INTERDISCIPLINARY APPROACH TO THE GENESIS OF ANXIETY'

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THE VALUE FOR RESEARCH OF A SATISFACTORY THEORETICAL FRAME OF REFERENCE is commonly recognized. For cross discipline investigations, especially for the educational psychologist, such a theoretical frame is important. Attempts toward the necessary integration or "homogenization" (15) of disciplines with a view to eventual harmony on basic theoretical issues are hampered on at least two counts: (1) the integrator must be steeped in several areas of investigation, and (2) he must communicate with students of each area in a common language. Cognizant of these difficulties, the writer has minimized his scope by limiting this paper to a single problem and has utilized terms having more similarity of meaning than dissimilarity across disciplines wherever possible.

ANXIETY

The genesis and dynamics of anxiety appear to be a focal problem for psychology and psychiatry. To judge not only from evaluation of present knowledge concerning anxiety (3, 11, 12, 16), but also from the dissimilar and often conflicting rationales for psychotherapy, the problem appears to need further study. If so, one reason may be the mutually exclusive explanations offered by adherents of differing disciplines. The present approach attempts to take at least partial account of a variety of psychological and psychoanalytic contributions as well as those of learning theory.

There appears to be implicit agreement that certain factors are involved in the genesis of anxiety: a basic drive or "life force," a counter force, and the effect of the interaction of these forces. It is hoped that a consideration of these factors will yield hypotheses leading toward an increasing understanding of the nature of psychotherapy and of formal learning.

GROWTH AND ANXIETY

To understand the genesis of anxiety in humans, one presumably must attempt to understand the ontogenesis of the organism. Much empirical data, especially that of Gesell and his colleagues, has contributed to an understanding of the physical and behavioral development of the neonate and child. Other aspects of the sequential development, e.g., emotional maturation, have received the attention of both empiricists and theoreticians. One area yet to be treated adequately is that of the *interrelationship* of physical growth, social development, and both cognitive and affective learning; in brief, the global picture of personality development.

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Force.² One factor which appears greatly to influence the developing personality is a basic drive, biological growth. That this is widely assumed is evident from the writings of Freud, Goldstein, Angyal and Rank, among others. Freud's life instinct includes all that has to do with "... the preservation, maintenance and advancement of the individual" (7, p. 132). Goldstein (10, p. 88) speaks of "... the basic tendency of the organism to actualize itself in accordance with its nature." To Angyal, the drive is in the direction of "self-expansion" with the effect of increasing the "autonomy" of the organism (2, pp. 32 ff.). Although Rank (20) apparently developed the concept of will through his insight concerning "resistance" in psychotherapy, there can be little doubt that the "will" of which he speaks is a manifestation at the psychic level of a growth drive.³

At the risk of cluttering psychological terminology further, a phrase will be offered which may include certain common operational ingredients of the prior formulations. The organism's dynamic utility of structural parts is posited as a basic drive or life force during pre-cognitive development. The drive is most clearly exhibited by the developing child who spontaneously uses his evolving potentialities, e.g., distance receptors, for the pleasure they afford. The normal infant needs little or no encouragement to explore, to reach, to walk, to extend his sphere of physical, and later of social, influence. The resultant gratification provides a strong drive for further extension, which later appears on a psychosocial level as "will" in the Rankian sense. The utilization of structural parts is readily seen to parallel the concept of "individuation" at the neural level, or the more complete descriptive phrase, extension, differentiation and integration (4), of the developing organism at the behavioral level.

Counter-force. Optimal structuring of the emergent organism requires a counter-force. This counter-force appears to be a second point of agreement among those concerned with an understanding of personality development.

Goldstein, for example, postulates the need for an "adequate stimulus" (10, p. 88) for normal self-actualization. The effect of a "very strong" stimulus that is "inadequate" for normal growth is that of driving the organism into the "catastrophic situation" (10, p. 89) (of which anxiety is the subjective experience) (10, p. 91). Bronfenbrenner emphasizes the structuring function of social barriers as do Allen (1) and Rogers (21). Angyal describes environmental forces as "heteronomous" (2, p. 37 ff.) and the force-counterforce balance as that between the organism's tendency toward autonomy and the heteronomy of environmental forces.

Whereas Goldstein, Angyal, et al. suggest the influence of forces external to the organism, Freud and Rank find an internal force, viz., Freud's "death instinct" and Rank's "counter-will." These two differ in a rather decisive way. While

²The word *force* is used here in lieu of any existing term which adequately serves several systems. The reader may substitute "valence," "life instinct," or an other similar term which is meaningful to him.

³More recent investigators appear to have posited a similar drive. Bronfenbrenner (4) speaks of "an active impulse to growth;" Sullivan (26) uses the term "power-motive" and May appears to follow Kierkegaard's formulation of a drive toward "freedom," interpreted by May as self-actualization (16, pp. 32 ff).

⁴The position taken here in regard to Freud is obviously not the only example of his thinking on the present issue. He does emphasize the influence of the culture and the immediate environment upon the emerging ego.

Freud's is negative, "the impulse to self-destruction" (7, p. 147), Rank's counterwill is seen as positive, the organism's reaction to the will of another, i.e., as "resistance," but as having a positive potential if the guilt generated by resistance can be overcome (20, p. 32). Thus it is apparent that the force-counterforce in Rank's thinking parallels that of the others cited except Freud, whose "reality principle" is a more acceptable counterforce for the "life instinct."

Interaction. The above review of the dichotomous influences on growth obviously merits further clarification. The concern of this paper, however, is the effect upon the organism of an abrupt change in the balance. It was stated earlier that there is some agreement concerning what occurs as the result of the interaction of growth and environmental counter-forces. In brief, slight shifts in the balance result in "normal anxiety." For instance, May quotes Kierkegaard as postulating anxiety as the intermediate determinant between "possibility" (of psychic growth) and "actuality" (16, p. 33). Both Rank and Freud have exploited the "birth trauma" as the prototype of later social growth experiences (separations) in respect to the anxiety aroused. Goldstein's "catastrophic situation" as the subjective experience of anxiety has been noted above. Paralleling this agreement is Kurt Lewin's contention that the response of the child to "harsh, severe surroundings" is a "tendency toward encapsulation and an increase in the rigidity of tension-system boundaries" (15, p. 110).

The differentiation which is popular between "normal" and "neurotic" anxiety merits attention. Goldstein's "catastrophic situation" is of such severity that it seems to reflect "neurotic" anxiety. Kierkegaard, again interpreted by May, denotes neurotic anxiety as that "... which results from the individual's failure to move ahead in situations of normal anxiety." (16, p. 33). Freud's "objective" anxiety seems to be what is ordinarily termed "normal" anxiety but also fits what is commonly conceived of as fear (16, p. 114). Whether normal and neurotic anxiety can be differentiated any more precisely will be considered later.

To summarize, despite differing terminology reflecting differing emphases, there appears to be a core of agreement among theorists concerning a basic drive and a structuring force necessary for the development of an organism. There appears also to be agreement that anxiety results from a lack of balance or a state of disequilibrium in these forces. The effect of this "trauma" on later behavior is the next problem.

GENESIS OF ANXIETY

A strong case can be made for the hypothesis that a "primitive" affective response (visceral and vascular) is the most important constituent, in terms of its effect upon later behavior, of the infant's reaction to disequilibrium between manifestations of growth drive and barriers restricting growth (14, 16). The disequilibrium may be thought of in terms of Rankian "separation." The dependent infant experiences momentary anxiety when his status quo is threatened, especially when the symbiotic tie, the mother-child relationship, is the focus of the threat.

⁵Implicit in the foregoing is the assumption that a shift in the dialectic balance may result not only from barriers constricting growth but also from barriers insufficient to contain a strong drive.

The work of Spitz (25), Goldfarb (9), and Sullivan (26) implies a relationship between the strength of the emotional tie of the infant and mother and the intensity of the anxiety felt at severance of that tie. At the other extreme is the disorder termed by Rabinovitch (19) "primary psychogenic acathexis." In regard to this syndrome, Bender (3, p. 124) states that "Related to this lack of capacity to identify or form an object relationship is the inability to feel guilt, the lack of anxiety, and failure to develop neurotic defense mechanisms."

It would follow, then, that the emotional "investment" of the infant makes him particularly vulnerable to anxiety. On the other hand, such a relationship with the mother may enhance the pleasure derived from the "utilization of structural parts." During the first year, release of energy in creative, i.e., self-actualizing, acts is often accompanied by maternal attention which, at times, even aids in such release when it has been inhibited by pain or discomfort. The "mutual reinforcement" of infant and mother may serve to intensify the pleasure resulting from the infant's utilization of the environment for his creative needs.

At this point in the infant's growth, he has developed, in a sense, the expectation of enjoying creative acts. At the same time, he has developed a vulnerability to anxiety. With the beginnings of socialization, the mother is able to utilize this vulnerability in order to control his behavior. Withdrawal of support, e.g., the mother's displeasure at an impending action, is sufficient to cause anxiety and inhibition of behavior. But these exploratory and self-actualizing behaviors, even though they may conflict with parental demands, are the very creative acts (in terms of their dynamics) which have heretofore been encouraged and rewarded! The contrast of anticipated pleasure with unexpected pain, especially withdrawal of support, constitutes an extreme traumatic experience. Thus an abrupt shift in the balance of the dichotomous forces described above may result in an emotional trauma.

It was stated above that an affective response may be the most important constituent of the infant's reaction to disequilibrium between manifestations of growth and barriers restricting growth. If, then, the emotional concomitant of a creative act is perceived as pleasurable, anticipation of recurrence of the act will arouse feelings of pleasure. When such acts are punished, the feeling of pleasure may become capable of eliciting the feeling of pain anticipatorily.

But, since such learning occurs almost entirely on an emotional or affective level, "contents," specific acts, will be relatively unimportant in directing later behavior. Rather, the anticipated pleasure of any creative (i.e., self-actualizing) act might become capable of eliciting an anticipatory fear response.

But why does the neurotic respond with anxiety to certain stimuli and not to others? Is it possible that the majority of stimuli prompting anxiety are "intra-psychic," the result of ideation, and related on the basis of being proposed or prospective activities? These activities might, then, have a common denominator: they may be courses of action which will further self-actualization. The energy earmarked for creative behavior (no telology implied as will be evident) can be released in the execution of a variety of behaviors. The factor common to consummation of the behaviors might be that of a full and complete release of energy similar to that which may often have been experienced in the first year of

⁶Cf. Mowrer, O. H., on conditioning as emotional learning (18, p. 222).

life. Such a release would constitute, at the cognitive level, the maximum pleasure of which the organism is capable.⁷

A question was raised earlier concerning the difference between normal and neurotic anxiety. Since any departure from the status quo, any "separation," appears to engender anxiety, and since the source of this anxiety is readily identifiable as a "separation," is it unreasonable to assume that, in terms of the central processes involved, "normal" anxiety and fear are identical or nearly so? The term "neurotic" anxiety, then, might be restricted to the process suggested above, wherein the individual's self-actualizing behaviors are inhibited by an anticipatory fear response cued off by expectation of pleasure at the prospect of certain behaviors. Such behaviors, while predominately physically-oriented in the first year, will be predominately socially-oriented at later growth stages.

A question which might be raised here is the reason for the inability of the neurotic to trace his anxiety to a specific source. This in turn requires a consideration of the concept "repression."

ANXIETY AND REPRESSION

Fear and anxiety are usually differentiated in terms of attachment or lack of attachment to a consciously perceived object or situation. Whereas fear appears always to be fear of something definite, anxiety seems often to be detached, indefinite.

To account for this difference, Freud has posited the construct "repression." Anxiety has no consciously perceived object because the idea-arousing libidinal energy for such "cathected" objects has been "repressed." Or to state the case in a different way, the ego has learned to fear libidinal discharge and registers anxiety when such a discharge appears imminent. The impulse is then "repressed."

Some such explanation has been felt necessary to account for the neurotic's inability to remember early traumatic experiences. But if "repression" is thought of less as a literal reality and more as a construct, a more complete understanding of the dynamics of neurosis may be possible. The kind of problem involved is illustrated by the following passage (12, p. 108):

"It is still not quite clear how anxiety develops. Is it the repression itself which creates it (anxiety being a signal that repressed instinctual forces have begun to erupt—and if this is so, why should the alarm burn down the house), or is repression due to anxiety which is utilized by the ego for repressive purposes?"

Hochberg and Ryan (13) have recently offered a description of the perceptual process in terms of retrospection. Briefly, in perceptual studies, the percept is

⁷An analysis, similar to this in terms of the anticipatory nature of anxiety, has been offered by R. B. Cattell. He does not consider a common denominator for anxiety arousing stimuli except that it be an "appetitive drive," e.g., "... fear, to produce its neurotic effects, must rest upon an appetitive erg." (6, p. 223).

⁸Again, Cattell treats this problem in a similar manner: "It [anxiety] differs in quality from fear, first because it is fear maintained at a lower intensity, and second because it arises from internal cues, often fragmentary, obscure, and secondarily reactivated by appetite... instead of from the full-blooded, immediate definite, external situation which provokes terror. Last, it differs because it has the quality of anticipation and uncertain imminence." (6, p. 223).

usually inferred from the S's report of what he has perceived. Between the time that the stimulus is perceived and the time it is reported, it undergoes change. This process is greatly influenced by autonomic responses to the stimulus as perceived, so much so that memory of the stimulus, even over a very brief interval, may be modified and even obliterated. This is even more likely to occur to the memory for stimuli which remain on the periphery of attention, never coming into focus.

In terms of this formulation, when an anxiety-ridden patient is unable to report the reason for his anxiety or the ideation immediately preceding an attack, the lapse might well be attributed to the perceptual process occurring at the time of attack, rather than to "repression" operating at the time of attempted remembering.

If this position is tenable, the manifestations of a neurosis might operate as follows. The result of a proposed behavioral sequence might be the anticipation of extreme pleasure which, as posited earlier, would arouse a conditioned fear response as a result of early learning experiences, and the activity would be inhibited. Since the proposed activity either has remained on the periphery of consciousness or, even though focused upon, has resulted in an emotional "catastrophe" (cf. Goldstein, 10, p. 89), perception of the activity would not fully develop and consequently would not be remembered.

EVALUATION OF THE VIEWPOINT

Will the present formulation account for the manifold theoretical and empirical data concerning anxiety in a more parsimonious way than present methods? If so, does it have any value which might stem from its nature as an integrated frame of reference?

A sample of other viewpoints will be presented as a partial answer to the first question. In McDougall's conception as stated by Eugenia Hanfmann (11, pp. 63-4),

"... anxiety is one of the prospective emotions of desire, one that stands between hope and despondency and is experienced whenever any strong drive is seen as being in danger of missing its goal. This conception stresses the vacillation between a positive and negative evaluation of a future situation as the essence of the feeling of anxiety..."

As noted earlier, the "strong drive" may be a need for release of energy in a creative task. Anxiety results in inhibition of such behavior. In place of anxiety resulting from "vacillation between a positive and negative evaluation," we should, from the present position, suggest that anxiety causes a negative evaluation, although the cognitive awareness implicit here would be discounted.

To Goldstein, anxiety represents the subjective experience of the disordered functioning of the organism which threatens its existence. In terms of the present formulation, any restraint of behavior directed toward self-development is, by the nature of organisms, a threat to existence. If the organism ceases to develop, it will perish. Anxiety would be the subjective experience of such restraint, rather than the representative of it. Responses to anxiety might then be considered analogous to Rank's "counter-will" and Freud's "death-wish," both described as potentially destructive forces.

Sullivan (25) has emphasized the early genesis of anxiety by suggesting that the discomfort is first felt empathically at the disapproval of significant others. Such a view is congruent with the present formulation.

A recent statement concerning the operation of anxiety has been made by Hoch (12, p. 13):

"Anxiety, therefore, if not present to an excessive degree, is used as an ego-regulative function against other drives, and if sublimated, performs as creative energy."

Viewed from the frame of reference established above, anxiety might be a substitute avenue for at least a portion of the energy seeking a creative outlet. Considered in such a way, it would be symptomatic of the victory of "counter-will" over "will." Hoch's statement might be altered to read, "If anxiety can be kept minimal, energy will find release in creative behavior."

May, in his valuable treatise on the subject, refers to anxiety as response to a threat toward something which is the essence of the personality (16, p. 192), and, defining "essence" as the experience of selfhood, suggests that anxiety is the "fear of becoming nothing" (16, p. 193). This appears to parallel Goldstein's view as well as that of Rank. Since it its difficult to conceive of cognitive awareness of such a threat, May's description best fits the present formulation if the "fear of becoming nothing" can be interpreted as a symbolic description. The actual process would remain explicable in terms of learning theory.

A note concerning situational or brief anxiety may be of interest here. Many of us experience, from time to time, twinges of anxiety when we are on the point of voicing an idea which we value. It is as though we are afraid that we won't have an opportunity to voice the idea, that our creative effort may be blocked. At the level of affect, the anticipated pleasure may "cue off" anxiety and the result might appear as stuttering or temporary forgetting.

The hypothetical structure offered above appears to embrace or at least to be congruent with other accepted formulations in respect to the problems considered. Does it have implications for those who help the neurotic person?

IMPLICATIONS

Two hypotheses are suggested by this view of anxiety. They are concerned with techniques of psychotherapy and with educational methods. To speak of both disciplines in the same sentence may appear to run counter to the trend of the past two decades, although recently that trend seems to have reversed. That there is actually a close relationship between psychotherapy and educational method, at least in the area of remediation, is becoming apparent (24).

Psychotherapy. The first hypothesis, concerning the nature of psychotherapy, may be stated as follows: Relationship therapy is, in reality, a broad based reconditioning therapy. Relationship therapy, as formulated by Rank and revised by Allen (1) and Rogers (21), is specified because it appears to fit the present formulation better than do other kinds of therapy. Re-conditioning is thought of here in terms of Mowrer's description of conditioning as emotional learning (18) and the therapeutic process is conceived of as an experience in which conditions are optimal for a relearning of responses to a certain class of stimuli (anxiety-

provoking). The conditions, those provided by a relationship, are thought to be essential for such relearning. They will be specified below.

The term "broad-based" reflects the extensive effect of the relearning upon behavior. This results from the nature of anxiety as described. It has been suggested that the *intensity* of the pleasure or pain resulting from self-expression through a creative act is the critical determiner of future behavior (in a molar sense) rather than the *means* of expression, i.e., specific behaviors or behavior-situation *gestalten*. (This is not to deny the influence of the learning process on specific behaviors or modes of expression, but rather points up the greater influence of "effect" upon the *source* of creative behavior than upon acts or "contents.") Relationship therapy is described as broad-based, then, because it affects the common denominator of anxiety arousing behavior rather than specific behaviors.

What can be said concerning the essential conditions for the therapeutic experience? The critical age period for the genesis of anxiety appears to be roughly nine months to two and a half years (3). The early period coincides with the onset of enforced socialization by the parent or surrogate who may utilize the infant's vulnerability to anxiety as a tool; the later time may coincide with the development of sufficient language skill to enable the child to deal with new threat situations on a cognitive level (cf. Hanfmann, 11, p. 64).

It has been suggested that the *intensity* of the pleasure derived from the release of energy in creative acts is greatest when such release is allowed full expression, i.e., no inhibiting behavior or unnecessary external restraints operate. This criterion appears to be best fulfilled prior to the onset of the critical period, at which time there is combined purely physical pleasure (such as may be derived from satisfying a hunger drive) and the more intense pleasure derived from the "mutual reinforcement" of infant and mother.

The essential conditions for therapy would seem to be those obtaining between the infant and the cathected mother-figure at the onset of the socialization period: a dependency relationship; complete mutual acceptance: absolute confidence in the mother by the infant; an empathic relationship (so that reactions of both infant and mother are immediately communicated with consequent efficiency in emotional learning); encouragement of the infant to try out new potentialities; and availability of as much support as is demanded by the infant and as is consonant with growth. Another important condition seems to be that all creative acts occurring within the context of the relationship should be rewarding, with the pleasure of the dependent person intensified by mutual reinforcement. This would demand of the mother-figure or therapist a reacting with the patient in the early phases of treatment.

Rank, who has provided the rationale for relationship therapy, has stated in a particularly obscure passage that the individual must free himself from the past but must do so without feelings of gratitude (guilt) to the therapist (20, p. 72):

"In analytic material these objects (e.g., persons toward whom one feels gratitude) only appear as biological symbols of dependence or psychological symbols of gratitude, in other words, as symbols of guilt which now attach themselves to the helping therapist."

At face value this may imply that dependence of the patient upon the therapist provokes feelings of guilt. However, it may also indicate that the dependence of the patient leaves him vulnerable to anxiety if the therapist should withdraw his support.9

"This guilt arises from the ego development of the individual and with each new attempt at release is always fastened to that past in which the individual sees himself personified so that he is not able to free himself of it." (*Ibid.*)

When guilt is read as "potential anxiety," the above passage may be interpreted to mean that attempts to experience creative activity (release from the past) are inhibited by the anxiety which results. Such anxiety springs from the early learning experiences during which the ego development occurred.

"This release from an overcome piece of one's own past, no matter in what content it is incorporated, represents the authentic therapeutic task and the meaning of every experience." (Ibid.)

In other words, release from anxiety, no matter what early experiences were involved in its genesis, is the crux of the therapeutic process. Since dependence, at first fostered by the therapist, leaves the patient vulnerable to a new source of anxiety learnings, gradual independence (separation and integration) must occur before the ending phase.

Educational process. Recent evidence (7, 10, pp. 59-62, 23) suggests the effect of anxiety on products of learning. It is known that the incidence of students chronically disturbed by anxiety within a remedial course is greater than that in the general population. The second hypothesis is related to the effect of remediation upon personality structure. It may be stated thus: Increase in learning efficiency by students tending toward neuroticism is, among other things, a function of the quality and depth of the relationship between student and teacher.

This hypothesis is far from original. Taken at face value, it appears to reflect the essential ingredients of any good teaching. But it may have implications beyond those commonly considered. The learning situation becomes basically similar to the therapeutic situation. "Contents" of therapy tend to be ego-oriented, whereas "contents" of remediation tend to be subject-matter-oriented. But it has been suggested earlier that "contents" are relatively unimportant, that any creative act provides an opportunity to attack the roots of anxiety.

There is the further implication that, for most students, the most effective learning will occur in an atmosphere such as that obtaining in a psychotherapeutic interview. Both Cantor (5) and Rogers (21) have described certain aspects of that atmosphere. A study of group therapy methods may contribute others. Further exploration of the dynamics of formal learning viewed from the present theoretical frame of reference might be productive.

Summary

An understanding of the genesis and dynamics of anxiety, thought to be necessary for a more integrated conceptual framework for personology and education, has been approached by a consideration of the development of the infant and child, especially from nine months to two and a half years. Suggestions have been offered concerning the dynamics of growth, the relation of central processes

⁹Cf. N. W. Ackerman, in Slavson (22, p. 136) who also makes this point.

to the balance of negative and positive forces affecting the organism, the genesis of anxiety in terms of learning and psychoanalytic theory, the nature of relationship therapy, and the parallel between psychotherapy and formal learning.

Anxiety has been defined as a generalized fear and the operational processes of what historically has been termed "repression" have been suggested. Implications for psychotherapy have been briefly outlined; the suggested treatment is a slightly modified relationship therapy.

If any value may be attached to this formulation, it is hoped that it will be for the emphasis upon the affective-cognitive interaction in early learning, thought to be a catalyst for a fusion of differing approaches to psychotherapy and learning.

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