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## Concepts of anxiety neurosis : past and present

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Concepts of Anxiety Neurosis  
Past and Present

by

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Neurosis has been known, although not fully understood, for probably as long as man has existed. The ancient Greeks encountered it and although formal Greek medicine failed to allow for the effect of the mind on bodily suffering, Greek religion and mystical healing technics made use of suggestive therapy. The Aesculapian cult of temple healers which is thought to have begun about the 4th century B. C. used psychotherapy as did their Roman and Egyptian contemporaries. Many of their cases were undoubtedly hysterical.

It was the great Greek physician Hippocrates who advanced the theory of the four body humours, an imbalance of which was supposed to cause disease. Interestingly, the demonology of a later period was linked to it as an explanation of abnormal behavior. This is well represented by the statement of St. Jerome (d. 420 A. D.) (1) that black bile (atrobile) was the favorite liquid in which the devil loved to bathe. Actually not only demons but also witches and werewolves were thought to exist. Strangely, such beliefs persisted up to the 19th century and these were not alone held by the laity but were promoted and strengthened by the professional groups, particularly the medical and the clergy.

Following the Medieval Period there was a gradual awakening of the medical profession to the influence of

the mind on physical suffering.

Johann Weyer (1515-88), a shrewd Dutch physician, described cases of hysteria in which he recognized the sexual significance of the symptoms. (1) Charles Lepois (1563-1633) (2) was one of the first to reject the opinion which had reigned for centuries that the seat of hysteria was in the uterus. As an advocate of psychotherapy Stahl (1660-1734) (3) was a connecting link between the present and the past. The Bavarian physician observed some of the remarkable effects of the mind upon the body and his theory of the distraught psyche as the cause of the disease contains the germ of Freudian doctrine. Unfortunately, however, medicine which had by this time begun to relinquish demonology was rapidly becoming absorbed in metaphysics and magnetism, vitalism, Brunoism, mesmerism now flourished.

On the other hand, there were many who considered the functional nervous disorders to have organic causation and this was thought to be visceral disease. Some believed the uterus, others the stomach, to be the basic trouble. The so-called Medical Renaissance in France resulted in extensive literature on these conditions and in two schools of thought concerning them, i. e. organic and functional. (4)

Thus, scientifically speaking, neurosis was almost

an almost untouched subject until the middle of the 19th century. Experimental psychology was just then beginning. Lotze was exploring the subconscious mind. Kussmaul was investigating the psychic life of the newborn child (1859), Fechner was working on thresholds of sensation. (2).

Psychiatry was likewise advancing and with the advent of the Civil War came important new discoveries. In America, George Miller Beard (5) introduced the concept of neurasthenia or nervous exhaustion (1869) previously outlined by Eugene Bouchut (2) as nervosisme (1860). "Irritable heart" was described by Hartshorne (6) in 1864 and later, in 1871, by Da Costa (7) on the basis of observations on Federal troops. A surgical work resulting from study of nerve injuries by Geo. R. Morehouse, Wm. W. Keen and S. Weir Mitchell contained the first full-length description of the traumatic neuroses and initiated the latter's later work on traumatic neurasthenia. (2)

The latter part of the 1800's likewise saw important contributions such as the monographs of Duchenne (1862) (2) and Darwin (1872) (8) on the expression of the passions and emotions and Angelo Mossos's book on fear (La Paura) in 1884. (2) Pedagogics and juven-

ile psychology were treated by Binet, Stanley Hall, Sequin and others. Pierre Janet developed his theory of psychologic automatism in 1889, the relations between neuroses and fixed ideas in 1898, and described psychasthenia in 1903. Sexual psychology likewise underwent intensive study by such men as Krafft-Ebing and Havelock Ellis. (2)

The turning point in psychiatric thought can, however, safely be said to have occurred with Freud's theory of psychoanalysis, introduced by him in the period between 1893 and 1906. The foundation of psychoanalysis was a paper "On the Psychic Mechanisms of Hysterical Phenomena" issued jointly by two physicians in Vienna, Josef Breuer and his younger associate, Sigmund Freud, in 1893. (9) This was based on the now famous case of Anna O. Breuer discovered that by letting the patient discuss the origin of her symptoms, she brought up previous painful episodes which were represented by them and cured herself. Freud was fascinated by the "catharsis" method of cure and used it in analysing his patients from then on. But after using this for many months he began to realize that each person has his own mode of expression and that these symbolisms have to be interpreted. Thus was born the most important technic

of all -- free association. With this new tool Freud and all psychoanalytic researchers since his time have worked to ferret out symbolisms and thereby to explore the subconscious mind. It is this group of workers which has demonstrated the unconscious psychic mechanisms found in the neuroses.

Just before the turn of the century another form of neurosis came into being. Anxiety neurosis was first separated from the picture of neurasthenia by Hecker (10) in 1893 but it was Freud (11) who marked it off as a special syndrome and considered it an entity. He believed that this condition as well as the other neuroses always had a sexual etiology. Of course 'sexual' had a broader meaning for him than the usual connotation of the term. It is now thought, however, that frustrations and psychic traumata other than sexual ones may also be etiological agents.

Neurosis may be defined as "a psychic phenomenon" in which an individual has become maladjusted to some life situation and reflects the conflict in his state of health. (12) The external conflicts become expressed first as psychic manifestations -- tension, introspection, fear, worry and then as focal or general symptoms epigastric distress, palpitation, urinary frequency, etc. . It occurs in persons who have not

matured emotionally but the maladjustments are only partial and the hold on reality strong. Thus it lies between normality and psychosis and has been termed minor or border-line psychosis.

Anxiety state is a form of neurosis in which anxiety and its psychic and somatic manifestations are the main features. It occurs predominantly in young adults and is more common in females. (13) Although there is little statistical evidence concerning incidence, anxiety neurosis appears to be increasing, whereas hysteria, especially grosser forms, is on the decrease.

#### Classification of the Neuroses

Classification brings us to one of the most controversial points in the whole subject. Hysteria and neurasthenia were until Freud's time the two all-embracing neuroses and the latter was largely a waste basket into which unclassified functional illnesses were thrown. Freud narrowed the concept of neurasthenia by separating all anxieties from it and gradually formulated a classification system which remains today one of the clearest ever proposed. (14) It is as follows:

1. Actual neuroses (Neurasthenic syndromes  
(Hypochondriasis  
(Anxiety neurosis



2. Transference      { Hysteria  
                                 { and  
                                 { Compulsion neuroses

Freud also included the psychoses as a third group which he called narcissistic neuroses but they do not concern us here.

At present many men use a three point classification consisting of hysteria including the anxiety and conversion types, psychasthenia which combines hypochondriasis and compulsion types into one and neurasthenia and anxiety states.

Some also include the heading "mixed types" but this is taken for granted in any classification because of the inherent overlapping of these conditions.

Really objectionable, however, is the use of terms such as war, occupational and traumatic neurosis to indicate separate entities and organ neurosis for the same purpose. Actually the former group are collective in meaning since for instance, war neurosis consists of anxiety neurosis, hysteria and other types of neurosis as do the others. Organ neurosis is bad because although it represents a definite type of underlying neurosis in the individual case, the basic form of disturbance is not the same in each case. These discrepancies in terminology should be kept in mind because they are collective

and do not represent new forms of neurosis.

### Theories on Etiology of Neurosis

Etiology of anxiety neurosis, as for the other forms, is not yet definitely known. A number of theories have been advanced to explain causation of the psychoneuroses but although each contains a grain of truth, not one adequately explains all neurotic manifestations. There are eight of these and they embrace both somatic and psychogenic concepts. The somatic schools maintain that there is always organic, structural or physiologic change in the metabolic processes of the neurotic individual whether or not these can be proven in the light of our present knowledge. The psychogenic schools, however, hold that the cause is purely psychic without physical alteration necessarily and is due to intrapsychic conflict.

The following are somatic concepts:

(1) The organic or pathologic theory postulates a definite structural or physiologic alteration in the nervous systems of neurotic individuals. These changes may not be demonstrable with present technics and must be left to future developments in microscopy, biochemistry, and physics. Crile (15) has shown that fear and intense emotions may produce cellular change. It is

thought that excessive fatigue, mental and physical, prolonged starvation, excessive intercourse and masturbation may cause such changes. Likewise, concussion, toxic products of infectious disease, alcohol, and chemical toxins may produce structural changes in the nervous system and thus produce neuroses. The psychoanalysts refute these assertions by saying that these factors serve only to precipitate neuroses and further that most persons are exposed to them and yet many do not develop neuroses.

(2) Cajal, (16) the Spanish neurologist and histologist, has proposed a mechanistic somatic theory. He postulates synaptic interruption of nerve impulses in the brain with neurosis resulting. Thus, if such interruption occurred in the cortex or subcortex, purely mental or intellectual symptoms as are seen in psychasthenia would result. If interruption occurred at the level of the basal ganglia, then physical signs such as paralyses, anesthesiae, and contractures of hysteria would appear. This theory is difficult either to prove or disprove and does little to further knowledge, particularly present information which tends to prove psychogenic etiology.

(3) The behaviouristic or conditioned reflex theory

of Pavlov (17) and the Russian school is a third view. Thought is regarded as complex reflex responses. In childhood simple reflex patterns are laid down and these are elaborated into more complex patterns in the adult. Failure of integration of reflexes or disintegration of those already formed leads to anomalies of conduct seen in the neuroses. Both children and neurotics are said to acquire and to lose conditioned reflexes easily. This is the only theory which does not accept heredity as a factor in causation.

(4) Another theory maintains that minor disturbances or dysfunctions of the endocrine glands are the basis of all neurotic symptoms. It is possible that definite although at present unrecognized endocrine imbalance may produce neurotic states. For example, overfunctions of the adrenal medulla may cause nervousness, insomnia, anxiety, anguish, palpitation, disorders of appetite and so on. Cannon (18) and Crile (15) have shown the relationship between the emotions such as fear and anger and the adrenals. Which is cause and which effect is hard to say.

(5) Others claim that imbalance of the autonomic or vegetative nervous system may produce many symptoms seen in neurotics. Some may be sympathicotonic and

others excitable with nervous symptoms referable to heart, lungs, or gastrointestinal tract. Gowers (19) has described vasovagal attacks of anxiety, palpitation, and apprehension which are analogous to those of anxiety states.

The following are the three chief psychogenic views:

(1) The concept of suggestion. This view implies that neuroses are due to suggestion and may be cured by it. It is based on Babinski's doctrine of pithiatism (20) which holds that hysterical symptoms may be produced or removed by suggestion. This is true but the viewpoint is too superficial and does not explain the true cause of neurosis.

(2) The second or socio-biologic view maintains that the genesis of the neurosis rests on a conflict between the individual and society. Neurosis appears when the individual is forced to forego realization of his personal desires when they are distinctly antisocial or disadvantageous to the group as a whole. It is interesting to note here that in primitive social groups where the group requirements are few and loose and when the individual has easy access to gratification of his basic desires -- hunger, thirst, sexual satisfaction -- neuroses are not known. There are no neuroses among

savages but the higher one ascends in the scale of civilization the more numerous are the neuroses.

Adler's views belong here. He assumes that an individual is born with an organ inferiority and that he then spends his lifetime attempting to triumph over his handicaps by trying to achieve wealth, power and recognition. If he succeeds, he is normal but if he fails, he is neurotic and his symptoms are his excuses. (21)

(3) Finally, the important psychoanalytic theory of Freud which is the most generally acceptable of all the theories advanced and the most compatible in its explanation of the psychoneuroses.

According to this theory (22,23) all mental processes fall into two great spheres -- the conscious mind or ego which is in relation to reality and the subconscious or unconscious mind or id which is most important in the production of the neuroses. The id is charged with energy derived from the libido, a term including the whole mass of primitive sexual urges and cravings. The id is forever at war with the ego which is largely molded by the ethics, esthetics, conventions, religious views, and education of the individual. Standing midway between the id and the ego is the censor of all libidinous ideas or of all impulses arising in the id that

attempt to reach consciousness. The ego ideal promptly suppresses those libidinous thoughts which would cause pain to the ego but it allows them to escape to conscious levels if they are effectively disguised or distorted. The ego ideal or superego is essentially the conscience, the supercritic of the ego and from it arises the sense of guilt.

This theory further holds that there is a definite psychosexual development which has its roots in earliest infancy. This infantile sexual evolution can be depicted as follows:

1. In the first stage or period of the first two years the libido is mainly concerned with the individual's own body and its functions and is therefore interested in the processes of nourishment and excretion. This stage includes oral, anal, and urethral phases and is spoken of as autoerotic or narcissistic.

2. The second stage or period of development involves redirection of the libido from one's own body to that of another individual, usually of the same sex. This is the period of the incestuous complex when the infant identifies itself with the parent of the same sex. If the libido is directed to siblings of the same sex, the effect is essentially the homosexual one. This phase

of pregenital organization occurs in the period between two and four years.

3. The third stage from four to six years marks the completion of genital organization at which time libidinous expression is somewhat comparable to that of an adult.

4. The fourth and final period from six to fourteen years is a period of latency prior to puberty -- a period of quiescence since the genitalization has been completed. There are few neuroses during this period.

All these partial infantile sexual impulses are repressed as affectively toned memories into the unconscious. When external difficulties make sexual adjustment on a mature adult basis impossible, the libido becomes introverted, turns on and within itself and regresses to the earlier infantile trends. Neurotic symptoms are thus a disguised and vicarious gratification of the libido and represent a compromise between the ego and the id.

Both psychogenic and somatic theories imply a defective inheritance or constitutional tendency which is still poorly understood.

With the exception of the conditioned reflex theory, all the somatic concepts are weak in that they are either totally concerned with symptomatology or with precipitating factors and Cajal's concept of synaptic interruption,



although a pretty theory, cannot be either substantiated or disproved.

As a matter of fact, Brawner (24) has enlarged upon a somewhat similar theory of Hunt's (25). He ascribes an inhibitory function to the thalamus which normally stops all non-essential stimuli from going higher than the basal ganglia and hence, protects the brain from them and he likewise assumes the corpus striatum to have similar inhibitory functions. A hyperactivity of the latter could then result in hysterical manifestations while a hypofunction would result in the symptoms of an obsessive-compulsive neurosis.

Crile (15) showed in 1921 that emotion may cause cellular change. It does not seem feasible, however, to assume that thus any influences which will cause similar cellular changes will, therefore, cause emotional responses because emotion did not follow these changes; it preceded them. Such a cause and effect system cannot be reversed.

It appears, though, that fatigue may be either cause or result of neurosis. Crile (26) has shown that prolonged insomnia can produce histologic changes in the central nervous system in rabbits. Sleep will, however, reverse these changes except where the nuclei have disintegrated. Studies on neurosis in the war just past

likewise indicate that fatigue is a definitely predisposing factor. (27, 28, 29) But on the other hand it may be a symptom rather than a cause. (30, 31, 28, 32) In fact neurasthenia is the Greek for nervous exhaustion, the most prominent feature of that disorder. Combat fatigue is another obvious example.

Chronic inanition has been studied by Morgulis (33) who states that except for the terminal phases cellular changes which occur throughout the body -- not just the brain -- are reversible. In any event the accompanying clinical symptoms are not at all those typical of neurosis.

Murray (34), in a study of patients recovering from starvation, noted that fatigue, apathy and lack of emotion accompany the physical debility. The association of these symptoms with voracious appetites is, however, the opposite of that seen in the functional nervous disorders. Nevertheless, inanition may be a factor by producing fatigue.

Along the lines of inanition one must also consider specific deficiencies. Carbohydrate and fat deficiencies have apparently not been worked out so far as possible neurotogenic potentialities are concerned and protein deficiency does not seem to be a factor. None of the reports on protein lack (35, 36) indicate any manifesta-

tions resembling neurosis.

Similarly, no one has been particularly concerned about mineral deficiency as a factor in producing neurosis. As Harding points out, however, the possibility of such a deficiency in man is remote because of the wide distribution of these and the minute requirements of them. (37)

The role of vitamin deficiencies in neurosis, unlike that of other nutritional substances, has attracted a good deal of attention. Williams et al. (38) have induced vitamin B<sub>1</sub> deficiency by using deficient diets and Aring and Spies (39) have observed patients who have been on diets known to be low in thiamine. The latter group noted especially that many of these people presented pictures of anxiety states and phobic reactions. Incidentally, the symptomatology here closely resembles the early emotional manifestations seen with nicotinic acid deficiency.

Pellagra presents an interesting problem in undernutrition because the nervous symptoms are almost exactly like those of neurasthenia. These mental symptoms are cleared up in from one to twelve days on adequate nicotinic acid therapy. (40) Although pathology of cord and medulla was striking, Langworthy (41) found no abnormalities in the cerebral cortex to account for

the nervous symptomatology

The other members of the B complex are not known to produce psychic disturbances when deficient. (42)

Mellanby (43) has speculated on the role which vitamin A may have in causing nervous manifestations. Eveleth and Biester (44) who have confirmed his results in producing spinal degeneration using vitamin A deficient diets in swine do not mention the possible role of that substance in the production of neuroses. It now appears that A is unimportant in the metabolism of the central nervous system. (42)

Vitamins C and D are likewise not known to produce nervous system disorders. (42)

Work done on deficiency of vitamin E (45, 46) indicates spinal cord degeneration is a result but there is no mention of the appearance of any emotional manifestations. There is no brain stem or cortical pathology associated with deficiency of this vitamin.

Of all the vitamins, then, the B complex seems to have the most to do with the nervous system. Thiamine ( $B_1$ ) and nicotinic acid are both intimately related to its metabolism but especially  $B_1$  which facilitates the oxidation of pyruvic acid in the metabolism of carbohydrate. (42) Since carbohydrate is the chief foodstuff of the brain, a deficiency of  $B_1$  will interfere with the

metabolism and function of the nervous system.

Joliffe (47) has warned, however, that it should not be thought that all neurasthenia is based on thiamine or other nutritional deficiency. But it does seem clear to him that such a deficiency can produce a syndrome which is very similar.

Blood deficiency, as well as deficiency of food, has been thought to be an etiologic agent. Weir Mitchell (48) in 1888 introduced his theory on etiology which, essentially chemical, proposed that a lack of fat and blood was the cause of neurasthenia. This was, by the way, almost the exact opposite of a view held by Hammond (49) who, ten years previously, had attributed neurasthenia to cerebral hyperemia. Both views have been scrapped.

Sexual excesses used to be considered as cause of many forms of mental disorders -- psychotic as well as neurotic. But little or no scientific work has been done to support such views. They are now being discarded because it is now known that excesses such as masturbation play no part at all in neurotic disturbances except when they cause excessive guilt feelings, thereby producing conflicts. (50) Masturbation is now considered to be a normal phase in sexual development. (23,50)

Because neurosis often follows head injuries

concussion was thought to be the cause, but these so-called traumatic neuroses are often seen after very minor trauma with little or no loss of consciousness and no X-ray evidence of injury. (51,52) Thus, it is evident that concussion is not the etiological agent here.

Not only exogenous toxins such as those of infectious disease but also endogenous substances have been thought to cause nervous disturbances. Brower (53), in 1898, pointed out that the "dynamic changes" which researchers had produced in neurons using alcohol and other extrinsic poisons made it reasonable to assume that intrinsic poisons could produce similar pathologic changes. He concluded that the main factor in producing auto-intoxication was an upset gastrointestinal tract.

Somewhat similarly, Bouchard (54) stated that although psychical troubles are not caused by constipation, "the nervous system is maintained in a condition of hurtful disposition by it." He, however, considered dilatation of the stomach -- according to him a congenital tendency -- as causing a number of rather distinct clinical types by auto-intoxication. Two of these are:

Cardiac form. Included here are palpitations, breathlessness, beatings in the temples, redness of the face, cardiac anguish and false angina pectoris.

Neurosal type. This includes vertigoes, depression in the mornings, migraine, vascular spasms of the fingers cerebro-cardiac neurosis, hypochondriasis and contractures of the extremities.

Auto-intoxication is not now considered a causative factor nor are any other forms of intoxication.

Shortly following this theory came the concept of focal infection, set forth by Billings (55) in 1916. The result of this theory and that of auto-intoxication was not only a misunderstanding of the functional nervous disorders but also an appalling surgical attack on the colon, the appendix, the gallbladder, tonsils and teeth. (4) This theory like its predecessor has now been discarded.

Pavlov's behavioristic theory (17) is well substantiated. His interesting experiment proves that even the dog may be subject to anxiety states. He varied the stimuli used so that the animal became confused and after a time became definitely neurasthenic, slept and ate poorly. Gantt (56) has likewise shown that first conditioning a dog to food and a given stimulus and later frustrating him by changing the stimulus-food relationship will eventually produce an anxiety attack. Masserman (57) has come to similar conclusions using cats as subjects.

Actually the behavioristic theory is almost the same, in a somatic way, as the psychogenic are in the psychic, for, as Sadler (58) states, "There is no question that chronic neurasthenia, chronic fear (worry) is the end product of prolonged frustration, indecision, and mild conflict, either conscious or subconscious." The difference is that the psychoanalytic and sociobiologic views extend their concepts of causation beyond this somatic theory. Essentially they hold that the primary personality patterns of the neurotic individual are warped and that, therefore, the 'normal' frustrations later met cannot be adequately coped with, whereas these somaticists believe that under sufficient stress the normal individual eventually becomes neurotic. They definitely, however, have a point in so saying.

A contemporary of the focal infection theory was the concept of endocrine imbalance, one of the proponents of which was Timme (59). There is much to be said for this view because endocrine dysfunctions are definitely part of the picture of neurotic anxiety. As Cannon (18) has shown the adrenaline produced by the adrenal medulla is instrumental in producing sympathetic hyperfunction with anxiety as a result. Since then Lindemann and Finesinger (60) have produced a somewhat similar anxiety reaction using a parasympathetic stimulant thus indicating



that there are probably several physiological as well as psychological types of anxiety. In any event it now appears that disturbances in endocrine secretion are intermediate between the basic insecurities and frustrations of the neurotic and the psychic and somatic manifestations of these psychic conflicts.

Roller (61) was the first to point out that at the height of an anxiety attack one is dealing with excitation of the sympathetic system and that at the same time there is a vasomotor disturbance introduced from the medulla causing constriction of vessels. The autonomic system was further incriminated by the description by Gowers (19) of vasovagal and by Paul Loewy (62) of what he has termed vegetative attacks.

It is now generally agreed that the psychoneuroses are psychic in origin. But these views have truly had to stand the test of time and research as well as a good deal of criticism.

Babinski's theory of suggestion does not go deeply enough although it explains some of the symptoms in the neurotic. The anxiety neurotic has what Freud termed free, floating anxiety or Angst which may attach itself to any subject on which the individual momentarily focuses his attention. The anxiety neurosis may change into an anxiety hysteria in this way.

The socio-biologic concept actually partakes of psychoanalysis and simply stresses more the group codes or social mores. Instead of emphasizing the distorting effect of a bad environment on the infant which later makes it difficult for him to adjust to his life situation in society, this view concentrates on the frustrating action of social forces on individuals within that group.

Of all the theories on etiology of neurosis, the psychoanalytic has been by far the most bitterly assailed. True, some of the criticism has been done with purely scientific search for truth in mind but most of it has been due to the unwillingness of the profession to accept the theory of the psychosexual development of the infant and the sexual etiology.

Riggs and Terhune (63) exemplify the latter objections. We "heartily disapprove of any method of treatment which stresses the sex instinct or unduly encourages self-analysis." In the twenty years since they expressed their views the medical profession and the laity alike have begun to accept the facts of life and can now judge the psychoanalytic theory on its own merits.

There have, however, been some very just criticisms. Among these is that of Wohlgemuth (64) who mentions an investigation of nearly 700 children on the influence of feeling on memory. He found that:

37.5 per cent of pleasant experiences were forgotten against 33.8 per cent of unpleasant experiences forgotten. He concludes that there is not difference at all between the two feeling-tones, pleasure and unpleasure. This is just the opposite of the Freudian doctrine of repression of unpleasant episodes.

On the other hand Silverberg (65) objects to the monotheistic view of sexual etiology. He suggests at least a dualistic theory and employs a self-coined term, "effective aggression," which he says "refers to the capacity for doing something that one wants to do, for doing it successfully regardless of difficulty or opposition, when these are factors in the situation." He divests the term of all connotations of hostility and states that it is basically spontaneous. The subjective feeling which comes with exercising this capacity he calls the feeling of "competence" or "adequacy." He claims that no child can be permitted to grow up with a feeling of competence 100 per cent intact. No one possesses completely effective aggression in any cultural setting.

There are some concepts which are closely related to and basically accept psychoanalytic explanation of psychopathology. Ashby's (66) is one of these. He has attempted to bring together the physiologic and psychologic

concepts of neurosis. His explanation is essentially that of Gestalt psychology. He believes that any stimuli the individual receives are observed as a pattern rather than as separate components of a total picture and he suggests that when two patterns meet, their interaction is subject to two laws:

1. Similar patterns integrate and become one pattern and their differences build up a new pattern.

2. Dissimilar patterns are dealt with by completely accepting one of them and totally rejecting the other, thus establishing the one pattern.

Whether these two patterns are treated as similar or dissimilar depends upon:

1. The nature of the patterns themselves and,
2. The state or type of the nervous system.

Every person from birth on has two sets of patterns to deal with -- the instinctive or id and the social or superego.

According to Ashby, the neurotic is treating as dissimilar certain patterns which are usually considered to be similar. Thus, instead of integrating the instinctive and social patterns, the neurotic individual represses one of them.

This has been criticized as not contributing anything new to neurotic mechanisms but it attempts to

connect physiology and psychology in the neuroses and if it does nothing more, it focuses attention on this important problem.

Today the two etiologic factors in the development of neurosis are considered to be heredity and environment. The former has long been speculated upon.

According to Alexander (67) the two factors that shape any individual are:

1. Heredity
2. Environment

He breaks down the latter into the internal component of biological and the external portion which consists of the influences of family life and of society.

Neuropathic heredity, a view held by Morel and Esquirol, was favored by Beard (68). This theory considers all forms of disease to be interchangeable and heredity to mean anything pathologic or queer in ancestors or relatives. This concept has been discarded.

Most workers, even those who like Freud and Jung trace the origin of neurosis to psychological experiences, believe, however, that it also has a constitutional basis.

Allen (69) believes that there is probably an impaired metabolic power and that consequently the nerve cells break down too easily and build up too slowly.

There is, however, not the slightest evidence for this statement. (68)

Buckles (70) states that some people are predisposed to neurasthenia in that from birth on they show lowered energy and endurance, irritability and emotional unrest; but he believes that anyone can develop neurasthenia. In some cases the main element seems to him to be the individual but in vastly more cases the disturbing element is mainly the environment. He feels, therefore, that heredity plays only a minor role in these conditions. Meyerson (68) similarly points out that the war brought forth a huge amount of neurasthenia in men who did not have the slightest evidence of a neurotic nature.

According to him it has been a common practice to assume an hereditary predisposition in these cases. He says that often when a patient states that "nervousness" existed in an ancestor or relative, it is then naively concluded that the "nervousness" has an hereditary importance. He points out that little work has actually been done on this problem.

Some important work on this question has, however, come out of World War II. In 1942 Felix Brown (71) made a study of family history in a group of patients suffering from anxiety state, hysteria and obsessional

neurosis and also a group of controls. In the parents of the patients the frequency of anxiety states, hysteria and obsessional neurosis were respectively:

I (anxiety neurotics)	21.4%, 1.6%, 0.0%
II (hysterics)	9.5%, 19.0%, 0.0%
III (obsessional neurotics)	0.0%, 0.0%, 7.5%

Corresponding figures in the sibs were, in the same order:

I	12.3%, 2.2%, 0.9%
II	4.6%, 6.2%, 0.0%
III	5.4%, 0.0%, 7.1%

There was also considerable incidence of depressive states and of abnormal personalities among the relatives of all groups.

Brown concludes that although his findings are against any simple Mendelian inheritance, they are practically conclusive of the significance of hereditary factors. He feels that the importance of environment can, however, not be neglected. The three types of neurotic state distinguished are probably genetically related to one another and the development of a neurosis probably depends upon the combination of a number of genes, many or all of which may in other combinations be compatible with normal psychiatric make-ups.

Particularly since the advent of psychoanalysis

environment has been shown to play a large -- very likely the largest -- part in the development of the neurotic personality.

Alexander (67) considers the personality to be the total expression of integrated activity on the part of a complex biological system subject to the laws of heredity but affected also by postnatal experiences. He shows further that postnatal experiences are of two types:

1. Those of family life
2. Those of the society in which one lives (that is, to which the family belongs)

These postnatal experiences constitute the external part of the environment, biological growth the internal.

White and Jelliffe (72) have stated that "whereas bodily disease is the result of conflict between the individual and nature, the neuroses are the result of conflict between the individual and society."

Clark (73) says that if we could gratify all our wishes without effort, we might well avoid all the neuroses. He states further that we cannot avoid stress and that "at least some of us have not yet learned to avoid the neuroses."

It is now accepted that the environment is the variable, determining factor although heredity is important in predisposing the individual to a neurosis.



### Etiology of Anxiety Neurosis

In discussing this problem it should be understood that some men do not accept the separation Freud made and consider anxiety neurosis as part of neurasthenia. This makes the literature very confusing. Besides this, terminology is still loose and not standardized and often neurasthenia is taken to be almost synonymous with anxiety neurosis, which it is not by definition. Neurasthenia is the Greek for "nervous exhaustion" which is the prominent feature of that condition, whereas anxiety neurosis is characterized by the anxiety attack and its multiple manifestations.

Freud separated anxiety neurosis from neurasthenia in 1895, thus making two entities out of what previously was one. Thus, those writing before Freud's time and those since who do not accept such a separation are actually writing on both conditions.

Explanations of neurasthenia are numerous and include overwork, auto-intoxication, auto-suggestion, etc but none of them is satisfactory.

Freud (74) attributed anxiety neurosis in women to coitus interruptus or ejaculatio precox; in men to abstinence, frustrated excitement, and again, coitus interruptus. He considered the mechanism to be a "deviation

of the somatic sexual excitement from the psychic and in the abnormal utilization of this excitement occasioned by the former."

Dejerine (75) believes that there is a course of determining events. First there are mental and physical disturbances directly related to the emotional upset. Next there is conscious reflection on these disturbances. Then the patient, by drawing erroneous conclusions concerning the causes of his disturbances, suggests disease to himself. Finally functional derangements appear.

Ross (76) suggests that all neuroses represent faulty responses to difficulties or attempts to escape:

1. By overreaction resulting in neurasthenia which includes the anxiety neuroses and anxiety hysterias of many writers.

2. By underreaction or failure to react at all resulting in conversion hysteria.

3. By pretending that the difficulty does not exist resulting in compulsion neuroses.

Most men now believe that non-sexual factors are also operative in all types of neurosis. But as Clark (73) has intimated, all such factors -- sexual or otherwise -- are probably merely various types of frustrations.

Because of the prominence of somatic anxiety

phenomena and the lack of influence of psychotherapy in many of these cases, a somatic genesis of anxiety has been repeatedly discussed. Thus, Oppenheim (77) considers abnormal excitability of the vasomotor and the visceral centers as a main factor in the genesis of neurotic anxiety and he localizes these centers on the medulla. Kowalewsky (78) and Hecker (10) both assume the anxiety states to be due to auto-intoxication with cerebral fatigue products.

Hecker (10) was the first to describe "hidden anxiety states" in which the individual does not at first experience anxiety. He pointed out that the appearance of a single anxiety symptom could lead to a complete attack by irradiating on to the rest of the vasomotor apparatus. On this basis he regards somatic anxiety phenomena as primary and the anxiety affect itself as secondary, the latter arising out of the sensations caused by the somatic manifestations.

When Freud described anxiety neurosis, he touched directly on the question of its somatic genesis. He held the view that the libido, dammed up because of insufficient relief, translates itself directly into anxiety.

This purely dynamic theory was broadened into a physiological one by Reich (79) in 1927. He feels that

a direct change of libido is unlikely and thinks that in prolonged sexual excitation without relief, hormones and other metabolic processes which in the normal process of sexual intercourse are katabolized are here accumulated and produce a toxic effect on the autonomic system. This toxic effect then causes constant excitation of the vegetative system, the psychic correlate being anxiety.

Freud and others have shown that in the genesis of the anxiety syndrome both the amount of libido and volume of damming up are important. Although there are individual differences in the amount of libido, it is increased at the critical periods of puberty and the menopause as well as during the cyclic phases of sexual life (menstruation) and can be increased by sexually exciting events and by the imagination. (80)

The causes for the damming up of the libido are varied and numerous but they center mainly around either abstinence due to lack of opportunity and/or inhibitions for moral and neurotic reasons or disturbances of the orgasm such as result from impotence, frigidity, coitus interruptus and premature ejaculation. (80)

The simultaneous influence of several of these factors over a rather long period of time is necessary for anxiety states to result. Thus, each case has a specific

structure which can, through psychical fixation, make the clinical picture more complex.

Another somatic theory is that of Dattner (81) who described anxiety attacks which occurred during anaphylactic shocks, which he regarded as allergic states, and which he was able to diminish by dietary changes (vegetarian diet). He believes these anxiety attacks could lead to neuroses.

Misch (80) has made a critical study of what he terms primary anxiety neurosis (Freud's anxiety neurosis) as opposed to secondary states of anxiety (those anxiety states accompanying organic and functional disease of the heart and the respiratory tract and those arising from psychotic ideas).

Using choline medication in the treatment of fifty cases with anxiety states Misch found the drug to be uniformly effective in pure anxiety neurosis but only partially so in other forms of anxiety states. In anxiety hysteria although the anxiety largely disappeared, other disturbing symptoms took its place and the drug was totally ineffective in the anxiety of compulsion neurosis, in psychotic anxiety, in anxiety induced by hypnosis, and in post-hypnotic phobias.

He believes that the secondary syndromes are changed through defense mechanisms in which vagotonic

over-compensation or psychical fixation play a role, thus decreasing the effectiveness of the parasympathetic system. Misch states that "the choline effect is thus the greater, the more elementary the anxiety form, and the less, the more the anxiety has been psychically elaborated." A summary of his results "leads to the belief that preparations which shift the altered vegetative equilibrium towards the parasympathetic side and especially those which have a peripheral vasodilatation action can ameliorate or remove anxiety states." In analyzing individual anxiety attacks Misch found that the somatic sensations were present before the psychical as Hecker had already shown and that only when these somatic disturbances had reached a certain point of intensity did the anxiety phenomena occur. He concludes that "the somatic basis of anxiety can be found in the antagonistic sympathetic excitation during sexual excitation, and that their summation eventually leads to the anxiety state without hormonal influences playing a part therein."

Lindemann and Finesinger (60) likewise studied anxiety states but they used both adrenalin and mecholy1 (a choline derivative) during the normal intervals in their patients in attempts to reactivate anxiety attacks. They found that adrenalin activated anxiety

which was characterized by self-absorption and withdrawal so typical of Freud's "actual" neuroses. That activated by melancholy was, however, characterized instead by good contact, ready communication and vigorous rationalizing activity. The latter reaction is characteristic of the anxiety present in phobic states. Their work not only confirms that of Misch but also makes it evident that parasympathetic as well as sympathetic anxiety states occur.

In 1909 Herz (82) described a cardiac neurosis which he called phrenocardia and which was characterized by pallor, coldness, tachycardia and dyspnea. This condition differs from anxiety neurosis in that the chief symptom is a severe stabbing pain in the precordium which he assumes is diaphragmatic spasm. The author presumes the etiology to be unsatisfied sexuality which he regards as a psychical cause. This is the opposite of Freud's conclusions on sexual frustration.

Misch (80) considers phrenocardia to be both etiologically and symptomatologically an anxiety neurosis without anxiety.

Although the work on somatic genesis appears very convincing there is much more in the literature which tends to prove the opposite, namely, psychogenesis.

Traumatic neurosis is a good example. Although,

as Bennett (52) points out, the term means "that the traumatic factor is causative, without any previous evidence of predisposition for neurosis to start the emotional illness," he emphasizes that not the trauma but fright is the etiological agent. Fetterman (51) not only states that fright initiates a neurosis but also that fear promotes and maintains it. This may be fear of disfigurement, of financial loss, or of ill health. Since anxiety neurosis and hysteria -- usually conversional -- are the two most common types of traumatic neurosis, it stands to reason that in some instances anxiety states may have a psychic etiology which also may be non-sexual.

Likewise, war neurosis in which anxiety states are the commonest neurotic reactions appears to be psychogenic. Parfitt (27) states that it develops from the interaction of stress and a predisposed personality. McHarg (83) who has studied neurotic individuals in submarine duty states that heredity and constitution are important etiologic factors. Burdon (84) mentions such general factors in etiology as monotony and strain, bad climate particularly hot weather, poor quality of food with monotonous menus, physical illness, maladjustment between officers and men because of poor leadership, etc. Cochran (28) reports



almost identical observations.

An interesting discovery has been made by Sturdevant (85) who studied a group of anxiety neurotics. He found that in some cases of war neurosis the strain of combat is sufficient to produce anxiety states (neuroses) in stable individuals who show no evidence of previous neurotic traits. His work proves the validity of Pavlov's conditioned reflex theory and makes it apparent that even in the 'normal' person, if the frustrations and strains are intense enough and prolonged enough, he will succumb to a neurosis. Bartemeier et al. (29). have arrived at similar conclusions.

The overwhelmingly extensive literature on war neurosis which has occurred during and following World War II makes it probable, however, that the majority of war neurotics were predisposed by previous personality problems and by heredity.

There is one type of 'war neurosis' which should not be considered as such and which falls in a category by itself. It has been termed separation anxiety and occurs in predisposed individuals with passive dependent personalities. (86) As has been pointed out these people are not war neurotics at all for the service did not aggravate their personality problems. In fact it acted as a refuge -- a parent substitute. These persons

feel unable to meet the difficulties of civilian life and are actually afraid to leave the service.

The subject of causation in anxiety in childhood is likewise a very controversial topic. Theories on its genesis are based mainly on two things, namely, the traumatic process of birth and insecurity during childhood. Preston (87) believes anxiety is the result of a birth anoxia while Greenacre (88) is content with birth trauma itself. Despert (89) states that acute anxiety attacks occur fairly frequently in the preschool ages. Before the age of three years children cannot express such subjective feelings but the apprehension of the neurotic child, dilated pupils, the fearful look in his face and the rapid breathing are indicative of an anxiety attack. She believes it is due to sibling rivalry or to dread of the father.

Langford (90) in a study of anxiety states in pre-adolescent children has found that these reactions occur most frequently in worrisome and serious-minded pubescent girls who have shown previous personality disorders such as fear reactions and timidity, enuresis, feeding problems and overconcern about their health. The attacks may be precipitated by such psychic shocks as tonsillectomy or the death of a relative. He noted that an interval of several months occurs between the precipitating

experience and the outbreak of anxiety. During this interval the children usually show signs of unrest. Organic illness and personality difficulties in the family frequently are seen.

Unlike the anxiety reactions in the infant and the child, those of adolescence and early adulthood are more often concerned with sexual 'misdemeanors', particularly masturbation. Silverman (50) has pointed out that in many of these cases there is a strong guilt complex which finally forces the individual to give up the practice. Complete cessation, however, blocks this energy outlet and if there are no substitute satisfactions, i. e. physical, social or intellectual activities, a state of tension occurs which can easily develop into symptoms. He has observed a number of cases in which anxiety appeared abruptly after masturbation was discontinued.

Although anxiety states often have a sexual etiology, usually injudicious methods of contraception (91), it appears that non-sexual factors may also be the cause. (13, 91) In fact Clark (73) believes all etiologic factors are merely various types of frustration.

In a study on fatigue Watkins et al. (32) found 80 per cent to be anxiety neurotics. The situations precipitating the fatigue episodes centered about two

groups -- guilt and fear of rejection. Etiology in most of the cases was sexually tinged.

Reynolds (92) found 21 per cent or 200 of a group of 935 unselected medical cases to be neurotic. He has broken the etiological factors into five main divisions, namely:

1. sexual disturbances
2. environmental factors
3. fatigue
4. unstable nervous equilibrium
5. organic physical disability

Among the 200 cases he did not find one in which the neurosis could be attributed to overwork alone and he believes that prolonged anxiety is necessary to upset a normally stable individual.

Braatov (93) has, however, recently described what he terms "intellectual overstrain". He is of the opinion that insufficient discharge of neuromuscular tension is the cause. Neither hereditary predisposition nor previous neurotic traits were present in the cases he observed.

Muncie (94) has collected all the etiological factors into three groups:

1. Unusual strain and responsibility beyond that which is usually borne

2. Frustrations of all types
3. The habit of crossing bridges before coming to them.

### Predisposition

When one considers etiology of neurosis, it is likewise essential to include predisposing factors for in psychoneurosis there is great overlapping between influences which bear on causation. There are three main points here:

1. Heredity

This is usually considered in relation to parents and sibs only. Among various authors incidence in parents usually ranges between 50 and 60 per cent. (95, 96) The really conclusive work is that of Brown (71) who has almost conclusively proved the presence of hereditary predisposition.

2. Personality and Previous Adjustment.

This is the most important factor because it represents the individual's ability to adapt to society. The neurotic invariably has a difficult time.

It is now known that the human personality is quite well formed by the age of three years. (97) Hence, maladjustments mainly occur in the very early years of childhood and later frustrations break the poorly adjusted individual's defenses down relatively easily. The latent

neurotic is usually just coping with his environment and thus in a difficult life situation he is much less able to meet it satisfactorily than the stable, adjusted person.

### 3. Intelligence

This is actually part of hereditary endowment. It is important because too great demands may precipitate anxiety or hysterical reactions. Parfitt (27) states that a mental age of ten years or above is compatible with successful military duty of an elementary type if there are no additional neurotic symptoms.

#### Precipitating Factors

Strachey (98) states that where a neurosis can be seen to occur at a particular time, two groups of etiological factors can be separated which can be termed the "predisposing" and "precipitating" causes. Such causes are greatly varied and are numerous. In the young child the birth of a brother or sister may cause feelings of insecurity and thus precipitate an anxiety state. (97) Among war neurotics 25 per cent of the anxiety group studied by Parfitt (27) had had their illnesses precipitated by terrifying experiences. In traumatic neurosis this is the etiology in almost all cases. (51, 52) Freud's doctrine considers anxiety neurosis to be caused by a

dammed-up libido but any prolonged severe strain may apparently cause an anxiety state, with or without previous maladjustment.

### Manifestations

Menninger (99) has pointed out that anxiety plays a basic role in the dynamics of the personality. He states that anxiety differs from fear in that it is an internal threat, whereas fear is an external one. Although they are often associated, the directions anxiety may take to express itself are much more complicated than expressions of fear. Anxiety is sometimes expressed directly by the personality and is manifested by tenseness and apprehension or as depression with accompanying physiological symptoms.

It may, however, express itself as aggression against the external situation as criminality, occasionally indirectly as alcoholism, sometimes as a self-inflicted injury. (99)

By automatic mental machinery, anxiety may be converted into various types of psychological symptoms, such as the compulsion obsession or paranoid trends. (99)

Often it is turned on the self and sometimes reflected in ideation as hypochondriasis, sometimes directly through the central nervous system as a conversion reaction such as paralysis and anesthesia and more often through the autonomic nervous system in that group of disorders

called the "organ neuroses", the psychosomatic expressions. (99)

Sharpe (100) has explained neurotic anxiety on an analytic basis. According to her the existence of the ego is menaced by the terrorizing super-ego and the threat of the latter is proportional to the intensity with which the id impulses strive for fulfillment.

On the basis of the work of Misch (80) and of Lindemann and Finesinger (60) it, however, appears that there are at least two or perhaps more types of anxiety. Benjamin (101) who has discussed the latter's work mentions the distinction Freud made between Id and Ego anxieties. He points out that those cases in which there are no obvious precipitating factors and in which the anxiety is generalized and without special content appear to be related to the Id anxiety. Those cases with phobic anxiety are, on the other hand, of the Ego variety.

The work of Goltz (102), Bard (103) and others proves that the hypothalamus is the controlling center of the autonomic nervous system. Thus, interposed between emotion and its expression through the vegetative nerves is a diencephalic mechanism. Although it is not definitely known whether or not the anxiety is primary or secondary to the somatic manifestations, it seems



logical to assume that the former is the case.

Essentially all neurotic anxiety can be divided into acute and chronic. Misch (80) who has distinguished several types terms the acute forms major anxiety attacks and divides them into "akinetic" and kinetic or "agitated" types. According to him the major or primary anxiety attacks may change into minor attacks which are shorter and less severe. These minor attacks are isolated occurrences in that in the intervals between them the individual is psychically and somatically normal. On the other hand there may be a remaining "chronic preparedness for anxiety" which is constantly present in the intervals between major attacks or a similar constant chronic anxiety with only minor exacerbations. He also mentions Freud's anxiety equivalents which he considers very difficult to recognize clinically.

It is acute anxiety which is spectacular. An attack of the akinetic type begins with paresthesias, "such as a cold shiver up the back." These are followed by a feeling of oppression with palpitation and shortness of breath which rapidly increase. Then, there is a feeling of cold with shivering, trembling and chattering of the teeth. The skin is pale, cold and covered with sweat. At the same time the feeling of anxiety increases to its maximum. There is finally giddiness

and nausea which may be followed by diarrhea. Everything the patient sees is hazy. The motor apparatus is, in a sense, paralyzed. The legs give way, the voice is weak and speech is very slow and laborious. The patient has a strong sensation of unreality and feels he is isolated from the external world. The mental apparatus is inhibited and comprehension much slowed. (80)

The face is motionless and mask-like, gestures very slow and halting. Little is said and that between long pauses. The expression is not so much that of anxiety as of helplessness. The patient is almost immobile, movements being few and done only with great effort. The eyes are wide and dilated and blinking is reduced. The pulse is rapid (up to 160) and the systolic blood pressure is raised up to 140 or 150 mm Hg. The patient never believes he is just anxious but feels that he is going to die or go insane. (80)

An acute attack can last from one to twenty hours and may change in severity and in the character of the symptoms during its course. It usually ends as suddenly as it began. Often it passes over into a "chronic anxiety state" or into "anxiety preparedness" but it may pass off within fifteen minutes and be followed by a feeling of well-being. Here there may be a pleasant feeling of warmth accompanied occasionally by diarrhea and polyuria.

Major attacks may occur only once or can recur at irregular intervals but usually after a few attacks the picture changes because of defense mechanisms which come into play. Misch considers this "major akinetic" form the prototype of the neurotic anxiety state. He observed that it usually occurs only in those who have not had previous anxiety and then only at the beginning of the 'pure form' of anxiety neurosis. By 'pure form' he means that anxiety state which has been somatically induced.

Defense mechanisms (104) eventually set in because the repeated attacks of akinetic anxiety are unbearable. The mechanism may be a breaking through of the akinesis before this has reached its maximum intensity so that hypermotility occurs which looks like an attempt at escape or a conscious suppression of the beginning attack by distracting the attention on one's self or by taking medicine or alcohol. It may, however, consist in rationalization. That is, the person may reflect that the feeling of unpleasantness which is just starting is the beginning of an anxiety which is unfounded. These defense mechanisms consume such a tremendous amount of psychic energy which is withdrawn from the individual's total vitality that his capacity for work, enjoyment and relation to the outside

world is much reduced.

Thus, after the defense mechanisms have come into action the clinical picture changes. The result may be one of the following:

1. the agitated anxiety attack
2. the chronic state of anxiety with exacerbations
3. the state of preparedness for anxiety with intermittent minor attacks of anxiety; and finally
4. the so-called anxiety equivalents of Freud

The agitated anxiety attack is characterized by a compulsion for mobility and its manifestations. The individual is in almost constant motion -- his features and gestures are restless but all his movements are vague, tremulous and inadequate. A strained anxious facial expression which is not seen in the akinetic attack is present here. The skin color and temperature are variable; red spots may appear on the otherwise pale skin of the face and neck. A cold sweat is not invariably present. Likewise, the pulse rate and blood pressure vary but they almost never reach the same height as in the akinetic attack. Also, unlike the akinetic variety, in these attacks the patient usually knows he is anxious. Agitated anxiety may occur as a single attack or may last for several days or even weeks with remissions and exacerbations. The latter usually

occur in the evening or at night. If attacks are interrupted, there is then a state of preparedness for anxiety which makes itself felt again and again over months or years. (80)

Further alteration in the clinical picture as a result of the defense mechanisms may cause a diminution in the severity and length of the attacks so that isolated minor attacks occur. The anxiety attacks of Freud are like this and consist of attacks of palpitation, trembling, perspiration and weakness without the sensation of anxiety. (80)

Still further alteration will produce chronic tension states.

Misch (80) has observed that the somatic symptoms in the major 'anxiety' attacks are very similar in all cases. He has designated this symptom-complex the "somatic syndrome of anxiety" and points out that it is due, in the pure form, to an exclusive excitation of the sympathetic system. Toward the end of an attack parasympathetic manifestations are added. Misch believes these to be compensatory phenomena.

It is interesting to note that acute anxiety attacks in children do differ but little from those of the adult. (90) These are likewise most apt to occur in the evening, coming on just before or just after the child has gone to

bed. An attack may last from five minutes or less up to an hour. Usually they occur two or three times a week but may be as often as several times a day. Clouding of vision may accompany the attacks. (90)

Langford (90) has classified the physical symptoms as follows:

1. Cardiac disturbances
2. Respiratory disturbances
3. Digestive disturbances
4. Dizziness
5. Paresthesias
6. Shaking and trembling
7. Sweating
8. Hyperesthesias

On the basis of predominant symptomatology he has roughly divided the attacks in children into three groups, namely:

1. Cardiac
2. Respiratory
3. Those in which dizziness is the main symptom

The chronic anxiety or chronic tension state is characterized by the outlet of the anxiety in one or several of the organ systems. The reason for the choice of a given organ by regressive impulses is not yet known (99, 105), but the mechanism is probably a graded release

of cortical inhibition. Supposedly the difficulties of reality conditioned by specific frustrating experiences become too strong and the resulting fatigue of a focal area of cortex releases its control over lower centers. (105)

Menninger (99) has termed these somatization reactions and of these there are six.

1. Psychogenic gastrointestinal reaction.

This includes constipation, diarrhea and mucous colitis, "heartburn", hyperacidity, pylorospasm, cardiospasm, "globus hystericus", "irritable" or spastic colon, etc.

Overaction of the sympathetics causes cardiospasm and pylorospasm, whereas hyperfunction of the parasympathetics causes spasm of the colon. (106) Excess gas in the gastrointestinal tract may often be due to, for instance, pylorospasm causing a delayed emptying time which allows too much fermentation. (107)

2. Psychogenic cardiovascular reaction.

Wahl states that the most common of these are respectively, premature contractions, neurocirculatory asthenia, paroxysmal tachycardia, precordial pain, cardiac neurosis, a syndrome with a dread of heart disease but absence of symptoms and miscellaneous factors such as sinus arrhythmia, functional murmurs, and faint-

ing from cerebral ischemia. (108)

Neurocirculatory asthenia is a syndrome, not a disease entity as Wood (109) has shown. This condition, although most frequently associated with anxiety states may accompany other neuroses. (27, 109) The symptomatology is thought by some to be due to hyperventilation which causes a respiratory alkalosis. (110)

### 3. Psychogenic genitourinary reaction.

This includes some types of menstrual disorders, impotence, frigidity, dysuria, etc. The sexual act is under parasympathetic control and in an anxiety state the sympatheticotonia may make intercourse for the male impossible or disturb the orgasm in one or both partners. (111)

### 4. Psychogenic allergic reaction.

Occasional cases of apparent allergic responses, including some cases of hives and angioneurotic edema, have an emotional element as the major factor in their production. (112, 113) These are actually psychogenic allergic reactions.

### 5. Psychogenic skin reaction

Included here are the so-called neurodermatoses, dermatographia and other related disorders, when involving major emotional factors. (114)

### 6. Psychogenic asthenic reaction



The predominant complaint here is excessive generalized fatigue. It may be associated with visceral symptoms only but it may include mixed visceral organ symptoms and complaints. This group is the neurasthenia in the classification of many writers.

The organ neuroses have recently been receiving a great deal of attention from men in fields other than psychiatry for it now appears that hostility is the underlying central theme in those persons with essential hypertension (115) and peptic ulcer (116). Asthma is in the same category. Thus, it seems very probable that prolonged emotional tensions may eventually cause organic disease. In other words, organ neurosis may progress to actual organ pathology.

#### Summary and Conclusions

Neurosis has always been an extremely controversial subject. It is no less so now. The number of theories advanced for its etiology has been almost ad infinitum but the psychogenic element has come to be recognized more and more. The present trend of thought is that heredity and environment are the two major factors, the latter being by far the most important. In fact it appears probable that with severe enough and prolonged enough emotional strain any individual no matter

how stable or well adjusted he is, will 'break down.' Organic factors and particularly vitamin B deficiency definitely, however, have a place in predisposition. Certainly it is as true in the functional as it is in the organic disorders that the person who is run-down physically is predisposed toward disease.

As for anxiety neurosis it is fifty years now since Freud first set it off as an entity and still it is a much debated topic. It appears that the major causes are sexual in nature but non-sexual factors can definitely be etiological agents as well. The symptomatology is primarily sympathicotonia in the acute and a mixture of parasympathicotonia and sympathicotonia in the chronic anxiety state.

There are probably several reasons for the controversy. One is certainly the confusion arising from our present terminology for to many workers neurasthenia and anxiety neurosis are practically synonymous. Just as important, however, is the fact that it is just now being recognized that there are several -- at least two -- definite varieties of anxiety.

The organ neurosis presents an interesting and very important problem. Recent work makes it probable that chronic anxiety, a protective reaction masking hostility, can produce pathology in the organ system through which the individual expresses his emotional

tensions.

We may conclude that:

1. The neuroses are a very controversial topic, not only concerning their etiology, which is not yet definitely known, but also in regard to their classification.

2. It is now known that heredity and environment are the two chief factors in causation, the latter being by far the more important.

3. Organic factors, however, definitely play a part in predisposing an individual to neurosis. Fatigue and vitamin B deficiency are the most important of these.

4. The etiology of anxiety neurosis is most often due to incomplete sexual satisfaction but non-sexual factors can also be causative.

5. It appears that some anxiety states can have a somatic etiology, others a psychic one. Personality predisposition is not present in every case.

6. Anxiety is due to internal dangers, fear to external ones. To the individual anxiety represents a threat to his existence.

7. The manifestations of anxiety neurosis are concerned with disturbed function or upset of the autonomic system and its controlling center, the hypothalamus. The physical symptoms in the acute

attack are due to sympathicotonia, whereas in the chronic they are the result of a mixture of parasympathicotonia and sympathicotonia.

8. There are apparently several basic forms of anxiety, one being due to sympathicotonia, the other to parasympathicotonia. The former is seen in those anxiety states somatically induced, the latter in those with psychic etiology.

9. Chronic anxiety is usually expressed predominantly in one of the organ systems. The reason for the choice of a given organ is not known.

10. It now seems probable that the organ neuroses can, if prolonged, produce actual organ pathology.

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