

THE UNIVERSITY OF OKLAHOMA  
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A STUDY OF FREE ASSOCIATION BASED ON COLLIER'S THEORY  
OF CONSCIOUSNESS AS A REGULATORY FIELD

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CHAPTER I

INTRODUCTION

To the individual, that which is denied from consciousness is denied from existence. If one is not aware that he is afraid, then for him that feeling does not exist. In this way consciousness comes to represent reality to the individual. What one can accept into consciousness is for him reality; what one cannot accept into consciousness is for him not reality. As a character in a play by Jean Cocteau remarked, "What I don't imagine doesn't exist, or let us say it exists in some faraway place that doesn't hurt so much" (1948, p. 765).

That feelings or impulses might very well motivate behavior, whether those feelings or impulses are consciously perceived or not, is a fundamental belief in dynamic psychology. If an individual cannot accept into consciousness certain sensory, affective, or ideational processes, he cannot control them in a constructive or effective way; he, instead, becomes controlled by them. On the other hand,



the ability to accept into consciousness all such processes which are representative of the individual at any given moment is considered to be the hallmark of the well-integrated, creative personality.

Within the last decade there has been an increasing amount of literature--particularly in the area of personality theory--that has greatly re-emphasized the role of man's dynamic consciousness. In this renewed interest in consciousness there has been what appears to be a distinctly different approach. The emphasis is no longer on the origin of consciousness or its physiological basis, neither is it concerned with consciousness as an entity in itself. Rather the recent approaches are concerned with the role of conscious processes in the integration of the personality. The approach is a functional one. The "age old problem and controversies" are avoided as much as possible (Collier, 1955, p. 270).

Consciousness is viewed in two ways: first, as a field of consciousness, through which man becomes aware of himself and his world; and, second, as content, the immediate knowledge one has of his sensory, ideational, and affective processes. This duplicity in meaning is not in itself new. James (1904) first advanced such an idea. The emphasis placed upon this interpretation of consciousness, in regard to the role of consciousness in the stability and effectiveness of the personality, does seem to be a new and

widely developing trend.

Allport (1955), Rogers (1950), Fromm (1947), May (1953), Angyal (1941), Maslow (1952), Lewin (Hall & Lindzey, 1957), Goldstein (Hall & Lindzey, 1957), and other contemporary writers have placed a strong emphasis on "consciousness of self," "self knowledge," "self feeling," and "self awareness." Awareness of self is seen as a necessary condition for emotional stability; a lack of awareness of self is, on the other hand, an indication of emotional instability.

In his book, Man's Search for Himself, May (1953) emphasizes the need for self awareness. May, as one of the leaders in existential psychology in this country, has continually stressed the importance of conscious processes in the integration of the personality:

Consciousness of self actually expands our control of our lives, and with that expanded power comes the capacity to let ourselves go. This is the truth behind the seeming paradox, that the more consciousness of one's self one has, the more spontaneous and creative one can be at the same time. . . . Consciousness of self gives the power to stand outside the rigid chain of stimulus and response, to pause, and by that pause throw some weight on either side, to cast some decision about what that response will be (1953, p. 104).

One's awareness of himself as an "actor" or "doer" permits him to approach the constructive regulation of his behavior. If one is not aware of his own feelings, values, needs, etc., he cannot do much in the way of controlling them or using them in constructive ways. The integrity of

the personality suffers in proportion to the degree that one must hide his individuality from himself.

The assertion of one's individuality in productive and self-enhancing ways can only come about when that individuality exists as unity. Maslow (1942) has pointed out that many restraining aspects of our culture make the acceptance of certain feelings and impulses (e.g., sex, hostility) "dangerous" to the individual, so that they are ignored, repressed, or displaced, destroying the basic unity and preventing the actualization of the self. One continually confronts individuals who have apparently never discovered their "selfhood." They have been caught up by the complex demands external to them and have been weakened by the restrictions and constraints which the culture has imposed on them. They seem heavily guarded against consciously encountering themselves.

As an example of this lack of self awareness, many college freshmen, who face the task of defining their aspirations and aims, are prone to make their choices on the basis of what they see "out there." They are not aware of what is uniquely them, their feelings, their desires, their hopes. There is little differentiation between them and the world around them. There is a common tendency to not be unique, but rather to "snuggle down" into the herd. May describes this common tendency of man:

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Every human being gets much of his sense of his own reality out of what others say to him and think about him. But many modern people have gone so far in their dependence on others for their feeling of reality that they are afraid that without it they would lose the sense of their own existence. They feel they would be "dispersed," like water flowing every which way on the sand. Many people are like blind men feeling their way along in life only by means of touching a succession of other people (1953, p. 32).

Under these conditions, something in the way of self regulation and direction is lost to group regulation. Self knowledge is lost in the quest for group acceptance. Flexibility and spontaneity are lost to conformity and the plague of everybody-does-it. When one cannot consciously accept himself as a unique, acting, and choosing "I," he generally becomes anxiously and morbidly concerned with the object "me."

Tillich (1953) has elaborated the idea that a great deal of personal security is needed to accept all the aspects of one's individuality. To the insecure, threatening processes arising within them must be avoided, always at the expense of flexibility and freedom. One's concern is turned away from the self, and the focus of one's existence becomes "what do they think of me?"; "how do they feel about me?"; "what do they want me to do?"; rather than "I feel," "I want," "I do."

Collier's Theory of Consciousness  
as a Regulatory Field

A systematic approach to this whole matter of the regulatory effectiveness of consciousness has been developed over the past several years by Rex Collier (1955, 1956, 1957a, 1957b). Under the general heading of "Consciousness as a Regulatory Field," Collier has restated many of the ideas of other contemporary writers in a systematic presentation of ideas concerning personality, psychotherapy, and psychopathology. Collier's attempt to integrate the contemporary ideas concerning consciousness into a systematic approach clarifies and makes explicit what has been largely inexplicit in most personality theory. He draws from the work of Carl Rogers and the phenomenologists, as well as from psychoanalytic theorists. Collier has not presented a complete theory of personality, but he has presented what the writer feels is an effective frame of reference from which to view psychopathology and the psychotherapeutic process. As theory, Collier's ideas have some shortcomings. He has concerned himself with a subject which has perplexed and disturbed psychologists for a long time; and, while he presents his ideas in a generally lucid and systematic way, he has not yet achieved a fully formulated theory of either psychopathology or psychotherapy. Perhaps this criticism is premature, since his theory is still in the process of formulation. At the present stage, however, certain

theoretical problems have not yet been faced (e.g., there is not much in the way of empirical definitions which would bring the elements of the theory more into definite contact with observational or measurable data). At this point, Collier's contribution should probably be viewed as a consistent and reasonably simple framework which serves as a means of organizing and integrating much of what is believed about the dynamic role of conscious and unconscious processes in man's behavior. Whether Collier's work will become a full-blown theory of personality remains to be seen.

Since Collier's thinking serves as the theoretical framework for the present study, his theory is reviewed here at some length. The events which Collier represents in his writings are not new to personality theory; the conventions which he uses to relate and to organize these events are an extension and explication of some of the most fundamental beliefs in personality theory.

To Collier consciousness is a field of dynamically interacting variables. He defines consciousness functionally as a "broad bio-psychological field which allows the individual to increase his flexibility of adjustment in the presence of complex need patterns from within and complex demand patterns from without" (1955, p. 270). The individual's "flexibility of adjustment" is dependent upon the extent to which he can constructively assimilate within the conscious field the relevant internal and external factors

at any particular moment. Thus, as far as Collier is concerned, there are two significant aspects of the effective regulation of one's behavior. First, the ability to accept phenomena into the conscious field; and, second, the ability to assimilate or integrate one's conscious experiences so that the eventual outcome in behavior will be to the benefit of the individual. The former is the precondition for the latter.

By "field" Collier means "an organized and bounded region in which events occur in a patterned inter-relationship" (1955, p. 270). Beyond the boundary of the conscious field are those factors which are "outside of awareness." "Consciousness" and "awareness" appear to be used quite synonymously, referring to the immediate knowledge which one has of his sensory, affective, and ideational processes at any given time.

Within the conscious field there are varying degrees of awareness. Consciousness and unconsciousness are not dealt with as representing a dichotomy, but rather as a continuum of awareness. As an analogy one might think of the visual field, which is "sharp, clear, fully detailed at the center, but progressively vaguer and less detailed toward its boundaries" (Gibson, 1950, p. 29). This central-to-peripheral gradient of clarity within the visual field is analogous to the gradient of awareness within the conscious field.



The term "experience," which Collier uses but does not define explicitly, is apparently used by him in the same way that Rogers (1950) employs the term. It refers to everything that is going on within the organism at any given moment, including physiological processes, sensory impressions, and motor activities, occurring at both conscious and unconscious levels. As part of the experience of the individual, certain feelings (e.g., anger or fear), subjective values (e.g., "I like it" or "I do not like it"), and basic needs (e.g., need for acceptance by others) accrue as a result of one's interaction with the environment.

At times one's feelings, values, and needs may become very threatening to him if they are incongruent with the concept which he has of himself; consequently, these aspects of experience may be precluded from consciousness. When an individual consciously perceives only a limited part of his psychologically significant experiences, he is likely to behave in ways which are unrealistic and even to his own detriment. This, of course, implies levels of discrimination below the level of consciousness or awareness. That is, aspects of experience can be perceived and organized outside of the conscious field.

Collier's thesis is that self-regulation in a psychological sense is characteristic of human behavior, just as self-regulation in a physiological sense is an active ongoing process. Collier speaks of self-regulation as being

analogous to physiological homeostasis, but, though he suggests that the relationship here may be more than one of analogy, he does not elaborate the meaning of this statement. One can see a relationship between what Collier implies and what Menninger (1954a, 1954b) has elaborated as the homeostatic functions of the ego.

Consciousness provides the "field conditions" on a psychological level for the adaptive regulation of behavior. That is, if all the relevant aspects of one's experience can be accepted into awareness and thus are available to the conscious field of interaction, the greater are the chances that the outcomes in behavior will be maximally representative of the total individual. Collier, like many contemporary theorists, believes that any behavior which is maximally representative of the total individual will be in the direction of ultimately enhancing or improving the self.

The conscious field as Collier conceptualizes it varies in the degree to which processes relevant to current events are accessible to the field. The magnitude of the conscious field is greatest when the person is maximally aware of his own experience. The greater the magnitude, the greater the efficacy of self-regulation. This is a point similar to a basic proposition of Rogers regarding symbolization at the conscious level:

Psychological adjustment exists when the concept of the self is such that all the sensory and visceral experiences of the organism are, or may be, assimilated

on a symbolic level into a consistent relationship with the concept of the self (1950, p. 510).

Reductions in the magnitude of the conscious field reduce its regulatory effectiveness, with consequent reductions in flexibility and in the chances that the behavior will be of long-term benefit to the individual.

Intimately related to the concept of magnitude in Collier's theory is the concept of stress. Stress is used as a broad term, including psychological, physiological, and physical factors, all of which have "the common element of placing demands on the organism's capacity to react to a degree that usually becomes uncomfortable or threatening" (Collier, 1955, p. 271). The way in which an individual copes with stress is related to the magnitude of the conscious field.

Ego strength, a broad explanatory concept Collier uses, is defined as "the ability to accept into awareness potentially threatening material and to assimilate it constructively" (1955, p. 271). This broad definition subsumes traditional characteristics of ego strength concepts, such as orientation, reality testing, and the ability to integrate. Sufficient ego strength is represented in the intrapersonal freedom and flexibility to cope adequately with both internal and external demands in ways which are beneficial to the self.

Self regulation, then, is directly related to ego strength. Optimum self regulation is the result of maximal ego strength. The individual who must deny from awareness stressful or threatening experiences gives a less flexible, more segmental response to the given situation. As Collier says,

To whatever extent the individual has denied . . . his feelings, anxieties, dreads, elations, to that extent he has become a more rigidly organized individual with fewer chances for these feelings to become flexibly related to other areas of his personality (1955, p. 270).

Those individuals who lack the internal freedom and flexibility (or ego strength) to deal directly and acceptingly with particular issues--internal or external--must employ defensive operations to cope with the threat of the situation. Collier uses the term "defense system," avoiding the old term "mechanism," which is described as a psychological reaction, "protective in nature, which either increases the psychological distance of the threatening object or whatever, or disguises or distorts the threat so that in its new form it becomes more acceptable" (1956, p. 362). When the individual's "tolerance threshold" is exceeded in encountering stress, the defense system is activated. Tolerance for stress is immediately related to ego strength; the greater the ego strength, the higher the tolerance threshold, the less need for defense system operations. The terms used here are obviously inter-related, and

the definitions involve a great degree of circularity.

In one way or another the defense system generally serves to decrease the permeability of the conscious field. Permeability refers to the degree to which one can accept into the conscious field "segments of experience, past or current, which are related to processes operating at any given time" (Collier, 1956, p. 362).

A distinction must be made between the concepts of permeability and ego strength. While one significant aspect of ego strength is the permeability of the barriers to the conscious field, ego strength also refers to the ability to assimilate constructively that which is in awareness. This refers to the organizing, integrating, and regulating activities of ego functioning. The defense system of the individual ordinarily operates to keep from consciousness that which is too threatening or too painful for the individual to tolerate; however, one's defenses are not consistently effective in doing so. At times consciousness might be flooded with overwhelming and exceedingly stressful material which the individual cannot handle effectively or constructively. This failure of regulatory devices is frequently seen in extreme emotional instability--among psychotics, for instance--when the ego processes are so weakened that strong defenses cannot be maintained. Thus there might result extreme permeability without ego strength, which amounts to a failure of the regulatory aspects of consciousness.

Collier (1957b) discusses this distinction with reference to some of the inherent dangers in the use of the free association technique with severely disturbed individuals.

In his elaboration of primary and secondary defenses, Collier (1956) presents a differentiation which is closely synonymous to the "mechanisms of defense" in analytic theory, especially as developed in the works of Anna Freud (1946). The chief difference is, of course, the use of Collier's own concepts in re-examining the mechanisms. Primary defense operations (denial, repression) are a constriction of the field of consciousness--a selective "shutting-out" of tension-producing experiences. The lower one's tolerance threshold, the more active are the primary defense operations. Collier writes:

When stress rises above the threshold of toleration, and is either persistent or increases in intensity, the continued utilization of primary defense exacts a price which is paid in terms of reduced effectiveness of regulation. That is to say, the degree of dominance of the conscious field is dependent upon the degree to which experience relevant to the needs of the moment is available. It follows, therefore, that whenever the primary defense is used, some degree of crippling of the regulatory function of the conscious field results (1956, p. 363).

In extreme uses of primary defenses, when the adaptive regulatory field becomes so "impoverished, inadequate or impotent, serious disorganization in thought, feeling and behavior occurs" (Collier, 1956, p. 363). Collier's consideration of primary defenses is akin to Anna Freud's

comment on repression:

But repression is not only the most efficacious, it is also the most dangerous mechanism. The dissociation from whole tracts of instinctual and affective life may destroy the integrity of the personality for good and all (1946, p. 54).

Secondary defenses, as in analytic theory, are those operations other than repression and denial, such as rationalization or compensatory devices, which "cushion the threats of additional stress" (Collier, 1956, p. 365). The operation of secondary defenses, while perhaps having a distorting effect, does not increase the constriction of the conscious field, rather it aids in maintaining a status quo of constriction. Secondary defenses reduce the need of the individual to "leave the field."

To Collier (1957a, 1957b) psychotherapy is a process by which self regulation is restored or improved by providing the circumstances and experiences which tend to increase one's ego strength, allowing a more flexible and effective personality. The purpose of the interpersonal communication ("the relationship") of psychotherapy is to facilitate a more adequate degree of intrapersonal communication. Collier says, "What one can talk about indicates what he can at least begin to accept, and what one can accept indicates what he can begin to manage" (1957b, p. 279).

In his most recent article, Collier (1957b) develops more comprehensively his theory of psychotherapy, applying the concepts of stress, ego strength, and self regulation to

the therapeutic process. In his formulation there are some obvious similarities to the theory of Rogers (1950), particularly such concepts as the "drive for self improvement," "self concept," and "ideal self." Collier states that when stress is reduced to a level below the threshold of tolerance, the individual is free to act in ways which will facilitate self improvement. The drive for self improvement is obscured and fettered when the individual is not able to perceive within awareness his own feelings and thoughts.

As part of his theory of psychotherapy, the drive for self improvement becomes an important and basic concept. It is thought of in two aspects. The first involves the amount of difference the individual perceives between himself and the person he would like to be (the "ego ideal" of Horney, the "ideal self" of Rogers). The second aspect involves the extent to which this desire "to be" or "to become" is translated into realistic action relevant to his goals. The more nearly free, the less rigid the individual is, the greater become his chances of putting his desires into realistic action.

Since stress beyond certain tolerance limits can cause a defensive exclusion of relevant thoughts and feelings, it is essential in the therapeutic process that the stress which is encountered be within the toleration of the patient or client. The importance which Collier places on the effect of stress in the interpersonal communication



of psychotherapy is closely related to the way in which Sullivan (1952) talks of anxiety as the chief handicap to communication in the therapeutic process. "Selective inattention," in Sullivan's language, is closely related to "distortions of the conscious field," in Collier's language. When the therapist is able to reduce the stress or anxiety to an appropriate "working level," the patient or client is more capable of dealing constructively with his own thoughts and feelings.

Free Association from the Standpoint  
of Collier's Theory

In the light of his theory, Collier (1957b) presents some basic problems in the use of free association. One such problem has been observed by many therapists, and it poses an interesting paradox. That is, when a person comes into psychotherapy he is initially unable to free associate in a free and spontaneous way, and it is only after he has developed increased freedom and security in the situation and within himself that he is able to do so. In Collier's terms, he is unable to free associate because of the rigidity and constriction of the conscious field, and the stress which is perceived in the instructions to free associate either adds to the constriction or, in the least, promotes the continuance of the status quo of constriction by activating secondary defense operations.

It would seem that the individual who is most secure, who would have the highest tolerance threshold for stress, is the individual who could most effectively free associate. Here free association has a broader meaning than merely the naming of words as they come to mind. It suggests, at its freest, total expression by both verbal and non-verbal means of whatever is being experienced at any particular moment: the affect, the ideas, the memories, etc. Such expression is probably not achieved until an individual has very nearly reached successful completion of intensive psychotherapy. In such free expression, there is both great permeability of the conscious field as well as increased tolerance for the stress which such expression customarily gives rise to. That is, the ability to free associate is directly related to ego strength. Therefore, those individuals who would demonstrate the greatest ability to free associate have no need for psychotherapy, while those who find psychotherapy necessary are those who find it most difficult to free associate.

Individuals who are so insecure as to come for psychotherapy are unable to comply with the directions to free associate because of a basic inability to range far and wide in consciously exploring their feelings, values, needs, and the like. It is not only a formidable task for the emotionally insecure, it is a demand with which they cannot readily comply for the very reasons that they are in psychotherapy.

One of the best criteria of improvement in therapy is this ability to expand one's conscious experiences and to express "what is going on" in one's consciousness.

Free association involves two processes. First, the conscious experiencing of one's self, and, second, the expression of the conscious experience by verbal and other means. It is assumed that the individual who is most able to accept his experiences into awareness has the greatest ability to express them, verbally or otherwise, in meeting the demands of any situation. An individual has difficulty with the expression of feelings as a consequence of his difficulty in consciously experiencing his feelings. "The more consciousness of one's self one has, the more spontaneous and free he can be" (May, 1953, p. 104).

When external structure is removed or markedly reduced, as in psychotherapy, the individual must rely upon his own self in responding to the situation. To the insecure individual, the stress which is encountered as a result of this necessity of self-reliance is frequently such that he "freezes up." His responses are rigid, barren or inappropriate, because he lacks the freedom to accept himself in "deeper, more meaningful ways."

Of course, the conscious field is made up of a myriad of interacting and mutually modifying factors, and verbalizing what is in the conscious field at any particular moment is an impossibility, not only because of the dynamic,

constantly changing nature of the field, but because the field is continually modified by expression. Nevertheless, it would seem that free association, at its freest, is the nearest one comes to expressing what is going on in the changing conscious field. A person is able to associate freely only when he is able to allow great permeability of the conscious field, permitting thoughts and feelings to come into consciousness freely. The rigid, constricted person, because of his need for defensive operations, not only is guarded against the intrusion of threatening ideas and associations, but he also erects barricades which might hamper the flow of all ideas and associations. Overintellectualization and externalization are frequent secondary defense operations, and not infrequently the rigid person on being asked to free associate draws "a complete blank" and complains that "nothing is there."

The neurotic individual is on guard against certain ideas and feelings originating within him because of his inability to accept and deal with them constructively. Self regulation is hampered because only a limited portion of one's experience is available; free associations are restricted because the intrapersonal freedom demanded is lacking. Doubtless, many--if not most--of the hours spent in the therapeutic process are taken up with what proves to be superficial content which the individual brings into the conscious field as a means of restricting other, more

threatening material. "Working through the resistance" can be seen as the process of creating a higher threshold of tolerance so that the individual can begin to accept more threatening material into awareness.

Free association, as a therapeutic technique, is not and was not intended to be a verbal confessional, a mere talking out of one's problems. As Fromm has stated:

Freud's discovery of free association had the aim of finding out what went on underneath the surface, of discovering who you really were. The modern talking to the sympathetic listener has the opposite, although unavowed aim; its function is to make a man forget who he is . . . to lose all tensions, and with it all sense of self (1955, p. 168).

The mere telling someone else one's own problems has become an accepted way of "getting things off your chest." It is free talk. It is a partial release from the stored-up feelings one has, but rarely does it permit the full acceptance of the feelings into consciousness. Again, as Fromm has pointed out:

One speaks about the tragic occurrences of one's life with the same ease as one would talk about another person of no particular interest, or as one would speak about the various troubles one has had with one's car (1955, p. 169).

Following from what has been said, mere verbalized words from a quantitative point of view is hardly a measure of an individual's intrapersonal freedom. Some individuals are capable of rambling on almost endlessly in a highly intellectualized way, while the feeling component of the content seems absent. Collier (1956) points out--as did

Freud (1938)--that the painful affect associated with certain ideas or past experiences may remain repressed while the intellectual content is verbally expressed. Certain individuals in the process of therapy have the sound of "recording machines" or "hollow men" as they express words void of feeling and personal involvement. This, then, is not free association in the full sense of the term. Rather this is a controlled or constricted association, in which thoughts are organized and "filtered." It is sometimes observed that "free association" of this sort is used as a defense, keeping the more threatening material out of the conscious field.

One of the significant aspects of free association is that the process involves that which is intensely personal: one's personal thoughts, ideas, attitudes, feelings, etc. The social situations of our culture customarily throughout one's life inhibit much complete personal expression. One becomes aware of protocol and rules of "polite society." Very early one learns not to think certain things, much less to verbalize them. Thoughts become dichotomized into "good" and "bad," "right" and "wrong," which brings about an imposed constriction of the conscious field. Reik has said:

Is it not easy simply to tell what occurs to you? Should it not be very easy to speak without order and logical connection, to say everything that flashes through your mind without rhyme or reason? No, it is rather difficult; it is more like a steeplechase

than a flat course. Every minute a new obstacle blocks your way. You will be surprised by the kinds of thoughts that occur to you. You will not only be surprised; you will be ashamed and sometimes even afraid of them. More than the conventions of society have to be thrown overboard. Fear and shame, which is perhaps a special kind of fear itself, have to be discarded . . . mean, aggressive, and hostile tendencies--especially against persons near and dear to us--are difficult to admit (1952, p. 25).

The more secure person, the person Maslow (1954) characterizes as having escaped the "sick provoking" aspects of the culture, accepts more fully his individuality and has greater "degrees of freedom" in responding to the directions to free associate. The insecure person, being more constricted and less flexible, is more rigidly bound to a narrow and perhaps even barren field of consciousness.

The stress which is created by the directions to free associate, as perceived by insecure individuals, is too frequently great enough to preclude the full awareness of feelings and thoughts; and without the security which comes from the relationship between the therapist and client, the material produced by the client would probably not deviate from the rather ineffectual saying of words. In the process of therapy, the therapeutic relationship serves to lower the stressfulness of the situation and to promote increased permeability of consciousness and the ultimate establishment of more effective self regulation.

While free association has long been used as a basic technique in psychotherapy, it has been used only sparingly

as a research technique. Murray (1938) used free association as a technique in his studies of personality. Earlier Hull and Lugoff (1921) made an extensive investigation of what was termed "free association" with the Jung Word Association Test, in which they studied the differential associations and reactions of subjects to the standard word list. Word and chain associations have been studied by many psychologists, including Kent and Rosanoff (1938), Rapaport (1946), Jung (1910), Wolff (1950), and Shafer (Rapaport, 1946). Temerlin (1956) studied the differential ability to free associate among psychotherapy clients. But by and large most of the literature concerned with free association is of a non-experimental variety, coming from the various psychoanalytic writings, in which free association is used more or less informally as an experimental variable.

If one is to use free association as an experimental variable, it must have some definite, observable characteristics. Before one can say what is free association and what is not, the term must be defined more explicitly than by merely saying that free association is saying whatever comes to one's mind. The characteristics of free association as a therapeutic technique must be defined if they are to be measured. From the standpoint of Collier's regulatory field theory, the characteristics of free association may be viewed in the following way, using three descriptive concepts:



Spontaneity results from a lack of constriction in the conscious field and refers to the individual's ability to express freely and directly ideas, feelings, memories, etc. The individual who cannot consciously perceive such phenomena cannot be spontaneous and free. When there is limited permeability of the conscious field, there is a consequent rigidity in expression. The so-called "obsessional neurotic" is characterized as a person whose conscious experience must be orderly and, at least superficially, plausible. His relationships with others are characterized by rigidity and what Sullivan (1952) has called "stickiness." And, what is most significant here, spontaneity is all but missing. In free associating, if it can be called that, the obsessional neurotic might weave intricate verbal patterns in ways which are void of feeling and generally characterized by a dry, thought-out organization, the control squelching spontaneity. The boundaries of the conscious field are maintained as a rigid, stubborn defense against the free flow of ideas and feelings into awareness.

In spontaneous expression both affective and verbal content are unrestricted. Material is brought into the conscious field and expressed freely and openly without regard for meaning, logic, organization, etc. The individual responds with immediacy and with directness, with verbal facility being a relatively unimportant aspect of the process. Intellectualization demands the filtering, organizing,

restraining qualities which spontaneity precludes. Spontaneity, like impulsivity, has more to do with affective processes than intellectual ones. It is the freedom one has in expressing feeling that permits him freedom in expressing ideas.

As a second characteristic of free association, tolerance may be described as the individual's ability to cope with the stress of the situation without the need for situational defense operations or active resistance. The defense system is manifested in various and sundry maneuvers, all of which seem designed to prevent the individual from becoming aware of his own feelings and thoughts directly. While in many respects tolerance is closely related to spontaneity, a differentiation is necessary. For instance, an individual may seem to be spontaneous enough in expressing, say, hostility toward his therapist, particularly when he has learned that this is acceptable behavior, because by doing this he can maintain an external anchorage and can prevent the discovery and handling of more stressful material. That the therapist is making undue demands, or that he is a charlatan robbing people of their hard earned money, or that he just basically does not know what he is doing may all be spontaneous protests used by the client which might be interpreted as means of resisting or defending against the threat of continued self-exploration.

Tolerance, then, is defined here as the ability to comply with the directions to free associate without the need of such defense system operations as rationalization, qualification, side-stepping, or maneuvers which would prevent the individual from doing what is asked of him. Tolerance is present when the stress of the situation is such that the defense system is not activated. The individual is honest with himself and copes directly with the demands of the situation. To be able to do this presupposes more ego strength than one would expect a client to possess in the initial stages of the therapeutic process. As Monroe says, rephrasing a statement of Fenichel, "The ego must be educated to tolerate less and less distorted derivatives" (1955, p. 301). In "working through" the resistance, the client gains greater tolerance through the strengthening therapeutic relationship. Defensive behavior declines with the strengthening of the ego.

A third characteristic of free association, variability, is used here to refer to freedom and flexibility in content. As one gains the freedom of association, ideas which are seemingly unconnected and only fortuitously related are linked together and in turn give rise to new material. The individual rigidly bound to the same content is probably one who has found safe or neutral territory and is not able to gamble on allowing new ideas or feelings to come into the conscious field.

In Freud's (1959) original directions to his analysts--with the simile of the person describing the scenery from the window of a moving train--the emphasis was placed upon the constantly changing nature of the individual's thoughts. Some are prone to "work to death" certain ideas or past experiences from a very narrow vantage point, others rely upon stereotyped ideas and expressions, while others are repetitious and tied to psychodynamic terminology. And all of these behaviors ward off the intrusion of more threatening experiences into awareness.

Variability is related to Collier's term flexibility, in that flexibility as a personality attribute of the individual is a precondition for the variability of free association. The rigidly organized person, the person within whom the conscious field is constricted and relatively impermeable, has a limited field from which to draw his experience in free association.

These three descriptive terms--spontaneity, tolerance, and variability--while by no means completing the picture of free association, are used here as the central attributes of free association. They, from the writer's point of view, seem to be directly related to the most frequently described and observed behavior of individuals in psychotherapy.

## CHAPTER II

### PROBLEM

Collier's theory of consciousness as a regulatory field generates several hypotheses concerning free association behavior in the therapeutic process. It is the purpose of this study to test several hypotheses, derived from Collier's theory, pertaining to the differential reactions of secure and insecure individuals in free association situations.

Security and insecurity, for the purpose of this study, will be determined by test scores on the Maslow Security-Insecurity Inventory and a modified form of the Harrower Multiple Choice Rorschach Test. These tests will be used to select two experimental groups, a group of secure individuals and a group of insecure individuals. Security and insecurity are defined on pages 33 and 34.

In studying the differential reactions to free association, two experimental tasks will be utilized. The first task will utilize a chain association test consisting of twenty stimulus words, taken from the Jung Word Association Test. Ten of the words are the ones which have been found

to elicit the least emotional response, and the other 10 are those which have been found to elicit the greatest emotional response of the 100-word test. For the purpose of this study, these words are referred to as non-stress words and stress words, respectively. Subjects' performances on the chain association test will be evaluated in terms of the numbers of verbal associations to each word.

On the basis of Collier's theory it would be predicted that emotionally secure individuals would produce more associations to the stimulus words than insecure individuals because experiences are more readily available to the conscious field. Also, since stress serves to constrict the conscious field, both the secure and insecure individuals should give fewer associations to stress words than to non-stress words. Since the secure individuals are seen as having a higher tolerance for stress, they should show less decrease than the insecure individuals in the number of associations to stress words relative to the number of associations to non-stress words. That is, the insecure individuals should be more greatly affected by stress.

The second experimental task will consist of a free association period, during which the subject will be asked to talk about himself and will be given directions similar to therapeutic directions to free associate. This period will be tape recorded and evaluated by three clinical judges in terms of the three attributes--spontaneity, tolerance,

and variability--discussed in the previous chapter. The scales used for this evaluation appear on pages 41 and 42. It would be predicted on the basis of Collier's theory that the secure individuals will be freer, less defensive, and more variable in responding to the free association task than the insecure individuals.

### Hypotheses

Specifically the hypotheses which are to be tested are as follows:

In their performances on a word chain association test, consisting of stress and non-stress words:

1. Secure individuals will differ from insecure individuals in that the former will produce a greater number of responses.

2. Both secure and insecure individuals will show a greater number of responses to non-stress words than to stress words.

3. Secure individuals will differ from insecure individuals in that the former will show less decrease in number of responses to stress words relative to the number of responses to non-stress words.

In a free association situation analogous to the therapeutic situation, secure individuals will show, as evaluated by clinical judges:

4. A greater degree of spontaneity.

5. Greater tolerance for the demands of the situation.
6. Greater variability of responses.



## CHAPTER III

### METHOD

#### Subjects

Two hundred and ninety-eight male college students, all of whom were enrolled in a course in introductory psychology at the University of Oklahoma, were administered a battery of tests consisting of the Maslow Security-Insecurity Inventory and a modified form of the Harrower Multiple Choice Rorschach Test. The purpose of the testing was to select from the group of 298 two groups of subjects who could be defined as "secure" and "insecure."

In general, the term "security" is a broad generic term which includes those characteristics which permit an individual to function effectively and productively in the various aspects and roles of his life. Security is almost synonymous with "mental health" (Maslow, 1952). The secure individual copes effectively and harmoniously in interpersonal relationships, he has a high tolerance for anxiety, and he is "on good terms" with the world. He has no morbid fear of being the individual that he is, and he characteristically reacts in ways which are in the long run beneficial

to himself. Maslow's (1952, pp. 1-2) definitions of the terms "secure" and "insecure" are paraphrased below:

Insecurity. This individual perceives the world as a dangerous, threatening and hostile place. He sees human beings as essentially bad, evil, or selfish. He experiences a general pessimism and has a tendency to be unhappy or discontented. He experiences an acute consciousness of himself and feels isolated, alone, and left out. He shows poor control over his feelings and shows manifestations of tension, i.e., "nervousness," fatigue, dysphoria, irritability, etc. He seems selfish, ego-centric defensive; has feelings of guilt and shame. He has false goals and inappropriate strivings.

Security. This individual perceives the world and life as pleasant, warm, and friendly. He feels that he has a place in the group, that he is accepted, liked, loved. He has little hostility and has easy affection for others. He has a tendency to expect good to happen, a general optimism, and he is calm, at ease, relaxed. He shows effective control over his feelings but is able to be outgoing. He shows emotional stability, a lack of anxiety, and a tendency toward being world- or problem-centered, rather than self-centered. He has realistic coping systems, well-based self-esteem, self acceptance.

The Security-Insecurity Inventory, hereafter referred to as the S-I, was used as a measure of security. The S-I has the characteristic limitation of personality questionnaires, since the subject reports only what he wants to, and there is no assurance that he can or will give an accurate picture of himself. It was believed that those who scored lowest in security, in comparison with the group, were most probably insecure but that those who scored highest in security might not necessarily be secure individuals. This belief is in keeping with the advice of Maslow (1952) who says that the S-I is best used to screen out those

lacking in security. He cautions that a person may or may not choose to tell the truth and, even when one is consciously honest, he may be lacking in self-knowledge. Additional checks seemed necessary in the selection of subjects, particularly in the case of those who scored as secure individuals.

The S-I is composed of 75 statements, each of which is answered "Yes" or "No" by the subject. In about 50 per cent of the cases a "Yes" answer gives a weight of one towards security, and in the remaining cases a "No" answer gives a weight of one towards security. A copy of the S-I items appears as Appendix A.

These results were used together with the results from the modified form of the Multiple Choice Rorschach Test, hereafter referred to as the MCR. This test was used as a way of gathering projective data to use supplementary to the S-I. In order to provide the means by which a great number of Rorschach protocols could be evaluated, a modification of Harrower's group technique was used. On the conventional MCR test, the subject is asked to select one of ten listed responses by underlining the one he thinks is the best description of the card. There are three such lists for each card. Thus the subject gives a total of 30 responses for the 10 Rorschach cards. Through extensive research, Harrower (1951) has standardized the responses as being "good" or "poor" in terms of general emotional

stability. For the purpose of this study, the number of items in each multiple choice grouping was reduced to five--two "good" answers, two "poor" answers, and one "half poor" answer selected for each grouping of five. The "half poor" items are items which Harrower has found to be statistically less significant as indications of maladjustment than the "poor" items; therefore, these items were given a weight of -.5, while the "good" items received a weight of 1 and the "poor" items a weight of -1. A copy of this modified form of the MCR appears as Appendix B.

It was assumed that this reduction of the choices from ten to five would have no measurable effect on the results except that it would make it impossible to score the records in terms of the conventional scoring categories. The reduction of choices permitted the use of standard IBM answer sheets and machine scoring in obtaining the results.

Harrower's (1951) research, which has involved over 50,000 test records, has shown that in about 80 per cent of the cases, subjects with no "poor" responses were independently evaluated as emotionally stable individuals, while those having as many as six "poor" responses were in all cases found to have "emotional difficulty." Therefore, as a "screening device," the MCR seems to be a very effective instrument.

Each Rorschach card was presented on a screen by use of a projector, and the subject read the choices of

answers from an individual test booklet and marked his choices on an IBM answer sheet, marking three answers for each card. The answer sheets were scored using three separate keys for the three different weights of 1, -1, and -.5. A total score was obtained for each subject and ranked, with the highest percentage of good answers being given a rank of 1, and the lowest percentage of good answers a rank of 298.

Tentative choice of subjects was made by using the results of the two tests. To be selected as a subject for the secure group, an individual had to fall within the top 15 per cent of the tested population on the MCR and have a score in the "secure" range when compared with Maslow's norms on the S-I. To be selected as an insecure subject, an individual had to score within the bottom 15 per cent on the MCR and fall within the "insecure" range on Maslow's norms for the S-I.

Because over-all verbal ability might well be a factor in the performance of the experimental task, subjects were matched on the basis of their total performance on the Ohio State Psychological Examination, Form 23 (OSPE). The matching was done through the use of decile groupings of OSPE total scores, the following groupings being used:

9-10 deciles--High Verbal Ability

7-8 deciles--Above Average Verbal Ability

5-6 deciles--Average Verbal Ability

3-4 deciles--Below Average Verbal Ability

1-2 deciles--Low Verbal Ability

OSPE scores on all subjects were available, since this test is used as one of the University of Oklahoma placement tests. Final selection of subjects was achieved by matching the two tentative experimental groups on the basis of the OSPE decile groupings.

From this point, all subjects were handled in a like manner. Individual appointments were arranged with each subject, who had volunteered his time with the incentive of being given grade credit in the course for his participation. None of the subjects had ever had any experience with psychotherapy, and each was naive as to the purpose of the experiment.

#### Procedure

When the subject arrived for his appointment, he was shown into a room which contained an arm chair, a tape recorder, a desk, and a swivel chair. He was seated in the arm chair facing the desk, and he was then given the following preliminary directions:

This experiment has to do with the thought associations of people. It is an area which psychologists do not know a great deal about, and we feel that this study is a very important one. There are many people, like yourself, taking part in this experiment and we are more interested in the total group results than we are in any one individual's results. What we do here will become a part of the group information and will no longer be associated with you as an individual; nevertheless, let me assure you that whatever

goes on here will be held in strict confidence.

Perhaps you have heard of what is called "free association." This involves a person saying whatever thoughts come to his mind, as they occur to him, without making any attempt to organize or order them or to omit any thoughts which might seem silly or clever, conventional or indecent, important or trivial; and without aim, order, or any apparent connections between thoughts.

Now, first of all, I am going to read a list of words to you. After hearing each word, I would like for you to say the first word that comes to your mind--but don't stop there. Other words will occur to you, and I would like for you to say aloud all such words as they occur to you, whether they have any apparent relation with the first word. There are no right or wrong, no good or bad responses. Just say whatever comes to your mind. Now, before we start, I would like to turn your chair around a little, so that you can lean back and relax. Remember that as soon as you hear the first word, tell me whatever words occur to you as quickly as you can, until I call time.

The following list of words was then presented to the subject as Task I of the experiment. A thirty second association period was allowed for each word. The words were printed on index cards, which were shuffled before each presentation to assure a random presentation.

- |           |            |
|-----------|------------|
| 1. Tree   | 11. Beat   |
| 2. Sleep  | 12. Sin    |
| 3. Month  | 13. Prick  |
| 4. Paint  | 14. Marry  |
| 5. Rich   | 15. Angry  |
| 6. Sing   | 16. Nice   |
| 7. Swim   | 17. Abuse  |
| 8. Head   | 18. Sorrow |
| 9. Hay    | 19. Fear   |
| 10. Stork | 20. Kiss   |

The twenty words which composed the chain association test were taken from the Jung Word Association Test.

Those numbered 1 through 10 were those which have been found to elicit the least emotional responses, and those numbered 11 through 20 have been found to elicit the most emotional responses of the 100-word association test. The words 11 through 20 were selected as words which would increase the stress of the association process since they call up more personalized and emotional responses than do the more nearly neutral words numbered 1 through 10. This distinction between the two lists of words seemed justified on the basis of the empirical findings of Hull and Lugoff (1921), as well as on the basis of Jung's (1910) clinical observations.

Following the administration of the chain association test, the subjects were given the following instructions:

Now I would like for you to do something a little different. During the next few minutes--and I will tell you when to start and when to stop--I would like for you to talk about yourself. Once you have started, say everything that occurs to you, no matter what it is. Those things which occur to you might seem irrelevant, embarrassing, or even funny, but please go ahead and say them anyway. Act as though you are trying to say as much as it is possible to say within the few minutes you have. Where you begin and what you say is entirely up to you. You may begin.

After a five-minute period, the subject was told to stop. He was asked not to discuss the experimental procedure with any of his classmates. The entire experimental procedure was electrically recorded on tape.

The tape recordings of the free association period (Task II) were presented to three clinical judges who were



asked to make independent judgments. Each judge was a clinical psychologist, with a Ph.D. and several years of experience. The three judges were professional associates with similar orientations toward personality and psychotherapy. Each had received his training in the same clinical program and had acquired several years of experience as a psychotherapist.

The judges were not aware of the group, secure or insecure, to which the subject had been assigned. In each case the judge was asked to listen to the recording and then rate the performance of each subject on the following scales:

#### 1. Constraint-Spontaneity

1	2	3	4	5	6	7	8	9
Subject appears to be hesitant and constrained. Thinks out and is concerned with the logical organization as well as the content of what he says. Blocks frequently.					Subject appears to respond openly and freely, without regard for logical organization. Does not appear to hold back ideas, feelings, and associations.			

#### 2. Defensiveness-Tolerance

1	2	3	4	5	6	7	8	9
Subject appears to rationalize, explain, or overintellectualize his responses; to question the task or to employ defensive maneuvers to avoid complying with the instructions. Depersonalizes his responses; avoids expressing feelings and attitudes.					Subject appears to be direct and compliant, showing no efforts to avoid the task, and copes with the situation directly, expressing feelings and attitudes.			

## 3. Stereotype-Variability

1	2	3	4	5	6	7	8	9
Content of subject's responses is stereotyped and cliched; narrow and constricted; lacking in freedom of association; tied to biographical "facts."					Content of subject's responses shows great freedom and variability, with wide range of content.			

Each of the scales was further defined for the judges for the purpose of the study in the following ways:

A. Spontaneity. Subject responds without constraint and in a way which expresses his feelings of the moment. He is not concerned with logical organization or intellectual continuity. He does not appear to think through his thoughts or associations, but expresses them as they occur to him. He is uninhibited and uncritical of his associations; does not appear to avoid or filter potentially stressful material. "Blocking" is seen as the absence of spontaneity.

B. Defensiveness (lack of tolerance). Subject attempts to distort or to react to the task in such a way that he avoids reacting directly to the demands of the situation, guarding his individuality. While the absence of spontaneity might also be seen as defensiveness, defensiveness here suggests a more "active" resistance: ridiculing the task, glibly intellectualizing responses, rationalizing responses, asking questions, etc.

C. Variability. This term refers to the content of subject's responses. Subject expresses a wide variety of content and does not seem tied to stereotyped, cliched, or perseverative reactions. The content seems to come from a freedom of association, allowing one idea to lead to another, without being confined to a narrow or controlled range.

Treatment of the Data

In analyzing the data from Task I, the chain association task, it was necessary to test the following differences:

1. The difference between the number of responses given by the Secure Group and the number given by the Insecure Group to both stress and non-stress words.

2. The difference between the number of responses given by both Secure and Insecure Groups to non-stress words and the number given to stress words.

3. The difference between the two groups with regard to the amount of decrease in responses from the non-stress task to the stress task.

These differences were analyzed by a repeated measurements design analysis of variance. The .05 level of confidence was used to accept or reject the hypotheses.

In analyzing the data from Task II, the free association task, it was first necessary to demonstrate that the mean judges' rating for each subject was a meaningful measure of performance. This was accomplished by correlating the ratings of each judge with the ratings of the other two judges for all three scales (Spontaneity, Tolerance, and Variability), using the product moment method.

Mean judges' ratings were used in determining the significance of the differences between the Secure Group and the Insecure Group in terms of spontaneity, tolerance,

and variability on the free association task. Analysis of variance was used to test the differences.

## CHAPTER IV

### RESULTS

The results of the screening tests, the MCR and the S-I, indicated that 23 of the male students in Introductory Psychology had met the criteria for the Secure Group and 26 had met the criteria for the Insecure Group. The final selection of subjects was made on the basis of the total decile score on the OSPE. The distributions of OSPE scores for the preliminary groups are shown in Table 1, arranged by decile groupings.

Table 1  
Distribution of OSPE Decile Scores of  
Preliminary Experimental Groups

Decile Grouping	Secure Group	Insecure Group
9-10	4	6
7-8	6	7
5-6	4	5
3-4	6	4
1-2	3	4

Final selection of subjects was achieved by matching the number of subjects in the Secure and Insecure Group within each decile grouping. This matching reduced the number of subjects in each group to 21. Table 2 shows the final distribution of subjects in comparison with the distribution required for perfect representation of the population from which the subjects were drawn.

Table 2

A Comparison of the Number of Subjects Within Each Decile Grouping with the Number Required for Perfect Representation

Decile Grouping	In Each Experimental Group	In Perfectly Representative Group
9-10	4	3.58 or 4
7-8	6	4.89 or 5
5-6	4	5.33 or 5
3-4	4	4.28 or 4
1-2	3	2.88 or 3

As shown in Table 2, there are two instances in which the number of subjects within a decile grouping departs from the ideal. At the level of Above Average Verbal Ability (7-8), there is one subject per group more than the ideal number; and at the Average Verbal Ability level (5-6), there is one less subject per group than the ideal number. In general, then, the experimental groups appear to be quite representative with respect to verbal ability.

Other characteristics of the experimental groups are presented in Table 3, which compares the groups with respect to scores made on the screening tests and age.

Table 3  
Comparison of Secure and Insecure Groups  
on MCR, S-I, and Age

Variable	Secure			Insecure		
	Mean	Sigma	Range	Mean	Sigma	Range
MCR	21.19	2.56	17 - 28	5.62	5.37	-13 - 14
S-I	64.55	3.56	60 - 71	33.76	6.40	20 - 44
Age	19.47	1.74	17 - 25	19.05	1.81	17 - 26

The differences between the means of the Secure and Insecure Groups on the two screening tests were significant beyond the .001 level of confidence using a t-test for matched groups. These differences of course would be expected since each sample represents the extreme end of the population distribution.

#### Task I

The mean for each group's performance on the chain association test appear in Table 4. The results of the analysis of variance used to test the three hypotheses appear in Table 5. Individual data from Task I may be found in Appendix C.

Table 4

Means of the Secure and Insecure Groups  
on the Chain Association Test

Experimental Task	Secure Group	Insecure Group
Non-Stress Words	7.77	5.65
Stress Words	5.94	4.24

Table 5

Analysis of Variance for the Chain  
Association Test

Source	Sum of Squares	df	Variance Estimate	F
Words (Stress- Non-Stress)	56.35	1	56.35	23.58*
Groups (Secure- Insecure)	76.11	1	76.11	31.42*
Interaction	3.15	1	3.15	1.32
Individual Differences	191.43	80	2.39	
Total	327.04	83		

\* $p = .001$ .



Hypothesis 1. The first hypothesis stated that the Secure Group should show greater productivity on the chain association test than the Insecure Group. Table 4 shows that the means of the Secure Group are greater than the means of the Insecure Group, and Table 5 indicates that the difference between the two groups is highly significant. Therefore, the first hypothesis was supported.

Hypothesis 2. The second hypothesis stated that the experimental groups should demonstrate a decrease in productivity in responding to stress words relative to their productivity in responding to non-stress words. Table 4 shows that the subjects produced more associations to the non-stress words than to the stress words, and Table 5 shows this difference to be highly significant. Therefore, the second hypothesis was supported.

Hypothesis 3. The third hypothesis stated that the Secure Group should show less decrease than the Insecure Group in responding to stress words relative to their productivity in responding to non-stress words. Table 5 shows an insignificant interaction, indicating that the two groups did not respond differentially to the two types of stimulus words. Therefore, the third hypothesis was not supported.

The difference between the mean decrease for the Secure Group and the mean decrease for the Insecure Group was only .42, with the Insecure Group showing the smaller decrease in terms of actual responses. When viewed in terms of the percentage of decrease, the Secure Group had a mean decrease of 23.4% and the Insecure Group had a mean decrease of 26.8%.

In addition to the data presented here, there were salient qualitative differences between the two groups. The secure subjects appeared to be more personalized in their associations and, in general, less restricted by the stimulus word in the range of their associations. The various qualitative differences between the two groups are discussed in the following chapter.

Table 6 shows the mean number of associations elicited by each stimulus word of the chain association test. It is interesting to note that the smallest mean number of associations by the Secure Group to the non-stress words was larger than the largest mean number of associations of the Insecure Group to the non-stress words. The same is true with regard to the stress words. While some of the insecure subjects did produce more responses than some of the secure subjects, when the results are viewed in terms of total group performance, there is no overlap.

Table 6

Mean Number of Associations to Each Stimulus Word  
for the Secure and Insecure Groups

Stimulus Word	Secure	Insecure
<b>Non-Stress Words</b>		
Month	7.05	4.86
Sleep	6.81	5.48
Tree	7.86	6.33
Head	7.24	6.38
Swim	8.09	6.52
Sing	7.62	5.52
Stork	7.05	5.38
Rich	6.90	5.14
Hay	8.05	5.09
Paint	7.24	6.24
<b>Stress Words</b>		
Abuse	5.71	3.67
Sin	5.76	4.10
Kiss	6.00	3.81
Beat	5.86	5.00
Fear	6.00	4.38
Nice	6.33	4.37
Sorrow	5.43	4.05
Angry	6.05	4.33
Marry	6.33	4.33
Prick	5.95	3.90

Analyses of variance were computed for the purpose of analyzing the effects of verbal ability as measured by the OSPE, and the results of these analyses showed no significant differences on Task I among the various decile groupings. The tables for these analyses appear in Appendix D. Table 7 shows the means for each decile grouping for both experimental groups.

Table 7

Mean Number of Associations Arranged by  
OSPE Decile Groupings

Stimulus	OSPE Decile Groupings				
	1-2	3-4	5-6	7-8	9-10
Non-Stress Words					
Secure Group	8.60	7.30	8.42	8.28	6.20
Insecure Group	5.30	5.66	6.17	5.20	5.90
Stress Words					
Secure Group	7.70	5.57	5.20	6.35	5.70
Insecure Group	4.90	5.05	5.17	4.50	5.27

### Task II

In the process of collecting the data for Task II, the performances of two subjects were lost because of technical difficulty with the recording equipment and because the quality of the recordings was so poor that the judges could not evaluate the performances. Both of the subjects were in the Insecure Group. One of the subjects was in decile grouping 7-8 on the OSPE, the other in decile grouping 3-4. In order to maintain two groups matched on the basis of verbal ability, one secure subject was randomly eliminated from decile grouping 7-8 and another from grouping 3-4. Consequently, judges' ratings were obtained on

38 subjects, 19 in each group. The distribution of subjects on Task II appears in Table 8.

Table 8

A Comparison of the Number of Subjects on Task II within Each Decile Grouping with the Number Required for Perfect Representation

Decile Grouping	In Each Experimental Group	In Perfectly Representative Groups
9-10	4	3
7-8	5	5
5-6	4	5
3-4	3	3
1-2	3	3

With the exception of decile groupings 9-10 and 5-6, the number of subjects at each level is what would be expected on the basis of random sampling. There is one subject too many in decile grouping 9-10 and one too few in grouping 5-6. For the purpose of this study, the representativeness of the groups seemed acceptable.

Judges' ratings were obtained on the three scales (Spontaneity, Tolerance, and Variability), and the results of each judge's ratings were correlated with the other two judges' ratings by use of the product moment method. These correlations appear in Table 9, and the results of the  $t$  tests which were computed to test the significance of the correlations appear in Appendix E.

Table 9

Correlations between Judges' Ratings of Secure and Insecure Subjects on the Free Association Task

Judges	Scale					
	Spontaneity		Tolerance		Variability	
	Secure	Insecure	Secure	Insecure	Secure	Insecure
1 and 2	.72	.94	.57	.68	.72	.85
1 and 3	.64	.92	.91	.67	.49	.76
2 and 3	.93	.80	.63	.80	.61	.59

All of the correlations in Table 9 were significantly different from zero beyond the .01 level of confidence with the exception of the one between Judges 1 and 2 on the Tolerance scale for the Secure Group ( $r = .57$ ) and the one between Judges 1 and 3 on the Variability scale for the Secure Group ( $r = .49$ ). Both of these correlations were significant beyond the .05 level of confidence. The significance of the correlations was such that the use of mean judges' ratings in evaluating the results of Task II seemed justified.

Total mean judges' ratings for both experimental groups appear in Table 10. A complete list of individual judges' ratings of secure subjects may be found in Appendix F, and ratings of insecure subjects are in Appendix G.

Table 10

Total Mean Judges' Ratings of Free Association  
Behavior of Secure and Insecure Subjects

Scale	Secure Group	Insecure Group
Spontaneity	5.75	3.19
Tolerance	4.89	3.17
Variability	5.67	3.38

Analyses of variance were computed for each of the scales, using the F technique as a test of the significance of the difference between the mean ratings of the Secure Group and the Insecure Group on the three scales. The analyses appear in Tables 11, 12, and 13.

Table 11

Analysis of Variance of the Mean Ratings  
on the Spontaneity Scale

Source	Sum of Squares	<u>df</u>	Variance Estimate	<u>F</u>
Between	61.24	1	61.24	12.19*
Within	180.89	36	5.02	
Total	242.13	37		

\*P = .01.

Table 12

Analysis of Variance of the Mean Ratings  
on the Tolerance Scale

Source	Sum of Squares	df	Variance Estimate	F
Between	26.59	1	26.59	5.22*
Within	182.66	36	5.07	
Total	209.25	37		

\*P = .05.

Table 13

Analysis of Variance of the Mean Ratings  
on the Variability Scale

Source	Sum of Squares	df	Variance Estimate	F
Between	43.54	1	43.54	9.85*
Within	158.73	36	4.41	
Total	202.27	37		

\*P = .01.

The differences between the Secure and Insecure Groups were significant on all three scales. On the basis of these results, it can be said that the Secure subjects demonstrated more spontaneity, tolerance, and variability in performing the free association task than did the Insecure subjects; therefore, hypotheses 4, 5, and 6 were



supported.

That verbal ability was no significant factor in the ratings was demonstrated by the use of analysis of variance (see Appendix H). The mean judges' ratings listed by OSPE decile groups for the Secure and Insecure Groups appear in Table 14.

Table 14  
Mean Judges' Ratings by OSPE Decile Groupings

	OSPE Decile Groupings				
	1-2	3-4	5-6	7-8	9-10
Spontaneity					
Secure	5.37	6.22	6.25	5.48	5.42
Insecure Group	2.83	3.25	2.92	3.47	3.42
Tolerance					
Secure Group	5.24	5.66	4.43	4.34	4.44
Insecure Group	3.33	3.66	3.69	3.00	2.83
Variability					
Secure Group	5.00	6.33	5.50	5.53	6.00
Insecure Group	2.11	3.89	4.17	2.73	3.25

There were several qualitative differences between the Secure and Insecure Groups in their behavior during the free association period. These differences are discussed in the following chapter. Of particular importance is the occurrence of "blocking" among the insecure subjects and its relative infrequent occurrence among the secure subjects.

## CHAPTER V

### DISCUSSION

#### Experimental Groups

The results of this study are based upon the performances of two groups of subjects who were significantly different from each other with regard to general emotional security. Whatever generalizations one makes from the results of the study must necessarily be limited by the use of such extreme groups. There were several factors involved in the selection of the subjects which might cast additional light upon the nature of the experimental groups, prior to discussing the more general findings of the study.

Those subjects who made up the Insecure Group were individuals who demonstrated quite clearly that they were unhappy, dissatisfied, and greatly concerned with their adequacy as individuals. On the S-I the individuals of the Insecure Group gave "insecure" responses to over 50 per cent of the items and on the MCR they gave about as many "poor" responses as they did "good" responses. The mean score on the S-I ranked in the lowest 10 per cent of Maslow's norms, within the range which Maslow defines as "very insecure" (1952).

The number of "poor" responses given on the MCR by each of the subjects was greater than the number Harrower (1951) suggests to be indicative of emotional instability.

There were, however, many individuals within the population from which the experimental groups were drawn who might otherwise be judged insecure who did not meet the criteria of this study. Many in the population tested scored exceptionally high security scores on the S-I and very low scores on the MCR, suggesting that they might have been unwilling or unable to give an accurate picture of themselves. Perhaps these individuals would have performed quite differently on the experimental tasks.

The insecure subjects, then, are perhaps not representative of all of those individuals within the population who would be clinically judged to be insecure. The subjects are perhaps best described as individuals who are insecure and who are consciously concerned with psychological problems.

The secure subjects, on the other hand, are neither self-actualizers nor ideally secure individuals. While they scored above average when compared with Maslow's norms, they did not as a group achieve the level which Maslow defines as "very secure"; and though their MCR performance was within the top 15 per cent of the population of psychology students, they averaged as many as five "poor" responses.

Thus while the Insecure Group appeared to consist of markedly insecure individuals, the Secure Group probably consisted of individuals who are only relatively secure and certainly not self-actualizers.

In some respects, the subjects defined as insecure by this study are probably those most likely to seek professional help, since they appear to have a painful awareness that "all is not well," and they appear to be rather typical of college students who seek out guidance and counseling services. There are, of course, great individual differences among insecure individuals, and the scope of this study does not permit generalization to all individuals with neurotic or psychotic problems.

#### Task I

It was predicted that secure subjects would demonstrate greater productivity than insecure subjects on a word chain association test, and the data reported in Chapter IV were consistent with this prediction. The secure subjects produced significantly more associations to both stress and non-stress words than did the insecure subjects.

In response to non-stress words, the secure subjects not only demonstrated greater productivity, they typically demonstrated greater freedom and variability of response. They appeared to be less stimulus bound in their responses.

The insecure subjects--notwithstanding the fact that they were instructed to verbalize any word that occurred to them during the association period, whether or not it had any obvious relationship to the stimulus word--were characteristically bound to the stimulus. They avoided being or were unable to be "unrealistic," imaginative, or illogical in their responses. They made an effort to produce synonyms or closely associated words, while more generally the secure subjects ranged farther and wider in their responses.

The following examples may serve to illustrate the point:

Insecure Subject. RICH: money . . . wealthy . . .  
millionaire . . . dollars . . . capital . . . (long  
pause).

Secure Subject. RICH: wealthy . . . car . . .  
yacht . . . travel . . . Europe . . . Paris . . . eat  
. . . drink . . . fish . . . hunt . . . (pause).

The qualitative difference between these two chain associations is that the former represents a word-naming process, a search for logical responses, while the latter represents the freedom of fantasy with the stimulus word being used more or less as a springboard for the imagination. The latter seems to represent a more personalized expression of the individual, the former remains a somewhat detached recitation.

The behavior of the insecure subjects in general appeared to be field dependent, lacking the internal freedom and flexibility to be more individualistic. Therefore, the

differences which existed between the two groups were more than merely quantitative, and the qualitative differences seem to be equally consistent with the idea that secure individuals can more freely accept into awareness ideas and associations arising within them. They are not much on guard against personalized associations.

These qualitative differences were observations made by the examiner, and no attempt was made to get systematic judgments regarding these differences; however, the examiner's impressions were consistent with those of the clinical judges who were used to evaluate Task II.

It was also predicted that both groups would show a decrease in responses when associating to stress words, and such was the case. There was a significant decrease in productivity in both the Secure and Insecure Groups when the stimulus was a stress word. In addition to the quantitative differences between reactions to the stress and non-stress words, there were noticeable qualitative differences. The secure subjects seemed to become more bound to the stimulus, and the freedom of their associations was somewhat constricted, as if the stimulus were such as to "put them on guard." Such differences were not so discernible with the insecure subjects since their associations to the non-stress words were so stimulus bound to begin with.

The third prediction was not supported by the data. It was hypothesized that the secure subjects would show less

decrease in productivity from non-stress to stress words than the insecure subjects, but in terms of the data the amount of decrease for the two groups was quite similar. That stress would have the same effect on secure and insecure subjects is inconsistent with Collier's theory, and one must question whether the results represent a weakness of the theory or an inadequacy within the design of the experiment. In the light of the other results of this study, it would seem that additional study is necessary in order to evaluate the differential effect of stress on secure and insecure individuals before drawing conclusions about the adequacy of the theory. It must be said, however, that the results in this instance were inconsistent with Collier's theory.

In considering the fact that the third hypothesis was not supported, the nature of the samples seems important. All subjects were college students, primarily in the late teens, during which time there is characteristic concern over emotions, how to handle one's emotions and even how to talk about them. Words relating to emotional processes which elicited associations having to do with sex, hostility, or pain were constricting because they probably gave rise to stressful associations. The resulting effect was a significant decrease in productivity for both Secure and Insecure Groups.

Thus while the secure subjects demonstrated greater productivity on Task I, they also encountered stress sufficient to bring about a loss of productivity to about the same degree as that of the Insecure Group.

It was also found that verbal ability, as measured by the OSPE, was not a significant factor in performance on the chain association test. While the OSPE provides a measure of vocabulary, it is perhaps best described as a test of academic ability, and it is a good predictor of grades in college. Thus it can be concluded that intellectual factors do not play a significant role in determining the kind of verbal fluency or productivity which was measured by the chain association task. Although there were no significant differences among the various decile groups, it is interesting to note that those subjects who fell within the lowest decile group in the Secure Group, produced more associations than those subjects within the highest decile group. The general conclusion from studying the results of the various analyses of variance concerned with verbal ability is that productivity of the chain association test is largely determined by non-intellectual factors.

### Task II

In their performance on Task II, as evaluated by the clinical judges, the secure individuals demonstrated significantly more spontaneous expression, greater tolerance for



complying with the task, and a wider variety of content. Thus the three hypotheses concerned with Task II were supported. The following discussion of Task II is based in part upon the combined impressions of the clinical judges, with whom the writer talked at length following the completion of the ratings.

Spontaneity. The difference between the two experimental groups as measured by the spontaneity scale was highly significant. The most pronounced reaction of the insecure subjects was "blocking," saying very little and remarking that nothing occurred to them. Three of the insecure subjects "blocked" completely and said nothing for the five-minute period except something to the effect that their mind was a blank. Other insecure subjects talked fluently for the first two or three minutes and then "ran out of anything to say."

Lack of spontaneity among the insecure subjects, as well as among some of the secure subjects, was also seen in what the judges described as "dry" or "flat" or "controlled" responses, with the subjects talking in a rather restrained, unassertive way, which lacked feeling and emotional involvement. Other subjects showed a great deal of involvement, enthusiasm, and openness in responding to the directions to free associate. Three of the insecure subjects received ratings which were above the mean for the Secure Group, and it is interesting to note that these three subjects also

produced highly personalized verbalizations, the material apparently representing personal matters of pressing concern. It seemed as though they were motivated to talk about certain aspects of their own personalities for the purpose of deriving some benefit from the free association situation.

One factor which might have had a bearing on the outcome of the ratings was the impression among the judges that variables other than the experimental ones might have exerted an influence on their judgments. It was not an easy matter to disregard content, for instance, in rating the subjects' degree of spontaneity. If the subjects produced only that which was regarded as trivia, such as biographical detail, there might have been a tendency to lower the spontaneity ratings. While in most cases it seemed that subjects who produced such content were also less spontaneous, such was not invariably the case. The fact, however, that the judges were aware of this tendency hopefully served to minimize its influence.

Tolerance. While "blocking" was the most characteristic behavior with regard to spontaneity, over-intellectualized responses and the avoidance of personalized content was the most characteristic approach with regard to complying with the directions to free associate. While the difference between the two experimental groups was statistically significant ( $P = .05$ ), the difference does not reach the level of confidence which was attained on the other two scales,

spontaneity and variability ( $\underline{P} = .01$ ).

The behavior exhibited during the free association task was frequently that which can be described as defensive, referring to the use of secondary defenses. Such behavior included rationalization ("It's just too early in the morning for me to have any thoughts"), intellectualization ("It is interesting to speculate on what ideas will occur to me . . . in this vacuum that I laughingly call my mind"), or externalization ("This is a large office and there are pictures on the wall and a lot of books"). Such behavior was found among both secure and insecure individuals, although more pronounced--as evidenced in the ratings--among the insecure subjects. Some subjects showed more active resistance to free associating by repeatedly asking questions or making remarks about the absurdity of the task; however, no subject refused to make an effort, and even among those who "blocked" completely their behavior did not seem to reflect an active refusal but rather an inability.

By way of interpretation, it seemed that most of the subjects did not have to resort to drastic methods (primary defenses) such as "blocking" to cope with the task, but did resort to secondary defenses. And while they avoided the marked constriction that is seen in "blocking," they failed to present much in the way of direct and personalized associations. While some subjects received relatively high ratings of spontaneity, they received much lower ratings on

tolerance.

On the other hand, some insecure subjects who demonstrated a lack of spontaneity presented highly personalized content, sometimes talking of personal problems, and they received significantly higher ratings on tolerance. For the most part, their verbalizations, however personal, were void of feelings and apparent involvement; their speech was controlled and restrained. This behavior was responsible for the low spontaneity ratings. Since they did not avoid personal ideas, feelings, attitudes, problems, etc., they received higher tolerance ratings.

Ratings on the tolerance scale were complicated by the idea among the judges that various levels of resistance were involved, and while on the surface a subject might appear to be actively complying with the task, his responses were too glib and superficial to reflect much of him as an individual. This was true of several subjects in the Secure Group, who received higher ratings on spontaneity than on tolerance.

Thus while something in the way of a "halo effect" might have been influencing the judges' ratings, a close inspection of the mean ratings suggests that such an effect was not consistent, and there is reason to believe--since the judges were all experienced psychotherapists--that it was not a significant factor.

Variability. The most frequent content presented by the insecure subjects was of a biographical nature, some subjects limiting their verbalizations to a factual account of their experiences ("I was born on July 3, 1940, and started school at Horace Mann grade school when I was six"). And while such responses were not atypical of the secure subjects, it was infrequent that a secure subject limited his responses to such factual data. More frequently the secure subject would interject attitudes and value judgments, as well as his concerns of the moment and his plans for the future.

The insecure subject appeared to seek structure, such as the structure of a detailed biography or the description of his dormitory room, and while within this structure there was some variety of detail, he received a lower rating on variability than did the subject who talked of memories, attitudes, convictions, etc., with no over-all structure.

The secure subject frequently was concerned with presenting a picture of himself ("I'm the kind of guy who"), while the insecure subject most often seemed to avoid presenting anything other than a skeleton of detail. Consequently, variability was related most closely to spontaneity. The subject who could move from one idea to another freely and easily was more spontaneous; while the subject who lacked this freedom was less spontaneous. So the extent of the differences between the two groups was about the same

with regard to both spontaneity and variability of responses.

### General Discussion

The differences between the two experimental groups with reference to verbal productivity, freedom of expression, and variability of content, on both the chain association task and the free association task, suggest that the secure subjects could more readily accept at the conscious level their experiences of the moment and assimilate them in some meaningful way. These results are interpreted as a function of the secure individual's greater consciousness of himself; thoughts, feelings, memories, and attitudes have freer access to the conscious field.

The insecure subject, who by definition is not on such acceptable terms with himself, had a more difficult time in "letting himself go," in freely accepting into awareness and expressing his uniquely personal reactions to the experimental tasks. From an interpretive point of view, the insecure subjects' limited productivity and freedom of expression reflect the inner constriction and guardedness which prevent ideas and feelings from readily becoming a part of the stream of consciousness. It is assumed that one who has grave doubts about his own adequacy and worth as an individual must erect barricades to prevent him from revealing to himself and to others those phenomena which

constitute the self. He becomes more acutely concerned about the nature and the quality of his experiences, which, in turn, constricts and limits what he can accept into awareness.

With regard to the results of this study, some observations can be made with regard to the free association technique:

First, insecure individuals lack the freedom and flexibility to demonstrate much in the way of spontaneous expression of feelings and ideas. The free association situation provokes such reactions as "blocking," depersonalization, and attempts to achieve something in the way of non-threatening structure on which the individual can anchor his thoughts. These typical reactions appear to be defenses used by the individual to help him avoid revealing a self which he considers to be inferior, "bad," or whatever.

Second, the determinants of free association ability are primarily of an emotional nature rather than of an intellectual nature. Free association is not primarily an intellectual activity for which sheer verbal ability equips the individual. It should be pointed out, however, that this study dealt with individuals who probably represent only the upper 50 per cent of the general population with regard to verbal ability, and there might well be differences within the lower levels.

Third, free association apparently creates additional stress for the insecure individual in that it focuses threatening attention upon himself and requires that he reveal himself. Without the security of the structure which is present in most social situations, the insecure individual loses much of his verbal fluency and articulateness. He has not had time to review or think through his statements, and this seems to create additional stress. The added stress, in turn, becomes an added restriction to conscious experience. Particularly when issues which produce affect are encountered, there is a reduction of freedom, a tendency to avoid emotions.

The data of this study do not provide a basis for evaluating the free association technique as a psychotherapeutic tool, but they do furnish the basis for some generalizations with regard to Collier's theory.

Collier (1956) states that the less tolerance for stress which the individual might have the more he must rely on primary defenses. It was observed in the present study that the more insecure individuals relied most frequently on such reactions as "blocking" in coping with the free association situation; and when stress became greater, "blocking" became more frequent. The more secure individuals resorted to less extreme and more appropriate defenses.

The use of free association as a therapeutic technique requests that the individual do that which he has



characteristically avoided. It requests that he encounter himself, that he actualize experiences which he has denied from awareness. He cannot do this without encountering stress.

In the psychotherapeutic situation the strengthening relationship between the therapist and client, and the client's motivation to become a more effective person, will hopefully lead to a greater tolerance for stress and a greater ability to encounter onself.

It was observed in this study that certain insecure subjects would appear to be relatively free and fluent in their associations, and in the process of associating would verbalize, apparently before censoring them, certain thoughts which were of a highly personal nature, and which appeared to create sufficient stress to bring about pronounced "blocking." Ideas came into awareness which the subject could not readily handle. In Collier's language, this reflects the difference between permeability of the conscious field and ego strength. The concept of permeability refers to the access which phenomena have to the conscious field, while ego strength is characterized not only by the availability of phenomena to the conscious field but also by the assimilation of such phenomena constructively.

The implication here is that certain individuals who may gain some premature security in the therapeutic relationship may have a flooding of consciousness with feelings

and thoughts which cannot be constructively assimilated, and the consequence may be overwhelming anxiety and a retreat to drastic defense measures. This limits the effective use of free association to those who have enough ego strength to begin with to make constructive use of it. Psychotic patients who may develop great permeability of consciousness without having a modicum of ego strength cannot generally benefit from the free association method and may at times demonstrate acute reactions to free association.

Since none of the subjects in the present study was severely disturbed, i.e., psychotic or near-psychotic, additional experimental data are necessary to cast further light upon the differential reactions to free association.

### Conclusions

The data of this study supported the hypotheses that emotionally secure individuals demonstrate greater ability to free associate than do insecure individuals, and that stress serves to reduce the freedom of association for both secure and insecure individuals. These findings are consistent with Collier's theory, as well as with the main stream of thought among students of personality and psychotherapy.

The hypotheses are based upon the theory that the degree to which an individual can accept into awareness relevant aspects of himself is an indication of how effective

he will be in regulating his own behavior and in actualizing his potentialities as a human being. The more secure individual has a greater ability to accept into awareness his experience of himself in relation to the world around him; while the insecure individual avoids or is unable to demonstrate such self acceptance.

It must be recognized that the data, while confirming the predictions, do not directly validate this theoretical statement and do not preclude other theoretical explanations of the observed behavior. If the results had been negative, one might be inclined to reject the theory; in the light of positive results, one can only say that the observed behavior is consistent with the theory.

One might say, as an alternative explanation, that the insecure subjects did not have any less permeability of the conscious field but were merely reluctant or unable to verbalize what they consciously experienced. This explanation assumes that there is no difference between secure and insecure individuals with respect to what might be called internal freedom--the freedom to accept phenomena into awareness. The major shortcoming of such an explanation is that it is not consistent with our accumulated knowledge of personality. It does not have the "goodness of fit" with respect to both clinical and theoretical approaches to personality.

What we ascribe to consciousness must necessarily be by a process of inference, since the processes of consciousness are beyond the reach of direct measurement. It is not known and cannot be empirically demonstrated that all or even most of the subjects were willing or able to verbalize everything which occurred to them. Certain associations were probably left unsaid because of concern over what was socially appropriate or inappropriate. One cannot measure the discrepancy between what is consciously experienced and what is verbalized. It was assumed that those subjects who verbalized the greater number of associations had a more expansive field of associations from which to draw their verbalizations.

While the role of the concept of consciousness is becoming increasingly important in the light of the modern influence of ego psychology and, more recently, existential analysis, we are limited in what we can know and what we can learn about consciousness to that which can be inferred from observable behavior. If observed behavior is consistent with a given theory and if the theory aids in the understanding of human behavior and experience, then it has utility as theory. Much of contemporary personality theory must wait for the crucial test until the science of psychology can develop more direct methods and techniques of investigation. Until then the ultimate test of much of psychological theory must be the degree to which the theory

permits a meaningful, reliable, and consistent way of ordering, understanding, and predicting human behavior and experience.

## CHAPTER VI

### SUMMARY

Collier's theory of consciousness as a regulatory field was used as the basis for several predictions concerning the differential free association ability of secure and insecure subjects. On the basis of Collier's theory, which reflects some widely accepted beliefs in contemporary dynamic psychology, it was predicted that emotionally secure individuals would demonstrate greater productivity and flexibility in free association behavior than would insecure individuals, in that the former can more readily accept into awareness the ideas, feelings, thoughts, and memories which constitute the self. In addition, it was predicted that the introduction of stress would bring about a decrease in freedom of expression, as reflected in decreased verbal productivity, and that such decrease in productivity would be greater for the insecure subjects than for the secure.

Two hundred and ninety-eight male students enrolled in an introductory course in psychology were administered the Maslow Security-Insecurity Inventory and a modified form of the Harrower Multiple Choice Rorschach Test. On the basis

of the test results, two groups of subjects, matched on the basis of verbal ability as measured by the Ohio State Psychological Examination, were selected as the Secure and Insecure Groups. The experimental procedure was identical for both groups.

The experiment consisted of two tasks, a chain association test which consisted of 10 non-stress stimulus words and 10 stress stimulus words, taken from the Jung Word Association Test, and a free association task, for which the subject was given the usual therapeutic instructions to free associate. The results of the chain association test were evaluated in terms of the number of responses to the stimulus words, the results being analyzed by analysis of variance. The data from the free association period were evaluated by clinical judges who rated the subjects on three nine-point scales: spontaneity, tolerance, and variability. Spontaneity was defined as the freedom of expression; tolerance as the ability to cope with the task without resorting to such defenses as repeated questioning, rationalization, or any form of overt resistance; variability referred to the freedom in the range of content. The judges' ratings were checked for reliability using product-moment correlations and were analyzed by the use of analysis of variance.

The productivity of the Secure Group on the chain association test was significantly greater than that of the Insecure Group ( $P = .001$ ) in response to both stress and

non-stress words. Both groups showed significant decrease when responding to stress words; however, the difference between the two groups in terms of the amount of decrease was not significant. On the free association task, the Secure Group demonstrated significantly greater spontaneity, tolerance, and variability in their performance than the Insecure Group.

There were also salient qualitative differences between the two groups, in that the secure individuals were more personalized, flexible, and less bound to external stimuli. While "blocking" was a frequent occurrence among the insecure individuals, it was not pronounced among the secure individuals; rather the secure individuals appeared to be more prone to use intellectualization and depersonalization instead of more extreme measures, such as "blocking."

It was concluded that secure individuals, when compared with insecure individuals, have greater ability to accept into awareness the various phenomena which constitute the self at any moment and thus are able to demonstrate greater freedom, productivity, and flexibility in their behavior. Insecure individuals are constricted and restrained in an unstructured situation which demands that they react on the basis of their personal experience of the moment. Stress serves to bring about added constriction and decreased productivity for both secure and insecure individuals.



Additional experimental evidence concerning the performance of severely disturbed individuals, such as psychotics, would be valuable; and also evidence concerning the performance of exceptionally secure and stable individuals would shed additional light upon the matter of conscious freedom and flexibility. Since the secure individuals in this study were college students, there might exist significant difference between this group and a group of more mature and stable individuals, who have come closer to the actualization of their potentialities.

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APPENDICES

## Appendix A

## S-I Inventory

If your answer to any of the following questions is "yes," please mark the answer space which is under the number 1 [on the IBM answer sheet]. If your answer is "No," please mark the answer space under the number 2.

1. Do you ordinarily like to be with people rather than alone?
2. Do you have social ease?
3. Do you lack self-confidence?
4. Do you feel that you get enough praise?
5. Do you often have a feeling of resentment against the world?
6. Do you think people like you as much as they do others?
7. Do you worry too long over humiliating experiences?
8. Can you be comfortable with yourself?
9. Are you generally an unselfish person?
10. Do you tend to avoid unpleasantness by running away?
11. Do you often have a feeling of loneliness even when you are with people?
12. Do you feel that you are getting a square deal in life?
13. When your friends criticize you, do you usually take it well?
14. Do you get discouraged easily?
15. Do you usually feel friendly toward most people?
16. Do you often feel that life is not worth living?
17. Are you generally optimistic?
18. Do you consider yourself a rather nervous person?
19. Are you in general a happy person?

20. Are you ordinarily quite sure of yourself?
21. Are you often self-conscious?
22. Do you tend to be dissatisfied with yourself?
23. Are you frequently in low spirits?
24. When you meet people for the first time do you usually feel they will not like you?
25. Do you have enough faith in yourself?
26. Do you feel in general most people can be trusted?
27. Do you feel that you are useful in the world?
28. Do you ordinarily get on well with others?
29. Do you spend much time worrying about the future?
30. Do you usually feel well and strong?
31. Are you a good conversationalist?
32. Do you have the feeling of being a burden to others?
33. Do you have difficulty in expressing your feelings?
34. Do you usually rejoice in the happiness or good fortune of others?
35. Do you often feel left out of things?
36. Do you tend to be a suspicious person?
37. Do you ordinarily think of the world as a nice place to live in?
38. Do you get upset easily?
39. Do you think of yourself often?
40. Do you feel that you are living as you please rather than as someone else pleases?
41. Do you feel sorrow and pity for yourself when things go wrong?
42. Do you feel that you are a success at your work or your job?

43. Do you ordinarily let people see what you are really like?
44. Do you feel that you are not satisfactorily adjusted to life?
45. Do you ordinarily proceed on the assumption that things usually tend to turn out all right?
46. Do you feel that life is a great burden?
47. Are you troubled with feelings of inferiority?
48. Do you generally feel "good"?
49. Do you get along well with the opposite sex?
50. Are you ever troubled with an idea that people are watching you on the street?
51. Are you easily hurt?
52. Do you feel at home in the world?
53. Do you worry about your intelligence?
54. Do you generally put others at their ease?
55. Do you have a vague fear of the future?
56. Do you behave naturally?
57. Do you feel that you are generally lucky?
58. Did you have a happy childhood?
59. Do you have many real friends?
60. Do you feel restless most of the time?
61. Do you tend to be afraid of competition?
62. Is your home environment happy?
63. Do you worry too much about possible misfortune?
64. Do you often become very annoyed with people?
65. Do you ordinarily feel contented?



66. Do your moods tend to alternate from very happy to very sad?
67. Do you feel that you are respected by people in general?
68. Are you able to work harmoniously with others?
69. Do you feel you can't control your feelings?
70. Do you sometimes feel that people laugh at you?
71. Are you generally a relaxed person (rather than tense)?
72. On the whole do you think you are treated right by the world?
73. Are you ever bothered by a feeling that things are not real?
74. Have you often been humiliated?
75. Do you think you are often regarded as unconventional or "different"?

## Appendix B

Modification of Harrower's Multiple Choice  
Rorschach Test for Group Administration

Instructions: You are going to be shown a series of ten inkblot pictures one after another. Begin by taking a good look at Inkblot I and see if it, or any part of it, reminds you of anything or resembles something you have seen. Then read through each of the three groups of answers for Inkblot I. Those are the groups numbered 1, 2, 3. Now, by using the answer sheet which has been passed out to you, mark what you consider to be the one best answer in Group 1 in the first answer space, the best answer in Group 2 in the second answer space, and the best answer in Group 3 in the third answer space. You will then have filled in three answers for Inkblot 1. Then do exactly the same thing for each of the other inkblots. There are no right or wrong answers. Your personal reaction is what counts.

## Inkblot I

(1)	(2)	(3)
1. An Army or Navy emblem (g) *	1. A headless figure (g)	1. A Halloween mask (g)
2. Crumbling cliffs (p)	2. Spilt ink (p)	2. Storm clouds (p)
3. A bat (g)	3. Someone's insides (hp)	3. X-ray of spine (hp)
4. Nothing at all (p)	4. Vertebrae (g)	4. Two people (g)
5. An X-ray picture (hp)	5. Nothing at all (p)	5. Nothing at all (p)

---

## Inkblot II

(4)	(5)	(6)
1. Nothing at all (p)	1. An animal skipping (hp)	1. Two witches (g)
2. Two scottie dogs (g)	2. Two bears rubbing noses (g)	2. Black and red paint (p)
3. A bursting bomb (hp)	3. Blood (p)	3. Lungs and blood (hp)
4. Two elephants (g)	4. Two people playing (g)	4. Bears heads (g)
5. Red and black ink (p)	5. Nothing at all (p)	5. Nothing at all (p)

---

## Inkblot III

(7)	(8)	(9)
1. Two birds fighting (g)	1. Two cannibals (g)	1. Two birds' heads (g)
2. Just colored blots (p)	2. Fire and smoke (hp)	2. Waiters bowing (g)
3. Two men pulling . . . (g)	3. Blood and dirt (p)	3. Lipstick splotches (hp)
4. Spots of blood and paint (hp)	4. Donald Ducks (g)	4. Dirty spots and bloody spots (p)
5. Nothing at all (p)	5. Nothing at all (p)	5. Nothing at all (p)

---

## Inkblot IV

(10)	(11)	(12)
1. A pair of boots (g)	1. The spine (hp)	1. Clouds (hp)
2. A burnt mass (p)	2. Dirty water (p)	2. A hat (g)
3. Lungs and chest (hp)	3. A fur rug (g)	3. Nothing at all (p)
4. Nothing at all (p)	4. A man sitting down (g)	4. A cow's head (g)
5. A giant in a fur coat (g)	5. Nothing at all (p)	5. A frightening picture (p)

---

## Inkblot V

(13)	(14)	(15)
1. A bird's beak (g)	1. A man's face (g)	1. An alligator's head (g)
2. Something squashed (p)	2. A black mess (p)	2. Nothing at all (p)
3. Nothing at all (p)	3. A bird flying (g)	3. A fan dancer (g)
4. A moth (g)	4. A pelvis (hp)	4. Black clouds (p)
5. A map (hp)	5. Nothing at all (p)	5. An X-ray picture (hp)

---

## Inkblot VI

(16)	(17)	(18)
1. Two kings' heads (g)	1. A dragonfly (g)	1. An X-ray of the spine (hp)
2. An X-ray picture (hp)	2. A spinal column (hp)	2. A butterfly at the top (g)
3. A fur rug (g)	3. Dirty water (p)	3. Nothing at all (p)
4. A landslide (p)	4. An animal skin (g)	4. A little man (g)
5. Nothing at all (p)	5. Nothing at all (p)	5. Gushing oil (p)

---

## Inkblot VII

(19)	(20)	(21)
1. Smoke (hp)	1. A butterfly at the bottom (g)	1. The lower part of the body (hp)
2. Two women talking (g)	2. Dirt from a gutter (p)	2. Children playing (g)
3. Nothing at all (p)	3. Scotties (g)	3. A squashed frog (p)
4. Animals (g)	4. A pelvis (hp)	4. A moth (g)
5. Burning fragments (p)	5. Nothing at all (p)	5. Nothing at all (p)

---

## Inkblot VIII

(22)	(23)	(24)
1. Nothing at all (p)	1. Flowers and leaves (g)	1. A Christmas tree (g)
2. An orange or pink butterfly (g)	2. An X-ray picture (hp)	2. A medical picture (hp)
3. Colored clouds (hp)	3. Two animals climbing (g)	3. Nothing at all (p)
4. Two bears climbing (g)	4. Nothing at all (p)	4. Frogs' heads (g)
5. Just colors (p)	5. Colored blobs (p)	5. Colored ink splashed on paper (p)

---

## Inkblot IX

(25)	(26)	(27)
1. Sea horses (g)	2. Nothing at all (p)	1. Lobsters (g)
2. Just spilt paint (p)	3. A pink jacket (g)	2. The inside of a person (hp)
3. Flowers (g)	3. Just colors (p)	3. Nothing at all (p)
4. Smoke and flames (hp)	4. Tropical plants (g)	4. Messy colors (p)
5. Nothing at all (p)	5. The stomach and intestines (hp)	5. Two Santa Clauses (g)

---

## Inkblot X

(28)	(29)	(30)
1. Two people (g)	1. A lot of colors (p)	1. A blue flower (g)
2. Spilt paint (hp)	2. A medical picture (hp)	2. Colored ink (hp)
3. A flower garden (g)	3. Undersea picture (g)	3. Just colors (p)
4. Colored ink spots (p)	4. Nothing at all (p)	4. Octopus and crabs (g)
5. Nothing at all (p)	5. Lots of animals running around (g)	5. Nothing at all (p)

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\*The letters following each answer did not appear on the actual test. The letters have the following meanings: g is a good response, p is a poor response, and hp is a half-poor response.

## Appendix C

Total Number of Responses Given by Secure and  
Insecure Subjects on Task I, Arranged by  
OSPE Decile Grouping

OSPE	Secure Group		Insecure Group	
	Non-Stress	Stress	Non-Stress	Stress
1-2	64	53	48	34
	96	90	54	55
	98	89	57	46
3-4	79	70	67	46
	67	46	64	54
	70	47	54	37
	76	60	48	41
5-6	67	56	56	38
	55	42	47	37
	129	43	77	47
	86	67	67	45
4-8	95	77	62	35
	96	78	53	36
	47	42	49	27
	82	54	46	31
	86	71	66	55
	91	60	41	34
9-10	49	47	64	46
	70	54	72	60
	48	46	38	21
	81	56	62	67

## Appendix D

Analysis of Variance of the Effect of  
OSPE Decile Grouping on Task I

## A. Secure Subjects on Non-Stress Task

Source	Sum of Squares	<u>df</u>	Variance Estimate	<u>F</u>	<u>P</u>
Between	16.10	4	4.02	.995	n.s. <sup>a</sup>
Within	64.51	16	4.04		
Total	80.61	20			

<sup>a</sup>Not significant.

## B. Secure Subjects on Stress Task

Source	Sum of Squares	<u>df</u>	Variance Estimate	<u>F</u>	<u>P</u>
Between	16.51	4	4.01	2.31	n.s.
Within	27.85	16	1.74		
Total	44.36	20			

## C. Insecure Subjects on Non-Stress Task

Source	Sum of Squares	<u>df</u>	Variance Estimate	<u>F</u>	<u>P</u>
Between	3.15	4	.79	.632	n.s.
Within	20.01	16	1.25		
Total	23.16	20			

## D. Insecure Subjects on Stress Task

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Source	Sum of Squares	<u>df</u>	Variance Estimate	<u>F</u>	<u>P</u>
Between	3.31	4	.825	.427	n.s.
Within	30.88	16	1.93		
Total	34.19	20			

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## Appendix E

Significance of Correlations Between Judges  
(df = 17)

## 1. Spontaneity Scale

## A. Insecure Subjects

Judges	<u>r</u>	<u>t</u>	<u>P</u>
1 and 2	.94	11.19	.001
1 and 3	.92	9.68	.001
2 and 3	.80	5.71	.001

## B. Secure Subjects

Judges	<u>r</u>	<u>t</u>	<u>P</u>
1 and 2	.72	4.64	.001
1 and 3	.64	3.44	.01
2 and 3	.93	10.33	.001

## 2. Tolerance Scale

## A. Insecure Subjects

Judges	<u>r</u>	<u>t</u>	<u>P</u>
1 and 2	.68	3.82	.01
1 and 3	.67	3.72	.01
2 and 3	.80	5.71	.001

## B. Secure Subjects

Judges	<u>r</u>	<u>t</u>	<u>P</u>
1 and 2	.57	2.86	.02
1 and 3	.91	9.10	.001
2 and 3	.63	3.35	.01

## 3. Variability Scale

## A. Insecure Subjects

Judges	<u>r</u>	<u>t</u>	<u>P</u>
1 and 2	.85	6.64	.001
1 and 3	.76	4.78	.001
2 and 3	.59	3.03	.01

## B. Secure Subjects

Judges	<u>r</u>	<u>t</u>	<u>P</u>
1 and 2	.72	4.64	.001
1 and 3	.49	2.33	.05
2 and 3	.61	3.18	.01

## Appendix F

## Judges' Ratings of Secure Subjects on Task II

Judge 1			Judge 2			Judge 3			Mean		
S	T	V <sup>a</sup>	S	T	V	S	T	V	S	T	V
4	2	2	2	6	2	6	1	2	4.00	3.00	2.00
3	4	6	2	1	5	4	3	3	3.00	2.67	4.67
7	8	7	6	4	7	7	7	8	6.67	6.33	7.33
1	3	6	6	1	6	5	1	8	4.00	1.67	6.67
7	2	8	8	1	6	8	1	7	7.67	1.33	7.00
8	9	9	9	8	9	9	8	9	8.67	8.33	9.00
6	5	4	6	6	4	7	3	3	6.33	4.67	3.67
8	9	7	8	8	6	8	8	7	8.00	8.33	6.67
7	8	9	7	7	8	4	8	5	6.00	7.67	7.33
7	8	8	6	7	6	7	7	7	6.67	7.33	7.00
3	8	8	2	8	7	2	7	2	2.33	7.67	5.67
6	1	1	7	3	3	8	3	4	7.00	2.33	2.67
7	4	6	8	7	8	7	2	5	7.33	4.33	6.33
4	3	2	4	6	7	4	3	8	4.00	4.00	5.67
5	9	9	7	8	8	8	8	9	6.67	8.33	8.67
4	6	5	1	2	2	1	3	4	2.00	3.67	3.67
7	2	3	6	6	1	5	1	2	6.00	3.00	2.00
8	5	4	8	3	5	8	2	3	8.00	3.33	4.00
6	5	6	5	4	5	6	4	5	5.67	4.33	5.33

<sup>a</sup>S = Spontaneity  
T = Tolerance  
V = Variability

## Appendix G

## Judges' Ratings of Insecure Subjects on Task II

Judge 1			Judge 2			Judge 3			Mean		
S	T	V	S	T	V	S	T	V	S	T	V
1	1	1	1	1	1	1	1	1	1.00	1.00	1.00
4	6	1	6	5	1	6	6	2	5.33	5.67	1.33
2	2	6	3	3	7	1	1	4	2.00	2.00	5.67
1	6	1	1	1	4	3	2	1	1.67	3.00	2.00
1	2	5	2	1	3	4	3	2	2.33	2.00	3.33
2	3	4	2	2	3	1	2	5	1.67	2.33	4.00
2	3	2	1	1	2	1	2	1	1.33	2.00	1.67
1	2	1	1	1	1	1	2	1	1.00	1.67	1.00
5	3	4	8	3	5	7	3	3	6.67	3.00	4.00
3	7	2	3	8	2	2	7	1	2.67	7.33	3.67
5	6	8	7	5	5	7	7	7	6.33	6.00	7.00
3	7	4	3	4	3	7	7	5	4.33	6.00	5.00
1	2	7	1	1	6	1	2	6	1.00	1.67	6.33
2	6	1	3	2	1	3	1	1	2.67	3.00	1.00
3	1	6	2	1	6	2	1	6	2.33	1.00	6.00
8	3	2	8	3	2	8	8	8	8.00	4.67	4.00
1	2	2	1	1	1	1	1	2	1.00	1.33	1.67
1	1	1	1	1	1	1	1	1	1.00	1.00	1.00
3	6	8	4	4	5	9	7	9	5.33	5.67	7.33

## Appendix H

Analysis of Variance of the Effect of  
OSPE Decile Grouping on Task II

## Secure Group

## A. Spontaneity

Source	Sum of Squares	<u>df</u>	Variance Estimate	<u>F</u>	<u>P</u>
Between	12.50	4	3.12	2.64	n.s. <sup>a</sup>
Within	16.51	14	1.18		
Total	29.01	18			

<sup>a</sup>Not significant.

## B. Tolerance

Source	Sum of Squares	<u>df</u>	Variance Estimate	<u>F</u>	<u>P</u>
Between	4.54	4	1.14	.233	n.s.
Within	68.44	14	4.89		
Total	72.98	18			

## C. Variability

Source	Sum of Squares	<u>df</u>	Variance Estimate	<u>F</u>	<u>P</u>
Between	3.81	4	.95	.108	n.s.
Within	122.83	14	8.77		
Total	126.64	18			

## Insecure Group

## A. Spontaneity

Source	Sum of Squares	<u>df</u>	Variance Estimate	<u>F</u>	<u>P</u>
Between	57.46	4	14.36	1.79	n.s.
Within	112.09	14	8.01		
Total	169.55	18			

## B. Tolerance

Source	Sum of Squares	<u>df</u>	Variance Estimate	<u>F</u>	<u>P</u>
Between	3.98	4	.99	.136	n.s.
Within	101.86	14	7.27		
Total	105.84	18			

## C. Variability

Source	Sum of Squares	<u>df</u>	Variance Estimate	<u>F</u>	<u>P</u>
Between	9.81	4	2.45	.459	n.s.
Within	74.67	14	5.33		
Total	84.48	18			