find that instead of enhancing the animals ability to be more susceptible to classical conditioning following prolonged training, the animal instead becomes more and more difficult to classically condition. Pavlov initially described this phenomena in terms of the exhaustion of the neural centres responsible and later named this internal inhibition. Since that time a welter of papers have been published on the nature of inhibition. It is undoubtedly true that the experimental context itself offers many stimuli which impinge upon the animals behaviour, e.g. the harness in the Pavlovian dog salivation chamber; and these stimuli are undoubtedly responsible for eliciting many inhibitory reflexes in the experimental subject (i.e. external inhibition). In this sense, all experimental contexts of the Pavlovian sort have properties which resemble an experimental neurosis situation. And this is exactly what Pavlov found, a large number of dogs developed an experimental

neurosis and were practically impossible to classically condition. Thus we may come to view what Pavlov called internal inhibition not as an exhaustion of the neural centres but as a form of repression. In the words of R.J. Douglas, ... "the only solution to an irreconcilable ... conflict is to leave the field. But this is prevented by the action of both reward and punishment in riveting attention onto the same stimulus. The ideal solution would be to have a system which, in such cases blocks the excitatory effects of both reward and punishment and allows behaviour to be determined by other alternate stimuli. This, in a nutshell, is passive avoidance. It is also a good definition of repression, although in this case the motivation system cannot be activated even by the analysing system". (p549, Douglas, 1972).

A number of studies attest to the presence of similar defence mechanisms amongst field-dependents (Witkin, et. al., 1962). A variety of material gathered by clinical interview, projection test, dream recall, and experiments on the effects of stress helped develop the picture that for people clustered at the field-dependent end of the psychological differentiation continuum threatening material tended to be shut out of awareness by mechanisms of denial and repression. Further studies established the field-dependent subjects are more affected by social punishment but not social reward than are field-independent people.

Using Batesons notion of transfer of training as applied to the type of learning which results from long exposure to a particular learning context we may well imagine that an animal which has repeated exposure to an instrumental learning context may well come to be in a state of being constantly orientated towards making an appropriate instrumental response. Bateson makes use of the analogy that exists between a rain dancer in an undeveloped culture who believes in using inappropriate operant behaviours in the superstitious belief that this will produce rain and that of the Newtonian mechanical scientists and their approach to the problems of life, to point out the inappropriate perception that exists in science today. Of interest to this thesis in the relationship that may exist between repeated exposure to an instrumental context and the development of a field-independent apperceptual cognitive style.

We noted that in the case of repeated exposure to a classically conditioned context the environment of the laboratory takes on particular discriminatory stimuli which shape behaviour. A similar phenomena may be proposed to an instrumental learning context. If we consider the phenomena known as experimental neurosis we find that an animal is placed in a situation in which the animal is required to make discriminations which will be subsequently positively or negatively reinforced; then once this behaviour is well established the context is altered so that discrimination is no longer possible, i.e. discrimination related to operant behaviour is no longer appropriate. The result is the phenomena known as "experimental neurosis" in which the organism appears to shake like an electrical regulator in which the on and off switch have been set too close together; if left for a further period the animal enters a passive state and is difficult to arouse for further discrimination training (Galt, 1939). It seems then that if left the organism becomes adjusted to the nature of the change in context, i.e. that it is no longer a discriminatory context.

A simple hypothesis to explain this phenomena is the proposal made by Denny that the relaxation response is punished. If the degree of discrimination required of an animal in an instrumental discrimination learning context requires an arousal level to be achieved in that organism above a certain level then stimuli which serve as context markers, such as the experimenter, may serve as aversive stimuli to relaxation responses. If the animal in the operant paradigm considered here simply relaxes and no longer discriminated it is non-rewarded or even punished if the arousal of the hunger drive (or whatever the eliciting reflex is) gets sufficient to cause pain (Denny, 1971). For in an operant learning context the organism is forced to make an operant response or else starve. This is of course not true in the Pavlovian context where the organism is actually reinforced for not acting.

Denny gives us an analysis of a more generalized case of neuroses with this example.

"For example, a young child may have been severely scolded or punished by his father, and after a passage of time, i.e. after beginning to relax, the child may approach the father and be met by a gruff, anxiety-provoking retort. "What in hell do you want, kid?" If this sequence of events were to happen a number of times the clear possibility exists for conditioning generalized anxiety (conditioning fear to relaxation produced stimuli). In other words, every time our hypothetical individual begins to feel calm or relaxed, he begins to feel anxious." (p.288 Denny, 1971).

This is a good description of Bateson's famous double-bind theory also, which Bateson proposes, is enforced upon all members of our culture, to some degree. Alan Watts points out the nature of this socially imposed double-bind by noting that society from which man is never separate ... "gives us the idea that the mind or ego is inside the skin and that it acts on its own apart from society" (p. 41 Watts, 1973).

To summarise then, the hypothesis offered here is that if an animal is exposed to a context for a long period of time or with sufficient degree of intensity, that animal will come to make a discriminatory stimulus generalization to all contexts. The polar dimension considered here is the degree of control; in the learning context we know as a Pavlovian context the animal perceives itself as being controlled by the environment, whereas the context commonly described as an instrumental context is one in which the animal perceives itself as being in control. The most researched area in perceptual and cognitive psychology is the dimension of psychological differentiation which the hypothesis offered here suggests is the measurable result of such learning. On the one hand we have the "passive spectator approach" to life, and on the other the "active articulated" reward seeking approach (Witkin et. al., 1962).

The child rearing, methods which produce these two different forms of apperceptual habits appear to be those of guilt inducing methods and shame methods. The scientific research on this distinction in socializing techniques has a substantial history. Ruth Benedict, the anthropologist, attempted to use

this distinction as a method to distinguish between what she termed the "Apollonian" culture as opposed to the "Dionysian" culture. Bateson's original formulation of his learning theory which has been elaborated on here was based upon a similar distinction in an attempt to come to terms with the notion of National Character (Bateson, 1973). More recently the work of the anthropologist-psychologist John Berry has attempted to find relationships between the shame-guilt dichotomy in socialization and the development of a variety of cognitive skills (Berry & Annis, 1974). In all, the evidence continues to grow that field-dependence is related to 'shame' socialization techniques and field-independence to 'guilt', as originally speculated by Dawson (cited in Goodenough, 1976).

The criteria adopted to distinguish guilt from shame adopted by some researchers hinges on the degree of voluntariness or responsibility, that is, this difference is also related to that of control. The terms of dichotomy are those of a transgression from a standard (guilt) or a defect (shame); or else between a motive and an attribute (Lewin and Baldwin, 1959; Piers and Singer, 1953). The view offered by these writers is that if a person has no responsibility for a personal limitation then they can feel no guilt, but only shame, on account of this defect. The difference then appears to be a dichotomy between internal and external sanctions; shame being a reaction to actual or anticipated disapproval by an audience, and guilt being a negative self-evaluation resulting from a deviation from an internalized moral standard. Again we note that this description matches the description of an organism on the one hand developing a cognitive-perceptual style characterized by external control, and on the other by an internal control style.

We noted that the Pavlovian produced inhibitory behavioural pattern consists of the organism engaged in a process of active internal inhibition (passive avoidance) in which the organism makes ... "appropriate visceral precautions readying his body for the food or pain" (Bateson, 1951). Subjectively, this is the experience of "juggling" one's feelings around in order to face inescapable pain or discomfort as when one is in a 'formal' social situation which demands one's 'best behaviour'.

One here is reacting to an actual or anticipated disapproving audience; that is, 'self-control' here is maintained by shame.

The hypothesis developed here regarding the behavioural mechanisms which are concomitant with the psychological differentiation dimension pointed to field-dependents being more orientated to punishment avoidance and field-independents being more oriented to reward seeking. The evidence from studies on shame and guilt demonstrate a similar difference, in particular that fear and shame are closely related (Piers and Singer, 1953). Sometimes because of the failure of the child at a preponderance of activities he attempts, or because of continual discouragement and criticism of his parents; or most likely because of both, a child develops an overwhelming sense of shame and self-doubt. In general, social psychologists and Freudian oriented theorists have postulated this as being the negative resolution of the psychosocial crisis of infancy. The child lacks confidence in his abilities to perform, and he expects to fail at what he does. Shame, which one usually associates with the feeling a person experiences after having been caught at some misdeed, is experienced by the toddler whenever he tries something. The experience of shame is, naturally very unpleasant, and so subsequently to avoid it, the child refrains from all kinds of new activities. The acquisition of skills for this child are slow and painful. Anthropologists attest to the shame mechanisms of socialization to be a concomitant of those cultures we have dubbed 'primitive' (see for example Margaret Mead's "Growing up in New Guinea). Feelings of self-confidence and worth are replaced to a greater or lesser degree depending upon the intensity of the socialization process with a process of constant doubting. The child is only comfortable in highly structured and familiar situations when the risk of failure is minimal. As a result the child is likely to develop highly skilled appeasing social behaviours to maintain its security in the social milieu. In a nutshell this is the conservative humanistic stance, or what Witkin has called field-dependence. Cultures of such people have been dubbed "Apollonian" by Ruth Benedict.

At the other end of the socialization process continuum here is the guilt inducing technique which produces at a cultural level Ruth Benedict's 'Dionysian' people. The dynamics of this end of the continuum is represented by the social psychologists as being the development of a strong social identity in the form of an ideal self-image; guilt being the social mechanism operating during self-punishment for transgressions from the sanction it has set up to meet this ideal. The behavioural paradigm to establish this pattern is to intermittently reinforce the child for performing certain behaviours, and, perhaps, to punish the child for non-performance. This is the notion of 'self-control' which has recently been subjected to some degree of debate in the behavioural journals because of the acknowledgement that it is an illusion. The experimental paradigm consists of an animal being taught delay of gratification by presenting it with freely available food, which, if it helps itself to is withdrawn until it performs some response at a designated level. The animal of course quickly wakes up to the aversive nature of the wider context it is in and hence demonstrates 'self-control'. Here we see a process of what Pavlov called 'external inhibition' in that the organism is in an environment which has environmental stimuli eliciting inhibitory reflexes. This has been described as resulting in the development of a social self or 'mind' where the seat of motivation is moved from the thalamus and associated areas in the old brain to the cortical structures of the neo-cortex; especially in the writings of Trigant Burrow (cited in Watts, 1973). Self control is then an inhibitory tension generated to produce delay of gratification. The result of this form of socialization is the hard-headed, striving, positivistic, and adventurous character which we find manifested in most males of our culture (and in an ever increasing number of our females).

Bandura alludes to the shame-guilt distinction in the following paragraph.

"Although in both of the "internalization" mechanisms discussed above behaviour is internally regulated by self-generating consequences, the types of outcome produced differ in at least one important respect.

In the first case, behaviour is controlled by anticipatory representation of response consequences administered by external agents. Consequently, in situations which involve little risk that transgressive behaviour will be detected, or when anticipated aversive outcomes are mild, people may readily transgress. In the second case, a person is deterred from behaving counter to his standards of conduct by anticipatory self-punishing responses. Since the person's own self-demands and self-respect serve as his main guides and deterrants, behaviour that is under the latter form of self-control is apt to be less affected by variations in specific situational contingencies". (p.618, Bandura,1969)

Elsewhere Bandura points to the difficulty we may have at times in distinguishing between these two forms of "social control" but, be as it may, the distinction appears to be a valid one (p.164, Bandura, 1963).

Two further hypothesis which are worth considering whilst looking for physiological explanation of psychological differentiation relate to the 'split-brain' research and to the orienting reflex. A. J. Silverman has offered evidence which relates field-independence to greater use of the left-hemisphere and field-dependence to the non-dominant right cerebral hemisphere (cited in Goodenough, 1976). The past decade has seen a proliferation of papers on the different functioning of the two hemispheres with regards to cognition and perception, and lately the question of integration or lack of integration has been viewed. Also of interest is the relatively recent interest in the orienting reflex (OR) and the defensive reflex (DR) (Van Olst, 1971). When the orienting reflex is elicited, attention is localized to specific external stimuli and there is a shutting down of generalized attention or consciousness; occurring concomittently with this is the elicitation of neuromuscular tensions which are observable and measurable. By contrast, the defensive reflex (DR) appears to divert attention away from the exteroceptive senses and there may be an increase in interoceptive focusing as the organism cowers. In both cases we note a change in the respiration cycle of the organism. It would seem reasonable on the basis

of the evidence considered previously that this distinction is also related to psychological differentiation with field-dependents being continuously in a position of having the DR elicited, and field-independents continuously eliciting an OR.

The differences in respiration produced by these two 'basic' reflexes are easy to observe. One notices that an orienting response alters the breathing cycle by not breathing out as much, whereas the defensive response that accompanies fear seems to reduce the inspiration part of the cycle. In recent years there has been an increase in the scientific literature on the behavioural concomitants between particular situations and respiration and other bodily patterns (Korzh, 1976; Cheung and Poroos, 1977; Klorman and Weissberg, 1977). Because respiration has been long regarded as the bridge between the autonomic and central nervous system and we've seen that psychological differentiation is intimately concerned with the illusion of control as it manifests itself in apperceptual behaviour over a period of time, it is not unreasonable to suppose that these two 'basic' reflexes are closely related to field-dependence-independence. Victorian medicine 'discovered' that women tend to breathe from the top of the lungs using mainly intercostal muscles, whereas the breathing pattern of males is dominated by the use of the abdominal muscles with relative little use being made of the intercostal muscles. Various hypotheses have been offered to explain this interesting difference which it is suggested here more accurately captures psychological differentiation. The non-verbal communication theorists reason that this is a socially reinforced behaviour due to the emphasis it gives the breasts; whereas an older rationale is the suggestion that this is due to the block-and-tackle mechanisms of women's corsetry. Both of these explanations appear to be chauvanistic in that no reason offered as to why men should choose not to use the intercostal muscles at all. The assertion of this thesis is that this behaviour is due to particular social adaptation that the individual has made, which we know as psychological differentiation, and takes the form of habitual neuromuscular tensions which she/he identifies as the 'self' and prevents full use of the respiratory cycle. Some support for this aspect of our

hypothesis comes from the research on the orienting reflex (OR) and the defensive reflex (DR), although no direct empirical evidence is available at present (presumably because of the reluctance of cognitive psychologists to use behavioural analysis).

The bulk of research on psychological differentiation has concerned cognitive, perceptual and personality variables, many of which are poorly defined from a behavioural analysis viewpoint. However, this research demonstrates quite conclusively that this cognitive style pervades an individual's perceptual, intellectual, emotional, defensive, and social activities (Witkin et al., 1962). Typically, individuals who have performed in a field-independent manner on the perceptual tasks tend to be socially independent, to possess a developed sense of separate identity, to be less open to persuasion, and to possess intellectualized defensive operations. The literature suggests that field-dependent individuals, on the other hand, appear to rely on social cues to a greater extent in guiding their interpersonal relations. They tend to take a passive, and what appears to be a dependent orientation toward their social environment; and to utilize unsophisticated and primitive defenses, such as repression and denial. Another cognitive construct that has led to a large body of research literature is the locus of control construct originally proposed by Rotter (1966). This construct, as developed from Rotter's social learning theory, is seen as a generalised expectancy. Individuals characterised by an internal locus of control (internals) tend to perceive reinforcement as being contingent upon their own behaviour and attributes; these individuals attribute a relatively large portion of control over their reinforcements to themselves. Individuals characterised by an external locus of control (externals) tend to perceive reinforcement as being controlled by forces outside of themselves.

Research with the locus of control construct suggests that a number of personality characteristics and behavioural correlates associated with an individual's locus of control orientation bear a close relationship with those associated with an individual's field-dependence orientation. Generally, internals are reported to be more self-reliant (Rotter, 1966), to experience themselves as a distinct source of causative

power (Lefcourt and Telegodi, 1971) and to be less open to persuasion (Tobacyk et al., 1975). In contrast, externals are characterised as more acquiescing (Tobacyk et al., 1975) and less able to influence the attitudes of others (Lefcourt and Telegadi, 1971). Lefcourt and Telegadi (1971) showed that there were people who demonstrated congruence between Rotter's scale and psychological differentiation, that is internals who were field-independent and externals who were field-dependent; and others who were incongruent (external-field-independent and internal-field-dependent). In this study and a subsequent one conducted by Tobayck et al., (1975) it was found that congruent people performed better on a number of cognitive tasks and also demonstrated better personality adjustment.

Lefcourt and Telegdi (1971) express some surprise in their writing of their research findings by noting that externals field-dependents did as well in the tasks they performed. Also the paper on field-dependence and interpersonal behaviour by Witkin and Goodenough (1977) goes to some lengths to point out the neutrality of the dimension. The assumption for some time has been that the field-independence internal control end of the dimension is preferable. This bias has undoubtedly been due to the field-independent type of functioning to be more representational of most scientists working in Western science today. This is because our culture has trained us through the mechanisms discussed here to experience our own existence not as the behaviour of the field but as this centre of energy which is sometimes dominated by the environment, but at other times managing to control its environment. Newtonian science is successful because of the force we've been able to put behind one of these two viewpoints. But it maybe possible for us to experience, and view, ourselves not as a 'thing' but as an inseperable part of nature. This would be a "trancendence" of the psychological differentiation dimension and this must be the measure of psychological health. The problem confronting all sciences of human behaviour is that there exists a compelling body of evidence to give an entirely different conception of the individual than that which we ordinarily feel and which influences our common sense: a conception of the individual not, on the

one hand, as an ego locked in the skin, nor, on the other, as a mere passive part of the machine, but as a reciprocal interaction between everything inside the skin and everything outside it, neither one being prior to the other, but equals, like the front and back of a coin. This is the view offered of man from an Einsteinian viewpoint.

However, we still are under the emotional sway of Newtonian mechanics because cultural traditions which shape such variables lag far behind the theoretical views of the Einsteinian revolution in thought, and personal feelings of identity have yet to be modified by quantum mechanics and field theory.

The extremes and limites of current cultural common sense express themselves well in psychopathology as Laing and Watts (1973) have stressed. The relationship between cognitive-perceptual style and the nature of defense mechanisms employed is particular pertinent to the approach offered by this thesis to psychopathology. Witkin (1965) points out that a number of studies demonstrate that people with a more articulated cognitive style tend to use specialized defences, such as isolation. In contrast, persons with a global cognitive style tend to use such defenses as massive repression and primitive denial. Defenses appear to help determine the content of a persons experiences - what enters awareness and what is put aside. The defense mechanisms of the field-dependents involve an indiscriminate, total blotting out of memory for past experience and perception of stimuli. It seems that they do not keep feelings sufficiently discrete from thought and percepts, this being congruent with the tests which show they cannot keep body separate from field, rod separate from frame, or simple figure from organized ground. Persons with a more articulated style, in their use of isolation, maintain an isolation of feelings and ideas.

A number of studies supports this notion of differences in defense mechanisms. For example a number of studies have shown field-dependents tend to completely blot out their dreams due to repressive techniques preventing dream recall (Witkin, 1965). The more differentiated style of the field-independents gravitates them more towards specific social roles which enhances their greater sense of separate identity (Witkin & Goodenough, 1977). Bertini (1961) found by way of Rorschach analysis that field-independents use the mechanism of isolation in separating ideas from their emotional content. Witkin (1965) reports that a study by Minard showed that perception of words, presented tachistoscopically were markedly affected by their emotional connotation for field-dependents. Field-independents showed no difference in speed of perception to neutral or charged words; which incidently has also been found to be true of Zen masters (Hirai, 1975). The relationship with cerebral hemisphere functioning is found through studies relating field dependence with low scores on the WAIS block design, picture completion, and object assembly, obviously tasks which demand overcoming embeddedness; although there has only been found low, non-significant relationships with the vocabulary, information, and comprehension subtests (Goodenough and Karp, 1961).

One of the major characterizations of greater differentiation is specialization of function and a distinct separate self, which we have noted usually finds expression through a clearer social role. If we think of pathology in terms of failure to integrate the various functional relations of the parts of the psychological system, and between the system and its surroundings, we can see the possibility of two distinct types of pathology may emerge. On the one hand differentiation may proceed faster than integration, resulting in a failure to integrate the various parts of the psychological system or in a pathological integration. On the other hand massive repressive mechanisms may prevent the development of sufficient differentiation. The Piagetian theories offer a simple paradigm of the way greater differentiation arises during the course of development. Thus psychological impairment is likely to take different forms in relatively

more differentiated and less differentiated personalities.

Witkin writes that the evidence "... now clearly indicates that pathology occurs at both extremes of the differentiation dimension. In fact, there is some suggestion of greater frequency of pathology at the extremes than in the middle of the range. Further, pathology takes quite different forms at the two extremes. And the kinds of pathology that have been found at each extreme may be conceived as having the form which impaired integration is likely to take when more differentiated or less differentiated personalities breakdown" (p.324, Witkin, 1965).

The field-dependent cognitive style is likely to manifest itself in pathology with severe identity problems, deep seated problems of dependence, passivity and helplessness. Numerous studies have found field-dependence to be markedly associated with alcoholism (Karp, et al., 1965). Other clinical groups marked with dependency problems are also associated with field-dependence; ulcer patients (Gordon, 1953); obese people (Pardes and Karp, 1965); and asthmatic children (Fishbein, 1958); catatonics (Janucci, 1964); functional cardiac disorders (Soll, 1963); and patients with character disorders that manifest themselves as inadequate personalities unable to cope with the problems of life, and those who somatize their complaints denying psychological problems, and patients whose primary symptom is affective discharge rather than defensive symptom organization (Witkin, 1965).

Powell (1964) and Taylor (1956) have demonstrated that psychotics who are field-dependent tend to hallucinate, whereas field-independents tend to be delusional. This is undoubtedly related to the dissolution of ego boundaries accompanying hallucinations, whereas delusions can be seen as a means of maintaining the ego boundary and identity. The maintenance of identity by field-independents then would lead us to expect paranoids to be more field-independent as was found by Janucci (1964) and Powell (1964). Also obsessive-compulsive characters (Zuckman, 1957), and "neurotics with organized symptom pictures, and those ambulatory schizophrenics who have a well-developed defensive structure" (p.326, Witkin, 1965), tend to be field-independent.

Although cognitive style appears to relate to particular symptoms and symptom pictures, they do not relate to the major conventional nosological categories, such as neurosis and schizophrenia. In a study carried out by Witkin, hospitalized psychiatric patients diagnosed "schizophrenic" were found scattered throughout the distribution of measures of field-dependence (Witkin, et al., 1954). Cognitive style does relate to kind of schizophrenia however, as noted paranoids tend to be field-independent and catatonics field-dependent. Bryant (1961) has found that process schizophrenics tended to be more field-dependent than reactive schizophrenics, a finding not confirmed by Cancro (1962).

Nosological categories besides being based on symptoms, dynamics, and etiology to varying degrees, whereas the field-dependence tests are oriented almost purely towards symptoms, also have the problem of lack of consistency in the assessment of categories between psychiatrists. Katz et al. (1969) reports that the difficulty in diagnosis can be well illustrated by the following. "A film of a psychiatric interview with an attractive woman in her middle twenties was shown to two American and one British group of psychiatrists, who were asked to make a diagnosis. In the first group, 14 diagnosed the patient as neurotic and 21 as psychotic. In the second group, one third diagnosed schizophrenia; one third a neurosis, and one third a personality disorder. The British group of psychiatrists behaved very differently. Not one diagnosed schizophrenia, and over 75 percent diagnosed a personality disorder. The Americans had found profound apathy in the patient which the British had not". (p.937, Katz, 1969)

It is suggested here that it would be far more fruitful to classify in terms of symptom pictures because it is more likely to bring together persons with common underlying dynamic processes. Cognitive style, which I have attempted to show, mirrors a deep aspect of psychological make-up, and has been found to cut across conventional nosological categories; and thus may offer a potentially useful basis for clarifying nosological problems. Besides contributing to a more

discriminating assessment of psychopathology, the greatest contribution may be in the area of therapy. Recently, Gregory Bateson has raised the therapeutic problem of what "... happens when messages in digital mode are flung at an analogue thinker? Or when visual presentations are offered to an auditory client?" (p.x, Bandler and Grinder, 1975). It is only by knowing how people avoid change that we can assist them in changing Bateson goes on to say, and I think the cognitive style dimension is the deepest I can find in psychological research which gives us clues to the answers of these questions.

## CHAPTER II

## DEPRESSION

Although field dependence has been studied in normal individuals and in a variety of psychiatric patients, this aspect of cognitive style has had very little study amongst depressives. We know that the degree of field dependence or independence amongst a population is distributed continuously rather than bimodally and that the degree of psychological differentiation tends to be stable over time. Further we have seen that this dimension is related to particular defense mechanisms, the intensity of conflict over dependency drives, the levels of self-esteem, and the particular psychiatric symptoms which develop during a "breakdown". Field-dependent individuals tend to use massive repression and primitive denial, to have deep seated problems of dependence and low self-esteem, and to develop symptoms suggesting passivity and helplessness. In contrast, the field-independent individuals tend to use well differentiated defenses such as isolation and rationalization, to have less conflict over dependency, to have high self-esteem, and to develop symptoms such as "delusions, expansive and euphoric ideas of grandeur, outward direction of aggression, (and) overideation . . . . ." (p.325-326, Witkin, 1965).

Clinical descriptions of depressive patients suggest they display symptoms which resemble various field-dependent symptoms such as passivity, helplessness, and low self-esteem. However, Witkin's observation that the degree of field dependence in various psychiatric patients is the same distribution as what is to be found amongst "normals". Other symptoms presented by various depressives are more suggestive of field-independence such as the more active irritability of some reactive depressives. At first glance it appears that the dimension of field-dependence-independence would be correlated with the endogenous-reactive dimension. It would be expected that the spectator approach to life of the field-dependent personality is less likely to manifest itself in disorders recognized as anxiety, but would be expected to be more prevalent amongst those with symptoms of

paralytic helplessness. On the other hand the active approach to life with less use of environmental (especially social) referents for behavioural guides is more likely to lead the field-independent individual into situations producing agitation and depression. The use of isolation as a defense mechanism would appear to facilitate greater social withdrawal in the field-independent also. In other words, we should expect to find a greater proportion of field-dependent individuals amongst those depressive patients diagnosed endogenous, whereas we should expect to find more field-independent folk amongst patients diagnosed reactive depressives.

The distinction between reactive and endogenous depression is of course a long debated issue in modern psychiatry. Besides Darwin's distinction between 'despair' and 'frantic grief', the origins of modern psychological thinking has its roots for the distinction in Kraepelin's 'Angst' and 'Aengstlichkeit'. The problems associated with the distinction include the continuity or discontinuity between neurotic and endogenous depressions, the relationship between the various forms of neurotic disorders, and the extent of overlap between various neuroses, psychoses, and depressive disorders. The classification of depression over the past twenty years has proliferated giving rise to up to thirteen different categories. Some are tiered, others are not. There are also dimensional classifications with varying numbers of dimensions. Despite this confusion over the classification of depression there appears to be "... widespread agreement on the need to distinguish the two (endogenous and reactive), either by dimensions or by categories" (p.25, Kendell, 1976). "Although no generally acceptable typology for depressive states exists, there is considerable, albeit not complete, agreement that the endogenous-reactive dimension represents a potentially important categorization of depressive disorders" (p.327, Lewinsohn et.al., 1977).

Those theorists supporting the view that the two are not distinct categories have their approach well reflected in the following statement by Mendels and Cochrane. "The endogenous factor may reflect a 'classical'

depressive syndrome, whereas the reactive factor may reflect a psychiatric disorder in which depression is only one symptom "contaminated" by other non-depressive clinical features" (p.1, 1965). Klein however, and later Lewinsohn construed the distinction as being one of orthogonal, independent dimensions (Klein, 1974; Lewinsohn et.al., 1977). Two views are apparent amongst those who support the independent dimension theory; one group sees endogenous depression as a distinct syndrome and all other forms of depression as a variety of syndromes with depressive features (e.g. Pilowsky et.al., 1969); whereas another groups views reactive depression as a distinct syndrome because of its supposed clear association with neurosis whereas there are a variety of psychotic expressions of depression - endogenous, manic-depressive, involuntional melancholia etc. (e.g. Paykel, 1971). Pilowsky developed a questionnaire which divided depressives into three groups, those who were considered to be clearly endogenous, a second group which included reactives but also some others, and a third group whom he considered to be clearly suffering from other disorders which had depressive symptoms accompanying them (Pilowsky et.al., 1969). Eysenck and his followers claim that the Eysenck Personality Questionnaire (E.P.Q.) can clearly distinguish an independent syndrome of neurotic or reactive depression from a less clear and presumably cluster of syndromes of psychotic depressions (Eysenck and Eysenck, 1975). Presumably then, a population of depressive patients could be administered the E.P.Q. and the Pilowsky questionnaire, to determine three clear groups, definite reactive depressives (determined by the E.P.Q.), definite endogenous depressives (determined by the Pilowsky test), and a third group of patients with depressive symptoms but obviously not belonging clearly to either of the classical syndromes. This method was used for the practical aspect of this study.

Two important factor analytic studies of the reactive-endogenous dimension have appeared recently. Lewinsohn's group and Mendel's group were consistent in that both found endogenous depressives to be retarded, and showing a loss of interest in life (Lewinsohn et.al., 1977; Mendels and Cochrane, 1965). Lewinsohn's analysis also revealed that

reactive depressives show feelings of bearing troubles, a distinct precipitating stress, crediting problems to excessive family or job responsibilities, expressing concern for welfare of family and friends, visceral symptoms, feeling "at the end of the rope", showing self-pity, and having middle of the night insomnia. Interestingly enough Mendels found that middle of the night insomnia and visceral symptoms are more characteristic of the endogenous syndrome. To add to this confusion over the distinction we find that many British psychiatrists distinguish between a retarded and non-retarded form of endogenous depression (Mora et.al., 1976). The non-retarded appear to be more agitated. Despite this apparent confusion there does seem to be this "... widespread agreement on the need to distinguish the two .." (p.25, Kendell, 1976).

One of the more important factors which has determined the distinction however has been a practical consideration. The increasing use of electroconvulsive therapy (ECT) for depression in the 1940's led to a sharpening of the therapeutic classification of depression, because it was argued that patients with endogenous depression responded much more favourably to ECT than do the so called reactive depressives (Cook, 1944; Sargent and Slater, 1946). In a more recent approach which has been physiologically oriented and has wide therapeutic implications, Mora (1976) found a distinction could be made between the way various depressives breathed. It appears that the neurotic and non-retarded endogenous depressives display a higher breathing rate and lower  $PCO_2$  level than do normals. That is to say the reactives and non-retarded types emphasize difficulty in breathing in, whilst those in the retarded group appear to be experiencing difficulty in breathing out (see Burns, 1971). However, the retarded depressives differed not significantly from the controls (Mora, et.al., 1976).

This distinction would appear to point to an anxiety related depression (reactive) and what might tentatively be called a 'pure' depressive state. A systematic comparison of patients using this distinction was made by the "Newcastle School" (Roth et.al., 1972) examining items from the early life, personality, and clinical features

of a large number of depressive patients in order to justify that a degree of separation between the two groups could be achieved. The findings from this study relate well to a study by Lewis on field-dependency and neurosis (Lewis, 1971). Lewis found that the field-independent patients revealed greater overt anxiety and tended to direct their hostility outwards accompanied with references to guilt, fault, responsibility, being punished, scolded or abused; whilst the field-dependent neurotics directed their hostility inward with accompanying references of shame, humiliation, embarrassment, ridicule, and exposure of private details. Besides noting the greater tendency of women towards shame and hence field-dependence, Lewis also discusses the different functioning of the self in shame and guilt in psychoanalytic terms. It is suggested that the less articulated cognitive style is more amenable to ECT treatment because it breaks up the more rigid integrating mechanisms of repression.

Schmale (1972) adds support to the shame-guilt distinction in sorting out the endogenous-reactive distinction from a psychoanalytic perspective. Building on Freud's classic paper on depression "Mourning and Melancholia" (1917), Schmale goes on to say that the endogenous has thoughts and activities which are designed to " ... prove the need to suffer and suffer not from guilt, but rather from shame. The shame is hollow (built on fantasy), but it helps the individual to defend himself against the unresolved repressed oedipal wishes that he has never come to accept .." (p.205, Schmale, 1972). Schmale suggests that guilt is more typical of reactive depression, for the individual is attempting to prove that he is being neglected, and thus is directing his anger or hostility outwards towards the person or object which is "neglecting" him. The endogenous depressive however, is proving that he is unworthy, that there is a fear of not being worthy or measuring up, which leads to expressions of shame, rather than guilt, for being inadequate. The distinction, from this approach is then one of helplessness for reactive depression and hopelessness for endogenous depression.

This leads us to considerations of what depression is per se. One of the founding tenets of Buddhism is the Buddha's so-called four noble truths; the first of these being that all life is suffering. I remember a Zen Master commenting that one of the purposes of this tenet was to bring people to an acceptance of suffering as part of life so that they would drop their futile attempts to avoid suffering, because such futile striving was merely creating more and unnecessary suffering. This observation is well reflected by Brehm's theory of psychological reactance (Brehm, 1972; Klinger, 1975). According to this theory, during the time that an incentive is behaviourally salient, an organism is especially responsive to incentive related cues. This sustained sensitivity produced by a current concern has a definite onset point - the commitment - and an offset point - consumation or disengagement. Now disengagement follows frustration, and accompanies the behavioural process of extinction, involving an incentive-disengagement cycle of invigoration, aggression, depression, and recovery. Thus, depression is viewed as a normal adaptive function of the disengagement part of the cycle in which the organism is closest to its natural homeostatic base. It is perhaps pertinent to point out here that both Reich (1972) and Janov (1973) view depression as a healing process, and that during depression people are far closer to behaving naturally than at most other times.

This theory also receives support from the physiological theories of depression. The endogenous biological clocklike rhythms that control activity cycles and the more generally experienced awake-sleep cycle are of particular importance in the determination of whether an individual perceives, integrates, and reacts to environmental stimuli. Thus, a sudden awareness of an increase in stimulation may lead to arousal or activity and what Cannon (1951) called fight-flight at one point in time; but, at another point in time the same stimuli may be reacted to with a reduction in activity and what Engel (1962) labelled "conservation-withdrawal", (which is Pavlov's "internal inhibition" or what we have called "passive avoidance"). It has been found that with

infants both mechanisms modulate the arousal level; in that infants who were quiet are aroused by stimulation, and aroused infants are quieted by stimulation (Moss, 1967). The arousal mechanism and the withdrawal mechanism are ergotropic, and trophotropic reactions respectively and both seem to have endocrine and autonomic nervous system determinants (Knopp, 1970). At the lowest level of organization the withdrawal mechanism may be seen as permitting a rest period or a refractory period following activity. The onset of the apparent inactivity, or non-response, may be gradual or sudden.

The biologically adaptive function of withdrawal is not one and the same as the clinical syndrome of depression, but they are related. It is only under abnormal condition when prolonged exposure to a particular set of circumstance or highly stressful conditions prevail that we see it manifested in a more dramatic way. It is cerebral cortical and peripheral sensory and motor system determinants which contribute to the normal withdrawal depressive cycle becoming pathological. Schacter and Singer (1962) proposed that any given state for which one has no immediate explanation will be labelled according to the cognitions available to the individual at that time. Thus a number of theories have been proposed to explain the limits of man's capacity to perceive and to respond, to feel and to think, and to remember and to avoid (e.g. Sapir-Whorf hypothesis, and Korzybski's school of General Semantics).

We have seen that the development of 'mind', 'ego' or 'self', is the result of the circumstances surrounding the socialization process; and that this 'mind' tends towards expressing itself in a field-dependent manner or else in a field-independent manner; and further, that 'self-actualization' is transcendence of this dichotomy. The field-dependent mind is established through the identification of an ideal self-image and the over-use of the internal inhibitory mechanism (the conservation-withdrawal defense, or passive-avoidance). On the other hand the field-independent ego is a product of neuromuscular tensions associated with self-identity and the over-use of the

excitatory mechanisms (an instrumental reinforcement approach, highly activated arousal mechanisms).

Later in life when these mechanisms are well established in the organism as habitual neuromuscular tensions they are liable to experience the trophotropic reactions associated with withdrawal when a change occurs which biologically necessitates a major readjustment. This can occur in several distinct ways.

In the Freudian language the individual has 'resolved' to satisfy the oedipal conflict by either striving to overcome the loss produced by the infantile separation trauma by deeds which make others dependent upon him thus providing a false security; or else by achieving a personal goal of making oneself appear worthy of love by projecting this "beautiful" self-image. However, these ego defenses may be challenged by external events, by the loss of a loved (dependent) one or by having to accept defeat in not achieving one's personal goal.

The mark of reactive depression is a precipitating event it seems. We can see that such an event as the loss of someone close is liable to precipitate depression in both field-dependents as well as field-independents, but that the symptoms accompanying the depression are liable to differ and the recovery (and hence therapy) is likely to follow a different cycle. For the field-independent individual this is the giving up of an external object upon which he is dependent for gratification in his proof of his own self-worth. Social withdrawal would presumably be a pronounced symptom in field-independents. Field-dependents on the other hand would not show as much social withdrawal for, in the psychoanalytic language of Schmale, they would need people to confirm that they are unlovable.

Schmale writes that the formation of neurotic symptoms "... which make up the clinical syndromes of depression, represents an intrapsychic attempt to disavow the conscious recognition of the unresolved infantile wishes for gratification (to be mothered) or satisfaction (self as the ideal object). The symptoms - the need to

prove neglect (exogenous depression) and the need to prove self-neglect (endogenous depression) - involve an expression of the wish and the defense against the wish in a form that is consciously acceptable to the individual" (p.208-9, Schmale, 1972). Thus, the analysis is consistent with the hypothesis that the field-independent symptoms are more likely to be interpreted as reactive (exogenous) depression, whereas the symptoms presented during depression by the field-dependent are more likely to be interpreted as endogenous depression. Confounding factors are such things as the depth of depression, for a very heavy loss or an environmental change which prevents the individual from obtaining his gratification is liable to debilitate the field-independent.

The relationship between endogenous depression and field-dependence can be made clearer with the following consideration. Paradoxically, the field-dependent operates in the social context by allowing others to control their behaviour thus gaining control over other's behaviour. This is simply illustrated in an extreme case where a mother prevents her daughter from marrying by becoming helplessly dependent upon her undivided attention by some sort of invalidism. She is saying, in effect, that she is not requiring her daughter's attentions; her sickness requires them. The literature on field-dependence reveals that the normal field-dependent avoids emotional dependence as much as the field-independent, in so far as both are acutely aware of the signs of such behaviour (Witkin and Goodenough, 1977). However, the experimental evidence consistently reveals that the field-dependent has an habitual turning towards others orientation, most marked when in an ambiguous task situation, showing a seeking for external authority to act as a guide for one's behaviour. This kind of behaviour is likely to make one quite popular, if one avoids emotional dependence, which might quickly manifest itself as the directive source is removed (see for example, Greene, 1973), because it is likely to be taken by the "director" as an active interest in him or her. Field-dependents are noted by a number of researchers as showing a marked interest in others and prefer being physically close to people and gravitate towards social situations (Witkin and Goodenough, 1977). The more field-independent

"director" of the field-dependent is then in turn behaviourally shaped by this attention. As with the invalid mother, the field-dependent is not taking full responsibility for his/her behaviour and this allows him to control the situation.

Alan Watts analyses Jay Haley's account of social interactions from where the above example was drawn makes the situation clearly understandable

"With any social situation where one individual is putting double-binds upon others, the others respond with the same type of behaviour. In the example cited, the mother wants the daughter's love - but the daughter cannot say, 'I am staying home because I love you and because I want'. She has to say that she is acting involuntarily because her mother is sick. In effect, the daughter is saying that she is loving her mother because she cannot help it, and does not want to, and now the mother is in a double-bind. She cannot get love from her daughter without realizing that it is not really love, and yet she cannot say, 'Well, after all, you do not really love me', without the daughter's countering, 'Then why do you think I am looking after you?' Furthermore, she cannot say 'You are just looking after me because you would feel ashamed to do otherwise', she would not only be denying outright what she wants, love; she would also be giving away her own game. In this way her symptoms are perpetuated. Because she has to be sick involuntarily, the daughter has to love her involuntarily, and therefore she had to be sick involuntarily. To get what they want, they are both doing what they don't want. They are in a conflict and in misery, feeling themselves in the vicious circle of an insoluble problem". (p.132-3, Watts, 1973)

Now experimental studies show that there is no difference in the ability to recognize hostility in others as well as in the ease which hostility is aroused between field-dependents and field-independents (Witkin and Goodenough, 1977); but there is a pronounced difference in the way they handle hostility. There is a greater tendency for the field-independent people to express hostility directly against others when such feelings are aroused in an interpersonal context. A number of studies employing the Defense Mechanism Inventory developed by Gleser and Ihilevich (1969) show that field-independents characteristically "turn against the object" as a defense, and field-dependent subjects use "turning against the self" (e.g. Bogo, Winget, and Gleser, 1970). This is of course analogous with the studies of emotional theories hypothesizing "anger-inners" and "anger-outers", with the doves predominately controlled by epinephrine and hawks by norepinephrine (Funkenstein, Kind and Drolette, 1957). Such behaviour is undoubtedly functional for the field-dependents in so far as it is inoffensive and presumably elicits sympathy or sorrow from others.

The Newcastle group which made an extensive analysis of depression and personality factors found that the endogenous depressives are characterized by being better mixers, more socially relaxed, and exhibiting greater social confidence than those depressives classified as neurotic depressives. These factors are of course consistent with the field-dependent personality characteristics. Thus the form of depression known as endogenous depression appears to be associated with field-dependence and is presumably due to these folk finding themselves in a particular context.

Three theories of depression have dominated the psychological empirically oriented literature in recent years; these are Beck's cognitive view, Seligman's helplessness model, and Lewinsohn's theory implicating a low rate of response - contingent reinforcement. All three theories appear to have some consistency with the view presented over the preceding pages as a general theory of depression, but each seems to fail to adequately come to terms with differences found amongst

depressives, such as the reactive-endogenous distinction. Seligman's theory may be an exception in that he claims it fits the reactive type rather than the endogenous mode (Seligman, 1978).

The essence of Beck's theory is that the root of depression is a negative cognitive set (Beck, 1967). The depressed person is seen as having a depressed view of himself, of the world and his future. And depressed affective state is secondary to these negative cognitions. Although depression may be externally precipitated, it is the individual's perception and appraisal of the situation that renders it depression inducing. No theory denies that depressed people have depressed thoughts and therefore, correlational studies such as Weintraub, Segal and Beck's (1974) fail to prove that the cognitive manifestations are primary. Demonstrations that depressive states can be induced by manipulating an individual's belief or focus of attention, such as Velten's (1968) experiment offer stronger support but fail to show that reading equally gloomy non-self-referred statements may be just as depressing, a comparison which has not yet been done.

Seligman's (1975) picture of depression is based on laboratory experiments with dogs. Dogs placed in a situation from which they cannot escape or actively avoid aversive stimuli behave passively when placed in a new aversive context, even though a response performance exists which will permit escape. This experience is said to result in learned helplessness which is a motivational deficit and an interference with the learning of new responses. The helpless animal is said to have learned that response and outcome are independent. Seligman's hypothesis is that reactive depression in humans is essentially a state of learned helplessness by being unable to figure out an escape solution, or by concluding that they are unintelligent rather than that outcomes were not response contingent. That is, the induction could as easily be considered a self-esteem manipulation as a perceived control manipulation, and any results on an affect measure would not unequivocally support the helplessness model of depression.

That is, it could be interpreted as offering support to Beck's theory. In a study by Forrest and Hokanson (1975) it was found that depressed subjects were superior to controls in learning a response-avoidance contingency when the response was self-punitive; a finding which is contrary to Seligman's claim of lowered learning ability among depressives, but consistent with the theory offered by this thesis. Becker (1974), also notes that a number of the characteristic parallels between learned helplessness and depression seem most germane to severe, endogenous depression rather than reactive depression. Further, Seligman's theory comes under criticism from the accumulated research literature on field-dependence-independence and Rotter's Internal-External control research where it is quite clear that a large number of people who believe they are hopeless but beautiful and are not the least depressed. Beck presumably accounts for depression, not in terms of the individual's belief that he lacks control but rather in terms of his belief about why he does and/or in terms of how unacceptable he believes this state of affairs to be. Recently Mineka and Kihlstrom (1978) have shown that its unpredictability and not uncontrollability that sparks anxiety in "normal" humans.

According to Lewinsohn's (1974) behavioural viewpoint of depression, it is due to an individual's low-rate of response-contingent positive reinforcement that the phenomena occurs. This low rate exists insofar as few events are reinforcing; few reinforcing events are available in the environment; and/or the individual, perhaps due to lack of appropriate skill, infrequently makes those responses that would be reinforced. Lewinsohn is explicit in claiming that it is not rate of reinforcement per se, but rate of response-contingent positive reinforcement that is crucial. In general the correlational findings which support this model have been criticized for being tautologous and not helpful in identifying the contingent reinforcers (see Blaney, 1977, for a fuller criticism).

Two new theories worth mentioning are Coyne's, and that offered by Forrest and Hokanson (Coyne, 1976; Forrest and Hokanson, 1975). Coyne's theory is based upon stress eliciting the need for social support,

which in turn makes those giving it annoyed to do so, which, in turn, is perceived by the depressed person making him more in need of support. Basically, the vicious circle described in the passage by Alan Watts in the account here of endogenous depression. The Forrest and Hokanson theory is a social learning approach suggesting that depression is a self-punitive behaviour; supported by Suarez's (Suarez et.al., 1978) experimental finding of superior passive-avoidance learning among depressives.

The theory offered by this thesis encompasses many of these views. The approach to learning theory adopted here suggests that learning is always occurring, but that it can be interfered with and proceeds at a slower pace when attention is diverted elsewhere. The suggestion, originally by Bateson (1972) that people view the world as an instrumental learning situation, or as a Pavlovian conditioning context, is elaborated here to suggest that this is the development of a field-independent cognitive-perceptual style and the field-dependent style respectively. Having developed this perceptual style, it becomes extremely difficult to adjust to perceiving the context in any other way. Thus when a person with an instrumental learning apperceptual mode is placed in a passive-avoidance context, adjustment is slow, and may give rise to pathological symptoms such as "reactive depression". Research by learning theorists confirms that learning does proceed without awareness, but that it is slow compared to learning with awareness. The individual with the instrumental apperceptual spectacles has several possibilities open to him once he has entered this passive-avoidance context. He may bide his time waiting for the context to change again and would presumably go on checking out various escape strategies; or he may become conscious of the change of context and give up his habitual apperceptual style and now adopt either a field-dependent style or else transcend the dichotomy.

The factors which precipitate depression are difficult to assess, empirical studies and longitudinal studies are rare; and of these few manage to distinguish various symptom clusters that may be associated with a reactive-endogenous distinction. Even the presence of a

precipitating factor as a marker to distinguish the two is highly questionable, as some researchers claim that if one searches deep enough a precipitating factor can always be found. Presented here is the image of the field-independent being a left-brain driven environmental controller entering a passive-learning context and presumably finding the adjustment difficult, such as might occur upon the loss of a loved one. The field-dependent has learned perhaps that being beautiful is sufficient, until perhaps old-age arrives, the loss of family, especially children (empty nest syndrome), resulting in the elicitation of perhaps stronger passive behaviours in order to regain the attention they once held.

Consistent with the approach developed here is the learning theory assumption that reality is neither an instrumental context (the Skinnerian approach to learning theory), nor is it predominantly classical conditioning context (the Soviet approach to learning theory). Autoshaaping comes closer to being an accurate description of the nature of learning; where the distinction between operants and respondents can no longer be made. It is only by ignoring certain features of learning that it appears to be either operant or respondent in nature (for a review see Drury, 1978).

This being the case then it is possible to see that those who have chosen to ignore either the respondent or operant aspects of their own behaviour may find that this has long term aversive consequences. Thus depression may also be a symptom resulting from prolonged ignorance of certain features of one's natural self. That is to say, in the Freudian language, it may be the breakdown of certain egoic defenses and the emergence of unconscious material into consciousness. If successfully integrated, then depression can be viewed as an adaptive process which promotes mental health.

The method of prevention suggested by this theory would then run counter to both the views of Seligman and Beck. Both theorists seem to presume that prevention can be instigated by some form of immunizing educational or socialization technique, which, it appears to me, amounts

to the development of a more field-independent perceptual mode. But here we have argued that field-dependence and field-independence are apperceptual tools, and that the actualized nature of man is to perceive the world in neither manner, and it is only by allowing this natural apperceptual state to arise in man that he can be successfully "immunized" against those forms of depression which hospitalizes him.

It has been said that the facts justly arranged speak for themselves. The problem with that statement is the phrase "justly arranged" for any arrangement depends upon certain metaphysical assumptions and decisions; metaphysical assumptions and decisions which are directly affected by a scientist's apperceptual state. We have seen that the facts found by a number of researchers well support the theory of depression offered here. We have developed the hypothesis here that psychological differentiation is the cognitive and perceptual measure of the outcome of prolonged exposure to a particular type of learning context, in particular that field-independence is the type of perception learned in an operant learning context and that field-dependence is the type of perception learned in a Pavlovian learning environment. Following Bateson (1973) it has been noted that psychopathology is the observable outcome of a situation where the nature of the learning context is providing messages which are in conflict with those provided by apperceptual habits. In the case of depression it is reasoned that when a person with instrumental spectacles (field-independent) enters a Pavlovian context (a situation requiring passivity, or lowering of baseline behaviours, such as would be required on the loss of a loved one in order to re-integrate the cognitive variable effecting one's life) they would be slow to recognize the context and continuously display the agitation that accompanies searching for a correct instrumental response; this we recognize as reactive depression. By contrast those with Pavlovian spectacles entering an instrumental context (such as an 'empty nest' which generally demands a search for new stimulation) employ their usual copying strategy, that is, passive avoidance; this is recognized as endogenous depression (and we might note is true "learned helplessness"). Thus a demonstration of the model of depression outlined here would be the finding of a high correlation between field-independence and reactive depression, and between field-dependence and endogenous depression.

## CHAPTER III

## A STUDY OF FIELD-DEPENDENCE IN DEPRESSION

Although field-dependence has been studied in normal individuals and in a variety of psychiatric patients (Witkin, 1965), this aspect of cognitive-perceptual style has not been studied with depressive symptoms. A paper by Koran and Maxim (1972) failed to find a relationship between the manic phase and field-independence, and the depressive phase and field-dependence, amongst manic depressive patients confirming Witkin's notion that "... the kind of perception shown by an individual represents a deep-rooted feature of his psychological make-up ..." which is resistant to change (p.10, Witkin, et al., 1954). The purpose of this study is to investigate the relationship of field-dependence with depressive symptoms and syndromes.

In their original work, Witkin et al. (1954) demonstrated that the degree of field-dependence or independence in a population is distributed continuously rather than bimodally. They have also shown that the degree of field-dependence or field-independence tends to be stable over time and to be correlated with the kinds of defenses used, the intensity of the conflict over dependency drives, the level of self-esteem, and the particular psychiatric symptoms which will develop during a "breakdown". Field-dependent individuals tend to use "massive repression" and "primitive denial", to have apparent problems of dependence and a lower self-esteem, and to develop symptoms suggesting passivity and helplessness. In contrast, field-independent individuals tend to use well differentiated defenses such as isolation and intellectualization, to have less conflict over dependency, to have higher self-esteem, and to develop symptoms such as "delusions, expansive and euphoric ideas of grandeur, outward direction of aggression, (and) overideation ..." (p.325-26, Witkin, 1965).

Controversy over the classification of depressive phenomena has been a prominent feature of the psychiatric scene for about forty years and the issues involved have been reviewed on a number of occasions

(Kiloh, 1965; Rosenthal and Klerman, 1966; Mendels and Cochrane, 1968). A review of the findings of these and other studies was presented earlier in this thesis, and may be summarized here as being attempts to support or refute the validity of classifying depressions into those which are "endogenous" and those which are "reactive" or "neurotic"; using a variety of statistical methods which have included factor analysis, principal component analysis, multiple regression analysis, and numerical taxonomy.

Criticisms of these studies have often focused on two aspects of methodology; the data collection method and the nature of the statistical technique employed. It has been apparent to most researchers that psychiatrists usually have well developed preconceptions as to the nature of depressive syndromes, and that these may well result in a tendency to influence patient's descriptions of their illnesses. Thus what is ostensibly an analysis of patient's symptoms may in fact constitute an analysis of the psychiatrist's biases. This criticism is particularly relevant since most studies have been based on the analysis of psychiatrist's ratings, or even on data retrospectively extracted from case notes.

Problems relating to the classifying of syndromes from symptom analysis, and the choice of statistical technique has been lucidly considered by Mendels (1968), and by Moran (1966). Both writers emphasize the need to differentiate between classification and identification of patients. Many of the anti-psychiatry writers present a somewhat similar argument in suggesting that many psychiatric labels may be restricting. A full coverage of the psychiatric syndromes given by the American Psychiatric Association and World Health Organisation is presented in the Appendix of this thesis.

In a study using the statistical method of Numerical Taxonomy, Pilowsky et al. (1969) found depressive patients clustering into three groups. The first group tended to be male, young, depressed all day, having suicidal ideas, and feeling they were a burden to others. This group also reports no sleep difficulties, irritability with others, concern over bodily health, more depressed in evenings, and there also

appears to be a presence of guilt, self-depreciation and paranoid trends. Although some of the characteristics of this group suggest the "reactive" depression syndrome, there is also possible psychotic syndromes which present these symptoms. His second group reported retardation, loss of libido, loss of appetite, general insomnia, dry mouth, loss of interest and poor concentration; all of which features appear to fit the syndrome of endogenous depression. The third group appeared to be those showing little amount of clustering on any features, and these were described as being other illnesses with depressive symptoms. Pilowsky et al. conclude their study by suggesting that endogenous depression may well be a realistic syndrome and is not a result of observer bias.

With these prior studies and criticisms in mind the approach of the present study had two aims. Combining the observations and descriptions of psychological differentiation and of depression it is hypothesized that there is a high correlation between field-independence and reactive depression, and between field-dependence and endogenous depression. Secondly, because of the criticism of psychiatric syndrome diagnosis we aimed to explore correlations between the field-dependence dimension and various depression symptoms.

## METHOD

### Subjects

The sample for this study was drawn from the inpatient population of Lake Alice Hospital, Porirua Hospital, and Tokanui Hospital. Forty-two patients diagnosed as depressed were seen, 11 were discarded because they failed to complete the tests (for a variety of reasons - suicide, death by natural causes, one case of self-immolation, some were discharged before completing the questionnaires, etc), leaving 31 subjects. The 31 subjects comprised of 6 men and 25 women were all admitted for psychiatric treatment and were diagnosed as depressives, both psychotic and neurotic, as well as schizo-affective with a strong depressive element.

Of the 11 discarded 4 were males and 7 were females; consulting table ONE 4 of these were from the 'reactive' group, 4 from the 'endogenous' group and the remaining 3 from 'other' group.

Subjects were selected from the admission wards of the three hospitals visited. Selection was based upon the attending psychiatrists' rating and diagnoses, from my own observations of the patients' behaviour in the ward setting, and from other psychologists and ward nurses' perception of the patient when selected. The selection of subjects was based purely on who was available at the time of the experimenter's visit and no attempt was made to balance for sex or age. It is to be noted that there is a ratio of 4:1 of women to men in the sample which is somewhat higher than the national average. Although there is a greater tendency for women to be field-dependent this difference is of no importance to a correlational study such as conducted here.

The patients were initially asked to voluntarily participate in the study, and at the same time were asked how they felt in order to establish whether there was a subjective notion of depression, as it has been shown that the perceptions of the doctors with those of the nurses differ, whilst the perceptions of the patients differ from both (Raskin and McKeon, 1971; Schwab et al., 1967). Only if the patients and the staff of the institution agreed on a depressive diagnosis were the subjects admitted to the testing procedures.

Diagnostically the subjects were a mixed group of depressives and their psychiatric diagnosis is shown in Table 1. Where the patient's file failed to record a psychiatric diagnosis according to the revised coding system the psychiatrist was consulted for a diagnosis. It is to be noted that the diagnoses of the patients in the endogenous group are more homogenous than the diagnoses of the patients in the other two groups. This is an experimental artifact and is due to the random selection procedure used. It is also noteworthy that two patients classified as "reactive depression" show a diagnostic code of 298.0 and thus are possibly diagnosable as 295.7 schizo-affective under the British system. However, personal observation on the part of the

experimenter and discussion with ward staff suggested a more correct diagnostic code would have been 300.4 for both of these. The Eysenck Personality Questionnaire revealed that neither of these patients had a particularly elevated 'psychotic' score; but the Eysenck profile more typical of endogenous depression. (See Table A in the appendix, subjects 4 and 10 respectively). It is to be noted that the lie (L) score on the Eysenck Personality Questionnaire for subject 10 is elevated, thus throwing into question the validity of other scores.

An attempt was made to screen subnormal and brain damaged individuals from the study by reviewing the patients files and discussions with ward staff. The Embedded Figures Test, which is a perceptual test is obviously highly affected by organic impairment. The age range of the patients in the sample was from 20 to 69 years, with a mean of just under 47 years. All subjects were caucasians, although this was not deliberately sought.

Criticism of this research design must be levelled at the failure to record and assess factors such as first and second admissions, medications, and ECT history. In defence of the research conducted here it is argued that these variables are of low value as Witkin has demonstrated that an individual's degree of psychological differentiation is a relatively stable factor (Witkin et. al. 1962).

TABLE ONE - DIAGNOSTIC CATEGORIES

CODE	N	MALE	FEMALE	AGE	
				MEAN	S.D.
"Reactive" Depression (298.0 (300.0 (300.2 (300.4	2	-	2	39.5	12
	5	2	3	45.6	19
	1	-	1	28	-
	2	-	2	28.5	12
	10	2	8	39.2	16
"Endogenous" Depression (296.0 (296.1 (296.2 (296.3	1	1	-	55	-
	1	-	1	46	-
	9	2	7	52.4	13
	1	-	1	59	-
	12	3	9	53	11
Other Illnesses with Depressive features (295.0 (295.7 (301.5 (301.6 (301.9	1	1	-	56	-
	5	-	5	45	9
	1	-	1	62	-
	1	-	1	33	-
	1	-	1	50	-
	9	1	8	47.3	10.5
TOTAL .. ..	31	6	25	46.8	13.6

### Procedure

For most subjects this study was conducted during their first two weeks of hospitalization, although a number of the subjects had a prior history of hospitalization. The subjects were initially given the Becks Depression Inventory followed by the Embedded Figures Test after being invited to participate in the study. Both tests were administered individually, and a small quiet room within the ward was used for this. The subject was then given the remaining tests, described below, and asked to take them away and complete them in their own time over the next two days. No attempt was made to standardize the administration of these tests other than to instruct the subjects to complete them on their own. As these tests are paper and pencil item check lists it is presumed by the researcher that the results are valid and reliable.

### Materials

1. Beck's Depression Inventory (B.D.I.) In order to establish a reliable and valid measure of depression this inventory was utilized. This is an inventory of 21 symptom-attitude items each of which contains a number of statements. The nature of the inventory is based on two observations:

"(i) That with increasing severity of depression, the number of symptoms increases and there is a steplike progression in the frequency of depression symptoms from non-depressed, to mildly depressed, to moderately depressed, to severely depressed patients; and

(ii) The more depressed a patient is, the more intense a particular symptom is likely to be." (Beck, 1969)

The inventory was designed to include all symptoms integral to the depressive constellation and at the same time to provide for grading the intensity of each. It does this by including within each symptom category a series of statements reflecting varying degrees of severity. Each symptom reported by the

patient is assigned a numerical score and the intensity of each is registered by the assignment of graduated numerical values to each statement within a category. Each statement in a category is read aloud to each subject and they are asked to select the statement that seemed to fit them best at the time. The subject is also given a copy of the inventory so that they can read each statement to themselves as they are read to them. On the basis of the subjects response, the number adjacent to the appropriate statement is circled.

A total score is then obtained by summing the scores of the individual symptom categories and this represents a combination of the number of symptom categories that the subject endorsed and the severity of the particular symptoms. The individual items of the inventory are also amenable to symptom analysis. In this study the items on the B.D.I. were subjected to a correlational comparison with the measure of field-dependence, the Embedded Figures Test.

2. The Embedded Figures Test. In its rationale and format, this test is the product of extensive research on individual modes of cognitive functioning or cognitive styles. It is one of the two most widely used techniques for establishing an individual's relative cognitive style, the other being the rod-and-frame test (R.F.T.). In its revised form it consists of 12 Complex Figures from which a Simple Form which is embedded in that Complex Figure has to be identified within a 3-minute time limit for each item. The test measures an analytic ability or cognitive-perceptual articulation in the ability to overcome an embedding context. The subject's score for the test is the mean time for all 12 items. A low score reflects field-independence and a high score field-dependence. There is some criticism of using the E.F.T. as an index of field-dependence-independence because of age differences.

3. Rotter's Internal-External Control Scale. This is a forced choice 29-item scale including 6 filler items which purports to measure a generalized expectancy in learning situations to regard whether or not reinforcement, reward, or success in these situations is dependent upon their own behaviour or is controlled by external forces, particularly luck, chance or experimenter control. Based upon Julian Rotter's social learning theory which views learning as predominantly operant in nature and that acquisition and performance will differ in situations perceived as chance or skill situations because of a belief in the nature of control; Rotter and subsequent researchers have attempted to find ways of increasing internal control beliefs. In general researchers have found a high correlation between this test and measures of field-dependence. Subjects who show incongruence between the two tests have been found to perform poorly on a number of cognitive tasks (Lefcourt and Telegdi, 1971; Tobacyk et al., 1975). High scorers on this test reflect belief in external control.
4. Eysenck Personality Questionnaire. A development from earlier personality tests (the Eysenck Personality Inventory or E.P.I., and the Maudsley Personality Inventory or M.P.I.); it differs from these by including an extra scale making it three-dimensional. These dimensions are orthogonally opposed to each other; the dimensions being Psychoticism, Extraversion, and Neuroticism. The P or Psychoticism scale is not actually related to a behavioural manifestation of psychosis but is more a measure of "tough-mindedness", a high scorer on this scale is characterized as being a solitary not caring for other individuals who may be cruel and inhumane in his dealings with others. The E or Extraversion scale refers to the extravert-intravert dimension, the extravert being sociable, active, often unreliable, and not always managing to keep control of his temper, whereas the introvert tends to be a reliable, quiet, retiring sort of person who tends to "look before he leaps". The N or Neuroticism scale

measures instability or emotionality, the high scorer being an anxious, worrying individual, moody and frequently depressed. There is also a L or Lie scale which attempts to measure subjects tendencies to "fake good", but under conditions of low stress, such as in this study, it is to be more accurately read as a denoter of the degree of social naivete.

Eysenck presents a formula for converting the 4 scores presented by these scales into two principle factors. The first factor relates to psychiatric abnormality, the controls being at one end of this dimension and psychiatric groups at the other. The second factor relates to a dimension ranging from neuroticism to psychoticism. When these dimensions are plotted as a graph provisional diagnosis may be possible as particular psychiatric status groups tend to cluster. Thus the Eysenck Personality Questionnaire can be used as a second method of determining psychiatric diagnosis.

## RESULTS

The results obtained from the test battery are fully tabulated in Table A of the Appendix. Subsequent tables reveal the results of standard deviation, pearson's correlation coefficient, F tests, and T tests conducted upon the results. By way of summary the significant results are presented in Table 2, 3 and 4. The tests were intercorrelated using the Pearson product-moment correlation coefficients, the significant correlations revealed in Table 2. There is a high positive correlation between the field-dependence test and Rotter's Internal-External Control Scale as predicted. This is in line with findings of other researchers showing that the field-independent individual perceives reinforcement as contingent upon his behaviour. That is, he believes in internal control and that he has a large say over his environment. The Embedded Figures Test also correlates with age, also a well known finding. Witkin (1962) reports that children and senior citizens being relatively more field-dependent as revealed by the E.F.T. tests leads to problems in making an age adjustment for the purposes of research such as this one.

TABLE TWO  
SIGNIFICANT CORRELATIONS BETWEEN THE TESTS

EFT	:	IE	.504**
EFT	:	AGE	-.382*
EFT	:	EXTRAVERSION	.424*
EFT	:	NEUROTICISM	-.469**
EFT	:	EYSENCKS FACTOR TWO	.532**
B.D.I.	:	EXTRAVERSION	-.361*
AGE	:	NEUROTICISM	-.482**

\* .05 level

\*\* .01 level

TABLE THREE  
SIGNIFICANT F RATIOS BASED ON SCHEFFE'S CRITERIA

Group 1 = Reactive Depressives  
Group 2 = Endogenous Depressives  
Group 3 = Others

Psychiatrist's Diagnosis	(	Group 1 : Group 2 EFT = 8.679* Extraversion=6.723*	Group 1 : Group 3 Extraversion=9.108*	Group 2 : Group 3 B.D.I. = 6.718*
Diagnosis based on Eysencks Questionnaire	(	Group 1 : Group 2 IE = 9.413* Factor One=8.685*	Group 1 : Group 3 Neuroticism=12.809** Factor One=12.845**	Group 2 : Group 3 Neuroticism=8.486* Factor One=40.335**

\* .05 level

\*\* .01 level

TABLE FOUR  
SIGNIFICANT CORRELATIONS OF THE EFT AND ITEMS OF THE BDI

B	PESSIMISM	.474***
D	LACK OF SATISFACTION	.453***
K	IRRITABILITY	-.572***
S	WEIGHT LOSS	-.608***
R	LOSS OF APPETITE	-.411**
P	SLEEP DISTURBANCE	.400**
J	CRYING SPELLS	-.332*
L	SOCIAL WITHDRAWAL	-.310*
G	SELF-HATE	-.297*

*	.1 level
**	.05 level
***	.01 level

But until longitudinal studies are complete and an adequate Z-score adjustment can be made researchers have been in the position of having to keep to the raw scores. The E.F.T. also shows correlations with Eysencks Personality Questionnaire. The high intercorrelation between E.F.T. score and neuroticism (significant at .01 level) is somewhat surprising as previous researchers have failed to find such a relationship in a normal population (Bound, 1951). The E.F.T. - Neuroticism correlation is also negative showing field-independents to be more neurotic, (as measured by Eysenck), and for field-dependents to be less neurotic. There is also a significant correlation between E.F.T. and Extraversion (.05 level) showing field-dependents to be more extraverted, a finding which is in line with Witkin's report of greater sociability amongst field-dependents (Witkin and Goodenough, 1977). Extraversion was found to be negatively related to the severity of depression as measured by the total B.D.I. score. Age and neuroticism were also significant correlated (at the .01 level) showing less neuroticism amongst the older patients, a finding paralleled in

Eysencks research with his test amongst a normal population.

Table 3 reveals the significant F ratios between the diagnostic syndrome groups and the test battery. Two diagnostic groups were evaluated; one set of diagnosis based upon the psychiatric diagnosis and the other based upon the results of the Eysenck Personality Questionnaire. Subjects were sorted into three psychiatric groups: Reactive Depressive: all patients with a 298 or any 300 diagnostic code Endogenous Depressives: all patients with any 296 diagnostic code Other illness with depressive symptoms: all other patients. Subjects were divided into the same three groups following Eysenck's Personality Questionnaire based upon the two factor scores and the position it placed the subject on a two dimensional graph of diagnostic categories supplied in the Manual of the Eysenck Personality Questionnaire. Table 3 reveals that factor one is the most significant criteria distinguishing the groups in Eysenck's diagnostic method. The diagnostic correlation between the psychiatrist's rating and Eysenck's is good for the "Reactive Depressive" group (about 80% agreement); poorer for the "Endogenous Depressive" group (about 70% agreement) and poorer still for the third group (about 55%). Approximately half then of the third group would have been diagnosed as either 'endogenous' or 'reactive' if they had been under the scrutiny of the opposite assessment technique.

An F test was then applied to the test battery comparing the results with the diagnosis. A rigorous criteria was used for assessment of the F ratio, the method described by Scheffe (1959). This method uses the criterion that the probability of rejecting the null hypothesis when it is true should not exceed .01 or .05 for any of the comparison mode. The method requires one to calculate an F ratio where  $F = t^2$ , and t is found by using a within-group variance estimate,  $S_w^2$ . One then calculates a quantity  $F^1$ , which is K-1 times the F required for significance at the desired significance level.  $F^1$  becomes the criteria now for establishing significance. Many differences which are significant by a T test between the groups are eliminated in this way.

Table 3 shows the significant F ratios found. Unfortunately no significant differences between the three diagnostic groups are common both to the psychiatrists diagnosis and to E.P.Q. evaluated diagnosis. For those grouped according to psychiatric diagnosis, reactive depressives were found to be more field-independent and more introverted as a group than endogenous depressives. On the basis of Eysenck's diagnostic categories the reactives and endogenous groups are separated by the Rotter Internal-External Control scale in the predicted direction and by Eysenck's Factor One, showing reactives to be closer to the controls and endogenous subjects closer to the norms established by psychiatric populations. The E.F.T. approaches significance as a criteria for separating the endogenous and reactive groups as assessed by the E.P.Q.; and indeed the difference is significant as a raw t score. The I-E scale however, does not approach significance with the psychiatrically diagnosed groups, thus affirming our initial hypothesis that E.F.T. scores are correlated with the reactive - endogenous concept. The I-E scale appears to have a mixed history in previous research with depression (Abramson et al., 1978). Extraversion, which we found to be previously correlated with field-dependents, appears to similarly serve as a distinction between reactive and endogenous depressives as psychiatrically assessed. However, the same dimension of the E.P.Q. fails to approach significance as a correlate of Eysenck diagnostic groups.

Group 3 consisted of a number of disorders such as schizophrenia, personality disorders, etc, which had depressive symptomology. It appears they were generally less depressed than Group 2 and more extraverted than Group 1. Those assigned to Group 3 by Eysenck's criteria differed from both Group 1 and Group 2 by being both less neurotic as a group as well as being higher on Eysenck's Factor One.

Table 4 relates to items on the Becks Depression Inventory that correlate with the field-dependence measure. Field-dependent depressives appear to be more pessimistic, lacking in satisfaction (significant at the .01 level), and show greater sleep disturbance (significant at the .05 level). Relatively more field-independent

subjects show greater irritability and weight loss (at the .01 level), and accompanying greater loss of appetite (at the .05 level). There is also indications of more crying spells, social withdrawal, and self-hate amongst the field-independents (.1 level).

#### DISCUSSION

The questionnaire developed by Pilowsky et al. (1969) was given to a number of the subjects in order to establish a clearer perspective of what patients were endogenous depressives. However, an analysis of those patients who completed this 57 item questionnaire, revealed little additional information, and the questionnaire was subsequently dropped from the test battery and the results are not included in this study.

The initial hypothesis of this thesis is then strongly supported by the results given by the test battery. Reactive and Endogenous depression appears to be closely related to the field-dependence dimension. To examine this relationship closer it is necessary for us to compare the results of the other tests and the individual items of the B.D.I. with the field-dependence dimension and see how this compares to the factor-analytic studies of symptoms associated with the reactive-endogenous dimension.

The review by Mendels and Cochrane (1968) of factor analytic studies concludes with the notion that the endogenous factor represents the core of depressive symptomatology, "... whereas the clinical features of the reactive factor may represent phenomenological manifestations of psychiatric disorders other than depression which 'contaminate' the depression syndrome. When depression is present in association with these other features, it might be regarded as just one of several symptoms .." (p.10, *ibid*). To support this notion they sight several factor analytic studies which all agree that the endogenous is retarded, deeply depressed, lacking in reactivity to environmental changes, showing a loss of interest in life, and having visceral symptoms. They found that 75 percent of the studies showed the endogenous depressive

as being older, having a history of previous episodes, showing weight loss, having early morning awakening, showing self-reproach or guilt, and as not showing personality features suggestive of hysteria or inadequacy, and also being characterized by suicidal thoughts or attempts. Agreement of other factors is lower, which led them to their conclusion that endogenous depression is "pure" depression whereas reactive depression is a syndrome where "... depression is present in association with these other features".

The E.F.T. dimension appears to cut across this conception of depression. In support of Mendels and Cochrane's conception we did find that the B.D.I. showed a significant F ratio with the psychiatric diagnosis (see Table E). However when this is broken down to compare on t tests and adjusted  $F^1$  ratios the three individual groups we find that the B.D.I. discriminates poorly between endogenous and reactive depressives. Thus, it would seem that we found only limited support for Mendels and Cochrane's conception of the reactive-endogenous dimension of depression being related purely to severity of depression.

Lewinsohn et al. (1977) supports Klein's (1974) notion that endogeneity and reactivity are orthogonal, independent dimensions. They produced a list of symptoms which consistently load on endogeneity and reactivity by way of factor analysis of 245 subjects. Symptoms consistently loading on an endogeneity factor are:

- 1) lacking in reactivity to environmental changes;
- 2) showing no interest in life;
- 3) retarded (slow, feeling tired, etc);
- 4) feeling unable to act;
- 5) considering self lazy;
- 6) feeling helpless and powerless; and
- 7) perceiving depression as qualitatively different from ordinary sadness.

Symptoms consistently loading on a reactivity factor are:

- 1) feeling that he or she is bearing troubles;
- 2) presence of precipitating stress;
- 3) crediting problems to excessive family and/or job responsibilities;

- 4) expressing concern for welfare of family and friends;
- 5) visceral symptoms;
- 6) feeling at "end of rope";
- 7) having middle-of-the-night insomnia; and
- 8) showing self-pity.

If we compare the items of the B.D.I. which correlated with the E.F.T. we do find consistency with the reactive-endogenous dimension. We found pessimism, lack of satisfaction, and sleep disturbance correlated with the field-dependence end of the psychological differentiation dimension, all factors which either the Lewinsohn study or the Mendels and Cochrane study found correlated with endogenous depression. We found self-hate, crying-spells, irritability, social withdrawal, loss of appetite, and weight-loss to be symptoms related to field-independence; symptoms which appear to have a mixed history in the factor-analytic studies of the reactive-endogenous dimension. Weight loss was found by Mendels and Cochrane to have a significant but low relationship with endogenous depression whereas Lewinsohn obtained mixed results with one of his three groups showing a similar result as what we obtained here. Mendels and Cochrane report irritability as being a factor which appears to be consistently related to reactive depression, and undoubtedly serves as a behavioural referent in the psychiatrist's diagnosis. Self-hate, crying spells, and social withdrawal are not symptoms mentioned by either of the two studies mentioned above, but other researchers have found these characteristics to be found across the reactive-endogenous dimension (e.g. Rosenthal and Klerman, 1966).

We found that age, which has been consistently found to be related to endogenous depression, had only a low and insignificant correlation with the severity of depression as measured by the B.D.I. total score, but had a significant relationship with field-dependence. That the E.F.T. score is more important a variable than age for determining a diagnostic prediction is reflected in the low correlation between age and Rotter's Internal-External Control Scale score. The I.E. score serves as a predictor for the Eysenck based diagnosis, the E.F.T. score approaching significance, but age showing no predictive power at all.

Eysenck's extraversion dimension was found to be the other significant factor which discriminated the psychiatrically diagnosed endogenous-reactive depressives. Interestingly enough we found a significant correlation between this factor and E.F.T. scores, extraverts being field-dependent. However the Eysenck derived diagnosis appears to add little to our central theme other than the positive loading with I.E. score.

A large number of the items on the B.D.I. did not produce a correlation with the diagnostic groups on factors in which previous studies had found significant correlations. This may be due in part to the wording of the B.D.I. items in that they fail to adequately define the symptom. For example, we found no visceral symptoms, perhaps because the Beck item relates to somatic preoccupation, and the patient may not worry about his/her somatic complaint although it is present.

One of the methodological problems which has afflicted research on the endogenous-reactive construct is the fact that no adequate methodology is available to dichotomize patients into endogenous and reactive subgroups and that clinical observation indicates that very few pure cases can be found or identified (Lewis, 1934). The use of the Eysenck diagnostic criteria was adopted here, with very limited success, in an attempt to overcome this problem. The present results appear to neither support nor refute either the conception of the endogenous-reactive diagnosis of depression as being two independent dimensions or that of being a bipolar dimension. Researchers such as Lewinsohn et al. (1977) suggest that depressives show a normal distribution curve, and only a relative few cluster high on one pole or dimension. This is of course consistent with the normal distribution curve found with psychological differentiation.

The results of the present study point to a new way of conceptualizing, diagnosing and treating reactive depression. The endogenous-reactive construct has been controversial, persistent, and confusing. It has been used to refer to systematic differences between

subgroups of depressives in regard to etiology, symptom patterns, course of the disorder, responsivity to treatments, and personality characteristics. The present results demonstrate that psychiatric diagnosis are persistently based on the patients degree of psychological differentiation. The results further suggest that there are symptoms which cluster with the degree of psychological differentiation. Although not resolving the unipolar-bipolar controversy the results do point to a theory of depression which appears to have William of Occam's blessing as well as incorporating most other theories on depression.

## CHAPTER IV

## A THEORY AND TREATMENT OF DEPRESSION

Depressive disorders probably represent the major psychiatric group of disorders for which physicians of various callings are consulted. The psychiatric literature reflects the current opinion that these types of disorders are increasing, and that they are occurring at a younger age, especially in out patient settings. The ready availability of potent pharmacotherapeutic modalities of treatment has perhaps contributed to an increased readiness for diagnosing depression; especially those being assigned to the category of "neurotic depression". Unfortunately the literature reflects that this and other forms of depression are not clearly delineated. Thus it seems necessary to devise accurate predictors and diagnostic criteria for potential and manifested depressive disorders. This study demonstrates a strong predictive and diagnostic criteria for distinguishing between the reactive-endogenous dichotomy of depression by way of psychological differentiation.

Most, if not all, classificatory schemes of depression have recognized the heterogeneity of depressive disorders, and many support the 'reactivity' 'endogeneity' dichotomy. The approach to depression taken by this study has not refuted nor supported the assertion that there may be a common neurochemical cause to all types of depressive disorders. The theory and empirical evidence offered here suggests that it is the function of different intrapersonal and environmental forces that produces the symptoms that lead to the definitions of 'neurotic' 'endogenous' depression. Lewis' unitarian position is viewed as partially correct in that the endogenous-reactive dimension may be related to "severe illness" and "mild illness" because the endogenous field-dependent approach is motivated towards paradoxically controlling the environment by eliciting caring from others. If this is true, then to the degree that this life strategy is successful it will be read as being more in need of help. In terms of biochemical disturbances however, it would not necessarily follow that the 'endogenous' is more unbalanced, for an extremely stubborn field-independent may have as much disturbance.

The model offered here suggests that depression is the "wisdom of the body" as it learns without awareness. The evidence presented demonstrates that there was a high correlation between those patients diagnosed endogenous depression and field-dependence and between those diagnosed reactive depression and field-independence. The research literature reviewed supports the notion that the psychological differentiation dichotomy may be a reflection of the use of the two cerebral hemispheres. There is a greater tendency for some people to view the world as a passive-avoidance context whereas more field-independent types habitually perceive the world as an active instrumental reward situation. Bateson characterized this development of apperceptual habits as a higher-order form of learning which he called Learning II, and this can either aid or hinder more primary forms of learning. He suggests that this higher-order form of learning ... "is adaptive only if the animal happens to be right in its expectation of a given contingency pattern, and ...it should require fewer trials in the new context to establish 'correct' behaviour. If on the other hand, the animal is wrong in his identification of the later contingency pattern, then we should expect a delay of Learning I in the new context. The animal who has had prolonged experience of Pavlovian contexts might never get around to the particular sort of trial-and-error behaviour necessary to discover a correct instrumental response" (p.265, Bateson, 1973).

From this analysis of the development of the social self the two models of depression readily present themselves.

In the original model of learned helplessness Seligman (1975) proposed that perceived non-contingency between response and outcome results in:-

- (a) cognitive interference in learning new associations of response and outcome;
- (b) a motivational deficit, manifested as a reduced incentive towards instrumental responding; and
- (c) depressed affect.

Two major criticisms levelled at this model have been that whilst attributional models adequately explain the motivational components of

learned helplessness they fail to consider the information processing aspect (Dweck, 1975); and that non-contingent success is probably not as debilitating as non-contingent failure. Cohen, Rothbart, and Phillips (1976) put this second criticism to the test, and a reformulation of the learned helplessness model which associated depressed affect with non-contingent failure was recently presented by Abramson, Seligman, and Teasdale (1978). The motivational criticism remains to be answered. Motivational models suggest that perceived inability to control the environment demotivates subjects, while information models argue that the perceived stimulus-response independence leaves subjects uninformed about the correct solution to the problem. This criticism of Seligman's theory has important therapeutic implications in that the pure information theory proposed by Eisenberger et al (1974) predicts that the effects of non-contingent reinforcement can be estimated almost instantly by making the subject aware of the contingencies whereas Abramson et al's (1978) hypothesis suggest that although self-esteem is improved by debriefings, cognitive and motivational deficits remain unaffected. A pure information interpretation of learned helplessness as suggested by Eisenberger et al. (1974) is a less efficient model as it would predict that non-contingent reward would have the same effect as any other type of non-contingent feedback. Undoubtedly information interacts with motivation, for example Tennen and Eller reported that telling subjects they were facing a difficult task reversed the effect of helplessness training and facilitated better performance. (Tennen and Eller, 1977).

By considering the way in which subjects at either end of the psychological differentiation dimension direct their motivation we are provided with a richer model of depression from a social learning framework. The field-independent entering a passive avoidance (pavlovian) context is presumably motivated to find an active instrumental or "operant" solution to the problems he faces. The failure of this approach will generate either the belief that he has not sufficient skills to succeed at this task or else that this is a situation which no-one could successfully move out of. Abramson et al. (1978) calls this a distinction between universal helplessness and personal helplessness, and they will in turn generate either low self-esteem form of depression or a depression which is not characterized by low self-esteem. The model offered by Abramson

et al. (1978) suggests that awareness that this is not a personal helplessness situation but a universal helplessness situation will merely alter the self-esteem but that the intensity "... of the motivational and cognitive deficits increases with the strength or certainty of the expectation of non-contingency" (p.59, *ibid*). The approach offered here suggests that just the opposite would be true (and that the above position should be seen as a reflection of Seligman's bias towards an operant or field-independent perception of the world). If this statement were true then we should expect to find a high percentage of field-dependent people, who view the world as having external contingency control over them, and thus perceive themselves as puppets of fate, (i.e. universally helpless), to be markedly depressed. Which, of course, is simply not true. If anything the evidence points the other way because of the field-dependents greater social skills. Also several investigators report that by making the experimental contingencies clear to the subjects the decremental effect is eliminated (Dweck and Repacci, 1973; Eisenberger, Kaplan and Singer, 1974; Koller and Kaplan, 1978).

The theory of depression offered by this theory is relativistic in that the highly field-independent is likely to miss the early cues signalling change of context and thus is more likely to have his life marked by stressful events. This may possibly be measurable by way of rigidity tests (McDonald, 1978). The model further suggests that psychopathology, in this case depression, is learning without awareness. The psychopathological experience is the resistance the subject is exerting against the new context as he attempts to maintain the security offered by his current apperceptual habits. Thus it can be seen that the global term 'depression' refers to the "wisdom of the body" as it attempts to adjust to the next context. This suggests a therapeutic strategy which would be aimed at helping the subject conceptualize the new contingency pattern, thus adding awareness to the learning which is occurring. An analogy can be drawn between this approach to therapy and a car which goes into a skid, one must drive into the skid, give in to the process which is occurring, although conscious reason usually pushes the driver to resist, often with fatal results.

Support for this theory comes from Witkin's (1965) observation that pathology is more likely to be found at either end of psychological differentiation dimension, and from Bateson's (1973) notion that organisms with particularly highly developed apperceptual habits hold a relatively greater chance of getting things right for the wrong reasons. That depression is the "wisdom of the body" is supported by Jenkins and Ward's (1965) finding that depressives perceive 'non-contingency' more readily than controls. They are thus "sadder but wiser" than the non-depressed who were found to distort the contingency patterns, perceiving that they had control when they did not.

For the animal in the experimental laboratory the process of extinction takes over as soon as the animal is released and there is no longer the experimental contingencies present. For humans, however, the process is different, as it is difficult for the human being to leave the contingency patterns we know as society. In the first chapter an analysis was given of the double-binds the human is placed in which results in the field-dependent or field-independent behavioural expression. This analysis was based upon Bateson's (1973) theory of learning where this apperceptual habit is viewed as a higher-order form of learning which he calls Learning II. Bateson posits yet a higher-order form of learning, called Learning III, where the organism becomes aware of his Learning II and thus escapes the double-bind he is in. Learning III, which is equated with self-actualization, is an extinction of those apperceptual habits associated with Learning II. Bateson notes the learning III, which we might call wisdom, is relatively rarely developed in any high degree amongst humans; in those that have this quality we recognize as mystics or sages.

If depression is a pathological conflict produced by disharmony between cognitive and motivational components of an organism as the theory here suggests, then several therapeutic strategies are open to us. Bateson notes that change can happen at the level of Learning II without any great gain of Learning III wisdom. The organism can get things right for the wrong reasons; that is to say for example, a field-independent may come to believe that by performing some exercise or activity he can reduce his depression. He might call this "meditation"

and thus find a great deal of social reinforcement from various groups for holding this belief. This approach to therapy of depression has been taken by Gibson (1978) where the thoracic breathing which accompanies reactive depression is inhibited by diverting the patient's attention to the movements and relaxing feelings which accompany diaphragmatic breathing. The problem or criticism of this technique is that, although it might reduce depression, it strengthens the cognitive behaviours which present themselves as a belief in egoic agent capable of controlling the world, and now body. This problem is well epitomized in the title of Jacobson's famous book 'You Must Relax' Need it be pointed out that the 'must' in the title is inconsistent with relaxing. There is also the very realistic problem that the moment the patient's attention is diverted to other activities, such as sleep, he'll presumably, as Gibson notes, "... revert to his older patterns of breathing and thus tend to reverse the process which the treatment is designed to achieve... and the therapists have the natural temptation to ascribe failure to lack of conscientious practice on the part of the patient - a factor they have no means of checking" (p.194, Gibson, 1978). He resorts to the suggestion of biofeedback techniques to the sleeping patients which he rather curiously doesn't envisage as being particularly cumbersome to administer.

Another type of change which may occur and, using Bateson's model, is unaccompanied by much Learning III is for the person to drop one apperceptual habit and grasp another. For example a person might change from being field-independent to being field-dependent. We frequently witness this type of change in religious conversion.

Those powers of the human soul which the ancients called gods and demons are not deprived of their magic by changing their names for they retain the same godlike and demonic characteristics, even though they may not in fact wear halos and wings or horns and spiked tails. In calling them gods and demons the ancients may have been fanciful, but at least they were aware of an important fact which we too often overlook, namely, that these powers have a life of their own which is altogether independent of our conscious desire and will. This is what

we are so apt to forget when trying to deal with our moods - when a powerful depression lays hold of us or when we are seized by a sudden violent hatred. Such phenomena are not peculiar to individuals; whole nations and continents may be possessed in the same way, and a people may be led into war or other forms of political madness despite the strongest protests of conscious reason. Nowadays we say that such people have lost their self-control; the ancients would have said that they were possessed by devils, and between these two diagnoses there is all the difference in the world. For the former implies no more than a mere failure of conscious will, whereas the latter recognises that many more factors than conscious will have to be taken into account in the ordering of human life.

These gods, angels, and demons which we have tried to cast out of our lives are the forces of that unknown inner universe which we register as the feelings of the interoceptive and proprioceptive senses. Today we give them the unromantic names of impulses, depression, phobias, manias, and other constant reminders of the fact that our inner lives are not so much under our control or even under our surveillance as we should like to think. Although highly imaginative in their projections upon these forces of deific and demonic forms there is apparent recognition of the importance of these forms in everyday life, and those who were instructed in many of the ancient religions had to recognize the existence of those beings within themselves. But today we are slow in recognizing them at all.

The point here is that the pathology is the result of a conflict between motivational and cognitive components of the organism. Thus the therapeutic strategy would be not to fight this mood, this demon, but one of going with it and accepting it. Therapy is resolving the conflict between motivation and cognition, and this can be done by letting go of thoughts or the 'mind' and focusing on the actual feeling and getting to know it intimately. This will facilitate the greatest amount of Learning III.

Biologically, the self-preservation ministrations of an organism consist of a highly complex and very efficient system of resistance and

attack against the dangerous invasions of unsuitable foods, or improper conditions of living. If he is given the wrong food his stomach will reject it, or the white cells of his blood will mass to destroy or repel the toxic enemy. If an adverse environment should cause him to experience chill, his temperature will rise and he will cough and sneeze himself back to better health. Break his bones and they will mend themselves - if only the surgeon will clean and bandage the injured limb, and give it time in which to heal itself. On the physical level, it is quite clear that unconsciously and automatically, given the opportunity and time enough, a healing process is doing its best, and only requires our co-operation and support. Too often, however, we try to stop our therapeutic reactions, regarding what is going on as the disease itself, when in fact it is only the natural attempt to cure it.

This is not to suggest in any way a return to a psychiatric medical "disease" model of mental maladies, but to find the deepest lying response mechanisms. Let us face the fact that to be born is to face a hostile world, for most parents and significant others don't really love or hate us being much too concerned with the compelling needs of their own problems and devices. The human develops a repertoire of defensive responses to enable him to cope with this world, and as result seldom returns to a natural undefensive homeostatically balance of mode of behaviour. Unlike Freud however, it is held here that this is possible and mental maladies may facilitate it.

Thus the way of acceptance means that instead of trying to fight it, or forget about by trying to repress it, we make up our minds to deal with it consciously, almost as man to man. Instead of allowing our servant at the door, the Freudian "censor", the behavioural self-control, to send it away, we invite it to come in. The idea is to encourage it, to invite it to be itself with a vengeance, really to be a depression. For this is to accept its independence of the ego, the self-control mechanism., that is, allowing it to behave as it wills, to follow its own course, for if we don't allow it its own way we cannot expect to have our own way. We might say that to be in accord with nature is to allow everything to follow its own nature. The Chinese sage Lieh Tzu remarked, in explaining the secret of his

mysterious ability to "ride on the wind" "I allowed my mind to think without restraint of whatever it pleased and my mouth to talk about whatever it pleased." So here, we allow depression to take whatever course it pleases; instead of denying it, we affirm it. This requires that we feel our way into its very heart and experience it to the full - one might almost call this "higher masochism" - and though, to all common sense, it seems the most absurd thing to do, it results in the discovery that even the blackest mood has a profound meaning for us and is a blessing in disguise. It was not without reason that the Egyptians called the demons the mediators between gods and men.

For the reactive-depression or field-independent, the conflict between the depression and the self-control mechanism is particularly strong, and this mediatory demon must be dealt with first. That is to say, we have to allow the reactionary feeling of disgust, impatience and wishing to be rid of it to behave as it pleases. By giving it full rein affords an immense relief for this means that for the self controlling mechanism, the ego, has divested itself of the unnecessary and impertinent responsibility of thinking it essential to direct and interfere with all that goes on around it. At the point of being repetitive, it is this very sense of false responsibility which disturbs its peace of mind. In this sense acceptance is the philosopher's stone that "turneth all to gold", it means putting our consciousness in the very core of whatever pain falls upon us and allowing that pain to do its worst. As to our reaction to the pain the same principle applies for we allow that wishes to scream, protest and swear all the freedom to have its own way. As often as not it does not need it, for the very act of granting it the freedom is in itself a relief.

The approach to therapy here is oriented at not challenging the direction the individual is moving in, but to alter the information level. In both reactive depression and endogenous depression, a challenge to the motivational component will only be met with resistance. A method for endogenous depression would be to say centre on say the self-worthiness imagery and the apparent complete behavioural inhibition which accompanies this. The endogenously depressed patient could be

instructed to purposively try to elaborate and convince himself of being useless, and to try to sit perfectly still for prolonged periods. Here emphasis might be placed on getting the patient to try to stay still for a lot longer when the urge comes to move. This was tried by Gertz (1962) with a very panicky patient who was about to be lobotomized by instructing her to "try to pass out and become as panicky as possible." At first she responded as most people respond when hearing this method, "...she said angrily, 'I don't have to be afraid! I am afraid! This is ridiculous. You're making me worse.'" (p. 379). Gertz goes on to relate that after a few weeks of struggle the phobia was drastically reduced and a couple of years later she appeared to be living a "full and happy life."

The rationale for this therapeutic strategy arises from considerations of the relativistic theory offered by this thesis of depression. We have seen that many theories of depression can be incorporated within this theory and that there is a strong body of experimental and therapeutically derived evidence to support it. The evidence obtained and presented here demonstrating a high correlation between psychological differentiation and the endogenous reaction dimension of depression should be considered as a pilot study. Criticism can readily be levelled towards the small experimental population and the amount of speculative ordering of the scientific evidence that was used to build the theory. Obviously the theory presented has ramifications of a deep nature to many aspects of psychology and philosophy, and for that reason criticism of method has been reduced to a minimum. The theory crosses many traditional research boundaries where experimental evidence of a bridge building kind is absent, yet crucial. Hopefully, this theory is a step towards placing psychiatric assessment and treatment of depression on a quantitative basis.

TABLE A

	Sex	Age	EFT	IE	BECK	P	E	N	L	Factor One	Factor Two	Eysenck Diagnosis	Psychiatrist
1	F	28	29	8	18	4	5	18	3	.620	-1.124	Anx.	300.2
2	M	30	34	8	30	5	10	17	4	.182	-.619	R.D.	300.0
3	F	20	36	10	31	4	4	20	12	-1.328	-.350	R.D.	300.4
4	F	31	46	12	25	6	8	22	4	-.448	-.703	R.D.	298.0
5	F	37	47	9	30	3	9	18	12	-.662	-.270	R.D.	300.4
6	F	69	50	6	49	3	7	15	6	-.693	-.722	R.D.	296.2
7	F	59	50	4	40	2	6	18	8	-.053	-1.118	Anx.	296.2
8	F	33	67	8	26	2	10	21	11	-.846	-.928	R.D.	301.6
9	M	56	68	8	25	9	6	14	7	-.154	1.123	Sc.	295.0
10	F	48	77	11	30	3	11	17	14	-.722	.122	E.D.	298.0
11	M	52	80	5	32	3	3	15	7	-.320	-.488	R.D.	300.0
12	M	55	81	8	11	4	10	16	12	-.954	.138	E.D.	296.0
13	F	54	84	15	21	1	13	16	12	.072	-.434	Sc.	295.7
14	F	22	86	15	28	2	7	22	9	-.831	-1.356	R.D.	300.0
15	F	48	87	15	20	1	15	13	17	-.128	.485	Sc.	295.7
16	F	66	89	7	22	3	8	20	10	-.724	-.722	R.D.	300.0
17	F	47	94	7	15	3	11	12	16	-.206	.826	Sc.	295.7
18	F	62	96	10	20	2	12	12	16	-.049	.569	Sc.	296.2
19	M	25	98	12	20	10	12	22	9	-1.365	.749	E.D.	296.2
20	M	48	99	14	27	4	9	16	13	-1.206	.757	E.D.	296.2
21	F	50	107	18	22	3	11	17	14	-.398	.107	E.D.	296.2
22	F	29	112	14	33	3	9	19	17	1.615	.191	E.D.	295.0
23	F	50	122	5	10	1	15	17	12	-.005	-.458	R.D.	301.9
24	F	45	123	16	28	3	11	16	14	-.801	.590	E.D.	296.2
25	F	62	131	15	16	0	10	15	19	-.884	-.045	R.D.	301.5

TABLE A Continued

	Sex	Age	EFT	IE	BECK	P	E	N	L	Factor One	Factor Two	Eysenck Diagnosis	Psychiatrist
26	F	58	132	14	12	1	13	9	15	.763	.575	Sc.	300.0
27	F	59	134	14	36	3	16	16	15	-.492	0.185	E.D.	296.3
28	F	46	147	15	25	3	16	19	10	-.203	-.661	Anx.	296.1
29	F	47	162	10	11	21	8	2	2	1.505	5.406	Sc.	295.7
30	F	55	171	21	50	8	3	19	10	-1.341	0.662	E.D.	296.2
31	F	59	180	10	36	6	15	7	12	-.589	.828	Sc.	296.2

TABLE B  
ITEM ANALYSIS  
BECKS DEPRESSION INVENTORY

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	1	1a	0	1a	1	1	1a	0	0	0	3	1	1	0	1a	0	2	0	3	0	1
2	3	0	0	0	3	0	3	2a	1	1	3	3	0	0	1a	0	1	3	3	0	3
3	2b	0	3	1b	1	2	1b	2a	2b	1	1	1	2	2	1a	1	0	3	2	0	3
4	1	0	1	1a	2a	2	2	2b	3	1	1	0	0	1	2	0	1	0	3	1	1
5	2b	0	1	0	3	2	3	2a	0	0	3	3	1	0	1a	0	1	3	3	1	1
6	2b	3	3	2	2b	3a	2	2b	0	3	3	2	3	2	3	2	3	2	1	3	3
7	2b	0	3	1b	2a	3a	3	2b	2c	3	3	3	1	1	1a	0	1	2	3	1	3
8	3	0	1	1a	1	0	1a	1	0	3	3	1	1	0	2	2	1	1	3	0	1
9	1	2a	2b	1b	0	1	1a	1	1	0	3	1	1	2	2	3	1	0	0	1	1
10	3	1a	0	1a	1	2	0	1	1	1	1	0	1	2	2	2	2	1	3	2	3
11	3	2a	3	2	2b	3a	1a	0	2a	1	0	0	0	2	2	3	0	3	3	0	0
12	2a	1a	1	1b	1	0	1a	1	0	0	0	0	0	0	0	0	0	1	2	0	0
13	2a	1a	1	1b	1	2	1	1	0	0	1	1	2	1b	0	1	1	1	1	1	1
14	1	2a	2b	1b	2a	1	1a	0	0	1	1	1	1	1	2	2	2	1	3	2	1
15	2a	1a	3	1b	0	0	1a	2a	0	1	1	0	1	0	0	3	0	0	0	1	3
16	2a	2a	0	1a	2a	0	1a	2a	2a	1	0	0	1	1	2	0	2	1	2	0	1
17	1	2b	3	0	0	0	0	0	0	1	0	0	0	2	0	3	0	0	0	0	3
18	0	1a	2b	1a	1	2	1b	0	2a	1	1	1	1	1	1a	3	0	0	0	0	1
19	1	2a	1	3	0	0	0	1	2a	2	0	0	1	1	1a	3	0	0	0	1	1
20	1	2b	1	3	0	1	0	1	1	3	0	1	2	3	1a	3	1	0	0	2	1
21	1	1a	1	3	2a	2	0	0	0	1	0	1	2	3	2	0	2	0	0	1	0
22	2a	2b	1	1a	3	2	0	2a	1	1	1	1	2	2	2	2	3	2	0	2	1
23	0	0	0	0	0	0	0	0	2b	0	1	0	1	0	0	2	1	0	3	0	0
24	1	3	2a	3	0	1	0	1	1	1	0	1	3	3	2	3	1	0	0	1	1
25	2a	0	1	1b	1	0	1a	0	0	3	0	0	0	0	2	2	1	1	1	0	0

TABLE B Continued  
ITEM ANALYSIS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
26	1	2a	0	1b	0	0	1b	0	1	0	0	0	0	0	1b	2	1	0	0	0	0
27	2a	3	1	3	1	0	1a	2b	1	3	0	3	3	1	3	2	3	1	0	2	1
28	2a	3	1	3	1	1	0	0	0	3	0	0	2	3	1b	3	1	0	0	1	0
29	3	0	0	1a	1	0	0	1	0	1	1	0	0	0	2	0	0	0	0	1	0
30	3	3	3	3	3	2	3	1	2a	3	2	2	3	2	3	3	3	1	0	2	3
31	2b	3	3	2	2b	3a	2	2b	1	3	0	0	1	1	2	2	1	1	1	1	3

TABLE C  
STANDARD DEVIATIONS

	N = 31	
	MEAN	S.D.
Age	46.77	13.56
Embedded Figures Test	94.16	40.50
Rotters I-E Scale	11.10	4.17
Becks Depression Inventory	25.77	10.04
Eysencks Personality Questionnaire		
Psychotocism	4.06	3.89
Extraversion	9.77	3.65
Neuroticism	16.13	4.40
Lie Scale	11.03	4.38
Eysenck's Factor One	- 0.299	0.75
Eysenck's Factor Two	0.107	1.19
<u>ITEMS OF BECKS DEPRESSION INVENTORY</u>		
A    Mood	1.74	0.86
B    Pessimism	1.39	1.12
C    Sense of Failure	1.42	1.12
D    Lack of Satisfaction	1.42	0.99
E    Guilty Feeling	1.26	1.00
F    Sense of Punishment	1.16	1.10
G    Self-Hate	1.03	0.98
H    Self-Accusation	1.03	0.84
I    Self-Punitive Wishes	0.90	0.91
J    Crying Spells	1.39	1.15
K    Irritability	1.06	1.18
L    Social Withdrawal	0.87	1.02
M    Indecisiveness	1.19	0.98
N    Body Image	1.19	1.05
O    Work Inhibition	1.45	0.89
P    Sleep Disturbance	1.68	1.22
Q    Fatigability	1.16	0.97
R    Loss of Appetite	0.90	1.04
S    Weight Loss	1.29	1.35
T    Somatic Preoccupation	0.87	0.85
U    Loss of Libido	1.32	1.17

TABLE D  
THE CORRELATIONAL MATRIX OF THE TESTS

	1	2	3	4
1				
2	0.504**			
3	-.067	.09		
4	-.382*	-.082	.078	
5	.210	-.012	-.050	-.111
6	.424*	.212	-.361*	.201
7	-.469**	.088	.272	-.482**
8	.150	.330	.040	.257
9	.022	-.206	-.155	.143
10	.532**	.148	-.284	.170

\* .05 level of significance

\*\* .01 level of significance.

1. Embedded Figures Test
2. Rotters Internal-External Control Scale
3. Becks Depression Inventory
4. Age
5. Psychoticism )
6. Extraversion )
7. Neuroticism ) EYSENCKS PERSONALITY QUESTIONNAIRE
8. Lie Scale )
9. Eysenck's Factor One
10. Eysenck's Factor Two

TABLE E  
F RATIO OF 3 GROUPS

<u>PSYCHIATRIST'S DIAGNOSIS</u>		<u>DIAGNOSIS BASED ON EYSENCK TEST</u>	
Age	3.072	Age	1.071
EFT	4.716	EFT	3.145
IE	0.961	IE	4.90 *
B.D.I.	3.362 *	B.D.I.	1.212
P	0.161	P	0.633
E	5.295 *	E	1.591
N	1.521	N	7.370 **
L	1.811	L	1.673
1	2.266	1	2.705
2	2.419	2	3.510 *

\* .05 significance

\*\* .01 significance

TABLE F  
F RATIO FOR INDIVIDUAL GROUP COMPARISON

(Using Scheffe's method where  $t^2 = F$ )

PSYCHIATRIST DIAGNOSIS			DIAGNOSIS BASED ON EYSENCK TEST		
	t	F	t	F	
AGE	1:2	-2.474*	=	6.121	
	1:3	-1.392	=	1.938	
	2:3	0.952	=	.906	
EFT	1:2	-2.946**	=	8.679*	
	1:3	-1.585	=	2.512	
	2:3	1.209	=	1.462	
I-E	1:2	-1.358	=	1.844	
	1:3	-.458	=	.210	
	2:3	.841	=	.707	
BECK	1:2	-1.134	=	1.286	
	1:3	1.430	=	2.045	
	2:3	2.592*	=	6.718	
P	1:2	-.487	=	.237	
	1:3	-.444	=	.197	
	2:3	-.045	=	.002	
E	1:2	-2.593*	=	6.723*	
	1:3	-3.018**	=	9.108*	
	2:3	0.627	=	.393	
N	1:2	0.928	=	.861	
	1:3	1.745	=	3.045	
	2:3	0.917	=	.841	
L	1:2	-1.413	=	1.997	
	1:3	-1.817	=	3.301	
	2:3	-0.521	=	.271	
1	1:2	0.701	=	.491	
	1:3	-1.375	=	1.891	
	2:3	-2.112*	=	4.461	
2	1:2	-1.359	=	1.847	
	1:3	-2.177*	=	4.739	
	2:3	-.949	=	.901	

CRITICAL CRITERIA FOR SIGNIFICANCE ESTABLISHED BY  $F^1 = (3-1) \times F$  VALUE.

\* .05 level  
 \*\* .01 level

TABLE G  
CORRELATION COEFFICIENTS OF ITEMS OF THE BDI AND THE EFT TEST

<u>ITEM</u>	<u>CORR. COEF.</u>	
A	0.111	Mood
B	0.474***	Pessimism
C	0.000	Sense of Failure
D	0.453***	Lack of Satisfaction
E	-0.109	Guilty Feeling
F	-0.160	Sense of Punishment
G	-0.297*	Self-Hate
H	-0.252	Self-Accusations
I	-0.038	Self-Punitive Wishes
J	-0.332*	Crying Spells
K	-0.572***	Irritability
L	-0.310*	Social Withdrawal
M	0.181	Indecisiveness
N	0.144	Body Image
O	0.233	Work Inhibition
P	0.400**	Sleep Disturbance
Q	0.099	Fatigability
R	-0.411**	Loss of Appetite
S	-0.608***	Weight Loss
T	0.160	Somatic Preoccupation
U	-0.244	Loss of Libido

\* .10 level of significance  
 \*\* .05 level of significance  
 \*\*\* .01 level of significance

TABLE H  
GROUP DIAGNOSTIC COMPOSITION

<u>3 Groups Diagnosed As</u>		<u>Psychiatrist</u>	<u>Eysenck</u>
1	Reactive or Neurotic Depression	N=10	N=11
2	Endogenous Depression	N=12	N= 9
3	Others	N= 9	N=11

PSYCHIATRIST'S DIAGNOSIS:

GROUP 1 comprises subject No's: 1, 2, 3, 4, 5, 10, 11, 14, 16, 26.

GROUP 2 comprises subject No's: 6, 7, 12, 18, 19, 20, 21, 24, 27, 28,  
30, 31.

GROUP 3 comprises subject No's: 8, 9, 13, 15, 17, 22, 23, 25, 29.

EYSENCK'S DIAGNOSIS:

GROUP 1 comprises subject No's: 2, 3, 4, 5, 6, 8, 11, 14, 16, 23,  
25.

GROUP 2 comprises subject No's: 10, 12, 19, 20, 21, 22, 24, 27, 30.

GROUP 3 comprises subject No's: 1, 7, 9, 13, 15, 17, 18, 26, 28,  
29, 31.

DIAGNOSTIC ENTITIES IN DEPRESSION

I The following excerpted definitions of depressive syndromes is from the Diagnostic and Statistical Manual, Mental Disorders of the American Psychiatric Association (1952) D.S.M.I.

Psychotic Disorders000-796 INVOLUTIONAL PSYCHOTIC REACTION:

This category includes psychotic reactions most commonly characterized by depression occurring in the involutional period, without previous history of manic-depressive reaction. Maybe manifested by worry, intractable insomnia, guilt, anxiety, agitation, delusional ideas, and somatic concerns.

000-X10 AFFECTIVE REACTIONS:

These psychotic reactions are characterized by a primary, severe disorder of mood, and with resultant disturbance of thought and behaviour, in consonance with the affect.

## 000-X11 - 000-X13:

These groups comprise the psychotic reactions which fundamentally are marked by severe mood swings and a tendency to remission and recurrence.

000-X11 MANIC DEPRESSIVE REACTION, MANIC TYPE:

This group is characterized by elation or irritability, with overtalkativeness, flight of ideas and increased motor activity.

000-X12 MANIC DEPRESSIVE REACTION, DEPRESSED TYPE:

Here is classified those cases with outstanding depression of mood and with mental and motor retardation and inhibition, in some cases there is much uneasiness and apprehension.

000-X13 MANIC DEPRESSIVE REACTION, OTHER:

Those cases with marked mixtures of the cardinal manifestations of the above two phases (mixed type) of those cases where continuous alteration of the two phases occurs (circular type). Other specified varieties of manic-depressive reaction (manic stupor or unproductive mania) will also be included here.

000-X14 PSYCHOTIC DEPRESSIVE REACTION:

These patients are severely depressed and manifest evidence of gross misinterpretation of reality, including at times, delusions and hallucinations. This diagnostic category is used when a "reactive depression" is of such quality as to place it in the group of psychoses.

000-X27 SCHIZOPHRENIC REACTION, SCHIZO-AFFECTIVE TYPE:

This category is intended for all those cases showing significant admixtures of schizophrenic and affective reactions. The mental content may be predominantly schizophrenic, with pronounced elation or depression. Cases may show predominantly affective changes with schizophrenic-like thinking or bizarre behaviour.

Psychoneurotic Disorders

The chief characteristic of these disorders is anxiety which may be directly felt and expressed or which may be unconsciously and automatically controlled by the utilization of various psychological defense mechanisms (depression, conversion, displacement, etc.). In contrast to those with psychoses, patients with psychoneurotic disorders do not exhibit gross distortion or falsification of external reality (delusions, hallucinations, illusions) and they do not present gross distortion of the personality. The various ways in which the patient attempts to handle this anxiety results in the various types of reactions listed below.

000-X04 PHOBIC REACTION:

The anxiety of these patients becomes detached from a specific idea, object or situation in the daily life and is displayed to some symbolic idea or situation in the form of a specific neurotic fear.

000-X06 DEPRESSIVE REACTION:

The anxiety in this reaction is allayed, and hence partially relieved by depression and self-depreciation. The action is precipitated by a current situation, frequently by some loss

sustained by the patient and is often associated with a feeling of guilt for past failures or deeds. The term is synonymous with "reactive depression".

### Personality Disorders

These disorders are characterized by developmental defects or pathological trends in the personality structure, with minimal subjective anxiety and little or no sense of distress. In most instances, the disorder is manifested by a life long pattern of action or behaviour, rather than by mental or emotional symptoms.

#### 000-X43 CYCLOTHYMIC PERSONALITY:

Such individuals are characterized by an extratensive and outgoing adjustment to life, situations, an apparent personal warmth, friendliness and superficial generosity, an emotional reaching out to the environment, and a ready enthusiasm for competition. Characteristics are frequently alternating moods of elation and sadness, stimulated apparently by internal factors rather than by external events. The individual may occasionally be either persistently euphoric or depressed, without falsification or distortion of reality.

II More recently, both the World Health Organization (1967) and the American Psychiatric Association (1968) have put out revised systems of classification, which largely parallel each other and are both widely used. The following are the World Health Organization's classification of disorders in which depressive symptoms may occur:

#### 295 SCHIZOPHRENIA

295.7 Schizo-affective type

Mixed schizophrenic and affective psychosis

Schizo-affective psychosis

296 AFFECTIVE PSYCHOSIS

## 296.0 Involutional Melancholia

Agitated Depression

Climacteric melancholia

Agitated Melancholia

Involutional depression

Climacteric insanity

Menopausal melancholia

## 296.1 Manic-depressive psychosis,

manic type

Hypomania NOS

Manic-depressive reaction

Hypomanic Psychosis

Hypomanic

Mania NOS

Manic

Manic Psychosis

## 296.2 Manic-depressive psychosis,

depressed type

Endogenous depression Melancholia (senile)

Psychotic depression

Manic-depressive reaction,  
depressive.

## 296.3 Manic-depressive psychosis,

circular type

Alternating insanity

Cyclothymia

Circular insanity

Manic-depressive reaction,  
circular.

## 296.8 Other.

Manic stupor

unproductive mania.

## 296.9 Unspecified

Affective psychosis NOS

Manic-depressive reaction NOS

298 OTHER PSYCHOSES

## 298.0 Reactive depressive psychosis

Psychogenic depressive

Reactive melancholia

Psychosis

## 298.9 Reactive Psychosis unspecified

Psychogenic psychosis NOS

Reactive psychosis NOS

300 NEUROSES

## 300.0 Anxiety Neurosis

Anxiety

Anxiety

Depression

Reactive state (Neurotic)

Hysteria

Panic state

## 300.2 Phobic Neurosis

Fear Reaction

Phobic Reaction

Phobia NOS

## 300.4 Depressive Neurosis

Neurotic depression

Neurotic depressive state

301 PERSONALITY DISORDERS

## 301.1 Affective

Cyclothymic personality

Hypothymic personality

Hyperthymic personality

## 301.5 Hysterical

Histrionic personality

Labile personality

## 301.6 Asthenic

Inadequate personality

Passive personality

Passive-dependent personality

## 301.8 Other

Immature personality NOS

Personality disorder of other  
specified type.

## 301.9 Unspecified

Personality disorder NOS

Pathological personality NOS

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