

THE SPECTRUM OF ANXIETY. From normal – to psychotic

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SUMMARY

A review of the different forms of anxiety is presented and the phenomenological and anthropological aspects of different types of anxiety are described. Clinical and neurobiological aspects of anxiety are then discussed, and the relationship of psychosis to anxiety is then described.

Key words: anxiety – psychosis – phenomenology – anthropology - neurobiology of anxiety

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"I must perish in this deplorable folly. Thus, thus, and not otherwise, shall I be lost. I dread the events of the future, not in themselves, but in their results. I shudder at the thought of any, even the most trivial, incident, which may operate upon this intolerable agitation of soul. I have, indeed, no abhorrence of danger, except in its absolute effect --in terror. In this unnerved-in this pitiable condition --I feel that the period will sooner or later arrive when I must abandon life and reason together, in some struggle with the grim phantasm, FEAR."

E.A.Poe: The Fall of the House of Usher

Introduction

Psychiatric and psychotherapeutic literature on anxiety seems to suggest that there are, broadly speaking, two main types of anxiety. There is on the one hand the medical literature, in which anxiety is described as a biological alarm response stemming from our brain. On the other hand, there is a large, older, body of literature that describes anxiety as an existential phenomenon, expressing the meaning of universal facts of life such as, for instance, the threat of absurdity, isolation, and/or imminent non-being. So, there are two discourses on anxiety, one emphasizing that anxiety is part of the natural human endowment (but elicited by the wrong cues), the other highlighting that all forms of anxiety, even pathological ones, in some way reflect omnipresent human conflicts and challenges.

Most striking in this context is the complete disregard in each of these approaches for the other approach. Existential and/or psychotherapeutic literature almost completely neglects the biological aspects of anxiety. Modern pharmacological and neuroendocrine studies on anxiety, on the other hand, show only a superficial interest in the typical human aspects of anxiety.

Could these two discourses be somehow integrated? Should the clearly biological under-

pinnings of the emotion of anxiety, and in particular pathological forms of anxiety, be seen as completely distinct from the deeply human, existential meanings of this emotion, or should both be considered as two aspects, or manifestations, of the same phenomenon? Is there just one anxiety or are there two? And, if there exist two or even more anxieties, how are they related? More specifically, could it be that there are many anxieties with existential meaning that builds on differentiations in their biological (and other) roots? (Glas 2003).

These questions provide the broad outline. Within that outline, there are subquestions, such as: do recent clinical and neuroscientific findings challenge long-standing notions about anxiety, or about emotion in general, or about brain processes, or about the relationship between subjective experience and more or less objective behaviours? And, finally, is there a difference in the quality or only in the quantity of anxiety in »psychosis«, in »neurosis«, and in »normal«?

The evolutionary perspective

Anxiety disorders were always interesting from this perspective. It was from the study of anxiety that the idea first entered psychiatry that a

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mental symptom could have a biological basis. In his essay »A phylogenetic phantasy«, Freud suggested that certain states of mind, such as paranoia and anxiety, were remnants of responses which were biologically adaptive in human beings up to the time of the Ice Age (Stevens 2001).

We neglect this evolutionary point of view too often. When the various phobias suffered by modern men and women are examined in detail, there is nothing modern about them. They are all exaggerated fears of objects, animals, or situations that were potentially life threatening in the environment of avolutionary adaptedness. This vital point is invariably overlooked in textbooks of psychiatry.

Anxiety and fear are adaptive responses to the kind of dangers humans have been exposed to in the course of their evolution. This is why we fear ancient dangers such as snakes, spiders, high or open places, and not modern dangers such as cars, guns, cigarettes, whiskey, and saturated fats, which kill off our contemporaries in far greater numbers. Modern phobias, such as going to school or to the dentist, or of contracting AIDS, are contemporary versions of adaptive fears of going off home range, getting hurt, or of getting infected. Some modern phobias are a composite of ancestral fears: fear of flying, for example, has been prepared by the primordial dangers of heights, falling, loud noise, and being trapped in a small, enclosed place from which there is no exit (Stevens 2001).

One universal fear which is manifested throughout the world community in infants, starting at about six months of age, is fear of strangers (xenophobia). This begins as shyness or slight wariness of unfamiliar people, and by twelve months it has become a very evident fear. It is during this period that young children delight in crawling off in exploratory forays away from their mother, using her as a »secure base«, thus rendering themselves vulnerable to the attention of strangers. There can be little doubt about the adaptiveness of infant xenophobia. Infanticide by strangers is so common among primate species as to constitute a strong selective force, and, as we have already noted, human infants are more likely to be abused or killed by nonkin to whom they have not become emotionally attached than by those to whom they are genetically (and emotionally) related (Daly 1989).

The archetypal mechanisms with which the human organism is endowed function in the manner of Ernst Mayr's 'open programmes': they

serve as biases to learn certain cues and responses rather than others, so as to adapt appropriately to environmental variations. Archetypes are thus prepared (by evolution) to become active in response to certain built-in rules. These biases facilitate swift responses with a minimum of previous experience (Stevens 2001). Snakes rapidly come to evoke fear, dominant conspecifics to evoke submission, bad food to evoke nausea. That we rapidly learn the actual cues betokening danger is because selection has prepared us to encounter them. This is why fear can be aroused in a variety of situations that are not, in fact, dangerous today anymore; but viewed from a biological standpoint, these reactions are understandable as manifestations of ancient response patterns. From the ultimate point of view of survival and reproductive success, it is better to respond with anxiety or arousal to a thousand false alarms than to risk a single failure to respond when the danger is real.

Clinical and scientific issues in the study of anxiety

From a broad historical perspective, it seems that there are at least three traditions in the study of anxiety. First, and foremost, there is a medical tradition, which from Antiquity until now dominated the theoretical literature on anxiety and which, at least in the past 150 years, favour a biological approach to anxiety. According to this approach, anxiety is rooted in a dysbalance of a physiological or endocrine equilibrium. Subjective feelings of fear and /or anxiety are the epiphenomena of this dysbalance.

Second, the concept of anxiety as inner threat must be distinguished. Well known as this is in the present time, one can hardly imagine the revolutionary significance of this concept when it emerged in the late nineteenth- and early twentieth-century psychoanalytical literature. Contemporary defenders of this view can be found in psychotherapeutic circles and in some branches of cognitive psychology. They do not deny that fear and anxiety can be related to events in the outside world, but they maintain that in addition there is an inner drama that contributes to the rise of anxiety. People fear, for instance, to be out of control and/or vulnerable (Glas 2003).

Finally there is the existential concept of anxiety, a concept that dates back to philosophers such as Pascal (1980) and Kierkegaard (1844/1980) and that, via existential phenomenology,

inspires the work of anthropological psychiatrists and existential psychotherapists in our time. According to this concept, the feeling of anxiety is seen as the expression of a frustrated urge for self-realization or as the expression of the imminent annihilation of personal identity and psychic integrity. This concept concentrates primarily on existence as such, which is broader and, depending on one's point of view, also more fundamental than the restriction to inner experience (Glas 2003).

From a clinical point of view, the experience of anxiety is often a double- or multi-layered one. On the surface, there exists a concrete fear, or a number of fear symptoms, that conforms to the criteria of one of the ICD 10 anxiety disorders. These symptoms are of three kinds: behavioural, physiological, and mental. Neurophysiological and neuroendocrine explanatory models (animal and human) describe correlations between overt behaviour and changes in the balance between neurotransmitter systems and the underlying brain circuitry.

At a deeper level, however, there are aspects of the phenomenon of anxiety that cannot be accounted for by such an objectifying approach. By listening to the patient one can often find a vital, sensation-like, experience that is much more difficult to describe because it lacks a definite object (Glas 1997).

It is my impression that this more basic or fundamental anxiety is often related to pervasive and global feelings of unconnectedness, powerlessness, absurdity, and/or doubt. Anxiety is, in this case not primarily the consciousness of being unconnected, out of control, and unable to make choices. It is rather the ways in which this powerlessness, unconnectedness, and lack of control are embodied and lived. Understanding anxiety from an anthropological perspective means that one understands the crucial importance of this conceptual shift – the shift from anxiety of 'something' to anxiety as an elementary expression of the underlying central theme in a person's life. In this sense we can understand Paul Diel, French philosopher and psychologist, who said: the term anxiety is usually connected with some psychopathological symptoms, however, this 'basic disquiet' (*l'inquiétude fondamentale*) – anxiety - is common in all humans and represents the driving power of psychological and material evolution (Diel 1956).

In contemporary scientific research the biological approach to anxiety prevails. It is now

widely accepted that there are at least two fear-mediating neuronal systems: one involving amygdala and the other the hippocampal system. Amygdala, two small nuclei of the limbic system play an important role in the regulation of conditioned fear responses, i.e. in acquired reactions to fear-provoking stimuli that are often not consciously perceived. Reactions to these fear-provoking stimuli consist of changes in bodily posture and an increase in muscle tension, blood pressure, attention, and the excretion of stress hormones. The operations of the amygdala are supposed to proceed without accompanying consciousness, although there are neuronal connections between the amygdala and neocortex. Furthermore, it is assumed that the amygdala has the capacity of 'implicit emotional memory'. It forms the »quick and dirty« part of the alarm system, in the sense that it gives rise to a processing system that reacts quickly and is broadly tuned to a wide variety of fear stimuli. These stimuli remain unnoticed, in many cases.

The other, hippocampal fear-mediating, system has the capacity of 'explicit emotional memory', indicating that its remembrances are conscious and 'narrowly tuned' to a limited set of fear-provoking cues. When the hippocampus is involved in the processing of fear, confrontation with signals of threat evokes a cognitive, more complex and slower, fear response, and in most cases the subject is aware of the source of threat (Kandel 2000).

The important thing to notice here is that both systems function in parallel: they are not completely separate, or linear (i.e. in a time sequence), or operating in a strictly hierarchical way. Parallel functioning means that both systems are activated together when confronted with a stimulus that is related to stimuli that were present during the initial trauma. Both systems, together, maintain a delicate balance, the one system releasing the output of the thalamus, the other inhibiting it. The emotional quality of memories is influenced also by the feedback of peripheral bodily sensation. It seems that these theories (of which the main proponent is Damasio) lead us back to the Aristotelian position, in which emotion serves as a disposition that enables the person to find a position in the middle, between the extremes of too much and too little of a certain behaviour. The capacity to find such an equilibrium is itself an instance of morality; it is the expression of a moral virtue.

Psychosis and anxiety

We have different views on anxiety: the one, that is most common in psychiatric practice and is embodied in various classificatory systems, reflects anxiety states provoked by various specific objects and/or circumstances. When anxiety is understood like this, then it is difficult to understand what is going on in psychosis. It is possible that anxiety in psychosis is connected with or provoked by a person, object, or situation; however, it is much more common that in psychosis we have to do with a kind of a basic anxiety underlying all other symptoms. The basic anxieties are often more at the background, but are none the less of crucial importance in understanding the patient.

Glas (2003) presents seven basic anxieties: pervasive feelings with an underlying theme, a theme that refers to a structural dimension of human existence.

Anxiety related to loss of structure

It refers to the inability of maintaining a relationship to oneself and/or the world. Psychotic anxieties are often characterized by loss of structure. From the perspective developed here, psychotic anxiety is not merely a reflection of a disturbance in thinking or perception, because it is the relationship to the world and to oneself as such that is threatened. The person lives in an unfamiliar, uncanny, and depersonalized world. There is not a perceptual disturbance as a result of which the person has unfamiliar feelings and sensations, which in their turn cause anxiety. The subjective quality of these anxieties suggests that there exists a much more immediate relationship, in the sense that anxiety is the very expression or manifestation of a change in position toward oneself and the world. In short, the anxiety is itself the manifestation of a state of chaos and disruption, rather than an anxiety of chaos, such as in fear of losing control.

Anxiety related to existence as such

This anxiety represents a horror – or even nausea- of the brute fact of one's existence, or a disgust with the world. Sometimes this horror, or disgust, is directed primarily to one's body, for instance in the case of anorexia nervosa. The theme of these anxieties is the facticity of life (its matter-of-factness). What occurs in one's life does not offer any promise. Everything seems to be neutral. What exists is not genuine, not alive; life

feels like inert matter. Nothing responds; one's inner experience feels frozen. The structural condition to which this anxiety refers is the capacity to shape one's existence in spite of the unpredictability of human existence.

Anxiety related to lack of safety

Anxiety related to the theme of lack of safety depends primarily on the (non)existence of physical safety. The person experiences the world as insecure and inhospitable. The vulnerability of human existence manifests itself here in a more specific feeling of disruption that results from lack of physical protection. One may think, here, of intense terror and desperation after physical or technological disasters. Human beings cannot flourish without physical safety. Many contemporary phobias reflect ancient response mechanisms which protected our ancestors from physical dangers. Noise, strangeness, rapid approach, isolation, and for many species, darkness too – all are conditions statistically associated with an increased risk of danger.

Anxiety related to unconnectedness

Anxiety that centers around the theme of unconnectedness or isolation is perhaps the pre-eminent existential or basic anxiety. This anxiety resembles separation anxiety – which is well known from psychoanalysis – but differs from separation anxiety in that the emphasis here is on the incapacity to connect as such, rather than on past or anticipated events of separation. What prevails is a tormenting feeling of distance, the awareness of an unbridgeable gap. This feeling can amount to the awareness that one lives in a vacuum and is about to suffocate, or that one lives in an unreal world in which things are not what they seem to be and in which attempts to connect fail as if there were a glassy wall between the person and the surrounding world. The structural condition to which this anxiety refers is the condition of affective connectedness.

Anxiety related to doubt and inability to choose

Anxiety related to the theme of doubt and inability to make choices refers to the structural dimension of time and the anthropological category of the will. Doubt and inability to make choices are major symptoms of obsessive-compulsive disorder. From an anthropological point of view, obsessive-compulsives have difficulties coping

with the irrevocability of decision-making. Indecision may give the impression of openness; in fact, however, it is an avoidance of genuine openness, in the sense that it does not allow decisions to become concrete and, because of that, does not lead to engagement and commitment when these are required. This is the kind of anxiety Kierkegaard is referring to when he speaks of the human person in a state of mental vertigo at the abyss of freedom. This anxiety is experienced as 'unbearable lightness', as a kind of weightlessness that avoids responsibility, in contrast to the heaviness that is inherent to the first three basic anxieties.

Anxiety related to meaninglessness

This anxiety is perhaps the most well known anxiety, as well as a major theme in existentialist and post-modern prose. Anxiety borders, here, on perplexity. Its theme is the absurdity of human existence, with perhaps a dual aspect of uncontrollability of being forgotten or lost in a cosmic sense. The structural condition that is supposed to conquer these anxieties is the capacity to entrust oneself to others and/or to a transcendent reality.

Anxiety related to death

Anxiety related to death, finally, brings us to the theme of non-existence. Death anxiety is by no means an easy construct. It should certainly not be restricted to the fact of one's (own) death in the future, or to the process of dying. Death anxiety also refers to the anxiety that exists when a person relates to his or her own finitude and mortality as such. Anxiety, conceived in this way, is closely connected to life itself: it is a living of the 'possibility of one's own impossibility to exist'. Death anxiety refers, here, to the category of possibility as a lived and full reality, and not to possibility as an empty and merely logical or statistical possibility. To live the reality of possibility presumes the capacity to transcend one's own limited perspective.

Synthesis: is it possible?

We have explored some of the biological and existential aspects of the phenomenon of anxiety. Both come together in the clinical situation.

There exists no research on the neurobiological correlates of the basic anxieties, however, there is a possibility of gaining some insight into the biological underpinnings of activities like projecting oneself into the future, acquiring a sense of basic trust, learning from past experiences, and so on. These concepts suggest that in areas such as the association areas of the brain past experiences and factors influencing these experiences are represented, compared, and subjected to a kind of inner enactment. Along this line it could be imagined that global pictures of the world, linked with values, emotions, and the concept of the self, give rise to or (at least) contribute to the experiences of the basic anxieties.

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