

Theories of Anxiety

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In this paper, theories of anxiety are categorized into psychoanalytic, learning/ behavioural, physiological, phenomenological / existential, cognitive, and those concerned with uncertainty. Representative theories within each category are described and commented on, commonalities are considered and there is brief discussion of the 'goodness' of the theories. For the future, it is suggested that theories of anxiety must give strong consideration to cognitive factors, even though such theories might well take off from a (neuro)physiological platform.

"The characteristics of anxiety as an emotion are that it is distressing, and that its sources are indefinite." Thus begins the entry on Anxiety in *The Oxford Companion to the Mind*, and whatever one's theoretical persuasion it is unlikely that one would disagree. Although there is considerable overlap between the various theories of anxiety, they can be categorized to a degree. They fall into groups that can be most simply labelled as: psychoanalytic, learning/behavioural, physiological, phenomenological/existential, cognitive, and finally and perhaps most importantly, those which are based on the idea of uncertainty, a theoretical concept which to some extent cuts across the other categories. The aim of the present paper is to give an account of these theories, to determine their strengths and weaknesses and to suggest what elements they might have in common. To an extent, they are all consistent with the quotation with which this paper began.

For the most part, the theories canvassed in this paper stem from a consideration of human anxiety. Nevertheless, some of the empirical investigations which surround the theories have been based on animal subjects. This tradition has derived from ethology (see for example the excellent work by Blanchard and Blanchard, 1990) and from laboratory experimentation, especially that which is neurophysiologically based (see for example, Le Doux, 1994). These approaches will be addressed in detail by McNaughton in the next paper.

Psychoanalytic theory

Psychoanalytic theories of anxiety began with Freud and have not developed a great deal since his time. However, they remain influential, particularly in applied, clinical settings. Freud had two theories of anxiety (1917, 1926 respectively), in both of which he saw anxiety as an everyday phenomenon and as a way of explaining neuroses. Everyday anxiety is realistic anxiety which refers to real objects; this has often been referred to as fear rather than anxiety. Neurotic anxiety can take the form of being free-floating, phobic, or involved in a panic attack.

In the first formulation, Freud regarded anxiety as being a transformed libido, the transformation coming about through repression. So, if a person is prevented or thwarted from carrying out some instinctive (sexually driven) act through repression, then anxiety is the result. The anxiety generated then acts to produce whatever symptoms that, in their turn, will stop more anxiety from developing.

In his second formulation, Freud reversed the anxiety-repression linkage and viewed repression as occurring because of the experience of anxiety. In this theory, anxiety is a signal from the ego about real (ie existing) or potential danger. The unpleasantness of a threat causes anxiety which in turn leads to repression as a way of getting the person out of danger.

In both of these theories, a central role is given to the avoidance of overstimulation, but in the earlier theory there is greater concern with 'automatic' anxiety which results from the trauma of birth and the infant's experiences immediately after birth. These points are reflected in later theories. With both the earlier and the later Freudian theory however, there seem to be three aspects to anxiety - an unpleasant feeling, some sort of discharge process, and the perception of the phenomena involved with this discharge. The sort of events that Freud believed to be significant in the development of what he termed primary (ie from birth) anxiety are: the birth trauma, the possible loss of or withdrawal of the 'mother', uncontrollable impulses or threats that might occur at about this time, and fears of castration (presumably only in males, although this might be a moot point). Because of all this the mental apparatus is flooded and overwhelmed, the person is helpless and passive and the emotional experiences of anxiety follow

automatically. So, in Freud's conceptualization, anxiety is either inherited or learned at birth, but with later additions being possible. Other types of anxiety, such as fear (this is Freud's way of looking at it) differ from primary anxiety only in what gives rise to them.

In the psychoanalytic context then anxiety is a significant aspect of handling a threatening environment, and is also necessary for the development of neurotic behaviour. Later psychoanalysts such as Sullivan (1953) emphasise the social environment rather than early separation, but otherwise the theory is similar. Sullivan makes anxiety into a social, interpersonal phenomenon rather than an intrapsychic one. However, theorists such as Bowlby (eg 1973) compromise and put the emphasis on the significance of the relationship with the mother, arguing that this is based on the apprehension that the mother not be there.

Although Freud's theory of anxiety, is clearly in the same psychoanalytic tradition as the remainder of his theoretical work, it can be conceptualised a little differently. For example, Izard (1977) suggests that it can be characterised as based on the adaptive functions of anxiety and as being dependant on the cognitive processes that are a part of individual learning and appraisal. It is perhaps important to view Freud's theory in this light since, as will be seen, in recent times, cognitive theories tempered by neurophysiological research have begun to dominate our understanding of anxiety, and yet it is hard to gainsay the strength of some of Freud's views.

Learning/behavioural theory

Theories of anxiety whose provenance lies in the learning area derive originally from Pavlov and Watson. Whatever form they take, their main function is to explain punishment. Put simply, the argument is that organisms learn to avoid noxious stimuli through some or other mediating mechanism. This mediating mechanism is normally called fear or anxiety.

The typical post-Pavlov, post-Watson analysis has it that a conditioned stimulus which is paired with (contiguous with) an unconditioned stimulus (which happens to be noxious and to cause pain) will, after several pairings, lead to a conditioned response. The conditioned response is fear or anxiety (they are often used synonymously by theorists of this persuasion) and are seen as secondary or acquired drives which have arisen through a process of classical conditioning.

Generally, these types of theory have it that the threat of discomfort, an increase in primary drives or overstimulation (shades of Freudian theory) lead to anxiety only if they have autonomic components. Once established, fear/anxiety can function as a secondary drive and establish new behaviour through drive reduction. Moreover, a conditioned emotional response may interfere with ongoing behaviour. Again, there is a similarity here with psychoanalytic theory in that anxiety is seen as incompatible with other behaviour (or thoughts).

The theorists who developed this perspective initially were Mowrer (1953) and Dollard and Miller (1950). Their view of learning has it that drive reduction follows a

response, reinforces it, and hence increases its future probability of occurrence. In this context, fear is a significant learned or secondary drive, as already described. For Mowrer, anxiety is a particular form of fear, when the source of the fear is vague or repressed.

Fear is learned because it can become attached to previously neutral stimuli, and it can motivate and reinforce. Anxiety can become built on this through neurotic conflict, neurotic fear being anxiety, and, by definition, having an obscured, that is, an unconscious, source. Again with similarities to psychoanalytic theory, these learning theorists view neurotic conflicts as happening in childhood and thus setting the scene for anxiety to develop later in life, although they do not say how repression occurs. In summary though, from this perspective, anxiety is learned and, once learned, motivates maladaptive behaviour.

Staats and Eifert (1990) have updated this way of thinking to produce what they refer to as a multi-level behavioural theory of anxiety. Although having the same background of the Mowrer and Dollard and Miller theories, it goes further. It rests on two basic premises - that there is a central emotional response at the basis of anxiety, and that anxiety can be acquired through aversive conditioning or more symbolically through language.

From Staats and Eifert's viewpoint it is not necessary for someone to have a traumatic experience in order to develop a phobia, say. It can come about through negative emotion simply eliciting words that are associated with situations, for example negative thoughts and words might become associated with images of panic. They are describing a sort of self-conditioning. The importance of Staats and Eifert's contribution (which is to emotion theory in general rather than anxiety theory in particular) is that they have made a clear link between conditioning theory and cognitive theory.

The final theorist who should perhaps be considered under the learning/behavioural heading is Hans Eysenck, although his approach is a little different from those already described (eg 1957). His learning theory of anxiety rests on his more fundamental personality theory. As is well known, this depends on two major dimensions, extroversion/introversion and neuroticism. In this context, the neurotic individual is particularly sensitive to anxiety-provoking stimuli, this sensitivity being based on the autonomic nervous system. So, from this perspective, anxiety-proneness is inherited.

However, anxiety can also be learned. Traumatic events lead to unconditioned fear, but can then become conditioned, resulting in new stimuli producing the original maladaptive anxiety responses. Here, then, anxiety is viewed as conditioned fear.

There is also another possible stage in the anxiety process according to Eysenck. A person inherits an excitation-inhibition imbalance. If this prompts the person to be at the mercy of the influences of social learning, that is to be introverted, then that person is more prone to anxiety, as well as other emotions such as guilt.

From Eysenck's perspective then anxiety is partly inherited and partly learned. The learning part depends firstly on conditioned fear and secondly on the state of the

nervous system. It is interesting to note that Eysenck's theory also provides the basis for Gray's more physiological theory. Eysenck though believes anxiety to be dependent on the visceral brain, consisting of the hippocampus, amygdala, cingulum, septum and hypothalamus, whereas Gray centred anxiety in the behavioural inhibition system of the septo-hippocampal region.

Physiological theory

Physiological and neurophysiological theories of anxiety will be dealt with in brief summary. They are based largely on an exposition of what parts of the central nervous system might be involved in emotion in general and fear/panic/anxiety in particular. It is largely through the empirical research that has derived from this beginning that they have added to our understanding of anxiety. (See McNaughton, this issue)

Such physiologically based theories rely on a model of human psychology which rests on natural science (more or less cutting out the experiential). They account for anxiety as involving particular parts of the CNS, with the addition of general arousal.

One of the most interesting physiological expositions of emotion comes from Panksepp (eg 1982, 1991) although he does not stress anxiety in particular. However, as already mentioned, other theorists stress links between learning and physiology in accounting for anxiety (eg Eysenck) and others link cognition and physiology, very much in a Schachterian mould (eg Öhman).

The one substantive theory of anxiety which should be dealt with under the physiological heading is that of Gray (eg 1982, 1987). He makes an extensive conceptualisation of fear and appropriately enough includes anxiety within this, his views ultimately deriving from the Eysenckian type of learning theory.

Gray regards the behavioural inhibition system as underpinning anxiety, unlike Panksepp (eg 1982) who places anxiety in the fight/flight system. The contrast between these two views is that of anxiety involving response suppression from the behavioural inhibition system or escape as mediated by hypothalamic circuits.

Gray argues that the behavioural inhibition system suppresses any behaviour that threatens an unwelcome outcome, so it only does this if there is another system that is mediating the threat. This is likely to be the fight/flight system, and the outcome is likely to be negative when the system being suppressed is fight/flight.

Gray speaks of a complex septal-hippocampal system as at the basis of anxiety (and other emotions), and in particular as acting as an interface between emotion and cognition. However, other parts of the brain are also involved in anxiety but the septo-hippocampal system is central. He also draws attention to the neocortical projection of the septo-hippocampal system in the frontal lobe, and the monoaminergic afferents arising from the brain stem.

Although the present exposition is concerned with theories of anxiety, it is perhaps worth pointing out that Gray's theory depends in part on his analysis of research involving anti-anxiety drugs, (see also Silverstone in this volume) especially with respect to the finding that lesions

in the septo-hippocampal area have similar effects. It is also worth noting that Gray's theory of anxiety is yet another in which attention is drawn to cognition.

Phenomenological/existential theory

Phenomenological and existential theories of anxiety have their origin in Kirkegaard 150 years ago (1844). Here, anxiety is seen as a naturally occurring state of the person. This way of looking at things pivots on the idea that development and maturity depend on freedom, which in turn depends on being aware of the possibilities that exist in life.

To consider such possibilities means that anxiety must be involved. Growing towards the maturity that freedom brings, means dealing with the anxiety that is an integral part of experiencing possibility. We are presented as a natural part of life with a series of choices, from birth onwards. At every choice point there is anxiety. To become truly actualized we must face this anxiety and deal with it - anxiety is unavoidable.

It is interesting that Kirkegaard made a distinction between fear and anxiety that is very similar to that which is still often made. Fear is of a specific object, whereas anxiety is independent of any object, instead being a necessary condition of choice. Anxiety only develops after the development of self-awareness allows a person also to form a self-hood. A fearful person moves away from a feared object, whereas an anxious person is in conflict and unsure. For the person to develop properly, the anxiety must be faced and dealt with.

Fischer (1970) has done much to bring a phenomenological or experiential approach to understanding anxiety into the twentieth century. He does so by attempting to integrate all previous theories. Although this attempt is somewhat wanting, it nevertheless led to a theory

Fischer brings everything together in terms of anxious experiencing. This involves five components. 1) There is an identity, which takes the form of milestones towards a way of living. If any of these milestones are threatened so that they might be lost, then anxiety results. 2) There is a world, which consists of a network of relations and involvements for each milestone. If anything in this world seems insurmountable and the world thus becomes threatened, then again anxiety may result. 3) There is motivation in which the world and the person's identity is perpetuated. 4) There is an action, which is involved in achieving a milestone and which expresses being. 5) Finally, there is ability which is a lived evaluation of uncertain competence.

For Fischer, anxiety is both anxious experiencing and the experiencing of the self or the other being anxious. As should be obvious from this brief description, Fischer's conceptualisation of anxiety is vague, although it is experiential or phenomenological and he does not really succeed in fitting all the other types of formulation into the theory, even though the vagueness helps.

Cognitive theory

In recent years, most theories of emotion have had to find a place for cognition, and theories of particular emotions, including anxiety, are no exception to this. Apart

from the uncertainty theories which appear in the next and final section, two major cognitive theories will be considered here. As will become clear, they also lay emphasis on other matters in their conceptualisation of anxiety, but are included because they have an obvious and central place for cognition. They are the theories of Michael Eysenck (1990) and Öhman (1993).

M. Eysenck argues that the cognitive system acts as a gateway to the physiological system, so in understanding anxiety it is important to consider both systems. He also talks of self-schema theories, self-schemas depending on the personal relevance of any particular trait to the individual, and assumes that these self-schemas are part of the cognitive system.

As a background to his theory, M. Eysenck shows that there are differences between people who are high and low in trait anxiety in the information that they have stored in long-term memory. This view is supported by the work on mood-state-dependent retrieval and mood-congruent learning. People who are high or low in anxiety also vary in their mood states and so the content of their memory should also vary. This memory approach to trait anxiety also helps to account for changes in trait anxiety that occur over time and also to deal with the fact that some people are anxious in some stress-producing situations but not in others. M. Eysenck also argues that those who are high or low in trait anxiety may also differ in the process side as well as the structure of their cognitive systems.

The theory proper begins with a consideration of why people differ in their susceptibility to stress. Eysenck demonstrates that those who are high or low in anxiety do in fact differ in the structure (content) and processes of cognition. Their memory differs both in broad schemata and in specific items, such as the type and amount of specific worries that they might have. He offers two reasons why those who are high in trait anxiety worry more than those who are low. First, they have more frequent and more highly

organised sets of worries in long-term memory. Secondly, the worries of the highly anxious may be more accessible because their more negative mood states assist mood-state-dependent retrieval.

According to the theory, it follows from this that high and low anxiety people will also differ in cognitive appraisal of ambiguity. Moreover, a person might be more susceptible to stress and anxiety in some stress situations than others. Eysenck points out that the evidence about the role of the cognitive system in accounting for differences in susceptibility to stress is unclear, but there are differences in cognitive functioning.

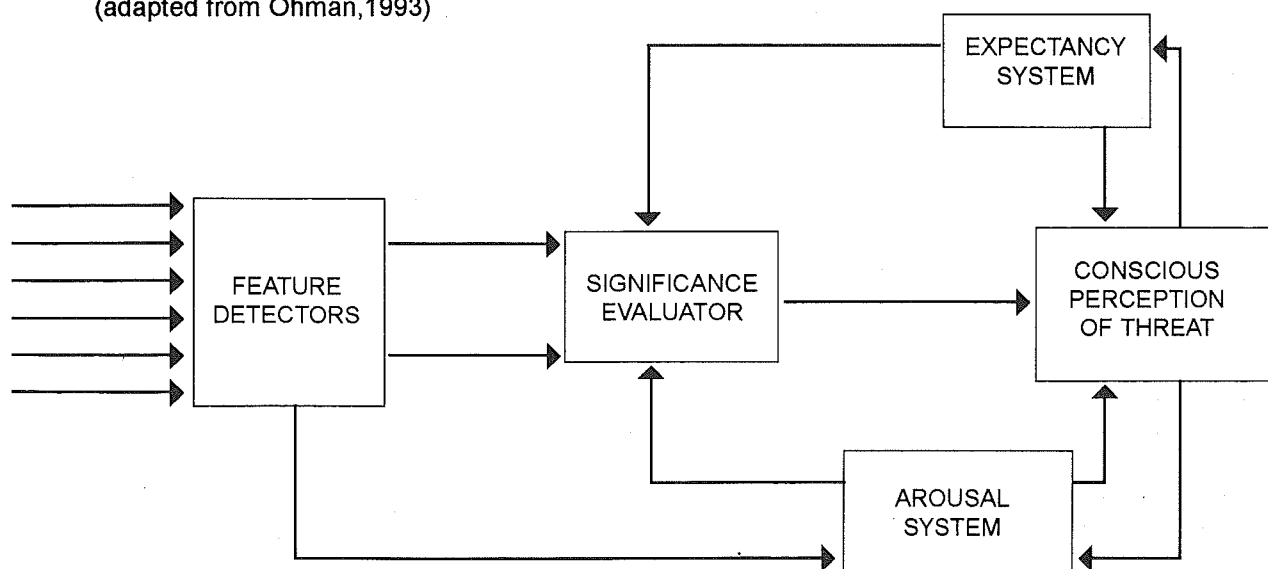
In the end, what is important about M. Eysenck's theory of (trait) anxiety is that it draws attention to the importance of taking into account the cognitive system as well as the physiological and the behavioural.

Öhman (1993) puts forward what he terms an information processing theory of anxiety, although he argues that the information processing sources lead to biologically based defences that in turn produce the anxiety. Öhman's theory (he terms it a model) is represented in Figure 1. It consists of five major aspects.

1) Stimulus information goes into feature detectors which pass the information onto significance evaluators. Some stimulus features may be connected directly to the arousal system, which produces alarm. The feature detectors are set to find threat in biologically significant stimuli. Information will also go on from this level to the conscious perception system.

2) The significance evaluators automatically assess the relevance of stimuli, with expectancies setting the system to look for particular inputs. Meaning is analysed at this point and memory has an important part to play. So cognitive resources are necessary at this stage but there does not have to be any conscious access to what is going on. "The important implication for anxiety is that nonconscious discovery of potential threat through the significance

Fig 1: Öhman's Information Processing Model of Anxiety
(adapted from Öhman, 1993)



evaluator does not result in activation of the arousal system unless it results in conscious perception of threat." (Öhman, 1993, p528)

3) The arousal system can 'tune up' the significance evaluator and also gives input to the conscious perception system. It is based on emergency reactions of the autonomic nervous system.

4) The expectancy system is based on emotion being organised into memory. This is a standard cognitive system of networks with nodes. It biases the significance evaluators to react to information which matches active memory nodes, which in turn again gives information to the conscious perception system. All of this maintains the bias to find threat in the environment. So the expectancy system biases the incoming information and makes a context for the interpretation of what goes into the conscious perception system

5) The conscious perception system is part of a much larger system - the mind, consciousness, cognitive-interpretative system, or whatever. It integrates input from the arousal system, the significance evaluators and the expectancy systems, and picks out a suitable action to deal with the perceived threat. If avoidance or escape is possible, the result is fear. If not, the result is anxiety. So, again, as with most theories, fear is seen as having a tangible object and outcome, and anxiety as not. "...responses of fear and anxiety originate in an alarm system shaped by evolution to protect creatures from impending danger." (Öhman, 1993, p529).

Öhman sees links between the unconscious aspects of anxiety as suggested by Freud and his own idea of two types of unconscious. Freud had a drive unconscious and a repressed unconscious, which are similar to the unconscious effects of feature detectors and significance evaluators in this model. Öhman even makes the feature detector part of his model equivalent to Jung's collective unconscious, a sort of cumulative human experience (with archetypes viewed as biological preparedness). The significance evaluator is more concerned with individual history and so may set the person to respond more to some threat cues than others.

Öhman argues that his theory suggests that there are two types of anxiety, both of which are distinguishable from fear. In his view, fear is an emotion to do with conscious avoidance and escape. If such responses are blocked then anxiety results. However, a more basic type of anxiety than this comes from unconscious input to the conscious perception system from significance evaluators and the arousal system. The result of this is undirected anxiety, the cause of the anxiety being not available to the person.

In this context, phobias and panic disorders are seen as arising from physiological roots, whereas generalised anxiety comes from a cognitive basis. However, the theory cannot say why some people develop one type of disorder and other develop another.

In summary, Öhman's theory or model is very much in the post-Schachter or causal-evaluative (in Lyons, 1991 terms) framework of emotion conceived as a matter of physiological cues and cognitive interpretations. Öhman takes an intermediate position on the emotion/cognition, (which comes first), debate. He argues that some anxiety

effects occur immediately a relevant stimulus impinges, but cognitions from nonconscious biases also have their role to play in the interpretation of threat. The important question is how cognition and emotion interact when considering a state of anxiety.

Öhman's model of anxiety is squarely within one of the recent traditions of theorising in cognitive psychology. It has some reasonable things to say about anxiety, but in the view of the present author it suffers from the same difficulty that is usually suffered by those who engage in what might be called boxology. Because some possible function is named and put in a box in some indeterminate space in the brain does not mean that it actually exists, nor does it in any strong sense provide an explanatory account. In one sense, then, although this theory seems to be quite rich and well worked out it tells us less about the nature of anxiety than the ideas of Kirkegaard expressed so long ago.

Uncertainty

There are three current emotion theorists whose theories of emotion in general, and of anxiety in particular, cut across the more traditional divisions. There is a sense in which all of the theories so far considered see uncertainty as a core part of anxiety, uncertainty at least as being unsure of the future or of what course of actions to take in the face of threat. However, Izard, Lazarus and Mandler refer more directly to the importance of uncertainty in giving their accounts of anxiety. Clearly, uncertainty is a concept which fits most closely within the cognitive domain.

Izard (1977, 1991) suggests that the feeling state common to any type of anxiety is fear, although he argues that anxiety is linked with various other emotions at different times and in different circumstances, eg interest/excitement, sadness, shame and guilt. Through his Differential Emotions Theory he urges that although anxiety should be treated as a unitary phenomenon, the other discrete emotions that are linked with it from time to time should be taken into account as far as subjective experience is concerned. More importantly, in the present context, he views anxiety as being dependent on uncertainty.

The notion of uncertainty is taken further by Lazarus (1991), who brackets anxiety with fright. Fright occurs when there is imminent physical harm, whereas he believes anxiety to be characterised by uncertain, ambiguous, existential threat. His distinction between fright and anxiety is similar to Freud's distinction between objective and neurotic anxiety.

As an appraisal theorist, Lazarus suggests that there are various primary appraisals that might contribute to anxiety. Thus, if there is perceived to be goal relevance, then any emotion might ensue, including anxiety. If there is goal incongruence, then only negative emotions will result, including anxiety. Finally, and most importantly, if the ego-involvement is protection of personal meaning and the protection of ego-identity against existential threat, then anxiety is the only possible emotional reaction.

Uncertainty, as the core of anxiety, produces a strong drive to objectify it, to make whatever the threat is external and objective in order to reduce the uncertainty. The person's ability to cope is also uncertain. The problem with anxiety, as Lazarus sees it, is that once one objective threat has been

coped with, another takes its place since the basic problem is existential.

Finally, Mandler (1984) offers the most sophisticated explication of anxiety which is based on uncertainty. He regards previous research on anxiety as being characterised by three main approaches. The causal view has anxiety seen as acquired through learning, distinguishes it from fear and views it as concerned with stimuli that signal threat to the integrity. What Mandler terms the organismic-hypothetical approach sees anxiety as an observed or hypothesised state, sometimes purely theoretical and sometimes a state of the nervous system. The experiential/behavioural approach is concerned, largely via subjective report, with anxiety, defined via expressive behaviour, general activity and a series of behavioural and physiological symptoms, as it affects a wide range of functions.

Mandler synthesises previous theories, some of which have been discussed presently, as having three common elements. Archetypal anxiety-evoking events exist primitively, innately or congenitally. Responses to these events are transferred to other events that were originally neutral simply through contiguity. This may be externally or through an organism's actions. And events that end or reduce anxiety are related to events that also evoke anxiety, for example, the danger of overstimulation is reduced by reducing the stimulation.

In his own formulation, Mandler argues for a nontraumatic theory of the sources of anxiety which he sees as dependent on the cyclical distress of the human neonate. So anxiety is what he terms 'fundamental distress', the main event in which is "...the perception or afferent effect of variable and intense autonomic visceral activity." (1984, p234).

Fundamental distress is a state of unease or anxiety that does not have a specific causative event. Mandler points out that discomfort in the newly born may accompany other states such as hunger, thirst, cold, or etc, and to reduce these states does not necessarily reduce the anxiety. The anxiety is reduced by non-nutritive sucking or by the stimuli provided by a 'mother', rocking, nodding, producing regular sounds etc. These two types of event are inhibitors of fundamental distress and hence of anxiety.

Mandler also assumes that these matters are amongst the earliest differentiations that a child makes, as are those which are to do with handling distress. At such times, the child learns about the interruptions of organised sequences of responses or expectations. And, not surprisingly to those who are familiar with Mandler's general theory of emotion, he regards interruptions as possibly leading to anxiety.

The core of Mandler's theory of anxiety then depends on the link between anxiety and interruption. The important question is how does the arousal that stems from interruption turn into anxiety? It happens when there is no response available to the organism which will stop the interruption. This leads to feelings of helplessness and disorganisation: these are anxiety.

To summarise Mandler's theory, the cyclical distress of the newborn provides the first experience of anxiety. This fundamental distress bears no relationship to antecedent events, although there are specific inhibitors such as sucking

and rocking, that bring it under control. The withdrawal of such inhibitors might reinstate the distress. Later on, other organised behaviours might also function to inhibit distress/anxiety.

Furthermore, helplessness turns arousal into anxiety through the unavailability of plans or actions that are relevant to the task or to the situation. The one thing that leads to helplessness is the interruption of plans or behaviour. This may degenerate further into hopelessness if it builds up, goes on for long, or if there are repeated failures. This all becomes related to self-esteem and may lead to depression.

In the end, the imperfections of human beings often lead them into situations in which they are helpless (they are uncertain what to do). This results in anxiety and this in turn interferes considerably with effective functioning. Because of this, Mandler argues that it has often been called stress, and so we see the origins of the confusion that exists between anxiety and stress.

Conclusions

The obvious concluding statement to draw from this consideration of theories of anxiety is that the various approaches set off from a very similar set of starting points to those of theories of emotion in general. There have been psychoanalytic, behavioural, physiological, experiential/phenomenological and cognitive roads taken. From this theoretical plurality further conclusions can be drawn, conclusions which represent commonalities that can be extracted from the theories.

Perhaps the first and foremost conclusion is that the weight of opinion makes it clear that anxiety cannot be fully understood without taking some account of its cognitive aspects and influences. (This point would presumably be agreed to by Tripp and Milne [this volume] who also give a central role to cognition, although with a slightly different emphasis to the present.) This again reflects what has happened to emotion theory in general - it has become highly interrelated with cognitive theory. With respect to anxiety, this is particularly the case since a basic aspect of anxiety appears to be uncertainty, whether it be of what the threat is, how to cope, how to deal with the unconscious, or how to face a multitude of possible futures.

A further conclusion is that there seems to be general agreement amongst most of the theorists that anxiety can be distinguished from fear or fright in that the object of the latter is 'external', 'real', 'known' or 'objective'. Anxiety is characterised by its genesis being, yet again, uncertain, to the individual.

Moreover, although anxiety is clearly a negative, unpleasant emotion, it is motivating, can become associated with a wide range of new stimuli or events, and appears to be an inevitable or even in some views an essential part of the human condition.

Judging from some of the other papers in this issue (particularly those of Hughes, Silverstone, and McNaughton), it is empirical work on the neurophysiological bases of anxiety that is offering some very promising insights. Perhaps, as McNaughton suggests, such insights will turn into the form of a hierarchically constructed

defensive system. However, it remains for such approaches to result in a fully-fledged psychological theory of anxiety, which has definite room for cognition and even a space for the experience of anxiety.

To return to the starting point of this paper, anxiety is indeed distressing and its sources indefinite, but there is clearly more to it than this, a point with which a wide range of theorists, working from multiple perspectives, would agree. Whether or not the extant theories of anxiety are good theories is beyond the space presently available. For now it is enough to say that most of them make some sense of the existing information, some are more internally consistent than others, some are more general than others, some have predictive power, and all appear to have reasonable heuristic value.

For the future, in my view it is probably Mandler's type of theory that will be of most note, a theory of anxiety that is broadly conceived, that clearly has a central role for cognitive factors, and that can embrace the specific issues of behaviour, experience, and in particular neurophysiology that others have deemed important.

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