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Adaptive Regression, Humor and Suicide

Lisa Goldsmith

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1973

This manuscript has been read and accepted for the University Committee in Psychology as satisfying the dissertation requirement for the degree of Doctor of Philosophy.

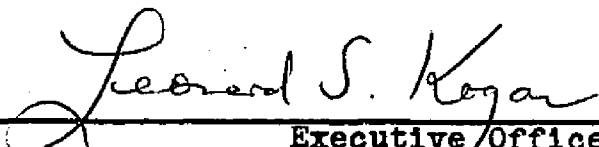
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INTRODUCTION

The dynamic explanations promulgated to account for suicidal behavior are impressive in their number and diversity. Rather than a discrete psychological entity, suicide seems to encompass a number of syndromes and therefore lends itself to diverse approaches. Perhaps a more refined way to describe suicidal behavior would be in terms of specific structural and adaptive functions that may characterize the suicidal individual beset with varying dynamic conflicts. The purpose of this study is to test theoretical deductions regarding the adaptive function of humor in suicidal people. Menninger (1938) made fleeting mention of, "the saving graces of wit and humor" in the battle of man against self destruction; however, he never developed this theme.

In Freud's work on melancholia (1917), it is suggested that suicide may be a culmination of the pathological relationship between an impoverished ego and a harsh, archaic superego. Throughout the literature, evidence of ego depletion and chronically immobilized ego functions often characterize the suicidal individual. Loss of perspective, a paucity of alternatives, and an overall cognitive rigidity have been used to describe this population. Specifically, one manifestation of the passive and weakened state of the ego that emerges under stress is pathological regression. This maladaptive regression is viewed as one of the major factors underlying serious suicidal behavior.

One form of regression in which the ego controls actively what would otherwise be experienced passively, is "Regression in the Service of the Ego (RISE) (Kris, 1952)." Through making appropriate shifts in levels of psychic functioning, adaptive regression permits the emergence of preconscious and unconscious material that staves off a constriction and impoverishment of ego functions. Not only can new situations and new tasks be mastered but the ego has an alternative to pathological regressive experiences involving large segments of the personality. Controlled regression can serve as a detour for adaptation.

One indication of the flexible and adaptive interchange between ego and superego is in the adaptive regression observed in humor. Whereas in melancholia regression abolishes the protective aspects of the superego, in humor the superego allows and even approves of the regression to the childish, primitive denial of reality as well as to the sublimated expression of impulses. The brief and episodic regression that is experienced without guilt gives the humorist the strength to face reality. As opposed to the route of suicidal behavior, humor can serve as a mediator affording the possibility of delay between impulse and action.

It is the central hypothesis of this study that in suicide the function of humor is impaired. The threat of this type of regression is marked because of the rigid superego and weak ego, and the oscillating aspect essential to humor is deficient. On the basis of this theoretical formulation, the study attempts to explore the capacity for adaptive regression comparing female in-patients of differing degrees of

suicidal lethality. In viewing humor as one index of ego flexibility, it is hypothesized that humor, as well as other RISE measures will bear an inverse relation to suicidal risk.

CHAPTER 1

Since Freud's classical paper, Mourning and Melancholia (1917), suicide has been discussed in terms of the vicissitudes of the aggressive impulse. More recently aspects of superego structure and the individual's overall adaptive style have been introduced as crucial dimensions. Even those theories which postulate factors unmentioned by Freud do not preclude the importance of the psychanalytic theory of suicide.

DISCUSSION OF RELEVANT THEORY

In Freud's analysis of melancholia (1917) a pathological relationship between ego and superego functions was conceptualized, the extreme form of which can eventuate in suicidal behavior. Freud first hypothesized the presence of a narcissistic choice of a love object in the melancholic. This is followed by a relationship which becomes undermined either by the loss of the object or by hurt, neglect, or disappointment at the hands of the object. This situation either imparts ambivalent feelings of love and hate toward the object or reinforces pre-existing ambivalent feelings. Normally, under these conditions of object loss or disappointment, the libido is withdrawn from the object and transferred to a new one. In cases of melancholia, however, the libido becomes withdrawn in the self rather than transferred to another object. A narcissistic identification with the abandoned

object is established, allowing the self to become the target of the aggression originally leveled at the loved one. In melancholia and in the extreme case, suicide, it is the unconscious sadism and hatred of the original love object which becomes turned back upon the self. Therefore, Freud posits three factors that underly the melancholias: a loss of an object, ambivalence directed toward the object, and a regression to identification with the lost object and a stage of oral sadism. Menninger (1938), like Freud, feels that suicide often represents the murder of the introject about which there are strong ambivalent feelings.

Freud gave a structural explanation for the process in melancholia:

"The loss of object became transformed into a loss of the ego and the conflict between the ego and the loved person (is) transformed into a cleavage between the criticizing faculty of the ego and the ego as altered by identification (1917, p. 252)."

The instinctual struggle, which involves a diffusion of the aggressive and libidinal drives eventuating in destructive action, has its structural counterpart. Proceeding from the oral-sadistic introjection, the struggle vis-a-vis the object continues on a narcissistic basis between the superego and the ego. In The Ego and the Id (1923) Freud clearly elucidated the structural conflict:

"The fear of death in melancholia only admits of one explanation: that the ego gives itself up because it feels itself hated and persecuted by the superego, instead of loved... it sees itself deserted by all forces of protection and lets itself die (pp.86-87)."

Suicide reenacts a situation which parallels the original separation from the protecting mother- the abandonment of the ego by the superego (Shneidman, 1967).

It is significant that descriptions of superego functioning do seem to parallel dynamic explanations of suicide. In Fenichel's (1945) overview, he stated that the psychic agency known as the superego was explicitly recognized through the study of severely depressed states: "The effectiveness of the superego becomes definitely evident only when it is at odds with the ego (p. 393)." Beall (1969) explicitly formulates suicidal behavior in the context of superego pathology: "... the punishment the superego exacts for the death wish against a parent or sibling is understandable in superego terms since the superego punishes the wish as well as the deed (p. 10)." Rado (1951) depicts the ego in the depressions, as well as during states of self-punishment as being totally preoccupied with its superego. Fenichel (1945) posits that the fantasy frequently underlying the suicidal act involves the illusion that forgiveness will ensue by killing the punishing superego and regaining union with the protective superego. In Schneer's et. al. (1961) study, the suicidal wish observed in adolescent patients went beyond the idea of destroying the hated introject to the stage of infantile omnipotence and fusion with the mother as the final solution. Lewin (1950) formalized these notions that suicide represents a fusion of the ego and superego. It follows that suicide cannot be solely attributed to underlying depressive factors but may also parallel the fusion of ego and superego observed

in manic states. Suicide may represent the active attempt at control through magic and omnipotence of the traumas passively endured in early childhood (Bollea and Mayer, 1968).

While the influence of the social-family network is not given direct focus here, the role of significant others in the suicidal individual's behavior is often pivotal. These interpersonal factors often determine the field conditions in which these ego and superego vicissitudes appear. Rosenbaum and Richman (1969) have specifically suggested that while death wishes are universal, the suicidal S may be selected as the family "scapegoat" for the expression of these impulses. The suicidal action of one may serve as expiation for all those involved. In addition, the exclusion of those theories of suicide that revolve around specific sociological (Durkheim, 1951), economic, religious, and developmental considerations, is not to denounce the significance of these crucial determinants.

THEORIES OF EGO DYSFUNCTION IN SUICIDE

The problem of suicide has recently been approached as a disorder not only of the superego but from the standpoint of ego dysfunction. Hartmann and Loewenstein (1962) suggest that the decisive factor in suicide seems to be in the pathology of the ego:

"... the ego's reduced capacity to neutralize aggression makes it impossible, or difficult, to set up those stable defenses on whose function the enforcement of superego depends (p. 75)."

There is a widening gap between the severity of the superego and the capacity of the ego to enforce superego demands.

Bibring, in his theory of depression (1953), extended Freud's notion that grief and depression involve an inhibition of the ego. Bibring studied the structure of depression as an ego state of helplessness. He states: "... the regression in depressions is not simply a regression of the libido to an oral fixation point, but primarily an ego regression to an ego state (1953, p. 760)." Appelbaum (1962) assesses the incapacity of the suicidal person to see alternative solutions in his life as an expression of this helplessness and powerlessness of the ego. He suggests that as a result of chronically immobilized ego functions the suicidal person is predisposed to a chronic doubt of his own efforts. These defects may arise through the inadequate development of ego structures which would normally control thoughts and action.

Grinker (1967) outlines the circle of events that eventuate in suicidal behavior, highlighting the disabling effects of ego dysfunction and regression. He postulates that, "... through a series of variable precipitating events the inner conflicts and unresolved problems or techniques of problem solving weaken a susceptible ego (1967, p. 68)." The "ego depletion" not only weakens cognitive and problem-solving functions but further narrows the ego's span of control, thus exposing the conflicts which initially contributed to the weakening of the ego. The reliance on stereotyped maneuvers and the blocking out of change or alternatives further aggravates the impoverished ego state. This cycle of events including ego-depletion, lack of self-esteem, regressed

behavior, felt hopelessness, and the concomitant exposure of severe intrapsychic conflicts, set the stage for suicide. In his overview of suicide research Grinker goes on to suggest that acts of suicide are not limited, nor identical dynamically, to depressive states. In conjunction with the physiological evidence, he concludes that even in the absence of depression the component free anxiety, if present in sufficient quantity, seems to be terminable only by suicide.

A general diminution of the ego's capacity to conceive of alternatives was crystallized in Farber's (1968) allusion to the "no exit" character of suicide. In his conception of the overall low sense of competence in this population, he states: "Suicide occurs when there appears to be no available path that will lead to a tolerable existence (1968, p. 17)." In Waltzer's (1968) paper on depersonalization and self-destructive propensities, he suggests that under the impact of affective stress, a state of splitting or fragmentation of the ego can emerge. In this depersonalized state, the defensive and controlling forces of the ego are not operating effectively. Waltzer views depersonalization not only as a defensive maneuver of the ego to ward off painful affect, but as a state that facilitates the expression of self-destructive impulses. The stressful-state is exacerbated by the individual's secondary panic in response to the experience of ego fragmentation. In line with this stereotyped adaptation pattern of the ego, Waltzer posits:

"Whenever depersonalization is present one can almost regularly uncover a history of previous suicidal ideation or behavior... there is a preoccupation with fears of losing control. During this altered state, drives toward total immobilization, inertia, the oceanic feeling of reunion with the mother, or toward escape from stress, may assume such overwhelming proportions that a suicidal act is carried out (1968, p. 400)."

He cites a loss of perceptual acuity and reactivity to dangerous stimuli, alterations in thinking, disturbed time sense, perceptual distortion, changes in meaning or significance, body image change, and feelings of hypersuggestibility, as added concomitants of this impoverished ego state.

RESEARCH ON EGO ORGANIZATION IN SUICIDAL INDIVIDUALS

Farberow, Shneidman and Leonard (1967) undertook an extensive continuing study of suicide in Los Angeles County. Data was gathered over a nine year period. A psychological test battery comprised of the Rorschach, the Thematic Apperception Test, the Make a Picture Story Test and the Minnesota Multiphasic Personality Inventory was administered to psychiatric patients who had attempted suicide, to those who had threatened suicide, and to those with no known suicidal tendencies. On the basis of the measures they tabulated a number of characteristics of ego dysfunction common to all types of suicidal behavior. General activity level was found to be high with evidence of a lack of differentiation between self and others. An inadequate control system and a subsequent dependence on external controls was characteristic, leaving the suicidal S incapable of modifying his own reactions flexibly. An overall cognitive and defensive rigidity

was also indicated, making it difficult to accept and discover alternative life solutions. Farberow (1967) describes these stages as analagous to a crisis state. There is chaos, cognitive disorganization and confusion, a rise in tension, further use of problem-solving techniques now verging on emergency procedures. In this crisis state, all possibilities become vague. There is a narrowing of focus, so an alternative other than death is no longer available. Eventually, what emerges is the dissolution of the boundary between fantasy and action and, as Kubie puts it, "between symbolic representation of an impulse and the active execution of it (1967, p. 82)."

Detailed clinical records of 217 cases of adolescent suicide were made by Bollea and Mayer (1968). They stress the specific disharmony in organization of thought, altered conceptualization of time, intellectual inhibition, and impoverished reasoning capacity found in their sample. Their Ss when faced with frustration, appear to react through the mechanism of "short circuit". Appelbaum and Holzman, in a Rorschach study of suicidal Ss (1962), found a significantly higher incidence in suicidal Ss of the use of shading in response to the colored ink blots as compared to a control group. The searching, highly differentiated quality of the color-shading response is assumed to reflect a heightened sensitivity to affect. This structural attribute appears conducive to an overestimation of difficulties, loss of perspective and an altered sense of time when under stress. The

authors state, "... the price of such near-sighted clarity may lead to a centration of feelings in the immediate present (1962, p. 157)." Yufit, et. al., (1970) developed a psychological technique for the assessment of suicidal potential based on time perspective; the Time Questionnaire. They compared clinical groups in which suicide intent or behavior was usually prominent with nonclinical comparison groups. The data was further analyzed as to the possible confounding aspects of age, diagnosis, psychomotor retardation and degree of depression. The questionnaire significantly differentiated the groups. The suicidal group was significantly lower in the degree and detail of elaboration of future time perspective. Although mean total scores on the questionnaire were significantly correlated with the Zung Self-Rating Depression Scale scores, severity of depression accounted for only 25% of the variance.

In the assessment of cognitive processes in suicidal samples, a good deal of research has repeatedly characterized suicidal thought and defensive control as rigid and inflexible. Rigidity is typically conceptualized as a defense against disorganizing internal experiences and is also attributed to the functioning of an excessively harsh superego (Beall, 1969). Neuringer (1964) supplied evidence to support the hypothesis that rigid thinking was a characteristic of suicidal individuals and not merely of all pathological groups. He administered the California F scale and the Rokeach Map Test to a suicide attempt group, a psychosomatic group and a group of hospitalized normal patients. High scores on the California F scale

characteristically reflect a tendency to think in terms of rigid categories. The Rokeach test was used to evaluate the ability to shift from a set pattern of responding to another problem-solving method. In comparison to the other two groups, the suicidal group earned significantly higher California F Scale scores and also shifted significantly fewer times on the Rokeach test. The data supported the hypothesis that the suicidal S is less resilient in overcoming set habits of responding and responds to stress and anxiety conditions with a heightened rigidity and inflexibility. In a similar sampling of clinical groups Neuringer (1967) studied dichotomous thinking on the Semantic Differential Scale. While the suicidal group was most extreme on dichotomous thinking, the normal patients were least extreme, and the other groups of emotionally disturbed Ss fell in between. Neuringer saw this characteristic of the suicidal S as an effort to simplify the world and reduce chaos, with the effect of a loss of alternative solutions and a propensity to experience situations as unresolvable.

Miller (1968), in a doctoral dissertation, administered a hero-commitment scale which tapped Ss' rigid, moralistic, perfectionistic standards for themselves. Suicidal Ss were more hero-committed than a group of murderers, who were more committed than a group of suicide prevention workers. On the Barron's ego strength scale, the suicidal Ss had significantly lower scores than the controls, with the murderers in between. On a scale to measure correlates of an authoritarian personality, again the suicidal Ss scored highest and

the controls lowest. Miller concluded that suicidal Ss showed the greatest rigidity, intolerance for ambiguity than either of the groups. It is unfortunate that the possible confounding effects of sex, length of institutionalization, degree of pathology and social class were not controlled. Vinoda (1966) administered a battery of tests to an all-female group of 50 suicide attempters, 50 psychiatric controls, and 50 normal controls in a general hospital. She matched Ss individually on variables such as age, education, occupation and marital status. One of the two measures where the suicide group differed from both control groups was on the Level of Aspiration-tapping test; namely, the measure of rigidity.

Only recently has the suicidal individual's overall cognitive and adaptive style been investigated. Again data seems to support the view that suicidal Ss are beset with the rigidity and inflexibility that leads to a sense of personal entrapment, and inaccessibility to their own inner life and complexity. Voth, et. al., (1969) studied the relationship of autokinesis to suicide and suicide attempts in 31 hospitalized psychiatric patients over a 30 year period. Findings showed a relationship between ego-distance, as measured by autokinetic movement, and relative safety from suicide. As a group those who only attempted suicide were more ego distant than those who committed suicide. The terms "ego closeness- ego distance" describe a continuum of personality organization. Voth defines the 'ego close' end of the continuum as referring to relatively unwavering investment of attention and responsiveness in the external stimulus field. The 'ego-distant' end is

characterized by a greater capacity to detach attention from external circumstances, less dependence on external stimuli, greater accessibility to subjective experience, all culminating in a more crystallized, autonomous position of self. The ability to experience autokinesis was considered a means to ascertain the Ss capacity to transcend immediate reality circumstances, and was found deficient in suicidal groups. These results are reminiscent of the descriptions of suicidal people as entrapped in a rigid field of experience, unable to find a better solution for themselves. On the basis of a 239-item inventory assessing internal versus external control styles, Williams and Nickels (1969) compared suicide and control groups. Externally oriented Ss who typically see reinforcements in life as contingent on forces out of their control and independent of their behavior, were significantly higher on suicide potentiality scales.

PERTINENT METHODOLOGICAL PROBLEMS IN SUICIDE RESEARCH

Rather than offering a critique of each study previously cited, critical methodological difficulties seem to permeate the majority of research in this area. The predominant experimental design that is used is the administration of various tests to patients after their attempts at self-destruction. Results are then compared with those of other groups of Ss - "normals", non-suicidal psychiatric patients, psychiatric patients threatening suicide, murderers, etc.

On the basis of a battery of tests administered to 96 male psychiatric patients, Farberow (1950) compared the overall

performance of an experimental group with a matched group of non-suicidal Ss. The suicidal group was subdivided into groups of patients who actually made suicide attempts and those who had not done so but were threatening to kill themselves. The experimental group was further classified as to the seriousness of the attempts or threats. In general it was found that the Threat group was more seriously disturbed than either the Attempt group or the Control group. As a group those who threatened suicide showed as their predominant features hostility, agitation, and poor contact with reality. Those Ss who attempted suicide appeared less guilty, less hostile, less agitated, and showed practically no differences from the average mental hospital patient in the measures used. Such data lead Farberow to conclude that "the accomplishment of an act intended as a means of destroying oneself acts in an abreactive apparently therapeutic manner upon the seriousness of the disturbance of the personality (1950, p. 76)." These results serve to caution the investigator against interpreting data obtained from an S following an attempt as representative of his psychological state prior to the action. This warning can be applied to most of the studies previously discussed. It is a dilemma intrinsic to the whole study of suicide--most of the data is after the fact.

Another methodological dilemma, difficult to circumvent, lies in the assessment of completed suicides. As Lester (1970) suggests, and as Stengel (1964) originally noted, the use of behaviors such as suicide attempts or threats, not only gets the data after the fact but assumes a continuity underlying

all suicidal behaviors. In response to this Lester challenges the assumption that completed and attempted suicides constitute different, yet overlapping populations. He states that not only does this tenet impede and almost paralyze research but that there is evidence to support the notion of a continuum of suicidal behaviors which can be ordered on a dimension of lethality or seriousness. Data is cited which shows that the characteristics of groups having different degrees of lethality correlate with degree of lethality. Whether one is willing to generalize results from groups showing different degrees of suicidal behavior is still a controversial issue. Implied in this argument is the added difficulty of the definition of groups, even if one is willing to accept the dimension of lethality or seriousness. There is no agreed criterion and it is difficult to generalize from study to study because of arbitrary groupings. The potential confounding effects of sex, institutionalization, degree of pathology, results of therapeutic intervention, possible tissue and brain damage from the attempts, just to mention a few, are uncontrolled in the majority of studies. Studies which attempt to specifically assess psychoanalytic hypotheses are also noteworthy by their omission in the literature.

THE PATHOLOGICAL REGRESSION IN SUICIDE

Inasmuch as the psychoanalytic position holds that suicide reflects a low level of integration between ego and superego, aspects of both pathologies have been discussed. A decisive outcome of this faulty integration, and a route through which

the effects of both elements converge, is in regression. Referring again to Freud's (1917) original statement, the disposition for the development of melancholia consists in a decisive oral fixation which sets the stage for the anomalies of development found in the self-destructive personality. As Freud suggested, narcissistic love of another is acutely vulnerable to disorganization and regression.

While fixation and regression are motivated by anxiety, and while their immediate function is to relieve anxiety, they may become the sources of further conflict and anxiety (Sappenfield, 1954). The regressive process itself can sharpen conflicts. Specifically, the pathological regression in melancholia involves, "a backward movement of the ego, which affords an aggressive superego more energy with the reactivation of oral sadistic tendencies (Glover, 1928, p. 89)." Through the regression, old economic conditions and archaic situations are restored. Glover (1928) posits that if the regression is of sufficient depth to produce a confusion between the ego and the external world of objects, the possibility of suicide is present. Fenichel (1945) also suggests that the inordinate sadism in suicide, inherent in the oral-instinctual orientation, is remobilized by the regressive process. He places the conflict in the context of superego-ego discord: "The ego has reckoned incorrectly in trying to appease the superego in the regression...the superego has become inordinately cruel and has lost the ability to forgive (1945, p. 400)." There is a vicious cycle involving both the reemergence of archaic impulses with their associated anxieties, and a further breakdown

in ego control.

In trying to delineate the circumstances favoring the pathological regression in suicide Glover (1928) emphasizes the disorganization of ego functions. He points to the suicidal danger inherent in the regression to a state of psychic confusion where the capacity to distinguish between one's own ego and the world is weakened. Geleerd (1956) regards self-destructive tendencies as partial regressions to the undifferentiated phase of the early mother-child relationship. Mahler (1963) in her formulation of the separation-individuation phase of development, associates aspects of self-directed aggression with the symbiotic phase. For example, when the symbiotic children got angry, they frequently manifested self-directed aggression. Litman and Tabachnick (1968) also make special mention of the association between suicide and a failure in development of important ego functions acquired during the separation-individuation stage. In Silverman's assessment of the categories of regressive thinking he highlights the fusion between self and object suggesting that, "the capacity of the ego to direct its functions seems to be lost (1967, p. 387)."

The most critical consequence of this pathological regression is when the capacity to use ideational and more adaptive means of expression and gratification are finally relinquished to action. Tension tolerance and appropriate reality judgment give way to primitive reaction impulses. Futterman (1961) concludes that the necessary secondary process control and the mature, less narcissistic ego that is needed for delay, is not present in suicide. The question

that now emerges is, given the dire circumstances the suicidal person is beset with, what more adaptive means of gratification could intervene and preclude action. To distinguish the forms of regression that lead to action from those that lead to adaption seems of particular relevance. Attention will thus focus on an exploration of those particular contingencies that determine emotional safety valves of a flexible and adaptive nature from those that eventuate in irreversible dissolution of the ego.

ADAPTIVE VERSUS PATHOLOGICAL REGRESSION

Fenichel (1945) concluded that the ego is essentially passive in regression; the very reliance on regression as a defense bespeaks a weakness in ego organization. Throughout the literature regressive behavior is typically presented as the "antithesis of conduct adapted to reality (Hartmann, 1964, p. 13)." However, in an attempt to account for creative processes and humor, Kris (1952) introduced the concept of "Regression in the Service of the Ego" (RISE) into psychoanalytic ego psychology. Kris' concept heralded the notion that the regressive process itself can be in the service of adaptation and enrichment of the ego. He makes a significant distinction between an ego overwhelmed by regression and RISE. In RISE Kris ascribes the control of regression to the ego, in terms of shifts of cathexis of certain psychic systems. This idea is rooted in Freud's explanation of wit (1905) according to which a preconscious thought "is entrusted for a moment to unconscious elaboration". Adaptive regression increases access to drive derivatives and primary process levels. Unlike

pathological regression, in the adaptive form access is gained without primitivization of major ego functions, disruptive anxiety and guilt. Bellak (1958) formulates RISE as, "a brief, oscillating, relative reduction of certain adaptive functions of the ego in the service of the synthetic ego functions (p. 367)."

What seems to emerge in these various formulations of the process in RISE is the implied sovereignty of the ego. It is primarily an active process of taking "intellectual liberties", which differentiates it from the terrifying, passive process of being overwhelmed by affect and tension. RISE permits the reordering of new configurations and creative products which prevents a sterile constriction of the ego. It also aids in the mastering of past traumas. Following Freud, not only does the creation release damned-up instinctual demands, but the control of the ego over the discharge of energy is pleasureable in itself.

The theoretical richness of the concept of RISE is not exclusively in the domain of energy dynamics but also has implications for the study of psychic structure. Rapaport (1967) introduces the concepts of activity and passivity to delineate the degree of control of structure over drive. Activity and passivity are "parameters" of the relative autonomy of the ego. He defines the model of activity as: "a state of ego control of drive demand both in its defensive aspect of making drive tension tolerable and in its executive aspect of discharging drive tensions, through detour activity via ego apparatuses (1967, p. 541)." In a state of activity the ego has control over drive, affect and the discharge of drive

action. Passivity is defined as helplessness in the face of drive demands. Passivity may ostensibly appear active, as when drive demand is acted on. However, this type of action occurs without the consent of the ego and superego, and virtually contradicts the tendencies of the ego. Behavior that emerges in a passive ego state occurs, "not by cooperation but by the paralysis or by the overrunning of ego control (Rapaport, 1967, p. 555)." In turn, behavior which is ostensibly passive may be under the auspices of an 'active' ego. The ego's control may take the form of delaying drive discharge, of inducing experimental action in thought, or of allowing a temporary loss and regression of control in the service of adaptation. Rapaport's structural model seems particularly apt in distinguishing the state of the ego in RISE from the state of pathological regression observed in suicide. Even though suicidal action may simulate an active attempt for gratification and discharge, the behavior seems to manifest Rapaport's passive ego state. Further, the semblance of passivity in RISE is intrinsically a manifestation of the 'active' ego. Although the affective experience of RISE may be one of passive receptiveness, the process falls under the domain of the integrative functions of the ego. Hartmann (1964) also conceptualizes resistance to pathological regression in terms of the degree of autonomy of the ego, or what he calls "ego strength".

By conceptualizing RISE as a psychic structure, it is possible to assess the overall modes of expression and control of primary process material which underlie diverse

dynamics. Schafer (1958) describes RISE as a psychic structure with "a tool or means character", that is not contingent on each new occasion of stimulation. He says, "current internal or external pressures ordinarily merely trigger off the action of these structures (1958, p. 120)." Pine and Holt (1960) in their study of creativity and adaptive regression, also suggest that modes of dealing with primary process can become generalized as broad cognitive controls reflected in many areas of thinking.

HUMOR AS A MANIFESTATION OF RISE

Of all the forms of RISE that Kris mentioned, humor has been chosen for intensive study in this research. What does humor uniquely offer in an understanding of the regressive processes that eventuate in suicide? Freud (1950) and later Kris (1952) emphasized that the regression in humor occurs in the service of the ego. Humor is viewed as a mediator and vehicle through which regression is used adaptively, presenting alternatives to action and rigid suppression. That humor can function as an emotional safety-valve, presupposes a flexible and adaptive interchange between ego and superego (Redlich and Levine, 1955). Those same features that have been delineated as crucial dimensions in suicide, namely, regressive modes and the interaction between ego and superego, are precisely those involved in the humorous process.

Grotjahn (1958) suggests an underlying similarity between the humorist and melancholic, insofar as they both accept the fact that the good mother has deserted them. However, the

humorist, "does not spend his life in mourning about the milk that was spilled... he does something about it... he resolutely takes over the role of the good mother and plays it to the hilt (Grotjahn, 1958, p. 55)." A. Reich (1949) writes that in both comedy and melancholia there is marked tension between ego and superego. In both instances there is some attempt to deny and prevent the pain of loss and abandonment through regressive means. Yet, in comedy there is an active conquering of the cruel superego because the ego controls the regression. Again, psychoanalytic theory and ego psychology have been selected as the theoretical base for this analysis.

Freud (1928) made a pioneering effort to identify humor as "one of the highest psychic functions devised by man to evade the compulsion to suffer". Both the production and appreciation of humor signify a regression to and triumph of narcissism and the pleasure principle over an array of stressful life situations. His chief example of the "elevating" quality of humor interestingly had to do with reaction to one's imminent death. In "gallows humor" the protagonist does not decompensate under pressure but instead responds with humor to his inescapable circumstances. When Freud speaks of the "economy of expenditure" that underscores humor, he refers to both the release of hitherto pent-up instinctual drives through "wit work" and a release of the energy holding these drives in check. In defining humor as an "invitation to common aggression and regression", Freud (1928) highlighted the two-fold functions of humor. Not only is psychic energy freed from a saving of expenditure, but pleasure is attained from the regression and

acceptance of infantile modes of thought.

To Freud's idea of the economic and genetic conditions in the comic, Kris (1952) added the fact that most comic phenomenon seems bound up with past conflicts of the ego. The whole process by which mastery was attained is repeated within the humorous mechanism itself: "the flexible controls of the ego signify past victory over anxiety and fear (Kris, 1952, p. 211)." The transformation of some passively endured oral helplessness into active mastery of a situation, typifies the "restitutive" feature of all creative processes. The ego that accomplishes humor cannot be the "passive ego" overwhelmed by tension that Rapaport referred to, but exemplifies an ego that regulates and uses for its own end the regression to primary process modes. As Schafer (1958) outlined in his structural analysis of RISE, the development of a humorous attitude may eventually reflect a permanent transformation of the ego. Kris (1952) also distinguishes the transitory gains in comic wit and mania, from the more lasting achievements attained by the humorist.

When Freud formulated his final pronouncements on humor he left some thorny theoretical dilemmas as part of his legacy. In his 1928 paper, Humour, he suggested that the ego adopts the point of view of the superego and from this more exalted position can look down on the ego's anxieties and embarrassments with a lofty detachment. The role of the superego vis-a-vis the ego becomes the kindly one of the good parent, allowing the ego some respite from guilt and conflict and even approving of the regression to a childish and primitive reevaluation of

reality. Freud assumed that in this process a large-scale displacement of cathexis from the ego to the superego takes place. The mobility of cathexis between ego and superego could explain the loving, tolerant and libidinal qualities of the superego. There is a reactivation of the joyful narcissistic state during which the superego treats the ego with love. In his departure from the uniform emphasis of the superego's punitive and hostile interaction with the ego, Freud commented: "We have still very much to learn about the nature of the superego (1928, p. 220)." In Schafer's (1960) assessment, the comforting, non-prohibiting aspects of the superego remained one of Freud's theoretical embarrassments.

Psychoanalytic theorists have consistently emphasized the role of the interaction between the superego and the ego in humor. Reik (1948) defined humor as an "act of mercy of the superego." Kris (1952) explicitly stated that, "humor can be completely expressed in one person: the play can be acted between ego and superego (p. 214)." Through the structural properties of the comic disguise, the objections of the superego can be bypassed and the claims of the instinctual life satisfied. Humor serves as a leave of absence from the superego and reality. A. Reich (1949), Dooley (1934), Flugel (1954) and Bergler (1937) also viewed humor as a compromise between these two structures. Bergler (1937) however, focused on an added dimension. He said, "One should never forget that the humor of the superego is always somewhat ambiguous... the same superego which jokes with the ego causes it the greatest suffering at the same time (1937, p. 40)." In humor, the ego is

not only the object of comfort, but also of "mockery". Bergler posits that laughter becomes a defensive weapon of the ego to attack the superego, "in reply to the constant avalanche of reproaches emanating from the conscience (1956, p. viii)." Humor may be directed against archaic elements of the superego and serve as one of the few methods of outdistancing the masochistic status of the ego. Dooley (1941) conceptualizes that the personality is really active in three parts when producing humor: the superego, the suffering part of the ego, and the liberated parts of the ego. In the interaction between ego and superego,

"...the child is treated with tenderness even though punished and is allowed play and even a disguised aggression against the superego... since the primary narcissistic needs are two, to be allowed aggression and to be loved, humor does indeed provide a triumph of narcissism (Dooley, 1941, p.44)."

One sign of theoretical rapprochement between the holders of diverse views on the role of the superego in humor, emerged in the work of Kramer (1958) and Schafer (1960). Kramer noted that the superego contains both loving and hostile aspects, together with an ego-ideal. The benign or loving superego is formed under the influence of comforting parents and is endowed with object-libidinal energies rather than an overabundance of hostility. Relief from guilt and depression and a substitution of activity for passivity, contribute to and derive from the loving aspects of the superego. In its hostile aspect, the superego is ever alert, uncompromising, harshly critical, punitive and distant from the ego (Schafer, 1960). Its opposition to the rest of the ego is felt as a sense of guilt which may

culminate behaviorally in self-destructive behavior. Schafer further suggests that variations in the disposition of libido in the superego give rise to a range of feelings and actions, extending from feelings of self depreciation and abandonment to those manifest in humor. Humor is based on a steady and free availability of libido in the superego and typically reflects optimal distance from inner conflicts. Kramer (1958) alleged that one of the symptoms which accompany an "atrophy" of the positive benign superego is a lack of sense of humor. He goes on to postulate that a developmental lack of the benign superego has consequences for the functioning of the total ego organization. Because of a lack of direction and support from integrated governing standards, the danger of instinctual breakthrough may be a constant source of tension (Kramer, 1958). To deal with these dangers, rigid and sometimes frantic restrictions may be imposed. (It will be recalled that cognitive and defensive rigidity was introduced in the literature as a distinctive feature of the suicidal S.) If these maneuvers fail, a pathological regression may ensue, the final outcome of which may be ego dissolution.

With these developments in the theory of superego functioning, Freud's original notions can be refined. Freud initially spoke of the shifting of cathexis and the benevolent attitude of the superego to the ego in humor. It can now be postulated that these shifts in cathexis, with the subsequent feelings of elation and relief, are due to a withdrawal of cathexis from the ego-ideal or punitive superego to the benign superego. In both humor and melancholia there is a displacement

of emphasis from the ego to the superego. The difference is that in humor the overcathected superego is benign and protective, while in melancholia there is a developmental lack of the benign component and the punitive, harsh superego is cathected. Following Rapaport's (1967) model, when these cathexes have undergone little neutralization and are not under the aegis of the ego, interstructural tension will ensue. The tensions will affect the ego's observing, judging, and action apparatuses. Rapaport cites self-destructive behavior as the example par excellence of how the shifting of cathexis can effect a cruel suppression of the ego by the superego.

In summary, regression and interactions between ego and superego are features manifest in both humor and suicide. However, a delineation of the differences clarify how conflict may be handled adaptively, rather than passively discharged in action. The adaptive regression in humor permits the expression of otherwise prohibited regressive, infantile libidinal and aggressive drives. It averts the pathological acting-out of inappropriate regressive behavior (Levine, 1961). The energy serving the adaptive regression is a sublimated energy, discharged through functions of the sensory and mental apparatus. Grotjahn states: "the comic liberates energy from an intended motor outlet (1958, p. 257)." Laughter and humor has been conceptualized as a controlled expression of the aggression that could otherwise be expressed in homicidal and suicidal behavior. The regression in humor may virtually forestall pathological regression, restore some internal equilibrium, preserve the sovereignty of the ego, and simultaneously gratify

wishes against the superego. The regression in suicide, rooted in an incorporation of objects, abolishes the protective aspects of the superego. In A. Reich's words (1949), where in the comic sublimation, "the ego is great and powerful", in melancholia the ego succumbs to a "cannibalistic phantasy". The capacity to approach one's conflicts with a sense of humor encourages the 'lofty' perspective and appreciation of alternatives that might preclude a suicidal resolution.

CONDITIONS FAVORING RISE AND HUMOR

Schafer (1958) delineates a set of overlapping factors that are crucial precursors of RISE. To begin with, the presence of a well-developed set of affect signals will make it safe to regress. These signals can trigger a search for defensive disguises (e.g., humor), when the regression process threatens to get out of hand. A secure sense of self can forestall the threat of loss of boundaries that may be aggravated by the regressive process. A relative mastery of early traumata insures that crises have not been sealed or split off from the total personality. In line with this mastery goes a history of adequate trust in interpersonal relationships. This trust develops from the early mother-child relationship which supports the feeling that what is produced will be acknowledged and encouraged. (It will be recalled that Geleerd's (1956) model of the self-destructive personality was rooted in the conflictual early mother-infant relationship). Of particular relevance in Schafer's delineation is

the factor of the "moderateness of superego pressure". This 'moderateness' insures the flexibility of defenses and controls that is required for RISE. That these precursors for RISE are significantly impoverished in the suicidal S, has already been alluded to in the research. Schafer notes that a relative incapacity for adaptive regression has been found to occur where there is the least tolerance for and most rigid defense against conscious fantasy and feeling.

Schafer (1958) also delineated the major conditions that hamper comic RISE. He suggests that the impoverishment of RISE centers chiefly around the unconscious significance of the regressive process itself. Regression may have such unconscious meanings as passivity, sinful and defiant transgression and magically potent destructiveness. The dangers of RISE are the reduction of the ego's relative autonomy from the id, disturbances of the balance between active and passive ego functions, and the ego's increased vulnerability to superego condemnation. Bush (1969) more recently stated that an excessive fear of the primitive in oneself and of the symbolic meanings of the creative act are a primary source of constriction and inhibition in total ego functioning.

Kris (1952) originally formulated that persons to whom the comic is unknown are afraid of RISE because of a lack of strength in the ego. If the dominating power of the ego is established, "regression to comic pleasure has lost its threatening aspect (Kris, 1952, p. 203)." Goldberger (1961) formulated a model of a continuum of the ego's use of primary process elements. High ranks go to S_a who manifest a

controlled, modulated use of primary process in the service of the ego. Near the middle are the constricted Ss who produce little primary material. At the bottom go the uncontrolled Ss who cannot prevent primary material from breaking through, necessitating the mobilization of pathological defenses. It is the ego's control over drive expression in humor that differentiates it from the pathologically regressed condition where magical functions displace aesthetic functions.

Sappenfield (1954) believed that flexible and controlled fantasies are necessary for the development of a sense of humor. In turn, this creative regression is contingent on a degree of ego strength that can mediate a flexible interchange between ego and superego. Redlich and Levine (1955) have expanded the ideas of Kris and defined the humorless S as having, "too punitive a superego to permit even a momentary relaxation of defense and RISE (p. 570)." The writers place the melancholic, beset with an overly severe and unrelenting superego, in this category of the humorless S.

Armed with these more sophisticated formulations, it seems to follow that the adaptive device of humor may be significantly impoverished in suicidal people. As opposed to the whole subclass of depressive conditions, the seriously suicidal S may be beset with a depth of inflexibility that precludes recourse other than a 'humorless' regression to primitive action.

RELEVANT RESEARCH ON RISE AND HUMOR

CORRELATES OF ADAPTIVE REGRESSION

Pine and Holt (1960) attempted an empirical study of Kris' concept of RISE by using operationally defined scores and quantitative techniques. They assessed the degree to which characteristic modes and expression of primary process on the Rorschach were related to the quality of productions created in a variety of experimental tasks. It was assumed that the amount of expression and effectiveness of control of primary process constituted an operational measure of RISE. Using a sample of undergraduates, it was found that Ss who produced a good deal of primary process material on the Rorschach with consistently good control gave the highest quality productions on the tests of imagination (one of them being a Humor Captions Test). Rather than gross amounts of drive expression per se, it was control over available drive material that was related to the quality of creative products. The E's differentiate the capacity to divert energies into constructive ego activity (e.g., creativity and humor), from the discharge of energies in the direct pursuit of libidinal and aggressive goals.

Cohen (1961) also used the Rorschach as a measuring instrument of adaptive regression. The degree to which perceptual accuracy was maintained during the production of primary process material was found to differentiate a group of art students judged to be "creative" from another group with the same training. Derman (1968) compared college

students and ambulatory schizophrenics on the basis of Holt's measure of adaptive regression on the Rorschach. Each S was also administered a Bell Adjustment Inventory. The overall measure of adaptive regression was found to differentiate the "normal" from the pathological group. Derman went on to suggest that the concept of RISE may actually serve as a diagnostic and prognostic index of adjustment.

Gamble and Keller (1968) utilized the Stroop Color-Word Test to assess the capacity to use lower-level cognitive functions in an integrated and functional manner. On the basis of the Remote Associates Test, a group of high-creative and low-creative Ss were used for the comparison. The significant differences on the Stroop test indicated that the creative Ss were less organized at the level of primary process and more able to integrate this material with secondary process control. The high creative group was also found to display more homogeneous performances on a variety of other cognitive tasks. The Es discussed their findings within the framework of an overall cognitive approach:

"Creative functioning is enhanced by the kind of cognitive organization which permits the availability of a greater variety of response possibilities in any problem situation (1968, p.270)."

Wild's (1965) study on creative art students revealed that they were able to shift more easily into primitive and unregulated modes of thinking when compared to a group of teachers and schizophrenics. Shift scores consisted of the difference between a S's score on the Word Association and Object Sorting Test given under regulated and unregulated

conditions. Wild interpreted these results as providing systematic evidence on the concept of RISE, which postulates shifts from more to less regulated thinking in the creative process. The creative Sg also showed more favorable reactions to the shifting than did the other two groups, implying some distance and freedom from the anxiety and guilt that such loose thinking could arouse.

Fitzgerald (1966) submitted a modified version of RISE to empirical test. In his attempt to assess the more structural aspects of RISE, Fitzgerald used Schachtel's concept of "openness to experience (OTE)". "OTE" was defined as a loosening of fixed anticipations and sets so that one can approach the objects of his experience in different ways. Measures of OTE were obtained by means of a paper and pencil test consisting of 32 items; the Experience Inquiry. A cluster analysis of the inquiry yielded 3 clusters: an openness to inner experience and altered states of consciousness, a desire for a closed, orderly, predictable environment, and an intolerance for unusual experiences. On the basis of anxiety, repression and ego strength scales of the MMPI, and the ability to shift from more to less regulated thinking on the Word Association and Object Sorting Test, significant correlations were found with the OTE measure. Namely, originality, the ability to shift with facility, and the disposition to greet novel and unusual experiences without undue anxiety and regression were found to characterize Sg 'open to experience'.

Feirstein (1967) also tried to empirically broaden the concept of RISE to encompass a predictable style of behavior

which determines responses in a wide variety of situations. He introduced the term "Tolerance for Unrealistic Situations (TUE)" as descriptive of the individual's capacity to perceive in ways which contradict usual modes of perception. He hypothesized that the capacity to engage in large amounts of well-integrated unrealistic thinking would have its perceptual correlate in high TUE. A corollary was that individual differences in TUE would also relate to differences in the overall handling of drives. The Holt scoring system of the Rorschach, a word association and art preference test were used to measure the amount and integration of unrealistic thought. The perceptual measures of TUE did significantly correlate with the capacity to engage in these modes of thought. Feirstein relates these results to the psychoanalytic position on adaptive regression and to the concept of rigidity. The high TUE S evidenced the capacity to resist overdependence on usual experiences and to integrate primitive, drive-related, nonlogical modes of thinking with more reality-oriented, logical thoughts. The low TUE S had to maintain simple, rigid, orderly modes of responding because of the propensity to become easily confused and disorganized. It appears that these observations of a consistent, perceptual correlate to the ideational handling of drive conflict, expands and enriches Pine and Holt's earlier observations. It can also be noted that the wide range of rigid behaviors observed in the low TUE S, are remarkably consistent with the data on the rigidity of the seriously suicidal individual.

HUMOR AND ITS RELATION TO CREATIVITY

The close relationship between humor and creativity is founded in the analytic conception that adaptive regression is a fundamental condition in humor. Empirical support is also indicated. Shapiro (1968) found that highly creative scientists expressed more humor in fantasy than less creative scientists. Humor was operationalized as scores on the Impossible Situations Test and was found to differentiate the 2 groups. A study on wit, creativity and sarcasm was conducted by Smith and White (1965). They tested the hypothesis that wit and creativity were positively related. A group of 156 Air Force personnel was divided into small groups for problem solving. The Ss were rated as to frequency of witticisms expressed. The measure of creativity was a word association test. Humor and creativity were positively correlated. The witty Ss were also associated with less defensiveness and more productive group problem solving.

Wilson (1968) administered tests of humor and creativity to 8th grade school children. Not only were humor scores positively correlated with creativity but there was a significant direct relationship between peers and teachers ratings of Ss on perceived sense of humor and creativity. Wilson suggested that sense of humor can serve as an indicator phenomenon providing an index of creativity. Treadwell ran a pilot study (1970) of a Cartoon Test on 83 undergraduates. The test required the creation of humorous captions. Scores on a battery of creativity measures showed

a pattern of significant positive correlations with the Cartoon Test scores. Humor appreciation also correlated with the cartoon scores.

THE CATHARTIC EFFECT OF HUMOR

Various writers have been interested in the tension-reducing possibilities of humor. To review, psychoanalytic theory has posited that humor provides an indirect outlet for the expression of drives. This outlet helps to reduce both the underlying urge and the need for mental energy to block the entry of the impulse into consciousness and overt behavior.

Singer (1968) set to empirical test the inferred cathartic effect of humor on the strength of the aggressive drive. Black Ss first heard either a recording which mobilized aggressive impulses toward segregationists or a control recording. Following this they heard black performers deliver hostile antisegregationist humor, neutral humor or a benign speech. Singer found that the experimental arousal of anger evoked marked anxiety and aggression in his Ss, as measured by a mood checklist. These aroused Ss revealed a significant drop in both aggressive feelings and anxiety following exposure to aggressive humor. Singer concluded that these findings support the view that under appropriate conditions symbolic processes, such as fantasy and the humor response, can serve as mediators and channels of catharses without in any way altering external reality.

Landy and Mettee (1969) studied the evaluation of an

aggressor as a function of exposure to cartoon humor. Pairs of female Sg were exposed to 2 phases of the experiment. In the initial phase, Sg were either aggressed against, through insult techniques, or exposed to aggression. In the second, plausible grounds were created for having the Ss evaluate the aggressor on a liking scale. This evaluation was made either after rating the humorousness of a set of cartoons, after rating a set of photographs, or before rating the cartoons. Control Ss, exposed to a neutral E, evaluated him after rating the cartoons. It was found that the humor condition was significantly more effective in reducing the degree to which the aggressor was disliked. On the basis of the design, the Es concluded that it was the humor per se which accounted for the reduction in hostility and not merely the passage of time or the involvement in a distracting task. They base their findings on the model of "humor mediated catharsis" as well as the incompatibility of aggressive and humorous responsivity.

Byrne (1956) categorized a group of neuropsychiatric patients as to the degree of expressing hostility overtly, covertly or not at all. The three groups of Ss were asked to judge the funniness and degree of hostility in 32 cartoons. Byrne was ready to discount Freudian theory because Ss judged to be hostile appreciated hostile wit more than did non-hostile Ss. He states that the theory would have predicted reversed findings because supposedly the release of inhibition through wit indicates the strength of repressed drives. However, this seems to be a somewhat concrete interpretation of analytic theory. The most quoted position concerning

repression involves the rejection and exclusion of an idea from consciousness and has little, if anything to say about overt behavior. Psychoanalytic theory does not predict a lack of overt hostility merely because an S represses such an impulse. In addition, no assessment was made of the overall adjustment of the Ss, nor of the quality and control of hostile expression.

In response to these supposedly equivocal findings on the "relief" function of humor, Shurcliff (1968) used anxiety as the affect aroused and introduced a humor stimulus that would be directly related to the source of anxiety. Three groups of college students were exposed to three different levels of arousal by informing them of tasks they would be required to do, entailing handling or extracting blood from a rat. At the start of the task the rat was discovered to be a toy, after which questionnaires were administered asking Ss to rate humor, anxiety and surprisingness. The prediction was that if humor is a direct function of a reduction of strong affect or arousal, then the greater the arousal prior to relief, the greater should be the judged humor. Humor ratings showed a significant positive trend with both anxiety and surprisingness. Shurcliff concluded that for the range of anxiety studied, the relation between humor ratings and anxiety was monotonic. Koppel (1970) also applied the cathartic model of humor to the reduction of anxiety. To test this, anxiety was induced by viewing a heart surgery or puberty rite movie. Ss then participated in one of three tasks; humor appreciation, humor creation or a neutral task.

As measured on the Multiple Affect Adjective Check List, the two humor tasks reduced anxiety significantly more than did the neutral task. Creation was not consistently more effective than appreciation for the films.

PERSONALITY CORRELATES OF HUMOR

Levine (1969) suggested that personality variables and other adaptive features of the individual are important determinants of humor. Kris (1952) in his conception of humor also stated that certain aspects of personality, namely ego strength, are required for regression to occur in the service of the ego.

Redlich, Levine and Sohler (1951) tried to investigate systematically the relationship between humor and personality. On the basis of Freud's theory that humor is a pleasurable release of inhibited wishes, they derived the following operational hypotheses. When indifference is displayed to an ostensibly humorous stimuli it suggests that either no conflictual needs are stimulated, that the needs are so deeply repressed that affective participation is not possible, or that rigid ego control is involved. If the joke calls forth anxiety and immediately dispels it, a humorous response will follow. If the joke arouses anxiety without dissipating it an unreduced anxiety response in the form of disgust, shame, embarrassment or even horror will ensue. The psychodiagnostic picture which they developed from 36 popular cartoons was called the Mirth Response Test (MRT). They tested 83 psychiatric SS who had previously been assessed clinically.

One of the fundamental findings was that disturbances on the MRT were associated with disturbances in other emotional areas. The inhibited Ss characteristically showed few overt responses to the cartoons. The Es inferred that these inhibited Ss with "no sense of humor", are restrained by a strong and vigilant guard against thoughts and wishes, a fear of loss of control and a "sadistic superego". Those depressed patients with "grief reactions", were the one group that manifested a rather definite MRT pattern. The Es inferred that these depressed Ss were particularly aware of the "proximity of the humorous to the tragic". In 1959, Levine and Abelson compared groups of psychiatric and nonpsychiatric Ss on the MRT. The patient groups were observed to have greater difficulty with the humorous situations. They were more vulnerable to the disturbing cartoons, disliked significantly more of them and expressed less positive mirth towards the stimuli than the non-patient group. On the whole, it was the more anxious patients who displayed the greatest dysphoric reactions, especially when the aggressive intent of the humor was too thinly disguised.

One critique of the type of test instruments Levine and others have used is that items have been selected on an intuitive basis by the E or a group of judges. O'Connell (1960) developed the Wit and Humor Appreciation Test (WHAT) on the basis of jests that follow specific deductions from psychoanalytic theory. He tested hypotheses regarding the effects of adjustment (as measured by the Worchel Self-Activity Inventory) stress and sex on the appreciation of Freudian

humor, hostile wit and nonsense wit. A large number of college students rated 30 jokes after stress and insults were applied by an authority figure. It was found that as predicted, the well-adjusted Ss appreciated humor more than did the poorly adjusted Ss, unrelated to sex and stressor conditions. In terms of hostile wit, maladjusted Ss showed a significant decrease in appreciation with the advent of stress. There was also a rather stable sex difference in response to hostile wit. O'Connell makes a number of relevant inferences from these results. Referring to Freud's depiction of humor as one of the most adaptive nonpathological defenses, he concluded that more well-adjusted Ss have greater humor appreciation. Inasmuch as the responses to humor were not significantly affected by the interaction factors, humor emerges as a more stable personality characteristic, while wit is more susceptible to stressor conditions. On the basis of the findings that with the advent of stress, the maladjusted Ss could no longer resort to even hostile wit, O'Connell proposes that the maladjusted S does not have the ego flexibility which would allow for tension reduction in times of stress. Defenses in non-stress conditions are used to such an extreme extent that more intensive emergency defenses are not available and disorganization ensues. This situation contrasts vividly with the capacity of the well-adjusted S to make greater use of hostile wit under situations of stress.

O'Connell's conceptualization of humor as a generalized and stable mode of responding finds added support in the literature. Epstein and Smith (1956) found that those college

students who were most repressed and showed the least insight as to their own hostility, showed the least reactivity to humor and had a generalized poor sense of humor. The sample manifested characteristic modes of reacting that were independent of content. They, therefore, posited that these reactions are enduring and reflect highly reliable individual differences. Eysenck (1942), on the basis of his studies on the amount of "fun" extracted from humorous material, observed that this amount tended to remain constant from one type of measure to another. He concluded that there does seem to exist something in the nature of a general "sense of humor". Levine and Rakusin (1959) compared a group of college students and acute psychiatric patients on the ability to be humorous and to appreciate humor. The students rated humor in themselves and in one another higher than did the patients, and they were also more responsive in their humor behavior. The Eg concluded that the correlations support the notion that the degree of responsiveness to humor is a distinctive trait that is not susceptible to each new situation. Most recently, Koppel and Sechrest (1970) on the basis of a multitrait-multimethod matrix, supported the hypothesis that humor appreciation and humor creation are measurable and can be conceptualized as enduring traits. The factor of intelligence only accounted for a small fraction of the variance in sense of humor.

On the basis of O'Connell's and Levine, et. al's. results it does appear that measures of adjustment are crucial in the assessment of humor. However, the criterion of "adjustment"

is often a variable and unclear one. For example, O'Connell's criterion of adjustment, the Self-Activity Inventory, raises questions as to the validity of the measure. Is it not merely tapping phenomenal self esteem? Introducing traditional diagnostic categories also seems of limited predictive potency in discriminating the capacity for humor. O'Connell (1968a) focused on possible differences in the appreciation of wit and humor between groups of schizophrenic and organic hospitalized veterans, matched for intelligence and age. The groupings did not clearly differentiate humor functioning. Verinis (1970) compared three psychiatric diagnostic groups: neurotic, sociopath and schizophrenic. He controlled for the potential confounding effects of conceptual disorganization in the schizophrenic group and included a normal control group matched for age and education. The experiment was designed to test the Freudian notion that once a S becomes aware of the motives behind his enjoyment of humor, his humor lessens. Again, the diagnostic groupings proved of little predictive value.

Rosenwald (1964) found the most consistent positive response to humor to occur among "flexible modulating" Ss. His criterion of the flexibility of inhibition seems to capture some of the essential parameters of an adaptive sense of humor. He suggests that a sense of humor, like other forms of drive expression becomes a matter of gradation and balance. Rather than interpreting resounding hilarity to a joke as a sign of emancipation he prefers to interpret indifference to a joke as a sign of inhibition. He adapted Pine and Holt's (1960) scheme of assessing inhibitions and drive management on the basis of

TAT patterns. His measure of humor was cartoons taken from the Mirth Response Test. Ss with balanced TAT patterns reacted most positively to hostile cartoons. Ss with constricted, rigid and over-controlled TAT patterns, reacted with indifference and dislike to hostile cartoons. In his scheme, they responded to external provocation with intensified inhibition. The impulsive Ss were similar to the constricted group, in that they both deemphasized a balanced and integrated response. Rather than uninhibited drive expression, a series of graduated expressions seemed the best indicator of nonambivalent humor responsivity. Rosenwald therefore posits that the variables of ego strength and defensiveness are relevant to humor appreciation. The dimension of ego flexibility seemed a more refined approach, than simply introducing gross diagnostic groupings.

Wilson and Patterson (1969) compared humor preference profiles of 30 high school students highest on the "Conservatism Scale", with 30 students scoring lowest. High scorers on the C scale were assumed to be intolerant, rigid, resistant to change and dogmatic. As predicted, high C Ss preferred "safe", formal types of wit, while low C Ss preferred more "liberal", drive related types of humor.

Darmstadter (1965) explicitly studied the effects of ego strength and motivation on the humor response. He hypothesized that Barron's Ego Strength Score (ES) from the MMPI would reflect that personality dimension that enables an S to abandon rational standards in a selective and controlled manner. The effects of an experimental manipulation of arousal

and non-arousal were evaluated by means of change scores on two parallel sets of cartoons. Ratings given to the first set did not reflect any differences associated with levels of ES. However, judgments of aggressive and neutral cartoons went from funnier for high ES Ss to less funny for low ES Ss under both treatment conditions. Also using Barron's ES scale, Grossman (1966) found that Ss who scored high on ES preferred cartoons in their problem areas, as measured by the Mooney Problem Check List. Those Ss who scored high on defensiveness disliked cartoons in their problem area. Grossman relates these results to Kris' model of the comic. When the ego is strong enough to master anxiety aroused by a cartoon and use humor as an emotional safety valve, pleasure can arise from unpleasure. However, again the criterion of adjustment and capacity for adaptive regression, the ES scale, introduces its own problems of validity.

O'Connell (1969) administered his humor test (the WHAT) and the Rosenzweig P-F test to a group of college students. There was a significant correlation between humor appreciation and the failure to be frustrated by stressor situations, or the impunitive orientation to aggression. O'Connell integrates these results within Freud's view that the cathexis of the superego causes stressor situations to appear insignificant. It follows that the humorist sees his interactions from a "broad space-time spectrum". (On the basis of theoretical developments, O'Connell's statements can be further refined in terms of a cathexis of the "benign" superego in the humorist).

Unfortunately, the literature reveals virtually no reference to the adaptive capacity of humor in suicidal people. Spiegel, et. al., (1969) assessed the thematic content of favorite jokes of suicide attempters. They hypothesized that suicidal Ss would express significantly more jokes with a self-punishing theme than would nonsuicidal controls. Each joke was rated for the direction of punishment expressed, using Rosenzweig's system. The hypothesis was confirmed, and the Eg concluded that self-destructive tendencies invade various facets of behavior, including humor productions. However, in the design many Ss could not offer a favorite joke and no assessment was made of the humorous style or the formal properties of this kind of adaptive mechanism. Nussbaum and Michaux (1963) observed in a group of depressed in-patients, that with the "lifting" of depression came increased pleasure from hearing witticisms. The authors conclude that the intensity of depression is an interesting criterion for the capacity to release affect through wit. Yet, no assessment was made of the adaptive capacity of humor nor of its relation to various types of depression.

In a non-pathological sample, O'Connell (1968b) explored the relationship between aspects of death fears in general, (and towards one's own death in particular) and the ability to appreciate humor under conditions in which death was prominent or minor in the jest. O'Connell adopted Freud's view that high death humor reflects an elevating degree of maturity, not present in wit and resignation. His working hypothesis was that death ideation is repressed more by the wit than

the resigned, and not at all by the humorist. Therefore, when faced with the stressor stimulus of death in a jest those who have not accepted death will find displeasure in death jests. High death humor correlated negatively with anxiety and a cluster containing factors of death anxiety, dread of an ugly death, and fear of burial. Specifically, those who approved of suicide did not appreciate high-death hostile wit. In this study, the emphasis was solely on the content of the jests. No direct appraisal was made of the relation between actual suicidal manifestations and humorous style. This untouched area leads to the formation of the problem of this study.

CHAPTER II

THE PROBLEM

The purpose of the present study is to investigate the relation between the capacity for adaptive regression and degree of suicidal severity, as measured by Whittemore's "Suicide Potentiality Rating Schedule (1970)." In a larger sense the study represents an attempt to differentiate the S who can allow himself the free and episodic regression in humor from the S who must resort to the regressive discharge of tension through action. Psychoanalytic theory and ego psychology have been selected as theoretical bases for this exploration. The new analytic construct of RISE integrates the theoretical material. In the current study, different measures of RISE are chosen for an analysis of the relation of different aspects of adaptive regression to suicide and to each other. Humor, as a manifestation of RISE, has recently been defined as a characteristic coping mechanism of the individual, which may reflect a stable adaptive style. An appraisal of the degree to which the variance on these measures basically relates to depressive factors is also introduced in the design.

NEED FOR THE STUDY

A thorough search of the literature has revealed no previously published study which has specifically investigated the relationship between adaptive regression and suicidal manifestations. Although there have been a considerable

number of research studies on suicide, the majority of them focus on the unique dynamics of the suicidal individual and frequently neglect a consistent theoretical framework.

In the theoretical domain, Redlich and Levine (1955) once suggested that a better understanding of the interaction between ego and superego is essential in the comprehension of humor. Likewise, an intensive study of humor and suicide may lead to a better understanding of the possible interactions of the ego and superego. More light may be brought to bear on the thorny theoretical issue of the differing aspects of superego functioning vis-a-vis the ego.

The regressive issue in suicide has never been given direct focus in an empirical study. Through an exploration of the relation between adaptation and regression not only can some of the structural implications of suicide be delineated but the repercussions of different forms of regression assessed. The present study could contribute to an understanding of the relation between adaptive regression and the behavioral manifestations of its impoverishment. Rigidity has been ascribed to both humorless people and to the suicidal patient.

In response to the objection that most suicide research is 'after the fact' RISE and specifically humor, seems to be a characterological and stylistic criterion that is not grossly subject to situational factors or transient effects of stress. Moreover, the experimental difficulty in humor research is frequently the criterion of adjustment. Neither strict nosological categories nor arbitrary groupings based on isolated responses clearly discriminate the capacity for

humor. Suicide, as a syndrome, cuts across various groupings. In turn, the literature suggests that suicide cannot simply be reduced to depressive issues. A difference in response to humor may be fundamental in distinguishing various types of depression from each other and from those that eventuate in suicide.

CHAPTER III

METHODOLOGY

Subjects

Thirty-one subjects were obtained from the in-patient service of the Bronx Municipal Hospital Center. The overall population of the hospital center is limited to lower and middle class residents of the Bronx. Although some restrictions on randomness are introduced by the nature of this sampling, these limitations do serve to create a fairly homogeneous socio-cultural group.

Sex and age differences in the patient sample were controlled by limiting selection to consecutively admitted female Ss between 15 and 35 years of age. It was thought necessary to limit the Ss to one sex on the basis of findings reported by Landis and Ross (1933), Grotjahn (1958), Byrne (1955), and O'Connell (1960). Results indicate that it is inadvisable to combine males and females in a single analysis involving the interrelation between humor and other variables. Sex is a variable that additionally bears some relation to suicide and RISE. For example, Fitzgerald (1966) in his study of "openness to experience", observed that RISE had a different meaning for his female and male Ss.

Another criterion for subject selection was made on the basis of the Initial Intake Evaluation. This evaluation is determined by the psychiatric in-patient staff and consists of several diagnostic interviews and physical examination. On

the basis of this assessment, patients who were disoriented, organic or uncommunicative were excluded from the study. The conditions required for test administration made it unlikely that tests could be given to Ss who were severely disorganized as a result of marked psychosis or brain damage. On the basis of these selection criteria, it was still expected that a good sampling of suicide lethality would be tapped. Few patients are admitted to the in-patient service, except for those in grossly psychotic or organic states, who do not manifest some degree of suicidal symptomatology.

It was not thought necessary to control for intelligence as a variable specifically, since most studies have indicated that within normal limits intelligence does not account for more than a small fraction of the variance in humor appreciation. However, certain limits on sampling were introduced through a preliminary screening device. The Vocabulary and the Similarities subtests of the Wechsler Adult Intelligence Scale were administered to delimit not only an intellectual cut-off criterion but facility with the English-speaking language. Summary characteristics of the thirty-one women sampled are presented in Appendix A.

Instruments

On the whole, clinically substantiated measures with established reliability and validity were selected. In addition, the majority of the instruments included have been standardized on large and varied populations.

Criterion Measure

An instrument was needed that would provide a suitable continuous measure of degree of suicidal lethality or risk.

Suicide Potentiality Rating Schedule. The "SPRS" was developed by Whittemore (1970) as a revised form of the original rating schedule used at the Los Angeles Suicide Prevention Center. Whittemore analyzed 408 lethality rating schedules at the Atlanta Emergency Mental Health Service. The end result was a revised schedule which is believed to increase the utility, reliability and validity of previous scales. The author defines "lethality" or suicide potentiality as the possibility that the individual is inclined to destroy himself. This assessment is made on the basis of past and recent symptomatology.

The schedule consists of categories with descriptive items which have been found to be useful in evaluating suicide severity (see Appendix B). A range of values or weights are assigned each item. For the purposes of this study, items were judged on the basis of responses elicited by the schedule and pertinent data available from the Initial Intake Evaluation. The rating for each of the categories was the average of the score assigned to the total number of items within the category. An overall suicide potentiality rating was derived for each S by totaling the weights assigned to each category and dividing by the number of categories used. It is this number which represented the degree of lethality for each S.

Independent Measures

In conjunction with the screening measure on intelligence, certain other variables were controlled. These measures were incorporated in the design to remove the possibility of any linear effects they may have on the predictor measures.

Depression Scale. The D Scale of the MMPI was initially standardized by Hathaway and McKinley (1942) to identify patients who exhibited depression. It has been used in subsequent research to assess the intensity and depth of depression. High D Scale scores characteristically suggest depression, worry and pessimism. Low D Scale scores are associated with cheerfulness, spontaneity and the absence of depression.

In their standardization of the D scale Hathaway and McKinley made no mention of the inclusion of suicidal patients in their groups nor of the scale's usefulness in differentiating the depressive factor in suicide. Broida (1954) specifically examined the depressive factor in suicide as elicited by the D scale. He found that the scale significantly differentiated a suicidal and non-suicidal group. However, no effort was made in the study to delineate the relationship between degree of suicidal severity and depression. More recently, Yufit et. al., (1970) incorporated the Zung Self-Rating Depression Scale in their study of time perspective in suicidal Ss. While severity of depression was a factor in future time perspective, it accounted for only 25% of the variance in the suicidal group.

To control for degree of depression in a humor study of suicidal Ss seems imperative. The objection can readily be

raised that the predicted paucity of adaptive regression in the sample could be more simply reduced to a depressive issue. In the service of controlling for this possible contamination a measure was introduced.

Ego Strength Scale. The Barron Es Scale (1953) is a 68 item scale derived from the MMPI. It was originally developed to predict response to psychotherapy in a study where 33 neurotic patients received six months of treatment. Test-retest reliability after 3 months was .72. Odd-even reliability of the scale in a similar population sample of 126 patients was found to be .76. Barron describes the scale as a measure of ego strength on the basis of scale, content and correlates. It appears to function broadly as a measure of adaptability, personal resourcefulness and effective functioning.

Certain empirical objections have been raised as to the validity of the Es scale. Herron (1962) points out that the measure is complicated by limitations in the operational definition of what is to be measured and by numerous criterion problems. Frank (1967) more recently has done an extensive review of investigations that have utilized the scale. From the equivocal nature of the results surveyed, he was left unable to make any definitive statement as to the validity of the scale, except to state that more research is needed. Yet, most support was noted for the capacity of the ES scale to differentiate between differing degrees of psychopathology. As previously elucidated, the ES scale has also been incorporated in research in all the three areas of suicide, humor and adaptive regression. In addition, a more stable

characterological measure of ego strength was considered requisite for this analysis. Namely, a major critique of suicide research is that the suicidal action itself may serve an abreactive function and therefore, not reflect the hierarchy of defenses prior to the action. One of the basic tenets of this paper is that humor is a characteristic coping mechanism that is a stable function. If there is a significant correlation between some ego strength criterion and humor measures additional support to the 'non-situational' nature of humor could be provided.

Predictor Measures

It is posited that the following measures of adaptive regression permit an assessment of RISE from different but related perspectives.

ARISE Interview. Bellak, Gediman and Hurvich (1971) have recently revised an inventory for the rating of ego functions from a clinical interview. The inventory is in the form of a structured interview and is designed to obtain enough data to enable trained judges to rank Ss as to the status of ego deficits at critical phases of the life cycle. Twelve ego function scales are included, each of which is an ordinal scale. Each particular ego function is defined in terms of its component factors and the inventory provides instructions as to ways to interpret and apply each particular scale as a unique measurement instrument. One of the 12 scales explicitly assesses the extent to which "Adaptive Regression in the Service of the Ego (ARISE)" is available to the individual. In

a personal communication with Dr. Bellak, it was judged appropriate to extract the ARISE scale as an individual measure for this study. Some additions and extensions were introduced in the scale for the purposes of this particular research, and judged permissible by Dr. Bellak (see Appendix C).

The variables dimensionalized on the ARISE scale are rank-ordered along a 7-point continuum. Modal stop #1 represents the most maladaptive manifestation of ARISE, while modal stop #7 represents the most adaptive. Maladaptation-adaptation is the general dimension of the scale. Bellak et. al. state in their rating manual that although the scales are technically ordinal and not equal-interval, all stops across the scale have been pegged so that they reflect about the same degree of adaptation at any given stop. The authors go on to suggest that there is theoretical justification for treating such ordinal data with the parametric tests that are generally applied to interval data.

The rater's task is to make an accurate global rating on the 7-point scale. This global rating consists of four separate ratings according to lowest, highest, characteristic and current functioning of ARISE so that variability over time may be accounted for. The resulting global score is arrived at from a global clinical estimate of this adaptive capacity and not from an arithmetic mean of the component scores.

One of the advantages of Bellak's et. al. schedule is that it is essentially a clinical instrument that encourages flexibility and excursions into the clinical history of each

S. Dr. Bellak has stated in personal communication that the overall inter-rater reliability for the scale has been approximately .85 for a variety of different clinical situations and groups. Yet, in an effort to avert the influence of a set of the Ss to comply and please the E certain additional controls were introduced. Namely, the interviewer did not define the purpose of the interview until it had been completed. Ss were simply told that the E would be asking them questions about themselves. The E attempted to allay misgivings and perceptions of the Ss when deemed necessary. Another method of strengthening the validity of the interview was to elicit specific examples of general statements and to ask for elaborations of vague points.

Two clinical judges were employed to rate each interview protocol. Both aspects of the oscillating function of RISE - the regressive relaxation of acuity and the creation of new configurations - were rated separately. The judges were also rating characteristic and current functioning of ARISE in addition to deriving a global assessment of the overall degree of adaptive regression.

Humor Measure. The "Story Test" was constructed by O'Connell (1964) as an instrumental measure of the appreciation of Freudian wit and humor. Jokes were culled from the works of Freud and from those who followed his thinking. The wit and humor test is composed of 18 items with 3 alternative endings of resignation, hostile wit and humor (see Appendix D). These "punch lines" were controlled in such a way as to have each variable appearing in both first, second and third place,

each 6 times. It was adjudged that by varying merely the endings of the jests the possibility that Sg respond to chance variables within the body of the jest was controlled. In addition, the problem of appropriate response measure in the area of humor was refined. The decision was also reached to have Sg circle their preference for each item on a scale from 0 ("Dislike very much") to 5 ("Like very much").

O'Connell's rationale for the inclusion of such dependent variable measures arose from Freud's belief that passive appreciation of wit and humor "echoes" the psychic states of the jest maker. Rather than more overt measures, "implicit laughter" and appreciation is the key response (Freud, 1928). Therefore, in the sense that it involves a kind of identification, there is theoretical justification for the use of the test as an indicator of the accessibility and availability of the humor in the Sg' defensive repertoire.

O'Connell's definitions of humor, resignation and hostile wit also were directly derived from psychoanalytic theory. Freud (1928) ranked humor, resignation and hostile wit in descending order of maturity. O'Connell reiterated that the production and appreciation of gallows humor was personified by the S who does not repress, deny or disorganize under the impact of severe stress. Resignation was regarded as less mature, whereby the S accepts stress but does not display the elevating rebellious pleasure and triumph of the ego in the face of severe threat. The motive power of wit, theoretically the result of repression of basic drives, gives to wit a pathological tint. O'Connell administered his test to 10

psychologists at a VA hospital to determine the extent to which others agreed with his choice of test items. The judges were instructed to give their opinion as to which endings were representative of humor, resignation and hostile wit. The agreement with the E's judgment on item selection ranged from 78% to 100%, the mean being 87%. All items were retained. Several pilot studies were additionally conducted to measure the effect of extraneous variables upon test responses. In a population of undergraduates, resignation was found to be a measurable concept. Hostile wit was clearly differentiated from humor.

The Favorite Joke. The technique of eliciting favorite jokes has been used in research and in clinical contexts. It originated as an attempt to provide clinical insights based on the assumption that a person unconsciously identifies with the central figure in his favorite joke. Brill (1940) posited that the favorite joke could be understood as a vehicle, much like a projective test, for the expression of drives for which direct expression is restricted or entirely shut off. The thematic content of the joke would reflect the patient's struggles and furnish him with a certain amount of pleasure and relief. Zwerling (1955) noted that the very themes that were most provocative of the patient's anxieties were precisely the subjects of the favorite joke. These formulations seemed to emerge from the psychoanalytic thesis that a favorite joke may master a "favorite anxiety".

In the area of clinical research the favorite joke has been used as an index of dynamic forces in various populations

and interestingly has arisen specifically in suicide research. It had previously been noted that Spiegel et. al. (1969) used the favorite joke technique on a sample of suicidal in-patients. Their interest was mainly a content analysis of self-destructive tendencies manifested in jokes. The results indicated that suicidal Ss told significantly more jokes with self-punishing themes than did non-suicidal controls. They suggested that the technique could serve as an adjunct to more reliable assessment procedures to the extent that humor productions corroborated or developed other findings.

Richman (1968), although not specifically studying a suicidal population, examined 100 favorite jokes dealing with themes of suicide, homicide and death. Again, the emphasis was on a content analysis. The survey indicated that the favorite joke did indeed contain potential for tapping psychodynamic and social attitudes vis-a-vis suicide, that were relatively inaccessible by other techniques.

In his rather extensive study of humor, Dr. Richman devised a form entitled the "Humor Survey". The inquiry outlined in the survey suggested that Ss be asked for remembered jokes if favorite ones were unavailable. Richman's Humor Survey was used in this study for the specific purpose of tapping self-generated humor productions (see Appendix E). Clinical judges were used to evaluate jokes on dimensions related to both thematic and structural criteria.

Procedures of the Study

General Plan

Ss were seen individually for two sessions, on two

separate days. Both sessions took place in a quiet, well lit, secluded office on the ward. Although time in hospital has not been found to have systematic influence on the appreciation of humor (O'Connell, 1968), an attempt was made to start testing within the first week of hospitalization for each S. Testing preferably occurred in the middle of the day to delimit the immediate effect of medications, typically administered early in the morning and at night. It was made clear to all the Ss that participation in the study would have no affect on eventual release, treatment disposition or medication. They were told that their scores would not be entered on their records and that their names would be changed to numbers to insure anonymity.

Initially every S was given the same, very general rationale for the study as an investigation of different kinds of thinking. Due to the nature of ward living, it was requested that Ss did not converse with one another as to the nature and content of the procedures.

The first day of testing was reserved for the administration of the screening, criterion and independent measures. A graduate student tester was employed to administer these tests in the initial session. The graduate student was given explicit written instructions as to the procedure to be followed. He introduced himself, got the name of the S he was testing, assigned a code number to her, and noted it on the master sheet. When the S was seated and comfortable, he said:

"For the purpose of the research design, I will be giving you some tests today. Some time this week you may be meeting with Miss G. for some additional tests. The test data will be available only by a code number. As used in the study, the data will be entirely anonymous and will have no effect on your stay or disposition from the hospital. If you have any questions about the nature of this study, I'm sure Miss G. will be available to discuss it with you at a later date".

After this introduction, the graduate student immediately assessed the appropriateness of the S on the intellectual and language criterion. If the criterion was satisfied, he went on to administer the criterion and independent measures. The Ss were given a short rest period between tests but were not allowed to return to the ward.

The interviewing and testing procedures on the predictor variables were administered by the experimenter in the second session. The E was "blind" as to the findings of the first test session in order to control for experimenter bias. The predictor measures were administered in counterbalanced order. At the end of this final session, some aspects of the rationale were discussed with the S. Those questions that would not influence other participants on the ward were answered.

Administration of the Criterion and Independent Measures

The lethality scale was administered by the graduate student after he had fully familiarized himself with the schedule. All verbalizations were recorded.

The MMPI scales are a paper and pencil test, and were preceded by the following instructions:

The questions you are about to answer are designed to help you tell about your attitudes, feelings and problems. Some of the questions will seem puzzling or strange to you. They were designed to be used with a wide variety of people. If you are unsure about the meaning of any question try to answer it as best you can. Your results are of course confidential. Do not write your name on the answer sheet. Erase completely any answer you wish to change and do not make any other marks on the answer sheet.

Be sure to answer the questions rapidly but carefully. Do not spend too much time on one question -- your first impression is best. Now please read the instructions on the cover of the test booklet.

The administration of the MMPI consisted of the 68 item Es scale combined with the 30 item D' scale into one inventory consisting of 98 items. The items were arranged in random order but scored separately in order to yield a D' score and Es score.

Administration of the Predictor Measures

The ARISE interview was administered in a flexible manner and was used in the sense of a guide. Divergencies from the schedule and discussions of any item that seemed relevant were allowed. All verbalizations were recorded.

The "Story Test" is a paper and pencil test. However, some minor modifications of O'Connell's procedure were introduced. The separate instruction sheet was presented to the S, while read aloud by the E.

We are attempting to study the responses of a large number of people to different types of story endings. People differ in their preferences for various themes; therefore, we would like you to rate each story ending according to your personal preference on a scale from:

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

Please read each item and ending aloud and then rate your reaction on the scale provided. Try to give your first impression. Be certain to rate each ending (A, B, and C) by circling one of the numbers on the scale. After rating each of the endings, decide which one you like best for each story. Write the letter (A, B, or C) after the sentence which states: "The ending I like the best is: ". Indicate your choice of the best story ending, even if you have to guess.

The 18 items were printed on 9 sheets which were randomized for each S. This was done to avoid systematic bias and set. The rationale for the revised instructions of having the S read the jokes and endings aloud, was to insure that the joke had penetrated the S's sensorium.

A "Favorite Joke" was finally requested from each S. Inquiry for joke material followed the procedures outlined by Richman in the "Humor Survey" (see Appendix E). All comments were recorded verbatim.

Hypotheses

The following hypotheses guided the analysis of results:

1. Measures of adaptive regression bear an inverse relationship to degree of suicide lethality. Subjects who are rated as more seriously suicidal on the basis of the lethality scale attain scores indicating less capacity for adaptive regression than do subjects who are rated as less seriously suicidal. In addition, rating dimensions on the Favorite Joke test discriminate among subjects of differing degrees of suicide severity.

2. Degree of ego strength covaries with the capacity for humor in individual subjects, and is inversely related to suicide lethality.

3. The tests of adaptive regression are significantly interrelated. Subjects who score in the adaptive direction on one test will do so on other tests, and subjects who are low in adaptive regression on one measure are low on the others.

A plausible alternative prediction of hypothesis 1 was that a high capacity for humor could be associated with either extreme of the suicidal spectrum. That is, rather than a linear trend between suicide and humor, the relationship was further assessed for curvilinear trends.

Statistical Treatment of the Data

Correlational analyses were to be employed with certain considerations in mind. An attempt was made to rule out the potential contaminating effects of depression. Namely, partial correlational analysis was used to correlate the residual effects of lethality with the residual effects of humor and other RISE measures, after partially out the linear effects of depression.

In testing hypotheses where the sample size is relatively small and the nature of the study is exploratory, to hold to too stringent levels of significance may run the risk of a Type II error, accepting the null hypothesis when it is false. Thus, certain relationships which approached but did not attain significance are pointed out in the results as trends in the direction of significance. (Note: All tests reported are two-tailed unless otherwise specified)

Additional analyses were carried out as suggested by the data after it was collected and are discussed as their relevance becomes apparent.

CHAPTER IV

RESULTS

The major hypotheses of the study concerned predicted relationships between the capacity for adaptive regression and the degree of suicidal severity, as seen in the women observed in the study. Test instruments were used to assess: (1) the criterion measure of suicidal risk, defined as ratings on Whittemore's "Suicide Potentiality Rating Schedule (1970)"; (2) the degree and capacity for adaptive regression as a generalized mode of functioning, as defined by Bellak, et. al's rating scale for "Adaptive Regression in the Service of the Ego (ARISE)"; and (3) specific manifestations of RISE in humor, assessed by performance on the Favorite Jokes Test and on O'Connell's "Story Test (1964)". Since all but one of these principal measures (the "Story Test") required ratings and sortings by clinical judges, analysis of these measures were conducted and their characteristics will be presented first. These initial analyses included assessments of inter-rater agreement on the suicide lethality scale and on components of the ARISE interview, as well as the reliability of the different rating dimensions of the Favorite Joke. A second series of preliminary analyses were based on the intercorrelations among the different components of the ARISE interview, and among the items of the Story Test. These latter analyses were undertaken in order to group items within the scales where warranted, and also to gain further understanding of the make-

up of the scales used in the study.

Measures of Reliability

(a) The Suicide Lethality Scale: Two judges (one an Associate Professor of Psychology and clinical expert in Suicidology; the other a graduate student in Clinical Psychology) rated each of the 31 schedules of suicide lethality. The judges were instructed to rate each protocol from 1 to 9 (9 being the most lethal) for suicidal risk. Anchoring points on the scale, as defined by Whittemore, were described to the judges prior to rating. Rating steps 1 and 2 were allocated for Ss of low lethality, 3 through 6 for medium lethality, and 7 through 9 for high lethality. Inter-rater agreement between the judges, using Pearson's Product-Moment Correlation Coefficient, yielded an r of $+0.72$ ($p < .01$). The correlation between raters was deemed sufficiently high to establish workable reliability. The final Lethality Score was based on a consensus score verbally agreed on by the judges after their numerical ratings were made and an adequate degree of statistical reliability attained. (A simple numerical average was not deemed sufficient to function as an overall suicide score). The Ss sampled were moderately well represented across the range of lethality points on the scale. The range was from point 2 through 7, with a mean of 4.32 and a standard deviation of 1.25.

(b) The ARISE Interview: Verbatim protocols of the Interview schedule were rated by the clinical expert and

another experienced clinician. Judges well versed in clinical skills were employed, as an overall global clinical assessment of ARISE was required. Provisions to insure blindness were made since one of the judges had already rated Ss on lethality. It will be recalled that variables dimensionalized on the scale were ordered along a 7- point continuum. Modal Stop #1 represented the most maladaptive manifestation of ARISE, while modal stop #7 represented the most adaptive (see Appendix C for the anchoring descriptions provided for the judges). The judges rated five components of ARISE for each S. Both aspects of the oscillating function of RISE, the regressive relaxation of acuity and the creation of new configurations, were rated separately and labelled as Component a and Component b, respectively. The judges were additionally required to rate each protocol as to characteristic and current functioning of ARISE and finally to derive a global judgement of the degree of RISE on the basis of these component factors. The resulting Pearson Product-Moment Correlation Coefficients for each of these five component scores are presented in Table 1.

 Insert Table 1 about here

Inspection of Table 1 indicates that all component measures were sufficiently high to fulfill the requirements of reliability. An average score for the two judges was then obtained for the five components for each S, and used in all further analyses. (When one indicator of ARISE was needed

Table 1

Inter-Rater Reliability

Measure	Person Product-Moment Correlations*
A. Suicide Lethality Scale	.72
B. ARISE Scale	
Component a	.85
Component b	.81
Characteristic	.86
Current	.87
Global	.97

*All correlation coefficients are significant beyond the .01 level.

for statistical comparisons the global rating was used, because of its intrinsic summary nature and since there seemed to be greatest clinical agreement on this overall measure).

(c) The Favorite Joke: Verbatim transcripts of Ss' jokes were given to the same two clinical judges for sorting, with similar provisions made to insure blindness. Of the 31 Ss sampled, 29 Ss reported jokes. Judges were instructed to independently sort each of the 29 jokes along three dimensions: (a) A dichotomized sorting of the jokes was made into morbid and non-morbid groupings. Jokes were categorized as "morbid" when lethal imagery intruded into the very thematic content of the joke; i.e., themes of death, self-destruction, damage, downfall, the macabre and the like. (b) A trichotomized grouping of the jokes was made as to degree and adequacy of cognitive control and complexity. A high sort was adjudged to indicate a good capacity to tell a comprehensible and coherent joke that was well-articulated and well-organized. Lower sortings were assigned to jokes that were structurally overly simplistic (e.g., riddles) or deteriorated and spoiled by the very telling or presentation of the joke product. The cognitive control dimension seemed to touch on two types of cognitive failure. Namely, one type of failure would bespeak a structural regression in that the logical continuity and textural control over the joke content is lost. A second type of failure is more of a content regression, in that the product is so concrete, stimulus-bound and egocentric that it does not have the quality of ascendance over real events to even

approximate the absurdity of humor. (c) A final trichotomized sort was made for the degree of humorousness of each joke, into high, medium and low. Judges were instructed to use their affective response to the funniness, or lack of it, of the joke in conjunction with a judgment of the degree of wit, imaginativeness and playfulness of the joke.

On the "morbid - non-morbid" dimension, the frequencies of jokes assigned by the two judges to the morbid category are listed, with frequencies for non-morbid sorts in parenthesis: Judge A: 9 (20), and Judge B: 12 (17). Correlations between the assigned sortings were determined to estimate inter-rater reliability. A phi correlation coefficient of $+0.80$ was obtained. A chi-square value of 18.49 ($df=1$; $p < .001$) was derived as the measure of contingency between the two variates. Thus, the null hypothesis of no contingency, or zero correlation, between the sortings of the two judges was rejected with confidence.

For the "cognitive control" trichotomization the frequencies for each grouping are listed: Judge A: high (6), medium (11), low (12); Judge B: high (4), medium (14), low (11). To assess inter-rater agreement on this dimension the contingency correlation, C , was computed to measure the magnitude of possible correlation (Peatman, 1963). The obtained C was $+0.77$, with a derived chi-square measure of contingency of 41.26 ($df=4$; $p < .001$). Again, the null hypothesis of zero correlation was rejected with confidence.

The frequencies for each of the three categorizations made by the judges on the final dimension of "humorousness"

are listed: Judge A: high (6), medium (15), low (8); Judge B: high (6), medium (16), and low (7). The obtained contingency correlation was $+0.73$, with a derived chi-square value of 32.10 ($df=4$; $p < .001$). The measure of inter-rater agreement on this dimension was also accepted as sufficiently high to establish workable reliability.

Since the degree of inter-rater agreement on all rating dimensions developed was considered sufficiently high, all further analyses were done using the clinical expert's ratings alone (Judge A).

Intercorrelations Between Items

(a) ARISE Interview: It will be recalled that ratings of the ARISE Interview delineated five components of the capacity and degree of adaptive regression. The delineation of these component scores represented an attempt to isolate relevant indicators of RISE reflected in many areas of thinking and at different periods in the S's clinical history. It was necessary to assess the degree of relationship among these component ARISE scores as these variables would be used in testing the central hypotheses of the study; i.e., the scores would subsequently be correlated with suicide lethality and other measures of RISE. Pearson Product-Moment Correlations for the five component scores of ARISE appear in Table 2.

 Insert Table 2 about here

Inspection of Table 2 reveals that all the correlations are

Table 2
 Pearson Product-Moment Correlations* among
 Components of the ARISE Scale

	Global	Comp. a	Comp. b	Char
Comp.a	.65			
Comp. b	.87	.42		
Char	.72	.42	.65	
Current	.88	.76	.82	.57

* All correlation coefficients are significant beyond the .05 level.

in a positive direction and are all high, significant beyond a .05 level. (With 28 degrees of freedom, an r of .36 or higher is needed for significance at a .05 level in a two-tailed test.) The high degree of intercorrelation among the component scores points to a probable commonality running through these measures of adaptive regression. While all components will be considered in the present study, as it is of an exploratory nature, it does seem warranted to use the Global rating as a summary, core score. Not only are all the components highly correlated with "Global", but a reinspection of Table 1 indicates that the highest degree of interrater agreement was found for this rating.

Closer analysis of Table 2 does suggest that the correlations between Component a (the regressive relaxation of acuity), Component b and characteristic ARISE are somewhat lower than the other intercorrelations. Yet, the correlation between Component a and Current ARISE does fall within the range of the other intercorrelations. Of additional note is that the correlation between Characteristic and Current ARISE also falls short of the other intercorrelations. There seems to be some indication that aspects of the current functioning of ARISE in the sample, specifically as they related to the initial regressive phase of the oscillating function, may reveal possible component sub-groups that cannot be so readily combined into a compound score of ARISE. Each separate component of ARISE will therefore be considered in the majority of subsequent analyses.

(b) Story Test: As previously described, the "Story Test" was composed of 18 items with three alternative endings ("punch lines"), varied according to humor, hostile wit and resignation themes. Two kinds of response measures were specified: ratings of each of the three endings per item according to degree of preference and a choice of one of the three retorts as the favored ending. A summing of these response measures yielded a Rating score and a Choice score, respectively, for each of the three variables for each S. The initial task was to examine the relationship between these summed scores. Computed Pearson Product-Moment Correlations between rating and choice score for each variable appears in Table 3.

 Insert Table 3 about here

Inspection of Table 3 reveals significantly high correlations between rating and choice scores for each of the three variables. The high correlations indicate that it is warranted to use these two types of measurements interchangeably, with little difference in result expected.

The second task was to assess the degree of interrelationship among the three variables measured on the "Story Test". Table 4 presents these intercorrelations.

 Insert Table 4 about here

In reading Table 4 it should be mentioned that an inherent

Table 3

Pearson Product-Moment Correlations between
 Rating (R)¹ and Choice (C) Scores on the
 "Story Test"

Categories		Correlations
Humor:	RxC	.82****
Hostile Wit:	RxC	.87****
Resignation:	RxC	.81****

****p of <.001

¹In computing comparisons, the Rating scores were statistically adjusted to add up to a constant in a manner similar to Choice scores.

Table 4

Pearson Product-Moment Correlations between the Humor
Hostile Wit, and Resignation categories of
the "Story Test"

<u>Categories</u>	<u>Ratings</u>	<u>Choices</u>
1. Humor and Hostile Wit	-.61****	-.49****
2. Humor and Resignation	-.31*	-.45**
3. Hostile Wit and Resignation	-.56****	-.55****

**** p of < .001
 *** p of < .01
 ** p of < .05
 * p of < .10

degree of inverse variation would be expected simply due to the fact that the scoring of the variables is not independent; e.g., a choice of one humorous ending precludes a choice of the other possible endings for that item. However, the highly significant negative correlations observed are of such a high degree that they do not appear merely attributable to restrictions in the scoring. For the Ss in the sample, the data does suggest that with increased responsiveness to humor there is less of a tendency to respond to hostile wit and resignation. Additionally, hostile wit and resignation are inversely related beyond the .01 level of significance. While these inverse trends are noteworthy it can also be noted from inspection of the table that the incompatibility between humor and resignation is less than the incompatibility between humor and hostile wit. This gradation would follow from the conception of resignation itself as a form of adaptation; howbeit, without the elevating features of humor. Yet, neither does resignation connote the fixity, rigidity and absoluteness of hostile wit, which by its nature precludes the 'loftiness' of a humorous response. One might expect in a more normal and well-distributed sample that indeed there would be a positive correlation between a moderate degree of resignation and humor.

It was next possible to turn to the testing of the hypotheses, with the following considerations in mind: (1) the criterion variable, suicide lethality, was measured by a consensus score agreed on by the two judges; (2) the

predictor variable of adaptive regression was measured by the five component scores derived from an averaging of judges' ratings on the ARISE interview; and (3) the specific predictor variable of humor response was assessed by Choice scores on the "Story Test", and by morbid, humorous, and cognitive differentiations on the Favorite Joke.

Tests of Hypotheses

Hypothesis 1: Hypothesis 1 stated that measures of adaptive regression bear an inverse relationship to degree of suicide lethality. The prediction was that women who were rated as more seriously suicidal would attain scores indicating less capacity for adaptive regression than those women adjudged to be less seriously suicidal. To test this hypothesis each S's score on the lethality scale was correlated with choice scores on the "Story Test", and with component scores on the ARISE interview. Table 5 shows this analysis of data.

 Insert Table 5 about here

Inspection of Table 5 reveals that certain of the inverse correlations with lethality did attain significance while others, although in the predicted direction, did not reach significance. Specifically, the correlation between humor choice and lethality, although in the predicted negative direction could not be accepted as significant with confidence. Hostile wit and resignation choice scores revealed

Table 5
Intercorrelations of Test Variables
(N=31)

	Lethality	Ego Strength score	Pure Depression score
Lethality: Consensus Score		-.46***	.06
Story Test:			
Humor	-.27	.35**	.02
Hostile Wit	.03	-.32*	-.15
Resignation	.23	.03	.16
ARISE Interview:			
Component a	-.18	.13	
Component b	-.44**	.32*	
Characteristic	-.22	.30*	
Current	-.45***	.25	
Global	-.52***	.30*	-.08

***p of < .01
**p of < .05
*p of < .10

essentially no significant relationship with lethality, albeit resignation was in the predicted positive direction. Certain of the negative correlations between lethality and ARISE components did attain significance. Global, Component b and Current aspects of adaptive regression were significantly inversely related to lethality. Component a and Characteristic ARISE, although in the predicted direction, did not attain significance.

A criticism could be raised here that in testing the significance of each of these intercorrelations on the same sample, the resulting significance levels might be meaningless for reasons similar to those making t tests for all differences among a set of means a dubious procedure (Hays, 1963). However, the highly significant intercorrelations between lethality and three of the ARISE components, attained beyond the .05 level and better, strongly suggests that these findings cannot be reduced to spurious artifacts of the statistical analysis.

Other attempts were made to see whether a change in the method of analysis would yield additional conclusive findings. First, Ss were grouped into high and low suicide groups by dividing the sample at the median in the distribution of lethality (MDN=4.1). In order for the hypothesis to be supported, the high group would have to score significantly lower than the low lethality group on the humor measure of the "Story Test" and on the five components of ARISE. The mean scores of high and low lethal groups were computed and t-tests were used to test the significance of the differences

between means. The results of these analyses for the "Story Test" and the ARISE Interview are presented in Tables 6 and 7, respectively.

 Insert Table 6 and 7 about here

Examination of Table 6 indicates no overall significant differences between the high and low suicide groups on any of the three variables of the "Story Test". Even though the comparison of mean scores failed to generate statistically significant results, the observed trend is consistent with the findings presented in Table 5. There was a nonsignificant trend for the high lethal S's to have less humor and more resignation choices than did the low lethal group of Ss.

When comparisons were made between the high and low lethal groups on the ARISE components, findings were also consistent with those obtained from the correlational analysis. Table 7 indicates that significant differences were obtained for three of the five components. Component b, Current and Global ARISE significantly discriminated between the high and low groups, beyond the .01 level of significance. A nonsignificant trend in the predicted direction was obtained for the remaining two components of ARISE. Thus, for the three component scores of ARISE, and to a lesser extent on the remaining two components, high suicidal Ss showed a significantly lower capacity for adaptive regression than did low suicidal Ss.

Table 6

Comparison of mean choices on the Story Test for Ss
in high and low suicide groups

Choices	Group	N	Mean	SD	Diff.	t	p
Humor	<u>high</u>	16	8.56	1.93			
	<u>low</u>	15	9.20	2.57	.64	0.78	n.s.
Hostile Wit	<u>high</u>	16	4.63	2.13			
	<u>low</u>	15	4.87	2.75	.24	0.28	n.s.
Resignation	<u>high</u>	16	4.81	2.32			
	<u>low</u>	15	3.93	2.37	.88	1.04	n.s.

Table 7

Comparison of mean rating scores on the ARISE Interview
for Ss in high and low suicide groups

Scores	Group	N	Mean	SD	Diff.	t	p
Component a	<u>high</u>	16	2.88	0.95			
	<u>low</u>	15	3.33	1.02	.45	1.30	n.s.
Component b	<u>high</u>	16	2.82	1.08			
	<u>low</u>	15	3.97	1.10	1.15	2.95***	.01
Characteristic	<u>high</u>	16	3.83	0.96			
	<u>low</u>	15	4.40	1.16	.57	1.50	n.s.
Current	<u>high</u>	16	2.73	0.83			
	<u>low</u>	15	3.60	0.82	.87	2.93***	.01
Global	<u>high</u>	16	2.91	0.73			
	<u>low</u>	15	4.07	1.07	1.16	3.55***	.01

Other vain attempts were made to see whether changes in groupings along the lethality scale would yield systematic results. The distribution of scores on the scale was divided at what seemed to be naturally occurring division points. Ss who fell within the range of lethality scores 5 through 7 were considered high, Ss within the range of 2 through 4 were considered low in lethality. The resulting high and low suicide groups contained 10 and 21 Ss, respectively. A t-test comparison between the means of the high and low groups did not generate any additional statistically significant results from those presented in Tables 6 and 7.

A plausible alternative prediction, previously suggested, was that a high capacity for humor could be associated with either of the extremes of the suicidal spectrum. Analyses were done to ascertain whether the relationship between lethality and humor, as measured on the "Story Test", was curvilinear. Partial correlational analysis (Hays, 1963) was employed to test for the strength of a quadratic trend between lethality and humor, after partialling out for the effects of a linear trend. The resulting partial correlation coefficient for the relationship was not significant ($p.c.c. = -.23$), nor did it significantly differ from the linear correlation between lethality and humor choice. A graphic representation of the distribution was also examined and it also failed to indicate any curvilinear trend.

Partial correlation analysis was also used to remove any potential linear effects of the depression factor (D') on the significant correlations presented in Table 5. It was of

particular importance to assess whether the highly significant inverse relationship between Global ARISE and lethality was still obtained after removing the potentially contaminating effects of depression. The resultant partial coefficient was $-.52$ ($p < .01$). The Pearson correlation between Global ARISE and lethality presented in Table 5 was also $-.52$. A reinspection of Table 5 indicates that none of the correlations of the test variables displayed any significant relationship with D' . Therefore, it appears that the obtained inverse relationships between lethality and adaptive regression cannot be reduced to an underlying relationship with depression as measured by the MMPI scale.

Comment: The prediction, stated in Hypothesis 1, of a trend towards an inverse relationship between lethality and adaptive regression was confirmed by the majority of the components of the ARISE scale. However, while the trend of the remaining results were consistently in the direction of the hypothesis, some explanation could be offered for the inconclusive findings. In making these predictions, it had been hoped that a sufficient range of suicide lethality would be represented in the sample. However, over the 4-month period that the study was run, the majority of women consecutively admitted fell within a relatively small range of lethality. None of the extreme scores of the lethality scale were represented, and approximately half the sample received the mid-point rating of 4 on the scale. In addition, certain restrictions in the design of the study somewhat precluded

representation of the extremes of suicidal risk. Only women between the ages of 15 and 35 were included, thus, excluding the potentially high lethal groups of older Ss and males. The lack of adequate representation may have further contributed to the lack of curvilinearity observed in the data.

None of the predicted relationships on the "Story Test" reached significance. One possible difficulty that may have emerged from the standardized form of the "Story Test" was that it had almost exclusively been used in college populations. The sample used in this study was essentially a less sophisticated one. Although efforts were made to revise the stimulus items for the purposes of the study, none of the items were tailor-made for this kind of sample. Another weakness of a measure that uses items to reflect such constructs as hostile wit, humor and resignation, is the potential discrepancy between the theoretical implications of the constructs and the items chosen to measure them.

Another word should be said about interpreting the above results, particularly those that were in the predicted direction but fell just short of significance. In his extensive analysis of the power of tests, Cohen (1969) concludes that the size of the sample is one of the most important determinants of the power of a test. Therefore, it is possible that due to the relatively small and restricted nature of this sample, the statistical power of the tests used may not have been great enough to detect significant differences.

Sub-Hypothesis: A corollary of Hypothesis 1 was the

prediction that different rating dimensions of the Favorite Joke Test discriminate among Ss of differing degrees of suicide lethality. The first level of analysis was to compute correlations between each rating dimension of jokes and scores on the suicide lethality scale.

The point-biserial correlation coefficient was derived between "morbid-non-morbid" jokes and lethality scores. The obtained r was $+.63$ ($p < .001$), and the derived t , to test the significance of the point-biserial coefficient, was 4.33 ($df=27$; $p < .001$). A t -test for proportions was also computed for the high and low lethality groups divided at the median, and yielded a t of 2.45 ($p < .05$). The analysis therefore, indicates that suicide lethality was significantly and positively associated with jokes judged to be of "morbid" thematic content.

In order to assess the relationship between the rating dimension of "cognitive control" and lethality, the degree of correlation was measured by the Eta coefficient (Peatman, 1963). The obtained coefficient of $.23$, was tested by the F -test for the null hypothesis of no correlation. The obtained F was $.71$ ($df=2$ and 26), thus insufficient to reject the null hypothesis. The same statistical treatment was employed in assessing the relationship between lethality and "humorousness" of the favorite jokes. The obtained Eta coefficient was $.23$, with a derived F of $.71$ ($df=2$ and 26); again insufficiently high to reject the null hypothesis. Therefore, no significant association was found between S's lethality scores and ratings

of Cognitive Control and Humorousness on the favorite jokes.

The next line of analysis was to assess the degree of relationship among these rating dimensions of the Favorite Joke. While the data failed to support any direct relationship between cognitive control and humorousness with lethality, perhaps some systematic findings would be found by analyzing the intercorrelations between the dimensions. The contingency C coefficient was computed for all possible combinations of the three dimensions, with the derived chi-square statistic as the measure of contingency. The contingency coefficient between "morbidity" and "humorousness" was .16, with an obtained chi-square of .77 (df=2). Thus, no significant relationship between morbidity and humorousness of the favorite joke was found. The analysis of the relationship between "morbidity" and "cognitive control" also failed to yield significant findings (C=.75; chi square=.16, df=2). However, a closer inspection of those 9 jokes judged to be "morbid" revealed that only one of them was classified as indicative of high cognitive control. The final intercorrelation computed, the relationship between "humorousness" and "cognitive control", yielded highly significant findings (contingency C=.77). A cross-tabulation of the frequencies between these two rating dimensions and the derived chi-square statistic appear in Table 8.

 Insert Table 8 about here

Inspection of Table 8 reveals that the correspondence between

Table 8

Relationship between Humorousness and Cognitive Control
of Favorite Joke

Cognitive Control	Humorousness			N	Chi Square*	P
	High	Medium	Low			
High	6	0	0			
Medium	0	11	0		43.45	.001
Low	0	4	8			
				29		

*df=4

the two variables is significant, beyond the .001 level. There is a significant positive relationship between those jokes judged as humorous and those judged to manifest good cognitive control. Conversely, those jokes judged as less humorous are consistently judged to show poorer cognitive control.

Comment: How does one interpret such results in line with the hypotheses of the study? The finding that judged humorousness and cognitive control were not significantly related to suicide lethality fails to support a prediction of a negative relationship. However, the fact that these variables were significantly intercorrelated is consistent with predictions based on the hypothesis; namely, that the adaptive regression in humor occurs under the auspices of good ego control and organization and is not discharged through a fragmentation of the ego. "Morbid" jokes significantly differentiated Ss as to degree of suicidal lethality. It was elucidated that the jokes judged as morbid were not significantly judged to be funny nor were they significantly rated as manifesting good cognitive control. One plausible explanation may be that high lethal Ss cannot keep suicidal and death themes out of their humor and the humor function itself gets contaminated. The pressure of drive-related imagery may be of such an intensity that the adaptive, integrative and elaborative aspects of the creative work do not have sufficient sway. The autonomous functions of the ego, reflected in adequate cognitive control in conjunction with the elevating quality of

humorousness, gives way and is overrun by the macabre and the morbid.

Hypothesis 2: Hypothesis 2 stated that the degree of ego strength, as measures by Barron's ES Score from the MMPI, is positively related to humor and inversely related to suicide lethality. The latter part of the hypothesis will be considered first. A reinspection of Table 5 indicates that ego strength was significantly inversely related to suicide lethality ($r = -.46$; $p < .01$). In the regrouping of the data into high and low suicide groups, the obtained t statistic of the difference between means was 2.53, also significant beyond the .05 level. The significant differential in ego strength between high and low suicidal Ss, is in the direction of an inverse trend, in accord with the prediction.

Table 5 also presents the Pearson Product-Moment Correlations between ego strength and the humor variables of the "Story Test". Results are also in the direction predicted. The correlation between ego strength and humor choice yielded an r of +.35, significant beyond the .05 level. The negative correlation between ego strength and hostile wit ($r = -.32$; $p < .10$), although falling just short of significance, is also consistent with trends predicted by the hypothesis. In addition it can be noted that, while not central to the stated hypothesis, the correlations presented in Table 5 indicated a positive trend between three of the ARISE measures and ego strength.

Comment: Hypothesis 2 can be considered confirmed by the results of the study. Ego strength has been defined in terms of the ego's integrative and adaptive capacities which function as a resistance to pathological forms of regression. In this study, Ss showing a greater degree of ego strength evidenced a greater appreciation of humor and less suicide potentiality, than did Ss with less ego strength. Thus, the data appears to support the formulation that it is the ego's control over the drive expression in humor, enabling the S to abandon standards in a selective and controlled manner, that differentiates it from the more pathological expressions in hostile wit and suicidal behavior. It will be recalled that the positive association between "morbid" jokes and suicide lethality seems in line with the negative correlations between ego strength and hostile wit. Similarly, the high correlation between cognitive control and humorousness of favorite jokes also parallels the positive relationship between humor and ego strength.

Hypothesis 3: The third hypothesis predicted that different measures of adaptive regression would be positively inter-related, so that Ss who scored in the adaptive direction on one measure would do so on the other measures, and Ss who were low in adaptive regression on one measure were low on the others. Pearson Product-Moment Correlations were computed, correlating Ss' scores on the three variables of the "Story Test" with their scores on the five components of the ARISE scale. The obtained intercorrelations appear in Table 9.

 Insert Table 9 about here

The hypothesis requires for its support that the intercorrelations between the humor variable and ARISE measures be significantly positively related. From Table 9, it can be seen that humor measures, be they choices or ratings, are highly and positively correlated with the majority of the ARISE components. Again, component a and to a lesser extent, current ARISE, stand out from the other intercorrelations and may reflect more transient states of functioning. Moreover, the correlations between hostile wit, resignation and ARISE are consistently in a low and negative direction. The one correlation which did reach significance was the negative relationship between resignation choices and characteristic ARISE ($r = -.37$; $p < .05$). The trend of the data is thus in accord with the prediction of a positive association between measures of overall adaptive regression and humor. In turn, the finding that humor, rather than hostile wit and resignation, did significantly correlate with ARISE gives further support to the notion that this function may serve as a specific manifestation of RISE.

A closer inspection of Table 9 suggests that, although both in the positive direction, the correlation between characteristic ARISE and humor may be significantly greater than the correlation between current ARISE and humor. To determine if these intercorrelations were significantly different, t tests of differences between correlation

Table 9

Pearson Product-Moment Correlations between measures of
 adaptive regression
 (N=31 pairs)

	<u>Humor</u>		<u>Story Test</u>		<u>Resignation</u>	
	<u>Choices</u>	<u>Ratings</u>	<u>Hostile Wit</u> <u>Choices</u>	<u>Ratings</u>	<u>Choices</u>	<u>Ratings</u>
<u>ARISE Interview</u>						
Component a	.22	.03	-.13	-.01	-.08	-.02
Component b	.43**	.38**	-.14	-.14	-.27	-.22
Characteristic	.61****	.57****	-.21	-.26	-.37**	-.28
Current	.34*	.13	-.05	-.07	-.27	-.22
Global	.50***	.31*	-.19	-.13	-.28	-.17

**** p of < .001
 *** p of < .01
 ** p of < .05
 * p of < .10

coefficients from dependent samples were computed from a formula developed by Hotelling (1940; Peatman, 1963). The results are presented in Table 10.

 Insert Table 10 about here

Inspection of Table 10 reveals that differences between the correlations of characteristic and current ARISE with humor ratings did indeed reach significance ($t = 3.15$; $p < .01$). The correlations of these ARISE Components with humor choices just fell short of significance ($t = 1.98$; $p < .10$) and are suggestive of a similar trend in the data. The results therefore indicate that the humor measure from the "Story Test" is correlated with characteristic ARISE to a significantly greater extent than with current ARISE.

The results of these analyses supports two features of the initial formulation. In the sample, there seems to be a common factor running through those measures predicted to reflect aspects of adaptive regression. The positive correlations between ARISE, particularly characteristic ARISE, and humor gives further support to the notion that humor, as opposed to hostile wit, is highly correlated with those generalized and stable manifestations of adaptive regression.

The next level of analysis was to assess the degree of relationship between humor as measured on the "Story Test" and dimensions of humor measured in the analysis of favorite jokes. A point-biserial correlation coefficient between

Table 10

Significant differences between Pearson Product-Moment
Correlations for related measures of adaptive regression

Correlations Compared	r ₁	r ₂	t
Humor Choices x Characteristic ARISE with Humor choices x Current ARISE	.6103	.3359	1.98*
Humor ratings x Characteristic ARISE with Humor ratings x Current ARISE	.5684	.1318	3.15***

***p of < .01

**p of < .05

*p of < .10

"morbid - non-morbid" jokes and the humor choice score for each S yielded an r of .01, a clearly nonsignificant value. While morbid jokes did discriminate among degrees of suicidal risk, no association was found with humor, either on the basis of humor choice scores or, as was previously indicated, on the basis of funniness and cognitive control features of joke products. That no relationship was found between morbidity of thematic content and adaptive measures of humor gives further weight to the notion that when stark, flagrant and unmodulated lethal imagery intrudes in the very joke content, there is frequently a concomitant reduction in autonomous and adaptive ego functioning. Whether causal relationships are involved in this process cannot be deduced from this level of analysis.

The relationship between humor choice scores with humorousness and cognitive control dimensions of the favorite joke was assessed by the computation of Eta correlation coefficients, and subsequently evaluated for significance by the F -test. The correlation between humor choice and humorousness of jokes yielded a coefficient of .55 ($F= 5.71$; $p < .01$). The correlation between humor choice and cognitive control yielded a coefficient of .49 ($F= 4.07$; $p < .05$). These results indicate a significant relationship between active (jokes) and passive (choices) measures of humor functioning as well as between humor and measures of cognitive control in the joke work. In order to further analyze these relationships, humor choice scores were plotted as a function of mean

ratings of low, medium and high humorousness and cognitive control. Figures 1 and 2 show the relationships for these two dimensions of the favorite joke, respectively.

 Insert Figures 1 and 2 about here

An examination of both figures indicates that the trend is in a significantly positive direction, with scores on each axis rising together. Going from low to high humorousness and cognitive control, there was a definite trend toward higher humor choice scores. These significant intercorrelations between the elevating and structural features of the joke work and humor choices gives support to the formulation that humor reflects a generalized mode of adaptation.

Comment: Central to Hypothesis 3 was the tenet that by conceptualizing RISE as a psychic structure it would be possible to predict modes of expression and control of primary process material in diverse contexts. Support for this prediction was observed for the majority of ARISE components, for humor scores on the "Story Test" and for "cognitive control" and "humorousness" rating dimensions of the Favorite Joke. Humor and to a marginal extent resignation, emerges as a more stable characteristic of functioning than does hostile wit. Further, significantly lower correlations between current and component a ARISE with other measures of adaptive regression, suggests that these two component scores may reflect some breakdown or change in a previous capacity for

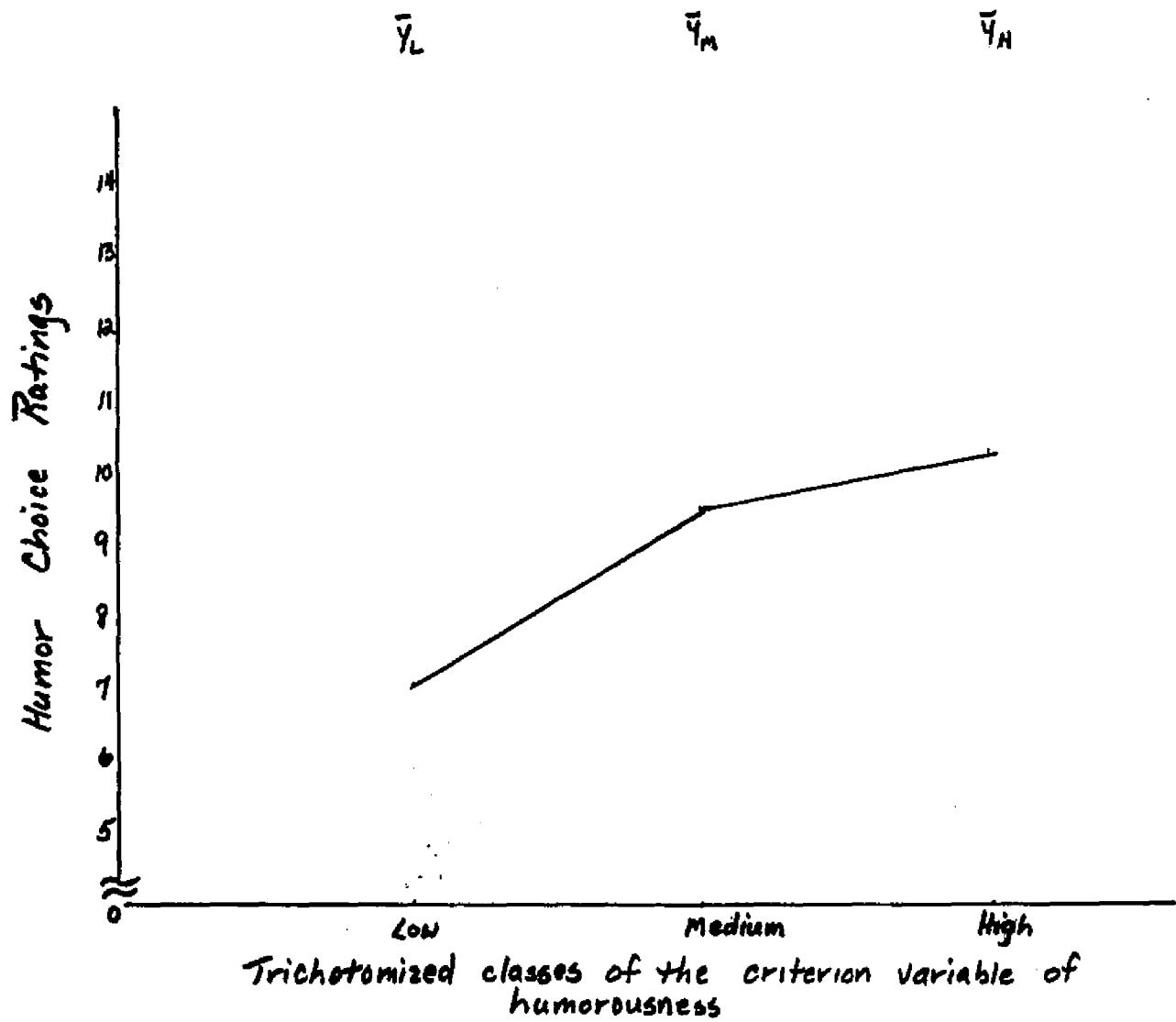


Figure 1. Relationship of humorosity of Favorite Jokes and Humor Choice ratings on the "Story Test".
(N' = 29)

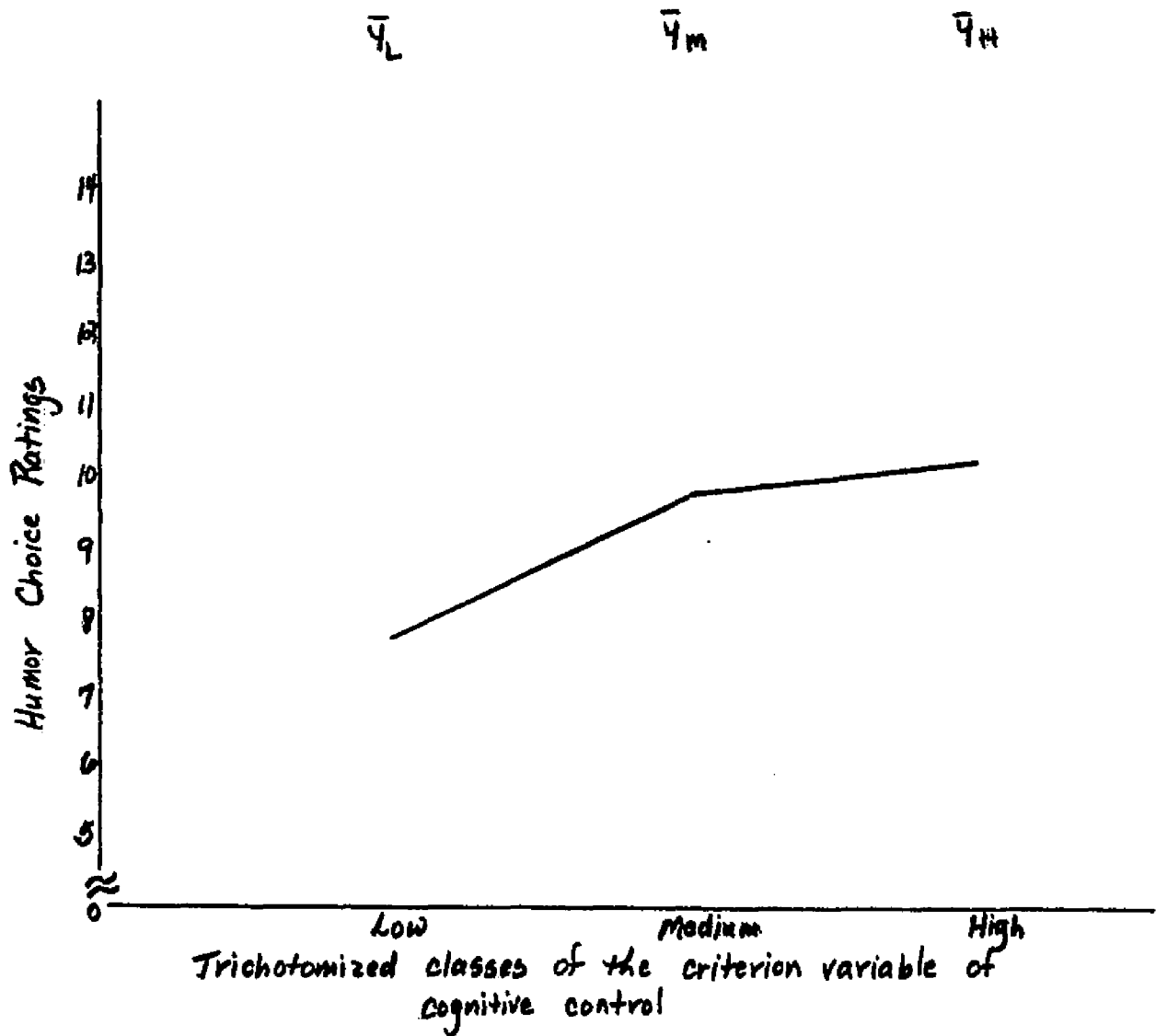


Figure 2. Relationship of cognitive control on Favorite Jokes and Humor Choice ratings on the "Story Test".

(N' = 29)

RISE. It is interesting that a reduced efficiency in functioning was suggested in the initial correlations presented in Table 5. It was noted that current ARISE was significantly inversely related to suicide lethality while the negative relationship between lethality and characteristic ARISE failed to reach significance. A t test for the difference between the correlations of characteristic and current ARISE with suicide lethality did not generate a significant difference ($t = 1.47; p < .10$). Yet, there does seem to be some indication of an association, albeit evanescent, between lethality and a breakdown in a previous capacity for RISE in certain Ss in the sample.

Additional Explorations

In addition to the formal hypothesis some further questions were explored. These analysis were carried out as suggested by the data after collection. The question arose whether there was any significant and contaminating influence of intelligence on the interrelationships observed in the study. The Similarities and Vocabulary subtest scores of the WAIS were initially used as a criterion for subject selection. (Scaled scores on both subtests are contained in the summary of sample characteristics in Appendix A.) Partial correlation coefficients were computed between the test variables in the study, partialling out for the linear effects of Vocabulary scores on the intercorrelations previously obtained. Those residual correlations that significantly qualify or amplify previous correlations are presented in Table 11.

Insert Table 11 about here

From a comparison of the correlations in Table 11 with those previously presented in Tables 5 and 9, it can be observed that correlations were not uniformly affected by the statistical factoring out of Vocabulary. Specifically, none of the intercorrelations between suicide lethality and the predictor measures were altered in any significant way. Factoring out for Vocabulary did variably alter certain of the intercorrelations among the predictor measures. The correlations between Characteristic ARISE and both humor ratings and humor choices evidenced no significant reductions, yet partialling out did affect the correlations between humor and Component b, Current and to the most impressive extent, Global ARISE. That Vocabulary scores had such a differential effect on the different intercorrelations precludes conclusive deductions. It is of import that the correlations between the criterion and predictor measures were not obviated by the potential contaminating effects of Vocabulary, nor were the correlations involving the characteristic measure of ARISE affected. While the finding that Vocabulary scores may be a factor in correlations between certain of the components of the ARISE scale, particularly Global ARISE, cannot be ignored, it does not seem warranted at this point to negate the significant trends that were observed. Though intelligence may indeed be a factor in the variables under study, it is not certain that

Table 11

Residual Correlations for test variables after partialling out for the linear effects of Vocabulary score

Scores Correlated	Partial Correlation Coefficients (free of the linear effects of Vocabulary Scores)
Suicide Lethality	
X Ego Strength	-.43**
X Humor Ratings	-.13
X Humor Choices	-.20
X Global ARISE	-.54***
X Characteristic ARISE	-.11
X Current ARISE	-.42**
X Morbid Favorite Jokes	-.70****
Humor Ratings	
X Global ARISE	.01
X Component b ARISE	.14
X Characteristic ARISE	.41**
X Current ARISE	-.19
Humor Choices	
X Global ARISE	.28
X Component b ARISE	.20
X Characteristic ARISE	.46***
X Current ARISE	.08

****p of < .001
 ***p of < .01
 **p of < .05
 *p of < .10

Vocabulary scores necessarily reflect this factor well, nor can they be blatantly equated with general intelligence level. It is unfortunate that Full Scale intelligence levels from the WAIS were not available.

The formal results of the study can be summarized as showing: (1) partial support for the hypothesis of a significant inverse relationship between measures of adaptive regression and suicide lethality; no support for the alternative prediction of a curvilinear trend between lethality and humor; (2) acceptance of the hypothesis of a significant relationship between measures of ego strength and humor, as well as confirmation of the prediction of a significant inverse trend between ego strength and suicide lethality; and (3) support for the prediction of positive interrelationships among different measures of adaptive regression.

CHAPTER V
DISCUSSION

Discussion of Quantitative Results

To recapitulate the results of the study, there was partial substantiation for the prediction of a direct inverse relationship between the capacity to adaptively regress and the degree of suicide lethality. For the majority of components on the ARISE scale significant inverse relationships with lethality were observed. However, significant findings were not obtained for the specific humor measure on the "Story Test". Other findings suggest that the predicted inverse relationship between humor and lethality may indeed exist but could have been obscured by the specific nature of the instrument employed and the influence of other variables, some of which were considered in Hypotheses 2 and 3.

The support found for Hypothesis 2 demonstrated a significant relationship between the measure of ego strength and humor, as well as confirmation of an inverse trend between ego strength and suicide lethality. Kris (1952), Zwerling (1959), Levine and Redlich (1955), Grossman (1966) and others have emphasized that structural and complex personality factors, ego strength in particular, are needed to understand humor. Indeed, by relating the adaptive capacity for humor along the dimension of ego flexibility in Hypothesis 2, significant trends did emerge. Conversely, confirmation of the second part of Hypothesis 2 concords with the formulation of a predisposing, structural condition that favors the pathological

regression in suicide; namely, a disorganized and disharmonious ego structure. Of added significance is that with the introduction of the structural and organizational construct of RISE, as was done in Hypothesis 3, it was possible to observe a predictable style of functioning which seemed to determine responses in a variety of contexts. By viewing these findings in their totality it seems feasible to speculate that certain instruments used in testing Hypothesis 1 did not reflect the complexity of the phenomena under investigation. Specifically, the "Story Test" did not elucidate a structural appraisal of the adaptive and integrative functions of the ego in its measure of humor. It is noteworthy that both the humor measure of the "Story Test" and the index of suicide lethality did indeed display significant relationships with measures of such structural constructs as ego strength and ARISE.

It is probably no accident that the measure which turned out to behave most according to predictions, the ARISE interview, allowed an appraisal of intervening functions, as well as a sensitivity to situational changes. Certain differences in the intrinsic requirements of the two tasks, the "Story Test" and the ARISE scale, may partially explain the findings of Hypothesis 1. The "Story Test" asks for a discrete, finite response from the S, for which there is an external referent when the task has been completed. By the very structured nature of the task, it appears that potential manifestations of differential adaptive, and defensive operations were minimized, namely, less of the S's style of

coping became apparent. Both Kris and Bellak make reference to the assumption that RISE involves two processes or stages. No such discrimination of the stages of the creative process could be made from the "Story Test". Performance on the task could have merely assessed a passive relation to secondary process, or a small demand for secondary process activity. The ARISE interview allowed for such a discrimination between the various operations of adaptive regression. The S had to decide for herself how far to carry her productions, what constituted satisfying the task and how much of her thinking to reveal. To the extent that the defensive structuring must all come from within, there is more room for individual differences in patterns of coping to show up. For this reason, the ARISE scale may have been a more sensitive discriminator of stylistic differences in shifts of control and organization from S to S. It will be noted that there was a high degree of reliability between judges in their ratings on the interview and significant associations were found between ratings and scores on other RISE measures. In addition, the extensiveness and depth of the interview appeared to give the Ss an opportunity to become more seriously engaged with the interviewer and with the task. Another impression was that not only were different parts of the interview productive with different Ss, but that responses in one part were subject to illumination and elaboration by responses in other parts of the interview. (Specific illustrations from the protocol material will be discussed in a subsequent section).

In evaluating the equivocal nature of the findings of Hypothesis 1, factors other than the intrinsic nature of the instruments used deserve comment. First, the nature of the study sample and features influencing the representativeness of the data should be kept in mind. It is clear that in choosing to observe a group of women in a City Hospital psychiatric ward, one has already isolated a highly specialized group. The sample drawn was further restricted to those women who could attend to the requirements of test administration and to those who did not leave the hospital without medical agreement. Further bias may have resulted from the mixing of acute and chronic dimensions as well as the history or absence of previous psychiatric admissions.

The likelihood that the sample may have been too heterogeneous can be countered with the argument that the sample was too restricted and thus, too homogeneous. In fact, there was an insufficient range of suicide lethality represented. Restrictions in the design weighted against the inclusion of either extremes of the suicidal spectrum. None of the characteristically high lethal groups, male Ss or older Ss, were represented. Secondly, the range of creativity and humor sampled may have been smaller than desired. The majority of the sample were drawn from a culturally and educationally deprived group of women. It is possible to speculate that if there had been a broader range of creative and humorous capacity, more specific elucidation of the relationship between adaptive regression and suicide potential could have been made. It is conceivable for example, that the capacity for

RISE may not vary directly with a personality structure that can stave off pathologically regressive experiences, but may simply be a characteristic of a group who have achieved a more uniform degree of ego autonomy. The capacity for adaptive regression would be but one manifestation of this structural integrity. Thus, rather than a continuous relationship between the two variables, RISE and suicidality, there could be qualitative differences between groups. It is of note here that Gamble and Kellner (1968) found in their study of creativity functioning and cognitive regression that their high creative group of Sg displayed more homogeneous performances on a variety of dimensions of cognitive functioning. They concluded that in a high creative group one might expect a more even development of the various strands of optimal ego functioning. It is possible that middle and low 'RISE groups' are not in fact different in degree of adaptive regression but only in a stylistic variable that accompanies their failure in control of structure over drive and relative autonomy of the ego. On the other hand, maybe those on the extremes of the dimension may have important features in common which distinguish them from the majority in the middle. Such potential clustering of groups could not be delineated from the formal results of the study. With these sample restrictions in mind, neither does it seem fitting to reject the possibility of a curvilinear relationship, even though no such trend was observed in the data.

Discussion of Specific Hypotheses

Given that the results of Hypothesis 1 are not uniformly clear-cut, the research does support and extend the theoretical

formulation that with pathological regression of the ego there is structural pathology and likewise, that a differential capacity to adaptively regress does bear some relation to suicidal risk. That components of the ARISE scale did significantly differentiate Ss of varying degrees of lethality speaks to notable contingencies between regression and adaptation. However, it is essential to evaluate these regressive processes in the context of the reversibility of the process, the extent to which adaptation functions at the same time, and the degree to which the personality is involved in the regression. The prediction that humor may specifically serve as a vehicle for such an appraisal was strengthened by the findings of Sub-Hypothesis 1.

Suicide lethality was significantly and positively associated with favorite jokes judged to be of "morbid" thematic content. Morbidity of content was not significantly associated with humorousness or cognitive control dimensions of the joke product, nor was it associated with the humor measure on the "Story Test". Yet, significant positive relationships were found between jokes judged as humorous and those judged to display good cognitive control, and in addition, both dimensions correlated positively with the humor measure on the "Story Test". It therefore appears that when stark, flagrant, and unmodulated lethal imagery intrudes in the very humor production, there is frequently a parallel reduction in the autonomous functions of the ego. Of specific note is that while the intrusion of lethal imagery did display significant relationships with lethality, no such association was observed

with lethality and the more adaptive and structurally intact processes in the humor product. Thus, in the seriously suicidal S ego functions are frequently overwhelmed and give way to archaic material. Poor drive regulation and organizational and integrative dysfunction go hand in hand. Silverman (1967) in his subliminal studies of aggressive drive activation concluded that thought disturbance and other impairments in thinking will be a frequent outcome if aggression is insufficiently discharged through appropriate channels, e.g., through affect and fantasy expression. These disruptive impulses can virtually "infiltrate" the ego functions, producing subsequent disruption. It is a rather impressive observation that such complex dynamic and structural interplay could find their means of expression overtly through jokes. It will be recalled that no such delineation of the response process, the joke work, could be made on the structured "Story Test", where only a final discrete measure was tabulated. Perhaps in telling a joke, as in the ARISE interview, more of the total personality was involved and aspects of both secondary and primary process as well as emotional reactivity could be elicited.

The results of Sub-Hypothesis 1 find rather definitive support in the experimental literature. Spiegel, et. al. (1969) also examined the favorite jokes of suicide attempters. They found that the humor productions of the suicidal group displayed significantly more self-destructive themes than did those of their non-suicidal group. Richman (1968) also attests to the potential of joke productions to tap

covert attitudes, specifically surrounding themes of suicide, homicide and death. Raphling (1970) contrasted the thematic content of manifest dreams of a suicide attempt group with those of a non-suicidal control group. The specific themes of death, destruction and violent hostility were present in dreams of suicidal patients to a significantly greater extent than in the dreams of the comparison group. These findings are reminiscent of the original parallel Freud (1905) drew between mechanisms of dream work and wit work. Raphling contrasted his results with studies of the manifest dreams of depressed patients. He noted that depressed patients typically reveal content which expresses themes other than those of violence or death; namely, themes of masochism, helplessness, self-criticism and escape. That such a differential was observed highlights the applicability of humor in differentiating not only degrees of suicidal risk but in distinguishing between various types of depression. It will be recalled that in the present study, the degree of depression, as measured by the MMPI scale, failed to differentiate suicide lethality.

The relevance of measures and formulations that do take structural and adaptive factors into account can be applied to the findings of Hypothesis 2. The psychoanalytic study of ego functions has stressed that it is the means of conflict resolution and their relative success that is perhaps of even greater import than whether one simply has more or less of a conflict. The significant results of Hypothesis 2 demonstrated that Ss showing a greater degree of ego strength evidenced

a greater capacity for humor and less suicidal potentiality than did Ss with less ego strength. These findings lend confirmation to the formulation that it is the flexibility of defenses and integrative ego functions which favors the kind of adaptive and controlled regression in humor. The value of Kris' (1952) work lies in his emphasis on the ego factors requisite for the creative regression in humor. Kris, and later Rapaport, clearly distinguished such an active capacity of the ego from the passive position of an ego overwhelmed by regression. Hartmann (1964) formulated the concepts of neutralization and autonomy of the ego to encompass this resistivity of ego functions against regression and stated that what is characteristically called ego strength is probably the best way to assess it.

The positive and significant correlation between humor and ego strength can now be contrasted with the inverse relationship observed between suicide and ego strength. Kris (1952) emphasized the "double-edged" character of humor and other forms of adaptive regression. He stated that when the ego is strong enough to master the anxiety and shifts in functioning aroused by humor, pleasure can arise from unpleasure. Those to whom the comic is unknown do not have the ego flexibility that allows for such an adaptive reduction of tension under stress. Schafer (1958) notes that the least psychic regression has been found to occur where the ego functions must be maintained at the cost of impoverishing the personality. Under these conditions the ego is helplessly compelled to either discharge tensions or to maintain

"exhausting expenditures of its energies" against these tensions (Schafer, 1967). Such a description bears a marked resemblance to the picture of the seriously suicidal individual, who is typified in the literature as rigid and incapable of seeing alternative life solutions. The depth of inflexibility in this group precludes recourse to such detour activities as humor and in fact, makes such recourse psychologically dangerous. Litman and Tabachnick (1968) defined the predisposing condition for the pathological regression in suicide as a "disharmonious ego structure" which splits up under relatively low conditions of stress. Structurally, such a disharmonious level of integration has few modes of reacting to stress available, other than regressive means. As Sappenfield (1954) suggests, the degree of ego strength that could mediate a flexible interchange between ego and superego is not available. Thus, in the context of the present findings, Zwerling's (1959) statement that we laugh at what makes us anxious, can be only partially supported. People laugh at what makes them anxious if they have the ego strength to do so. The organizing function of the ego which could control such a regression and control the anxiety entailed, seems deficient in the suicidal S.

To return to the literature, a number of studies have explicitly examined the effects of ego strength on the humor response. Darmstadter (1965) and Grossman (1966) also used the Barron's Ego Strength Scale from the MMPI in their work and found that Ss high on the scale responded most positively to stressful and problematic humorous stimuli. Grossman

discussed his results in terms of Kris' "double-edged" notion of the comic. He found that a group of female Ss who scored high on ego strength preferred cartoons in their chief problem areas. He concluded that when the ego is strong enough to master the anxiety aroused by a cartoon connected with one's problem area, humor is available as a safety valve. Rosenwald (1964) investigated the relationship of drive discharge to the enjoyment of humor. He observed that it was neither the "impulsive" nor the "constricted" S, but the "flexibly modulating" Ss who gave the most positive response to humor. Miller (1968) specifically employed the Barron's Scale on a suicidal population and found that the group of suicidal Ss had significantly lower scores than did normal controls. Levinson and Neuringer (1971) most recently contrasted adaptive problem solving capacity comparing groups of suicidal patients to non-suicidal controls. They found that it was the suicidal group which had the greatest difficulty in being flexible and evaluating what was important and crucial.

In terms of the particular humor measure used in testing Hypothesis 2, it will be recalled that O'Connell (1964) observed that personality measures were instrumental in predicting reactions to different kinds of wit and humor on the "Story Test". Well-adjusted Ss appreciated humor significantly more than the poorly-adjusted Ss, while the latter predominantly favored hostile wit. With the introduction of stressor conditions, it was only the well-adjusted Ss who could take advantage of hostile wit. Under stress the

maladjusted Ss intensified their repressive efforts to the extent that even hostile wit was no longer an available release route. O'Connell and others have concluded that the maladjusted individual uses defenses in non-stress situations to such an extreme degree that he cannot call upon a more intensive defensive effort in times of stress, and is thus more prone to disorganization. Kris (1952) also alluded to this when he stated that humor can only be effective and relieve stressful situations when a degree of ego mastery has already been achieved.

To draw a parallel to the present study, in contrast to humor, hostile wit failed to correlate with ego strength and in fact there was a negative trend in the data that fell just short of statistical significance. From another section of the study it will be recalled that "morbidity" of joke content was positively associated with suicide lethality. What seems to emerge is that the ego's control over the drive expression in humor is differentiated from the more pathological expressions in hostile wit, 'lethal' joking and suicidal behavior. Both in the 'morbidity' of humor and in the 'severity' of suicide, crucial controls and modulations optimally provided by the defenses and synthesizing functions of the ego are not operative, and raw drive components emerge more sharply. To speculate further, ego strength has been discussed in the literature as a rather stable and characteristic personality construct. That this measure was inversely related to suicide lethality, appears indicative of a marginal state of chronically

immobilized ego functions in seriously suicidal Ss. In line with Grinker's (1967) model, for some reason the ability of the ego to maintain this rather tenuous state of equilibrium is threatened and there is a further narrowing of the "ego's span of control", exposing the conflicts which may have initially contributed to the weakening of the ego. A vicious circle is generated involving both the reemergence of archaic impulses, with their associated anxieties, and a further breakdown of ego control; a circle so reminiscent of the structural descriptions of pathological regression. Drawing on a final point in O'Connell's work, it was observed that humor, as opposed to hostile wit, emerged as a rather stable characteristic, as it was unaffected by interaction or stressor conditions. This line of reasoning leads us to a discussion of the final hypothesis.

The findings of Hypothesis 3 supported the prediction of a positive association between different measures of adaptive regression. The hypothesis was based on the assumption of a common, unitary factor running through disparate measures predicted to reflect aspects of adaptive regression. The results do give credence to the formulation of a differential between those Ss who are more capable of adaptive regression and those Ss who cannot manifest the delay through ideation that would lead to RISE. Of added note is that while the humor measure on the "Story Test" and the structural dimensions of the Favorite Joke were associated, hostile wit measures and 'morbidity' of joke content failed to correlate with other measures of adaptive regression.

Therefore, the results highlight two features: modes of dealing with drive derivatives and primary process material emerge as rather stable characteristics or structures, and humor specifically seems to operate as a manifestation of this generalized mode of adaptation.

It is evident in the literature that RISE has become an important criterion for differentiating adaptive from pathological activity (Weissman, 1967). Repressed material can re-enter the ego for inspirational and creative purposes without ego regression. Attributing structural properties to such an adaptive mechanism is the rather unique contribution of psychoanalytic ego psychology. To recapitulate for a moment, Schafer (1958) described RISE as a psychic structure that is a relatively stable characteristic configuration, which is neither contingent on each new occasion of stimulation nor specific to any given dynamic constellation. Rapaport (1967) emphasized that the turning of "passive" experience into "active" performance lies at the core of structure formation. Certain behavioral attributes, conceptualized as ego autonomies, are characteristics of this ego structure and organization. These structures need "nourishment" for their development and maintenance and the more autonomous the ego the more this nourishment is provided by the internal sources of other ego structures. This notion of "intrasystematic cooperation" between mutually sustaining ego structures accounts for the persistence of such "style structures" in the face of stress or deprivation. That adaptive regression emerged as a relatively stable individual

difference parameter in the present study concords with these metapsychological tenets.

Schafer (1958) included humor within this domain of psychic structure and suggested that humor may eventually reflect a "permanent transformation of the ego". Schafer, as Kris (1952), distinguished this generalized and stable mode of responding from the transitory gains attained in wit and mania. This differential was also supported in the present study where humor, as opposed to hostile wit, correlated with those generalized and stable manifestations of ARISE (i.e., Global and Characteristic ARISE) and ego strength (see Hypothesis 2).

In line with Rapaport's thinking, it is interesting to speculate that perhaps RISE and humor could function as mutually sustaining structures which supply "intrasystemic cooperation". It is fitting here to recall Freud's (1905) original formulation of humorous displacement as a process which, "...serves mental events as an automatic regulation (p. 233)." The trend of the findings suggest that RISE and humor emerge as characteristic coping mechanisms associated with manifestations of ego strength, and in the specific case of ARISE, at odds with manifestations of suicide lethality. The seriously suicidal S can be viewed, in structural terms, as lacking the capacity for the autonomous cooperation of enriching and differentiated psychic structures. In the face of internal and external stress, an influx of stimuli is imposed on an already limited and constrained structure. It can be seen that in the present sample resignation scores

on the "Story Test" were significantly inversely related to characteristic ARISE. O'Connell (1964) noted in the construction of the test that while resignation does not reflect disorganized panic responses, neither does it display the enriching and adaptive attributes of humor. Such a constrictor, such a "resignation", may depict the more chronic condition of the suicidal individual, marked by a paucity of internal alternatives.

The results of Hypothesis 3 do parallel the trends in the experimental literature on adaptive regression. It will be recalled that Pine and Holt (1960) also suggested that modes of dealing with primary process can become generalized as broad cognitive controls. They differentiated the capacity to divert energies into constructive ego activities from the discharge of energies in the unneutralized pursuit of libidinal and aggressive goals. Wild (1965), Fitzgerald (1966) and Feirstein (1967) went on to empirically broaden the concept of RISE to encompass predictable styles of behavior in the perceptual domain as well. They concluded that impoverishment in this area represented an effort to maintain simple, at times rigid, modes of responding in order to fend off disorganized experiences. Gamble and Kellner (1968) concluded that creative functioning and adaptive regression are enhanced by the kind of cognitive organization which permits the availability of a variety of response alternatives in any problem situation. In turn, there is research verification for the view that humor comes to reflect a stable adaptive style. For example, Levine and

Rakusin (1959), and Epstein and Smith (1956) concluded that individual reactions and accessibility to humor reflect highly, reliable individual differences that are not contingent on each new situation.

Discussion of Qualitative Findings

In the discussion of Hypothesis 1 a question was raised as to whether potential clusterings or groupings of Ss could have been obscured by the nature of the sampling procedures and data collection. An effort was made to examine the verbatim protocol material of the ARISE interviews to see if any such clusterings, groupings or 'syndromes' emerged, given the limited range of the sample. This material is offered in the spirit of impressionistic appraisal, with the hope that it may stimulate more extensive study.

The majority of the Ss in the sample fell within the mid-range of suicide lethality and within this group there seemed to be a predominance of Ss manifesting features of hysterical-like cognition, approximately about 16 Ss. Striking in the material was a reliance on suicidal ideation itself as a defensive piece of ideation; if you will, as an analogue of repression. It appeared that recurrent suicidal thoughts and ruminations functioned to ward off other thoughts, as a way of avoiding a relationship with the ego. What appears as hysterical acting out may be a means of fending off forbidden fantasies and thoughts. The interplay between suicidal thoughts and conscious fantasy can be observed in the protocol material of one young woman who fell within this mid-range

of lethality. Excerpts from the interview with Miss J. follow:

I: Are your daydreams ever put to any use?

S: Yes- tried to kill myself - when I think of anything - try to kill myself.

I: What about your dreams?

S: I don't dream - I don't fantasize.

I: If you have a serious problem to solve how do you go about solving it?

S: Try to kill myself.

I: Do you ever let your thoughts wander and then later, organize them and come up with a good solution?

S: Nothing except killing myself.

I: What is the most spontaneous thing you've ever done?

S: It's the same answer - trying to kill myself.

Each and every time conscious fantasy and inner ideation was elicited, suicidal material and action propensities seemed to replace thought and mitigate against fantasy expression. Excerpts from another S within this group, illustrate such repressive functions of action and ideation.

I: Do you enjoy letting your hair down and just giving into fanciful feelings?

S: No because when I think what I want to think it's usually bad and I end up doing things.

I: Have you ever come up with an answer to a problem in a dream?

S: Yes - but all the wrong ones. I tried to commit suicide. There's solutions to every problem - no? I tried to take the easy way out all the time.

I: Are you ever able to think strange and nutty thoughts without being upset or frightened?

S: Thoughts or actions? Mostly actions - I do crazy things like try to kill myself.

One speculation as to what these defensive actions and thoughts may forestall, was gleaned from the characteristic favorite joke material of this group. Many stark, sexual, hysterical jokes were elicited. Themes of oral sexuality, promiscuity, prostitution fantasies and homosexual wishes were suggested by the joke content. Suicide ideation and action may in part prevent the acting out of these forbidden sexual fantasies. The suicide ideation serves a repressive function in that these thoughts do not enter consciousness, and the regression itself further avoids the sexual problems. It is interesting that Shneidman (1967) posited that very frequently fantasies of suicide are disguised sexual perversions, where defenses and the prospect of death itself becomes libidinized. He also stated that frequently an object of suicide may be to avert the possibility of yielding to forbidden impulses. Richman (1968), in his survey of jokes dealing with suicide and death themes, observed a major covert relationship between sex and death. Namely, the opposite of death may not necessarily be life, but sex, especially forbidden or illicit sex. Whether such repressive forces may be in the service of libidinal or other drive derivatives, what can be suggested is that these tremendous expenditures of countercathexes do not foster the active participation in primary process activity that would lead to RISE. In fact, this group was often typified by Ss who appeared empty, limited, isolated and stimulus-bound, with no particular primary process talent nor evidence of its development. One S, who was characteristic of this group, evidenced a paucity of primary process

activity, with a pervasive avoidance of fantasy and ideation.

I: Do you daydream?

S: No - as a child I sometimes did - but not - not really.

I: Tell me something about what you do with your dreams?

S: I haven't had any dreams in so long - seldom dream. Just go to sleep and wake up the next morning.

I: Are you ever able to let go and think strange and "nutty" thoughts without being upset or frightened?

S: Very seldom do I think of very awful thoughts - can't think of any.

I: What is one of the most creative things you've ever done?

S: Creative? In what line of work? In high school we used to make our own patterns.

In sum, what this 'hysterical-represser' group of women appear to display is a reliance on hysterical-like defenses and sporadic acting-out in the service of avoiding and mitigating against access to their inner life. It is no surprise that these defense and symptom preferences are congruent with their inability to escape a sense of personal entrapment. The options which could aid them in gaining mastery over their distress are diminished. The marked repressive efforts and the rigidity and stereotypic nature of their attempts to block out change and simplify the world, do not lead to the "flexibility of repression" that would emerge as RISE or humor.

While there was a weighting of Ss in the group just

described, other tentative groupings or clusters seemed suggested by the interview material. Characteristic of a second group consisting of approximately six women, were those Ss whose defenses against regression and psychotic primitivization of thought were markedly thin. The distinctions between thought and action, between ideas and reality, were marginal and primitive fantasies were on the verge of erupting, leading to a fear and guardedness of any primary process material. As this group was not significantly represented in the sample, it is premature to make direct correlates to suicide lethality. However, the devastating effects this propensity for ego regression has on the accessibility to adaptive forms of regression seem evident in the following excerpt.

I: Tell me something about what you do with your dreams?

S: Sometimes my dreams come real and I believe in them and that's what brings me into the hospital. I dreamed I killed my parents in one of my dreams and I believed it so strongly I believed it. [?] No, I don't believe it now though I have flashbacks about it. One other time I was in the hospital I dreamt my psychiatrist jumped out a window and committed suicide and I was broken up about it because I love him.

Another S, who also displayed characteristics of this group, gave the following response:

I: Have you had the experience of the thoughts and feelings of a dream continuing when you wake up?

S: Yes - I wake up and I'm wide awake - but I can't move - I'm paralyzed and I still feel the dream going on even when I'm awake - I want to scream.

The temporary and well-regulated regression observed in RISE is virtually impossible for such Ss. They cannot afford the

inner freedom of lifting and shifting cathexes, of moving back and forth between levels of organization and later re-establishing repression. These psychotic Ss do not have the leisure to tamper with what residues remain of their repressive functions.

A final group that seemed representative in the sample, approximately six in number, were those Ss characterized by a previous reliance on ideational and obsessive-like defenses and a once impressive capacity for RISE. Neither predominantly hysterical nor in particular, repressive modes weigh heavily in this group. Rather, there appears to be a breakdown in a once developed capacity to accept and utilize primary process. It will be recalled that in the results certain of the ARISE components, i.e., Current and Component a ARISE, failed to correlate significantly with other, more stable, manifestations of RISE. It was suggested that these components may have reflected an acute or more insidious change in some previous capacity. It is noteworthy, that within this group of Ss significant differences between Current and Characteristic ARISE component scores were pronounced. One woman who scored within the high range of suicide lethality offered the following material:

I: Tell me something about what you do with your dreams?

S: I remember my dreams - one was so incredibly beautiful. I dreamed it about a year ago - last winter - dreamed about an orange red rose growing out of the snow - tried to draw it so many times, to get the color, the feeling - so beautiful.

I: Have you ever had the experience of when there is a problem to solve of just letting your thoughts go and then later coming up with a good solution?

S: Now I can't - I get crazy - when I have a real problem I just hang on it - it won't get out of my head.

While no quantitative generalizations can be made, it is of note that all these women who manifested a decompensation of obsessive and ideational modes of defense were in the high lethality ranges of the sample study. In fact, the woman who did eventually kill herself, Mrs. M. was included in this cluster of Sg. Some of the protocol material from Mrs. M. follows:

I: What do you do when you're alone and have nothing to do?

S: I usually pace the floors. I don't do much of anything any more except to think of ways to kill myself. Sometimes I try to live in a fantasy world where things are always right. But now the only answer I can come up with is death.

I: Are you ever able to let go and think strange and nutty thoughts without being upset or frightened?

S: Yah - I could do that - when I took the razor blades I had a strange and nutty thought.

I: Do you ever find that things you do with a playful attitude can later be put to serious purpose?

S: Used to - a lot - would explore things, liked to see what things are made of - why is it that way. But no more.

A major disruption seems to have occurred at some point in this woman's life and neither obsessive and ideational routes, nor a recourse to psychosis have allayed suicidal material. She is not characterized by the repressive devices of the first group, nor does she fit into the second group of Sg who find

some diminution or alleviation of tension through psychotic means. It is striking that this was the only woman in the whole study who could not even offer an affirmative response to whether she liked music. This was the one area of positive enjoyment that every other S uniformly responded to. In an effort to understand this last group within some framework, one speculation is that a decompensation of a previous capacity for RISE, combined with active suicidal propensities, is perhaps more ominous than the incapacity for RISE. This might begin to explain the seemingly discordant incidence of suicide in impressively gifted creative and humorous people (e.g., Sylvia Plath). It can be conjectured that when such an access and sensitivity to inner life and emotional nuance no longer emerge in the service of the ego, the inner sense of devastation is more exquisitely felt than for those who have never known such access.

It is tempting at this point to try to integrate these qualitative findings within some model; for example, Goldberger's (1961) continuum of the ego's control over primary process expression. While such an inclusion is at best premature given the insufficient and limited range of the sample, the very assumption of a "continuum" could be debated. The fact that impressively creative and flexible Sg, neither rigidly organized nor psychotic, were not significantly represented is a further hindrance. However, certain parallels with Goldberger's work seemed so compelling that some comparisons will be offered. Goldberger (1961) defined three modal points on his continuum of modes of handling primary process;

ranging from uncontrolled, ego-alien, breakthroughs of primary process elements into consciousness, through complete repression of primary process, to the controlled, modulated use of primary process material in the service of the ego. The first modal point seems to parallel the second group alluded to in this discussion. Within this group were Sg who were terribly threatened by primitive material and yet, did not have the ego strength to prevent their appearance, thereby necessitating the mobilization of pathological defenses. Goldberger's mid-group seems to parallel the first group of women, informally labelled, "hysterical-repressors". These were the constricted Sg who, through a heavy expenditure of repressive forces, produced little primary material into consciousness at the expense of constriction and rigidity. Certain of the Sg in the study, low on the range of suicide lethality and high on ego strength and RISE, could parallel Goldberger's final mode.

Schafer (1968) more recently distinguished three general types along a continuum of the readiness to suspend and restore "reflective self representations". Schafer states that this capacity to suspend self representations implies that the person can disappear for a moment as 'the thinker' and can momentarily experience his thoughts as though they were concrete realities. He conceptualizes this change as a shift to primary process ideation, in the like of a "regression in the service of the ego". This shift invariably entails the disappearance of such "reflective self representations". The three groups he distinguished, namely, the rigid, the

flexible and the fluid, again bear some semblance to the 'clusters' derived from the qualitative interview material. It is interesting that neither of these models seems to clearly encompass the last group described; those who once could, but no longer can, exercise RISE. It would be intriguing to observe what happens to the "flexibles" when they decompensate. For example, is there a propensity for them to become "fluid"?

Limitations of the Study

The findings of the study can hardly be regarded as definitive and the need for better-controlled replication is evident. Although several of the correlational analyses did satisfy the requirements of statistical significance, only a modest part of the variance was directly accounted for. While verbal intelligence and a depression factor were partialled out in the design, other relationships remained uncontrolled. On the other hand, the narrow range of lethality scores did in all likelihood affect the size of the relationships observed and the need for broader sampling was already mentioned.

To consider the latter point first, the restrictions in sampling may not only have influenced the range of suicide lethality, but the range of RISE capacity sampled as well. In future work, the findings could be checked out with a broader range of sampling populations and with a larger number of Ss, as to ensure that the results are not peculiar to the present sample. For example, sex differences in both the domains of suicide and humor have been noted in the

literature. It would be invaluable to observe the interaction of these variates in the context of the overall construct of RISE, comparing males and females. The advantage of broader sampling may also help to delineate the very applicability of the construct of RISE. For example, a poverty of RISE and humor may characterize seriously suicidal individuals, but it is by no means unique to this population and may indeed typify other syndromes.

Bias in the present sample of hospitalized patients may have resulted from such uncontrolled effects as therapeutic and pharmacological intervention, reactions of significant others in the Ss' lives and the tendencies of Ss to behave in a socially acceptable manner in order to facilitate release from the hospital. In the very criterion measure of suicidality several dimensions were mixed and superimposed in deriving a final rating score. No distinction was explicitly made between behavioral, motivational, and interpersonal continua nor in the very range of psychopathology. Another major design was the time interval between test administration and the advent of critical crises, be they of an internal or external nature. One suggestion would be to institute multiple samplings to study these acute phases. The samplings would produce a profile of change or stability in certain functions. Nussbaum and Michaux (1963) observed that with a "lifting" of depression in a group of in-patients, came increased pleasure from hearing witticisms. With a finer appreciation of the parameters of humor and RISE, it would be interesting to observe which particular functions,

e.g., humor or hostile wit, were stable over time or were disrupted at the times of stress. Studies of individual reactions under various types of stress are also required to discover whether wit and humor serve adaptive means by themselves or only in combination with other tension-reducing behaviors.

Certain methodological points can be made about the particular test instruments used. One is the need to delineate the mental operations specifically required by the tasks before predicting the performance of various groups. Problems of appropriate response measurement in the area of humor and creativity research are replete in the literature. While it was Freud's (1905) belief that the passive appreciation of wit and humor, "echoes the psychic states of the jest maker", it seems that those tasks that require the active creation of humor are most revealing. Yet, given that the statistical significance obtained with the "Favorite Joke" technique on such a small sample is impressive, the precision of this technique has not been proven. Factors which determine the selection of the favorite joke, the meaning of the joke to the S or whether the joke is merely the most recently one heard or the only one remembered, remain undetermined. Another possible limitation concerns the reliability and validity of the measuring instrument of "ego strength". Herron (1962) and Frank (1967) in their assessments of ego strength, have both pointed out that no single measure, be it Barron's scale or others, appears completely adequate. Ego strength is a somewhat vaguely defined construct and only with continued delineation of its behavioral and structural correlates will its precision improve.

Implications for Future Research

Allowing for the limitations in the design, there are a number of implications which arise from the study which touch on several domains, be they clinical, diagnostic, or theoretical. Since no diagnostic entity is pathognomonic of serious suicidal intent it seems vital to focus on isolating reliable syndromes, within a consistent theoretical framework. Out of such a framework hypotheses and appropriate test measurements could be generated. With the advent of psychoanalytic ego psychology, attention has been given to the construct of shifts in levels of psychic functioning, in both its adaptive and pathological forms. In the present context, efforts were made to examine those structural resiliences and resources of the ego which allow for tension reduction in times of stress, namely, the capacity for RISE. Specifying degrees of structural dysfunction in a suicidal population has both theoretical and practical implications.

It will be recalled that Farberow (1950) cautioned the researcher against interpreting data obtained following a suicide attempt as representative of the psychological state prior to the action. However, by specifying certain structural and characteristic styles of functioning that cut across disparate dynamic and diagnostic constellations, the timing of research is not so problematic. Specifically, through a conceptualization of 'modes' of regulation of primary process, predictions can be made regarding normative behavior as well

as responses under stress. Within such a framework one can elucidate either the enhancement or impairment of certain kinds of functioning. Rapaport (1967) speaks of "style structures" and posits that such structures speak to aspects of the whole spectrum of ego and superego development. It is known that suicidal individuals are more disturbed than "normals". But what is frequently overlooked is that chronic defects in ego functions may predispose some to a chronic doubt of their own efforts. As Appelbaum (1963) had suggested, these defects may come about through an excessive use of repression and on the whole, from an inadequate development of ego structures with which to control actions and thoughts. An appraisal of these more stable parameters not only reduces the practical research difficulties in the area but also serves to generalize and organize data and to generate specific predictions of subsequent life-threatening behavior.

It has been strongly suggested both in this research and in the literature that the capacity for RISE and in particular humor, may serve as an index, a crystallization, of these long-term structural differentiations and interactions. That humor may come to represent a stable personality construct and to denote a central element in life style has significant diagnostic and prognostic implications. Within the domain of suicide prediction, humor measures could be introduced as a form of screening device into psychiatric settings or suicide prevention centers. Jokes and cartoons could serve as stimuli for diagnostic assessment.

Self-generated humor productions, such as "lethal" jokes, could be added as predictors of serious suicidal risk. Humor is a natural and relatively non-provoking area of discussion, which could additionally serve as an indicator of success outside the hospital or as a criterion of eventual adjustment. If it is indeed founded that wit and humor appreciation reflect a remission in emotional disturbance, the course of dysfunction and the effects of therapeutic inputs could be further evaluated. In turn, differences in overall capacities for RISE and specific reactions to humor may be fundamental in distinguishing between various types of depression, and could perhaps isolate those forms which eventuate in pathological action.

In terms of treatment implications it is tempting here to speculate that the capacity for RISE may parallel those criteria enumerated as preconditions for intensive psychotherapy. It is frequently mentioned that in a workable therapeutic situation the ego of the patient does not fully participate in the regressive process and that an 'observing ego' must be brought to bear on the tendency to repeat and act-out. Such a facility may be seriously lacking in those patients who cannot adaptively regress.

While the general validity of the concept of RISE has received some confirmation, and efforts have been made to provide empirical observation of its mode of response, much remains to be learned about its range of applicability and developmental history. Kernberg (1970) suggested that normal RISE involves one special dimension: "The reactivation

of past internal object relationships in times of stress, of loss of external support, or of loneliness (p. 82)". He posits that past satisfying relationships are a source of internal consolation when reality threatens to bring about a loss of self-esteem. It is of note that the research literature consistently supports the view that unresolved object disruptions in childhood are critical in the history of potentially suicidal individuals. Dorpat et. al. (1965) observed that such early traumata lead to an inability to sustain object disruptions and losses in later life. In turn, Schafer (1958) stated that a relative mastery of early traumata is a crucial precursor of RISE, as it insures that crises have not been split off from the total personality. Approaching the capacity for RISE from a developmental perspective, it would be of interest to study the development of humor, wit and other forms of creative expression in children with, for example, traumatic object losses. If these contingencies do indeed affect the development of RISE, it would be no surprise that the capacity is impoverished in the suicidal S.

Apart from clear-cut traumatic events, it would be fruitful to explore the role of the parents in structuring experience for the child. It could be that the more narrow and restrictive the parents, the less tolerance and support there is for the kind of flexibility and openness that would lead to the development of RISE. Levin (1957) pointed out that humor and wit, as well as other forms of play, assist

the child in learning to think, to appreciate absurdity, and to associate ideas - all of which add to his capacity for adaptation. He draws a parallel between the structure of jokes and the thinking errors of the psychotic. If such forms of ideation and affect expression are by their very nature threatening to the parental figures, this anxiety could be communicated to the child. It would also be significant to explore the maturing of RISE and humor at different stages of development. The histories of both suicidal individuals and unusually creative people are frequently typified by critical problems surrounding individuation and self-object differentiation (Geleerd, 1956; Robbins, 1969). In addition, difficulties in the oral phase are often related to both subsequent propensities towards somatization and acting out as well as towards humor and sublimation. Perhaps a more precise exploration of the early rudiments of RISE at critical stages could add light to such seeming contradictions. Kubie (1970) recently stated that patients coming from families where there has been a predominantly hostile and ridiculing use of humor and wit cannot use humor as adults. Again, specific developmental issues are open to investigation.

Reference was previously made to Redlich and Levine's (1955) formulation that an intensive study of humor can lead to a better understanding of the relation between ego and superego. How do the results and implications of the study bear on this issue? An abiding sense of humor has been characterized as one of the hallmarks of optimal distance from inner conflicts, rooted in the "benign" aspects of the

superego (Schafer, 1960). As formulated by Schafer, the relief from an inevitable sense of guilt and a substitution of activity for passivity, contribute to and derive from these loving and benign aspects of the superego. In turn, Kramer (1958) noted that a developmental lack and "atrophy" of the benign superego is accompanied by a paucity of humor. Perhaps such a deficiency in the seriously suicidal \underline{S} may stimulate research in the area of early superego development. Hartmann (1964) maintained that certain types of superego formation may interfere with neutralization and the development of psychic structure. The developmental course of the superego has consequences for the total functioning of the ego organization and specifically, is crucial in determining the flexibility of defenses and controls required for RISE. Referring again to Rapaport's (1967) model, the intrastructural ego disruptions that may emerge as self-destructive actions reflect an interstructural tension between the ego and superego.

Kohut (1971) has recently presented an impressive delineation of those strands of development that eventuate in narcissistic disturbances. In explicit reference to the pre-oedipal origins of superego formation, he states, "...personalities who have suffered the traumatic loss of the idealized parent imago... in consequence of this are affected with a specific structural defect in the form of insufficient idealization of the superego (1971, p. 96)". He posits that under optimal conditions the child in the course of development experiences gradated disappointments in the idealized

parental object. This gradual, increasingly realistic, appraisal of the parental figures leads to a shifting of narcissistic catheses from the idealized self-objects towards their gradual internalization in the form of internal structure. This acquisition of permanent psychological structures, a process Kohut labels "transmuting internalizations", allows the psychic apparatus to implement those functions previously fulfilled by the idealized object. The internalized structure of the superego comes to possess the "requisite exalted status" which allows for the internal regulation of self-esteem. However, in the face of traumatic deprivations up to and including the oedipal period, such a 'gradual' relinquishment cannot occur and no "transmuting internalization of the idealized object" can take place. Rather, what does occur is a fixation on a prestructural ideal figure to whom the individual is perpetually tied. The significance of Kohut's work lies in his integration of the formation of psychic structure, in this case the structuralization of the superego, with the withdrawal of narcissistic cathexes from significant others. Thus, pathogenic injuries in the development of idealizing narcissism affect the whole course of the accretion of adaptive structures. The child does not acquire the needed internal structure and is consequently in a desperate search for missing segments of his own psychic structure; what Kohut describes as "object hunger". The idealizing aspect of the superego and the building of those drive-regulating structures of the superego are chronically deficient.

It is of note here that Freud (1927) originally described humor as a "triumph of narcissism", where the psychological accent from the ego is transferred to the superego. The individual is therefore capable of responding with humor to those inevitable realities that imply relinquishing aspects of his narcissistic self. Kohut (1971) states that the most important precondition for the exercise of humor under adverse situations is through "the formation and maintenance of a set of cherished values"; namely, through an idealization of the superego. Concordant with this is an ego that remains active and deliberate. He differentiates this from hostile wit and sarcasm. In the latter narcissistic traumas are not transcended but dealt with by a frantic hypercathexis of objects and an omnipotent self. Sarcasm occurs in consequence of a lack of "idealized values".

To extend Kohut's work to the present analysis, the incapacity for humor may bespeak structural damage and specifically, an aberrant development of the internalized ideals of the superego. Such an impoverished development has implications for drive regulation and for the whole matrix of drive-controlling functions. Relating this to our suicidal sample, it is possible that traumatic disillusionments in early development preclude a sufficient internalization of structure. In the beginning of this study, reference was made to the analytic tenet that the introjection of an ambivalently loved object is a precursor for melancholia and suicide. Perhaps this can be approached vis-a-vis the

development of psychic structure. These "introjects" are not in the form of "transmuting internalizations", but stand in isolation from those integrating and regulating functions of the ego. It is therefore no wonder that the suicidal S can find little comfort from those benign and supportive aspects of the superego. By necessity they must search for substitutes in the external world for the supportive structure they lack from within. Under the stress of losing such substitutes, or when they prove unreliable, as is frequently observed in suicidal crises precipitated by object loss, a powerful regression ensues. This regression to a magic reunion with an omnipotent (idealized) object carries with it the danger of an irreversible dissolution of the ego. With the added scope of Kohut's formulations, one can broaden those interpersonal theories which stress the loss of significant others as frequently triggering off suicidal crises. In the context of a lack of direction and support from internal structure, the external figures may serve to direct and control the expression of impulses in the suicidal S. Those Ss with serious narcissistic injuries can only exercise neutralized and drive-controlling functions as long as they feel merged and attached to an idealized figure. In other words, they do not have the internal structure to function autonomously.

This line of thinking not only assists in integrating the theoretical underpinning of the study but raises a number of additional developmental questions. For example, what are the narcissistic needs and configurations of those parental figures

who fail to promote the internalization of structures in their children? In another vein, Schafer (1968) noted that those Ss who could not suspend reflective self representations and thereby, regress in the service of the ego, were frequently characterized by narcissistic difficulties. Differentiations between self and object representations were poorly defined and self representations were weakly invested and easily lost. Schafer makes special mention of those depressed patients who cannot maintain object representations apart from their self representations. They cannot relinquish and mourn the poorly differentiated objects to whom they are tied. From a developmental perspective, the narcissistic nature of these object relations may mirror the problems of severely narcissistic and egocentric parents.

It would seem that the most complete theory of suicide is one that would consider ego structure, drive vicissitudes, object relations, introjected and interpersonal situational stresses, as well as social systems in some unitary form. To develop such a unitary conceptual framework, one which would integrate such seemingly disparate factors, is certainly quite an impressive task.

As a final note, while psychoanalytic propositions have been emphasized in this discourse, features of the data could also be extended to the newly developed cognitive and information-processing models. For example, Suls (1972) recently formulated a two-stage information model for humor appreciation. He delineated two cognitive processes operating in the initiation and perception of humor. The first stage, the

perception of incongruity or expectancy variation, is followed by a resolution of the incongruity and a restructuring of the joke's parts. While only a speculation, the seeming analogy between this information model and the two-process ego model of RISE, have intriguing implications for future research.

Chapter VI

SUMMARY

The purpose of the study was to investigate the relation between the capacity for adaptive regression and degree of suicide lethality, as measured by Whittemore's "Suicide Potentiality Rating Schedule (1970)". With the advent of psychoanalytic ego psychology attention has been focused on those structural correlates of ego flexibility that allow for tension reduction in times of stress. By contrast, one manifestation of a passive and weakened state of the ego, posited as one of the major factors underlying suicidal behavior, is pathological regression. It was Kris' (1952) concept of "Regression in the Service of the Ego (RISE)" which heralded the notion that the regressive process could itself be in the service of adaptation and enrichment of the ego. He included humor within the domain of those processes that serve the purposes of adaptive regression, involving a flexible interchange between the ego and superego. A precondition for this active control and mastery over what would otherwise be experienced passively is a degree of ego strength that allows for such adaptive safety-valves.

On the basis of the theoretical formulation it was proposed that the suicidal individual is beset with a depth of ego inflexibility that precludes adaptive recourse under stress and precipitates a 'humorless' regression and fragmentation of the ego. By viewing humor as a manifestation

of ego flexibility and as an alternative to pathological regression, it was hypothesized that humor in addition to other measures of RISE are impaired in seriously suicidal patients. To specify areas of structural dysfunction seemed to offer an avenue for generalizing and delineating those contingencies which characterize the suicidal individual beset with varying dynamic and situational conflicts.

Thirty-one female in-patients, consecutively admitted to a City Hospital psychiatric ward, were included in the sample. It was predicted that the capacity for adaptive regression, as measured by Bellak et. al.'s (1971) rating scale of "ARISE", and particular humor measures derived from O'Connell's "Story Test" and the Favorite Joke technique, would bear an inverse relationship to suicide lethality. Suicide lethality and humor were also both correlated with Barron's Ego Strength Scale (1953) from the MMPI. The degree to which a depression and a verbal intelligence factor related to the variance of the measures was also introduced in the design.

The formal hypotheses and results of the study can be summarized as showing: (1) only partial support for the hypothesis of an inverse relationship between measures of adaptive regression and suicide lethality; three of the ARISE component scores and the "morbidity" dimension of the favorite joke did significantly differentiate Ss as to degree of suicidal risk; (2) acceptance of the hypothesis of a significant relationship between ego strength and humor, as well as confirmation of the prediction of an inverse trend between

ego strength and suicide lethality; and (3) support for the prediction of a positive association among different measures of adaptive regression, with humor, as opposed to hostile wit, correlating with those stable manifestations of RISE.

The equivocal findings of the first hypothesis were discussed in terms of limitations in the representativeness of the data and certain differences in the intrinsic requirements of the tasks. The supportive findings from the other two hypotheses were integrated within the theoretical formulation that the ego's control over the drive expression in humor distinguishes it from those pathological expressions in hostile wit, "lethal" jokes, and suicidal behavior. What seems to emerge is that with a pathological regression of the ego there is structural pathology and that a differential capacity to adaptively regress does bear some relation to suicidal risk. RISE and humor were described as reflecting modes of dealing with drive derivatives and primary process material. These modes can become generalized into relatively broad characteristics or structures, which while subject to reduction under stress, are reflected in many areas of thought and expression. Implications for the use of RISE and humor measures in diagnostic and prognostic assessment were discussed, as were theoretical implications concerning the development of psychic structure and, in particular, the vicissitudes of superego formation.

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APPENDIX A

Appendix A

Summary Characteristics of the Female Sample
(N=31)

Code Number	Age	Diagnosis ¹	Race	WAIS Vocab. Scaled Score	WAIS Simil. Scaled Score	D' ²	Es ³
133	19	Manic-Depressive	W	9	15	9	46
943	27	Psychotic Depression	B	10	10	9	35
425	19	Neurotic Depression	W	15	13	12	43
475	16	Sociopathic Personality	B	7	8	7	34
084	25	Psychotic	W	11	12	15	32
640	32	Reactive Depression	W	9	11	12	27
071	32	Neurotic Depression	W	14	14	16	39
402	17	Psychotic	B	9	15	14	29
203	30	Reactive Depression	W	10	10	16	20
959	19	Borderline	W	9	10	15	52
020	30	Borderline	W	9	13	9	46
592	34	Reactive Depression	W	10	11	8	29
871	26	Borderline	W	7	8	12	30
044	25	Preschizophrenic	W	11	12	12	41
301	30	Hysterical Personality	W	13	13	9	50
120	28	Agitated Depression	W	17	12	14	46
910	22	Agitated Depression	W	13	14	11	42
050	21	Borderline	W	9	11	13	34
388	15	Borderline	B	9	11	11	38
692	17	Borderline	B	9	9	7	36
247	20	Acute Psychosis	B	7	8	13	36
337	22	Psychotic Depression	W	11	11	15	39
123	19	Psychotic	W	11	12	16	28
970	29	Preschizophrenic	W	12	11	12	53
926	15	Psychotic	W	7	10	14	47
330	35	Reactive Depression	B	7	9	14	50
974	27	Hysterical Psychosis	B	7	20	15	28
878	20	Borderline	B	9	11	11	24
562	35	Borderline	W	9	11	10	38
745	25	Reactive Depression	W	9	13	9	38
104	25	Schizoid Character	W	15	14	13	35

¹APA Diagnostic Classification obtained from the Initial Intake Evaluation

²Scores obtained from the Pure Depression Scale of the MMPI

³Scores obtained from the Barron's Ego Strength Scale of the MMPI

APPENDIX B

Code No.: _____

Rating for Category

- A. SYMPTOMS (1-9) (____)
1. Severe depression: sleep disorder
anorexia, weight loss, withdrawal,
despondent, loss of interest, apathy.
(7-9) (____)
 2. Feelings of hopelessness, helplessness
and exhaustion. (7-9) (____)
 3. Disorganization, confusion, chaos...
delusions, hallucination, loss of
contact, disorientation. (5-8) (____)
 4. Alcoholism, drug addiction,
homosexuality, compulsive gambling.
(4-8) (____)
 5. Agitation, tension, anxiety. (4-6) (____)
 6. Guilt, shame, embarrassment. (4-6) (____)
 7. Feelings of rage, hostility, anger,
revenge, jealousy. (4-6) (____)
 8. Poor impulse control, poor judgment.
(4-6) (____)

Code No.: _____

Rating for Category

9. Chronic debilitating illness. (5-7) (____)
10. Repeated unsuccessful experiences with doctors and/or therapists. (4-6) (____)
11. Psychosomatic illness (asthma, ulcer, etc.,) and/or hypochondria (chronic minor illness complaints). (1-4) (____)
- B. STRESS AND ITS OCCURRENCE (Acute vs. Chronic) (1-9) (____)
12. Loss of loved person by death, divorce, or separation (including possible long-term hospitalization, etc.) (5-9) (____)
13. Loss of job, money, prestige, status. (4-8) (____)
14. Sickness, serious illness, surgery, accident, loss of limb. (3-7) (____)
15. Threat of persecution, criminal involvement, exposure. (4-6) (____)

Rating for Category

16. Change(s) in life, environment, setting. (4-6) (____)

17. Sharp, noticeable, and sudden onset of specific stress/symptoms. (1-9) (____)

18. Recurrent outbreak of similar symptoms and/or stress. (4-9) (____)

19. Recent increase in long-standing traits, symptoms/stress. (4-7) (____)

C. PRIOR SUICIDAL BEHAVIOR AND CURRENT PLAN (1-9) (____)

20. Rate lethality of previous attempts, (one or more prior attempts of high lethality (6-7); one or more prior attempts of low lethality (4-5); no prior suicidal or depressed history (1-3) (____)

21. History of repeated threats and depression. (3-5) (____)

22. Specificity of current plan and lethality of proposed method- aspirin, pills, poison, knife, drowning, hanging, jump.gun. (1-9) (____)

Code No.: _____

Rating for Category

23. Availability of means in proposed method and specificity in time planned. (1-9) (____)

D. RESOURCES, COMMUNICATION ASPECTS AND REACTION OF SIGNIFICANT OTHER (1-9) (____)

24. No sources of financial support (employment, agencies, family). (4-9) (____)

25. No personal emotional support-family and/or friends available, unwilling to help. (4-7) (____)

26. Communication broken with rejection of efforts to reestablish by both patient and others. (5-7) (____)

27. Communications have internalized goal, e.g. declaration of guilt, feelings of worthlessness, blame, shame. (4-7) (____)

28. Communications have interperson-alized goal, e.g., to cause guilt in others, to force action in others, etc. (2-4) (____)

Code No. : _____

Rating for Category

REACTION OF SIGNIFICANT OTHER

29. Defensive, paranoid, rejecting,
punishing attitude. (5-7) (____)
30. Denial of own or patient's need
for help. (5-7) (____)
31. No feeling of concern about the
patient, does not understand the
patient. (4-6) (____)
32. Indecisive or alternating attitude-
feelings of anger and rejection and
of responsibility and desire to
help. (2-5) (____)

APPENDIX C

ADAPTIVE REGRESSION IN THE SERVICE OF THE EGO

Instructions to Raters: Adaptive Regression in the Service of the Ego (ARISE) refers to the ability of the ego to initiate a partial, temporary and controlled lowering of its own functions in the furtherance of its interests (i.e. promoting adaptation). Such regressions result in a relatively free but controlled play of the primary process and are called regressions in the service of the ego.

The two components together comprise what is known as the "oscillating function"-- or the alternations between regressions, on the one hand, and integration into new configurations on the other.

In this scale, the oscillating function can be reflected in the global ratings of the function as a whole. The general rationale for the ARISE scale is as follows: at the most maladaptive end one sees only a primarily primitive or uncontrolled regression. In the "middle" one sees the oscillating function only with great difficulty or else a general absence of regression in the context of over-controlled defensiveness. At the most adaptive end of the scale, one would find smoothly oscillating and flexibly controlled regressions in the service of new awareness and new integrations.

The rater is instructed to consider the final product (e.g. the work of art, the solved problem, the creative act), only insofar as it reflects the process of regression in the service of the ego. It is conceivable that a lesser work of art could involve more adaptive use of controlled regressions than a greater work of art. Raters should also keep in mind creative problem-solving in non-artistic areas: scientific and everyday resourcefulness.

ARISE

Component a	b
<p>First phase of an oscillating process: degree of relaxation of perceptual and conceptual acuity with corresponding increase in ego awareness of previously preconscious and unconscious contents-- and the extent to which these "regressions" disrupt adaptation, or are uncontrolled.</p>	<p>Extent of controlled use of primary process thinking in the induction of new configurations. Extent of increase in adaptive potential as a result of creative integrations produced by ultimately controlled and secondary process use of regressions.</p>
<p>1 Regressions are extremely prominent and primitively disrupt adaptive behavior. E.g., "wild" fantasies intrude willy-nilly and may either be distressing or disabling, creating confusion and chaos.</p>	<p>New configurations are largely absent, or when they do occur, they are not a product of controlled regressions, but maybe a result of "rote" learning or other very simplified uncreative processes. No oscillating function is observed. Artistic productions might be aimless, or "tracing with a stencil."</p>
<p>2 Regression phenomena are still fairly primitive and do not afford pleasure and enjoyment. Disruptions in adaptation may be seen in being "carried away" by one's own fantasies; highly regressed use of artistic materials (e.g., clay used only for kneading or throwing).</p>	<p>Occasionally, elements from dreams, fantasies, or other regressed states may be discovered in planned activities. Their effect, however, is not very marked, and thus their influence on new or creative ways of looking at things to promote adaptation is nil. Unimaginative approach to problem-solving leads to sterility and stereotypy.</p>
<p>3 Regressive phenomena may be observed here, but so, too, may be a virtual absence of regressive phenomena. Specifically, there might be a relative inability to loosen or relinquish the more constricted types of control that one sees in unimaginative or obsessional people who find it difficult to engage in playful fantasy or humor. Regressions of all ego functions in that instance</p>	<p>The transition from regression to adaptation is hampered by difficulties in smoothly emerging from the regressed state. Regressions and controls work separately, not together, so that creative efforts are still not aided by controlled, regressions. E.g., humor may be silly, products may be sloppy or uninspired due to lack of coordination between the two phases of the oscillating function.</p>

a	b
<p>are experienced as ego-alien threats. Or, regressive behavior is enjoyable, but may be overly prolonged and resistant to recovery.</p>	
<p>4 S may be able to enjoy primitive thoughts, feelings, fantasies and regressed ego states, generally. The regressions are only somewhat controlled. Or, S may be quite controlled so that playful regressions and their enjoyment are somewhat difficult to achieve. E.g., stylized ballet may be enjoyed more than dance forms involving improvisations.</p>	<p>S has some difficulty in adaptively channeling the outcomes of regressively based enjoyments. E.g., fantasies or daydreams may be reasonably rich, but not often carried over into productive activity. May never deviate from recipe when cooking.</p>
<p>5 Enjoyment of regressions may be fairly high, possibly due to an acceptance of temporary passivity. S demonstrates a fair amount of control in initiating and in emerging from regressed states. Can be somewhat playful in attempting to solve a problem, but may feel compelled to return to a serious stance a bit prematurely.</p>	<p>Regressions are employed fairly adaptively. The oscillating function, however, lacks the sustaining power and smooth operation that would ensure truly creative-adaptive uses of regression in the service of the ego. Can be playful one moment, serious the next, without the smooth transition needed for optimal productivity.</p>
<p>6 Regressions to primary process thinking and activities are well controlled and pleasurable. S may be silly, humorous, playful, fantasy-ridden, but can usually engage in and suspend these activities at will.</p>	<p>The adaptive-creative uses of regressive content are quite highly developed. Achievement of new integrations are often arrived at by regressive detours. E.g., controlled use of regressive humor, or self-analysis may be put to use in a well-constructed story or autobiography.</p>
<p>7 Regressions are "controlled" and promote maximal enjoyment of and/or active participation in art, humor, play sexuality, imagination and creativity. The regressions "oscillate with component b. S enjoys the absurd and is spontaneous in producing and/or enjoying jokes.</p>	<p>Achievement of adaptive, integrative, creative ego function is arrived at by a regressive detour. The role of the oscillating function in this achievement is maximally observable. The adaptive-creative uses of regressive content are maximally developed, and the oscillation leading to the creative channeling of regressions is flexible and automatically controlled.</p>

Code No. : _____

Date: _____

RISE INTERVIEW GUIDE

- a, b 1. What do you do when you're alone and have nothing to do?
- a, b 2. Do you daydream? What about? Are they more like fantasies, or do they involve thoughts and plans about actual things you may be doing?
- a, b 3. Tell me something about what you do with your dreams. Are your daydreams, fantasies, etc. ever put to any use? For example, have you ever come up with an answer to a problem in a dream?

- a 4. Have you ever had the experience of the thoughts and feelings of a dream continuing when you wake up? How does that make you feel? Do you enjoy it? Do you try to keep the "story-line" of the dream going? Does it ever make you frightened?
- a,b 5. If you have a serious problem to solve, how do you usually go about solving it? Have you ever struggled real hard with a problem, then slept on it, and the next morning come up with some new ideas, or new ways of putting old ideas together so that it was easier to solve the problem? Give some examples.
- a,b 6. Have you ever had the experience when there is a problem to be solved, of just letting your thoughts wander wherever they feel like going, and then later, organizing them and coming up with a good solution?

a 7. Are you ever able to let go and think strange and "nutty" thoughts without being upset or frightened? Describe one of the wildest, most fantastic ideas you've ever had. Do you ever get so carried away by your own ideas that it's hard to come back "down to earth"?

a 8. Do you enjoy letting your hair down and just giving into fanciful feelings? Or does this sort of thing make you anxious, like maybe you couldn't come out of it?

a,b 9. What is one of the most creative things you've ever done? What is the most spontaneous thing you've ever done? Are you generally spontaneous?

- a, b 10. When you listen to the kind of music you enjoy, what's it like? Do you like art, poetry, literature? Making things? Did you ever invent anything?
- a, b 11. Do you like to cook? Do you usually follow recipes or do you prefer making things up as you go along?
- a, b 12. Do you ever find that things you do with a playful attitude can later be put to serious purpose? Like a silly thought which can develop into an important brainstorm? Or do you think there's a time and place for play, a time and place for work, and the two can't really be combined too well together?

- a, b 13. Can work be enjoyable? What makes it enjoyable?
- a, b 14. When you were (are) in school and you were (are) asked to write essays, was (is) it easy for you or not?
- a, b 15. In comparison with other people how do you rate your sense of humor? Do people characterize you as funny? A clown? Are you funny or do you prefer to laugh at other people's jokes?
- a, b 16. When you're feeling down can a good joke get you out of a bad mood? Can you get someone else out of a bad mood by cracking a joke? When in an awkward, or stressful spot, can you see the humor in a situation? Do you feel that most things people laugh at aren't really funny?
- a 17. Do you get any pleasure or fun out of playing with words or language- as by talking nonsense, baby talk, or in a foreign accent? Do you let yourself do it often?

APPENDIX D

We are attempting to study the responses of a large number of people to different types of story endings. People differ in their preferences for various themes; therefore, we would like you to rate EACH STORY ENDING according to your personal preference on a scale from 1 (dislike very much) to 5 (like very much).

Please read each item and ending aloud and then rate your reaction on the scale provided. Try to give your first impression. Be certain to rate EACH ending (A, B, and C) by circling one of the numbers on the scale. After rating each of the endings, decide which one you like best for each story. Write the letter (A, B, or C) after the sentence which states: "The ending I like the best is: ____". Indicate your choice of the best story ending, even if you have to guess.

STORY TEST SCORING BLANK

H=humor
 A=hostile wit
 R=resignation

	<u>Story</u>	<u>Ratings</u>			<u>Choices</u>		
		<u>H</u>	<u>A</u>	<u>R</u>	<u>H</u>	<u>A</u>	<u>R</u>
1	A cripple..... (AHR)	_____	_____	_____	_____	_____	_____
2	A Russian..... (RAH)	_____	_____	_____	_____	_____	_____
3	An old man..... (HRA)	_____	_____	_____	_____	_____	_____
4	A flood..... (RHA)	_____	_____	_____	_____	_____	_____
5	An old lady..... (HAR)	_____	_____	_____	_____	_____	_____
6	Two brothers..... (ARH)	_____	_____	_____	_____	_____	_____
7	In olden times..... (HRA)	_____	_____	_____	_____	_____	_____
8	A poor sick man..... (AHR)	_____	_____	_____	_____	_____	_____
9	A family..... (RAH)	_____	_____	_____	_____	_____	_____
10	A fish peddler..... (ARH)	_____	_____	_____	_____	_____	_____
11	A condemned prisoner..... (RHA)	_____	_____	_____	_____	_____	_____
12	A new salesman..... (HAR)	_____	_____	_____	_____	_____	_____
13	The Pope..... (RAH)	_____	_____	_____	_____	_____	_____
14	A tightrope walker..... (HRA)	_____	_____	_____	_____	_____	_____
15	A champion boxer..... (AHR)	_____	_____	_____	_____	_____	_____
16	A man looked..... (RHA)	_____	_____	_____	_____	_____	_____
17	In the middle..... (HAR)	_____	_____	_____	_____	_____	_____
18	During the war..... (ARH)	_____	_____	_____	_____	_____	_____

TOTALS:

_____	_____	_____	_____	_____	_____	_____
-------	-------	-------	-------	-------	-------	-------

Best End Choices

H A R

Beginning

1 _____

2 _____

TOTALS

End

1 _____

2 _____

An old man was forced to stay in bed because he was sick. He kept busy each day by playing the numbers. A nurse was taking the sick man's temperature.

"What is it today?" he said.

"102," she said.

Then he said:

A) "When it gets to 103, I collect."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "High numbers are going to kill me."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "That sounds like what the doctor charges me."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

A flood carried off a farmer's house and all of his 4 children. Of all the furniture, only his bed was left. Looking at the bed, he said to his wife:

A) "Here today, gone tomorrow."

1	2	3	4	5
---	---	---	---	---

B) "At least we can make a fresh start."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "Your favorite piece of furniture is still here."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

The Pope and a group of his friends were spending a winter in Northern Italy. On Sunday the Pope and two Cardinals in the group got up at 4 in the morning. They had to drive 50 miles to Mass. It was pitch black and freezing outside. The Pope had to put on 4 sweaters and a fur coat. He took a last look at his non-Catholic friends sleeping peacefully, and said:

A) "I'll get some sleep in a warm church."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "You'll all be sleeping in a real hot place soon."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "What if they're right and we are wrong."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

A tightrope walker slipped and fell. He landed smack on his skull and ended up in a heap on the floor. Men came over with a barrel, ready to shovel up the pieces. The tightrope walker stood up, shook his head and said:

A) "It broke my fall."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "I've been going down for years."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "I'm not meat for you dogs yet."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

A champion boxer knew he was getting old. In his last fight he was knocked down 6 times before he lost. As he went down for the last time he said to his opponent:

A) "You punks should respect your elders."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "You don't have to get so rough just because I'm the world's best fighter."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "This is the best time to quit."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

A man looked for a job for months before he finally got one at a repair shop. On his first day on the job he broke a television set.

"Too bad," said the boss, "the TV cost \$500.00, and I will have to take out half your salary until you pay for it." The guy said, "My wife won't mind."

A) "Half is better than nothing."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "This will be the first steady job I've had in 5 years."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "She's as cracked as this TV, anyhow."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

In the middle of the ocean a ship ran into a storm. The ship was sinking and no one had a chance of being saved. Everyone was scared. But one sailor went coolly about his chores.

"How can you be so calm when the ship is sinking?" someone yelled.

"Why should I get excited?" said the sailor:

A) "It's not my boat."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "If the service is bad, get out and walk."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "I don't have to think, I'm staying with the ship."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

During the war a 90 year old man sat calmly in an air raid shelter while bombs dropped outside. To his nervous friends, the old man said:

A) "You boys are going to lose your heads soon."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "I'll die soon, if these planes let me."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "One thing I know-- this is going to be my last war."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

A family watched their little kid play ball outside. "Watch me, Dad," he said, "I will hit it out of sight." He tossed the ball up, took a swing, and missed.

"Strike one," he called happily. He missed again, and after a third try, he fell down swinging. At that point the boy shouted, "Three strikes and out:

A) "Too much power in that swing."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "I can't perform for a small audience."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "Boy, am I a good pitcher."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

A fish peddler went out of business. He put all his fish in his car and started for home. All along the way he was very gloomy. All of a sudden he lifted his head and saw a statue. It was St. Sebastian with a sad and defeated look on his face. The fish peddler stopped and looked at the statue and said:

A) "Your appearance is fishy, friend."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "Even saints fail, too."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "Poor man. So you, too, were in the fish business."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

In olden days punishment and torture could often be cruel. But there were men who were strong and brave and who were not scared. One man had his legs and arms cut off and was being carried by 4 guards to the tree where he was to be hanged. He looked to the crowd and said:

- A) "I never thought a guy like me would be carried around by 4 servants."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

- B) "Cutting up an old stump doesn't matter much."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

- C) "Does anyone here want a piece for a souvenir?"

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE THE BEST IS: _____

A poor, sick man was told by his doctor to take a long rest in the country. Having no money, he sneaked into a train and was caught, not once but several times. He was beaten up each time. At one of his stations a friend saw him and asked where he was going. The sick man then said:

- A) "As far as these gorillas will let me."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

- B) "To the country, if I can stand the trip."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

- C) "I don't care, I'm just excess baggage."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

An old lady went from one state to another to buy some liquor because it was illegal where she lived. On her way back she was stopped by a policeman. She said it was Holy Water. The policeman didn't believe her and opened up the bottle.

He smelled it and said, "This isn't water-it's whiskey." "Glory be to God!" cried the old lady:

A) "We must have seen a miracle..."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "And glory to this devil here."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "I guess he really wants me dead sober."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

Two brothers had been lost in the woods for over 3 days. They were without food and water. They had no protection against the weather. At night they were attacked by mosquitoes. One of the brothers looked up and saw some lightning bugs and said, "We might as well give up."

A) "These are more helpful than our buggy parents."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "Boys are just pests anyway."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "Those mosquitoes are searching for us with flashlights."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

A condemned prisoner was going to be hanged early one Monday morning. As he left his cell, he waved to the other prisoners and said:

A) "The world won't come to an end."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "Well, this is a good beginning to the week."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "You guys will be swinging in the breeze soon, too."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

A new salesman worked for a boss who wanted all his workers to be good bowlers. One day the boss took the new salesman to the bowling alley. In the first game, the salesman missed all the pins, 4 times in a row. After the fourth miss, the salesman said:

A) "This is the hardest alley I've ever played."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "The fifth is coming up soon. Make you thirsty, boss?"

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "I quit my job."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

A cripple had his bath in the morning. His nurse, a strong woman, picked him up like a child, and carried him to the tub. He called to a friend who saw him carried back the same way:

A) "This old horse is good riding."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "Just see the way I am carried around on people's shoulders."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "I'm just another babe-in-arms."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

A Russian criminal had to escape from his country with his family. Because he had been wounded and had no money, he only got 10 miles across the border. They had to stop and spend the winter until he got better. One day his daughter came running into the house yelling, "Father, they've made peace and the land we're on is now in Russia."

"Thank God for that," said the father, knowing that he would soon be a prisoner:

A) "We're not that important anyway."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

B) "Now I can kill a few Russians."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

C) "I don't think I could stand another cold Polish winter."

1	2	3	4	5
Dislike very much	Dislike some	Neither	Like some	Like very much

THE ENDING I LIKE BEST IS: _____

APPENDIX E

Code No.: _____

Date:

FAVORITE JOKE

Some persons have a favorite joke, or one which they particularly think of or like to tell when jokes are being told. Do you have such a favorite joke? What about it is so funny?

If you do not have a favorite joke, is there one you usually think of or like to tell?

If none of the above, think of a joke, and report the one that comes to mind.