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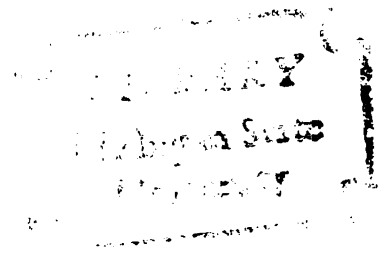

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The Relationship of some Fantasy-related Inkblot Variables to Locus of Control and Future Time Perspective

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Victor Robert Nahmias

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THE RELATIONSHIP OF SOME FANTASY-RELATED INKBLOT VARIABLES TO LOCUS OF CONTROL AND FUTURE TIME PERSPECTIVE

By

Victor R. Nahmias

A THESIS

Submitted to
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ABSTRACT

THE RELATIONSHIP OF SOME FANTASY-RELATED INKBLOT VARIABLES TO LOCUS OF CONTROL AND FUTURE TIME PERSPECTIVE

By

Victor R. Nahmias

This study was designed to investigate the role that fantasy plays in the development of future time perspective and an internal locus of control. A sample of 80 undergraduates, 40 males and 40 females, were given Rotter's Social Reaction Inventory, Wallace's test for future time perspective, and 30 cards of the Holtzman Inkblot Technique, Form A. It was hypothesized that internality would be positively correlated with an extensive and coherent time perspective and that both would be positively correlated with the production of human movement (M) and structured affective expression $\frac{FC+1}{CF+C+1}$ on the inkblot test. A correlational analysis revealed the predicted relationships between affect expression and internality for males and personal control and extension for females. Trends in the data suggested that internality is associated with fantasy when this ability is measured by the production of M. It was concluded that there was limited evidence of

the predicted relationships among the experimental variables. A discussion of the methodology and the reasons for these limited results was followed by some suggestions for future research.

DEDICATION

To Marty and Roberta Hason:
An uncle who accepted me as a son,
An aunt who opened her home to me.
Thank you.

ACKNOWLEDGEMENTS

I would like to express my appreciation to the members of my committee. Under Dr. Rabin's firm but patient guidance I developed a measure of discipline and self direction that will carry me beyond just this project. Dr. Aniskiewicz and Dr. Abeles contributed their time, interest, and knowledge to this study. I thank them both. To my wife, Susan, I owe a special thanks. Her confidence and enthusiasm, which persisted even when mine flagged, helped me when I needed it most.

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INTRODUCTION

Fantasy has long been condemned as a useless, even pathological, activity. Particularly in our achievement-oriented society, the word "fantasy" is associated with denial of and withdrawal from reality to a world of wish-fulfilling reverie. Even though wishfulfillment contributes to the content and structure of fantasy activity, it describes only one aspect of its function. Beyond its defensive value, fantasy serves a variety of other purposes.

Defining fantasy is difficult because the word has been used as a generic term referring to a wide range of mental phenomena. The entire range of mental activity constitutes a continuum of psychic functioning ranging from primitive and regressive, drive-oriented, primary process dominated thought to more mature and progressive, reality oriented, secondary process thought (Schafer, 1954). This continuum includes night-dreaming, day-dreaming, purposeful visualizing, problem-solving, and abstract thinking; "fantasy" generally describes those processes at the beginning of this series (Joseph, 1959). Moreover, a fantasy may be totally unconscious (primary repression), once conscious and then repressed (secondary repression), preconscious, or even conscious.

Fantasizing ought to be distinguished from fantasy. Fantasizing describes a creative activity from which a fantasy results. The capacity to fantasize develops parallel to the structuring of the ego becoming, in itself, an important ego resource. The content of the fantasy, or the fantasy proper, reflects thematic elements dominating the affect life of an individual. This includes various drive derivatives, object-relationships, and reality demands.

The Development Of Fantasy

The capacity to fantasize develops out of the ego's progressive ability to postpone impulse expression. In his book, The Interpretation of Dreams, Freud outlined the process through which immediate discharge of impulses is progressively inhibited and internalized, leading, at first, to the formation of hallucinatory representations dominated by the pressure of need, and finally to abstract thinking under the sway of the reality principle. Delay of gratification, a vital ego function, involves inhibition and internalization of action tendencies leading to an increase of inner living. Memory and imagery, other ego functions, contribute to the development of fantasy ability. With this interiorization the ego gains progressive mastery over the id and the environment, switching from a passive receptive mode to an active manipulative mode (Fenichel, 1945).

An alternative conceptualization of fantasy has been offered by Singer (1966). He considers fantasizing a cognitive skill that develops with the increasing internalization

of childhood play. Rather than originating as a way of reducing drive frustration, Singer suggests that symbolization and imaging capacities are innately available to the infant. These capacities unfold, following White's argument (1959), because of the increased feelings of self-efficacy and competence their use engenders when employed successfully in manipulating the environment.

Whether originating as an innate skill unfolding through self-actualization, or as an autonomous ego function (Hartmann, 1959) powered by neutralized psychic energy, fantasizing certainly possesses adaptive value. Fantasizing allows a person to "see in his mind's eye" situations before they occur. By visualizing possible alternative outcomes, he can anticipate the consequences of his behavior, develop and explore various courses of action, and plan for the future. These anticipatory and planning processes enhance goal-directed strivings, fortify the delaying capacity through substitutive gratification, and increase the likelihood of successful and competent functioning. When used adaptively, fantasizing evolves through a "regression in the service of the ego".

On the other hand, fantasizing as a process of defense detracts from effective coping. It distorts important information about one's self and others, it distracts attention from significant events, and it gives precedence to wishfulfilling needs instead of reality demands.

Future Time Perspective

Aside from the importance of the ego functions involved in its formation, the content of the fantasy itself is important. Fantasies, either conscious or unconscious, are symbolic transformations of previous life experience (Stoller, 1980; Berne, 1972). Formed as a consolidation of past experience and current need states, these fantasies motivate, shape and give meaning to behavior. It's often helpful to think of fantasies as blueprints or scripts that organize and guide present and future transactions. One such group of fantasies is a person's organized anticipations or expectations of the future, eg. future time perspective. These fantasies about the future organize and focus current strivings in a coherent and meaningful pattern.

The future time perspective (Wallace and Rabin, 1960) is, in fact, a fantasy of later gratification. This fantasy, enhanced by imagery and heightened through its anticipation, develops motivational capacity. And by bolstering resolve and determination, more immediate temptations--Sirens to the beleagured Ulysseus--are less likely to be yielded to. Thus, it reinforces postponement of gratification. In addition, the same abilities that conjure up the images of these future goals can be put into service achieving them. As mentioned earlier, organizational abilities, and anticipatory and planning functions, all resources of the ego, are strengthened through fantasy. Wishfulfilling fantasy yields to planful fantasy. Thus an orientation to the future, by mobilizing

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cognitive and affective resources increases the chances of actualizing that future.

But not all fantasies of the future are adaptive or constructive. In fact, a fantasy may be the product of defensive operations designed to provide illusory satisfaction and minimize conflict, leading to either minor or gross distortions of one's self or reality. When this happens, contact with reality diminishes, imaginary gratifications replace real ones, and a psychopathological condition may result (Laughlin, 1970).

Locus Of Control

In turning to Social Learning Theory we move out of the domain of intrapsychic processes such as fantasy. It has been quite productive to distinguish between individuals with internal versus external locus of control. Simply put, internals believe they have control over, or impact upon, the course of their lives; externals believe that their actions are insignificant in shaping their futures. Locus of control refers to an expectation of reinforcement, it is a belief system and not necessarily a reflection of reality.

Broadly speaking, locus of control may be regarded as a fantasy, one that defines a particular relationship between one's self and others. It, therefore, guides transactions with one's environment. Because internals believe in their ability to control their destiny, and perhaps also as a means of maintaining a consistent view of themselves,

they are unlikely to engage in activites such as planning, organizing, and purposeful visualizing (all components of what we refer to as fantasizing) that increase the likelihood of them attaining their goals. In other words, their belief of internality probably motivates them to act in ways congruent with that self-perception. Put another way, their ability to use internal processes to successfully manipulate their environment actually gives rise to their experience of themselves as their own sources of reinforcement.

In summary, then, fantasies are the end result of mental activity--fantasizing. This activity can be in the service of adaptive or defensive aims. (Though the line that divides them in reality is never that clear-cut.) These fantasies, or the content of these fantasies, carry defensive or adaptive implications. Adaptive fantasies enhance goal directed strivings by bringing into play anticipatory, planning and creative capacities. Defensive fantasies detract from effective functioning by distracting attention and distorting reality.

Delay of gratification or the postponement of impulse expression underlies the development of fantasizing. This postponement also plays an important role in the development of future time perspective. When immediate actions are inhibited, their goals are projected into the future and current behavior is directed to achieving them. Yet the future is unreal and immaterial. It, too, is a construction

based upon wishes and fears, mingled with realism and self-deception. The contents of a person's future time perspective reveals itself to be a particular genre of fantasies that guide current transactions, fantasies developed in the service of need satisfaction and reality demands.

Those individuals who are able to utilize their fantasizing abilities adaptively and constructively should be able to function more effectively, manipulate their environment with greater competence, and develop a greater sense of internal control over themselves and their rewards. Others, who for one reason or another are unable to use these same resources in the service of goal-directed activity, should be less likely to experience themselves as effective masters of themselves or their environment. And, therefore, they will not perceive their actions as having any effect upon the rewards they receive. The description of the former individuals' perceptions corresponds with what has been called an internal locus of control; the latters' perceptions correspond to an external locus of control.

This study attempts to find empirical support for these hypothesized relationships among adaptive fantasy, future time perspective, and locus of control. This study will investigate these relationships from two points of view: an evaluation of the underlying ego functions and an exploration of the role of fantasy in ego functioning. Projective techniques will be used to gather fantasy material, measure ego functions, fantasizing ability, and future time

perspective. A questionnaire will be used to measure locus of control. What follows will be a review of the literature associated with these topics.

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REVIEW OF THE LITERATURE

Projective Techniques

Projective techniques, especially inkblot tests, remain some of the most popular forms of assessment today. Their usefulness lies not only in the content that they evoke from the subject, but also in their ability to expose the workings of the perceptual-organizing process. In characterizing projective techniques, Rapaport succinctly explains why:

> What then is projective procedures proper? They are procedures in which the subject actively and spontaneously structures unstructured material, and in so doing reveals his structuring principles--which are the principles of his psychological structure (Rapaport, Gill, Schafer, 1968, p. 225).

The distinctive and characteristic responses given by the subject when presented an inkblot and asked, "What might this be?" are the end-products of the thought processes that struggle with lending clarity and definition to an ambiguous form. The verbalized response reflects not only the hard and fast tools of thought (Rapaport, 1967), such as the cognitive complexity of the subject, it also expresses the processes of organization and the attitudes with which the individual constructs his or her world. And the more ambiguous or unstructured the stimuli,

the more personalized will be the response. It will reflect an even greater portion of the perceiver because the elements of his personality will contribute a greater portion to the percept. Although unconscious strivings sometime disturb this process, especially when the subject is confused, disorganized, anxious, or fatigued, for the most part, continues Rapaport:

> ...projective tests are concerned with the type of organization of thinking palpable in the course of the spontaneous thought processes, and characteristic of the individual and his ego (Rapaport et al, 1968, p. 11).

M Response

Consideration of the M response, or movement response, ranks as Rorschach's greatest contribution to projective theory. Embodying as it does a number of different processes of organization, the human movement response serves as a useful index of ego functioning. Although Rorschach originally hypothesized that the M response measures inner living later theoreticians broadened and changed this interpretation somewhat. According to Rorschach (1949), the M is "determined by form perception plus kinaesthetic factors" (p. 25); he reserved it for responses which included humans or animals involved in exclusively human activities. Presumably, a sensation of movement, or actual kinaesthetic identification of the subject with the blot, played a role in its production, but the data speaks equivocably to this relationship. Further, while the quantity of the M measured the individual's receptivity to inner stimuli, Rorschach

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believed that the content reflected the individual's attitudes towards their experience. Active or assertive M's signify, according to Rorschach, active opposition towards internal experiences; passive or compliant M stand for a submissive and receptive attitude towards inner promptings.

How does M production relate to fantasy itself? Other authors such as Beck (1952) and Klopfer (1954) agree with Rorschach insofar as they, too, suppose that the M signifies an internalization of activity or a resort to fantasy as a means of coping with drives or reality. Research supports this positive correlation between M production and imaginative tendencies as measured by the TAT (Singer, 1960) or by raters' evaluation of their subjects' imagination (Barron, 1955).

The interpretation of the M response advanced by Piotrowski (1977) departs somewhat from those of the other authors. Rather than representing repressed drives or inhibited action-tendencies as Beck, Klopfer, and Rorschach himself implied, Piotrowski proposed that the M symbolized the subject's prototypical life role--the respondent's preferred mode of handling his interpersonal affairs in matters of vital importance to him or her. Rorschach predicts a negative correlation between overt action and inner fantasy life, Piotrowski contends that the M response reflects characteristic modes of expression--assertive, compliant, or indecisive. Research supports both views: Klein

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and Schlesinger (1951) and Singer (1960) found a positive correlation between motor inhibition and M production and others, such as Mirin (1955), have reported positive relationships between M and role taking behavior.

In his interpretation of the M response, King (1958) moved out of the purely intrapsychic realm and into the sphere of interpersonal relationships. He offered the following basic interpretation of M:

> "The ability in fantasy to project the self into time and space in the interpersonal sphere (p. 21)."

Working with a neuropsychiatric population King found that, in contrast to low M producers, high M producers showed: 1) a greater tendency to recognize their problems as interpersonal in nature; 2) a greater tendency to project themselves backwards in time in accounting for the origin of their problems; 3) a greater tendency to use problem solving, reality oriented interpersonal fantasy in coping with their problems; and 4) a greater tendency to project themselves beyond their present problems into the future. Thus, high M producers showed greater interpersonal sensitivity and awareness, an ability to utilize fantasy adaptively, and a broader, more flexible awareness of the time dimension.

If we look at the processes involved in M production, the apparent contradiction that arises in content interpretation disappears. Seeing human movement in an otherwise static inkblot requires a complex task of differentiation

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and integration of stimuli, reliance upon imagination to solve task demands, and the capacity to identify with external objects (Klopfer, 1954). Forming the M demands a delay or inhibition of responsiveness to lesser blot elements; it is precisely this capacity for delay and the tendency towards internalization that characterizes the M respondent (Rapaport, Gill, Schafer, 1968). Following this argument, a protocol with many movement responses indicates that the subject depends upon inner resources to enhance adaptation; uses imagery to fortify anticipation; and relies on planning via fantasy rather than acting impulsively and without forethought.

In an attempt to summarize the information available Dana (1968) isolated six constructs that show an empirical relationship to M production: 1) delay; 2) time sense; 3) intelligence; 4) creativity; 5) fantasy; and 6) interpersonal relations. This review of the literature suggests that the M response may be interpreted in two ways, either as an expression of ego functions that give rise to fantasy activity, or as a direct expression of fantasy itself. Insofar as empirical evidence supports the use of ego functions as a means of comparison between variables the "configuration of functions" interpretation may be applied. Where no empirical evidence is to be found the interpretation with greater face validity--e.g. M as a direct measure of fantasy activity--will be pressed into service. The first interpretation is a higher order abstraction, the latter is closer to the facts.

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Color Response

For the most part, the significance of the M response remains undisputed. On face value alone, its relationship to imagery and fantasy, creativity and planning appears self-evident. A more tentative index of ego functioning, one not entirely so apparent, is the interpretation given to the color response.

When the subject responds to the colored portions of the inkblot by basing his responses upon the associations stimulated by chromatic features a color response is scored. Basically, there are three types of color response: 1) Pure Color or C, in which color is the sole determinant; 2) Color-Form or CF, in which color is the primary determinant but form aspects of the blot contribute to the response; and 3) Form-Color or FC, in which the color is a secondary determinant and form the primary one.

Interpreting the color response requires a psychological understanding of form and color perception, and the relationship of color perception to affective experience. Embodying as it does the perception of form and color, the color response represents the outcome of these two processes; its interpretive significance lies in the assumed similarity of the ego's response to internal (affective) and external (color) stimuli. The ego's mode of regulating incoming external stimulation is taken to be similar to its regulatory response to internally generated excitation.

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Perceiving form requires an active expenditure of energy (Rickers-Ovsiankia, 1977). Stimuli needs to be differentiated and articulated and the components then integrated to form percepts that are evaluated against memory traces; actual characteristics of the blot stimulate the perceptual-organizing process and it is against these characteristics that the final response must be weighed. The form response also represents the capacity of delay of discharge of impulses (Rapaport, Gill, Schafer, 1968) and thereby serves as a measure of the ego's autonomy from unconscious drive.

Responding to color, on the other hand, is a more immediate and direct experience. Color perception, a simpler process, requires less perceptual-organizing and results in a more global, diffuse, and concrete percept. Demanding as it does less organization, reflection, and evaluation than does form articulation, it represents what Shapiro (1977) calls "perceptual passivity":

> ...a condition of relative absence, immobilization or temporary relaxation of active perceptual organizing capacities... (p. 254).

So, whereas form articulation may serve as a useful index of the ego's integrative and tension discharge delaying abilities, uncontrolled responsiveness to color suggests an impairment or restriction of ego functioning. Insofar as postponement of impulse is associated with fantasizing, we would expect sensitivity to color to be inversely related to fantasy activity.

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In his review of the color response, Shapiro (1977) reports data associating increased responsiveness to color with conditions of developmental immaturity, psychopathological distortion, or physiological impairment of the perceptual-organizing process. He suggests that the twin processes of form articulation and color responsiveness compete as dominate modes of perceptual-cognitive experience. And that with increasing psychological sophistication the active integrative and tension delaying properties associated with form perception predominate. Inasmuch as responsiveness to color reflects a more immediate discharge pattern of excitation he presumes that it represents one mode of handling drive stimulation, with affect representing one such class of excitation.

Actually the relationship of color to affect was originally hypothesized by Rorschach himself:

> The C and CF answers express the more egocentric affective responsiveness, while the more adaptive affective responsiveness is expressed in the number of FC's (Rorschach, 1949, p. 33).

Beck (1952) accepts this formulation and Klopfer reiterates the importance of the form-color dimension as measure of inner control (1954). Schachtel's (1966) discussion of color perception closely follows Shapiro's analysis.

Following Rapaport's discussion of color perception as a measure of tension control or discharge capacity,

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Shapiro, like Rapaport, suggests that the Pure C response represents a "short circuiting" of the perceptual-associative process. Wherein the absence of delay results in a response based on passive, subjective experience without any active, cognitive organization.

Color-Form responses, where form considerations enter into the response process albeit secondarily, imply an attempt to forestall immediate responsiveness. Thus, it falls somewhere upon the continuum of passive perceptual experience and active organization of stimuli. Though articulation and integration of stimuli is attempted it falls short of success. As Shapiro suggests, an impairment of discharge control appears within a level of cognitive organization.

And, finally, a Form-Color response, where color contributes to the overall percept within a framework of adherence to structural characteristics, signifies complex psychological functioning. Flexible control and careful regulation of discharge culminate in an adaptive response dominated by reality characteristics but informed by subjective experience.

For our purposes, the color response will be taken to represent both a direct measure of ego functioning and an indirect measure of fantasizing ability. Specifically, it corresponds to the integrative and tension discharge (or delay) functions underlying the development of fantasy. It measures the degree to which the ego operates autonomous of external or drive-related stimuli in its structuring

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Future Time Perspective

The structuring of fantasizing ability has been linked to the ego's ability to postpone gratification. The content of a fantasy reveals the extent to which internalization has taken place--more elaborate and complex fantasies suggest a deeper inner life. The content also reflects the attitudes and beliefs that guide a person's behavior. Fantasies about the future are particularly important in this regard.

Experiencing the passing of time remains a distinctly human phenomenon. Most researchers in the field agree that time perception develops in response to and as a consequence of the cycles of frustration and satisfaction during early infancy (Wallace and Rabin, 1960). Under the pressure of rising need the infant hallucinates, via restimulation of memory traces, the need satisfying object. By so doing, he or she increasingly becomes able to anticipate future satisfaction and thereby postpone, delay, or inhibit immediate painful responses to frustration. Concurrent development of imagery and memory ease the pressure of need and help in anticipation of fulfillment. Imagery, anticipation, memory, and delay form the basis of time perception in general, and of future time perspective in particular (Rabin, 1976).

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The uniquely human ability to delay current strivings in the form of future fantasies depends largely upon the development of internalized symbolic representations, first in the form of imagery and later as abstract thought. According to Cottle and Klineburg (1974), the motivational aspects of future anticipations rests largely on the development of three central processes:

1) the capacity to manipulate symbolic representations of reality
2) the ability to integrate symbols into patterns of action consistent with past and present experiences
3) the experience of affects associated with symbolic representations

By bringing into play imagery and memory both the past and future, neither of which are immediately available to the senses, can be visualized (Rabin and Wallace, 1960) and, when concomitant affect is stimulated, experienced. Thus, the past forms the basis of our future.

Actually, the idea of a future time perspective originated with Lewin's concept of psychological life space (1935). When a child is born, according to Lewin, it exists only in the present. With increasing maturity and experience the child's spatial-temporal horizons broaden and extend:

> The goals which determine the child's behavior are thrown continually further into the future. A decisive extension of the psychologically present life-space of the child is based upon this temporal displacement of goals (p. 1973).

In talking about future time perspective we refer to "the timing and ordering of personalized future events"

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(Wallace, 1954, p. 33). In general, we may speak of extension and coherence of the perspective. As Rabin (1978) suggests, extension "...readily seems to relate to the extent of planning for the future, to imagery for the future, and to the extent one is able to project oneself in anticipation of future events (p. 9)." Coherence refers to the orderliness or stability of the future time perspective; the extent to which each item is an integrated part of a well-established plan.

In a sense, a future time perspective is nothing more than a fantasy spread out along a time continuum, the further the goals from the present the more unreal they become (Lewin, 1935). And to some, perhaps, it remains nothing more than that, just a wishfulfilling fantasy. To others, though, it can carry adaptive significance as a guide to future behavior and a yardstick by which they evaluate their approach to some goal. Therefore, anticipation of future events can motivate present behavior by "...creating images of future goals that inform present experiences and give direction to current strivings (Cottle and Klineberg, 1974, p. 31)." If images of personal future generate fear and anxiety, then anticipation of these unpleasant events can curtail the future time perspective. A relatively restricted future orientation can operate as a "defensive strategy" protecting a person from the pain induced by unpleasant anticipations or the anxiety associated with unpredictable events.

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Whether a restricted time perspective reflects an inhibition of ego functions or an absence of them cannot be so easily ascertained. Wallace reported that the schizophrenic's future time perspective is curtailed. And Dilling and Rabin (1967) advise that depressives' and schizophrenics' time perspectives differ significantly from normals; the schizophrenic subjects presented the least coherent future time perspective, followed by the depressive, and then the normals. If we accept the notion that regression plays a prominent role in psychopathology, then the breakdown of the time perspective might reflect a regression of ego functioning to a lower level of adaptation (Werner, 1948). Similarly, Arieti (1948) also discusses the role of anticipatory processes in psychopathological conditions.

In respect to non-pathological groups empirical research gives equivocal support to the notion that broader and more detailed perspectives are associated with generally more desirable traits and hence a better functioning ego. In his review of the literature, Doob suggested that relating personality traits to temporal behavior "is like attempting to harness two wild animals from different species to the chariot of truth (Doob, 1971, p. 223)." Nonetheless, he notes that a greater future orientation associates with 1) ideational rather than motoric activities (Stein and Craik, 1965); 2) greater field independence (Friel, 1969); 3) higher G. P. A. and empathy (Epley and Ricks, 1963);

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4) a tendency to produce movement as M responses on the Rorschach (Kahn, 1967); and 5) achievement motivation (McClelland, 1961).

The relationship of future time perspective to healthy ego functioning is borne out by research: Rabin found that measures of future time perspective correlates positively with ego strength and with delay of gratification, and negatively with two measures of impulsivity (Rabin, 1978). And in successful psychotherapy, orientation to the future replaces living in the past (Smeltzer, 1969).

For our purposes, the content of the future time perspective will give us some indication of the extent to which the ego functions of delay, imagery, and memory--in the form of the future fantasy--have developed. The content also will give some indication whether future goals serve as motives for current behavior. We would expect to find a coherent and extensive fantasy in individuals with a well-developed inner life where there has been an internalization of action tendencies and a planful approach to achieving goals in the future. Those with a less developed fantasy of their future should be more prone to acting out their impulses in search for more immediate gratifications with less concern for future events and a diminished fantasy potential.

Locus Of Control

Locus of control, described at length by Rotter (1966), refers to the subject's perception of the controlling source

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> When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control (Rotter, 1966, p. 1).

It follows, for example, that internals will lower their expectancy of success if they see that they lack the necessary skills to complete a task. But externals will not alter their expectancy under these conditions because they do not believe that their skill level affects the likelihood of their success (Phares, 1957).

Note that it is the belief or expectancy that the person has about his ability to affect his circumstances that is of issue here, and not the actual source of reinforcement. Persons are internals, if they think their behavior counts. They may be mistaken, but that is irrelevant. Thus, locus of control is a belief system that persons maintain and not necessarily an accurate perception; it reflects the individual perception of the relationship between what he or she does and what then happens.

Many studies of locus of control treat the construct as a generalized trait, one that could readily translate to different situations. Because Rotter's Social Reaction Inventory (1966) has acceptable validity and reliability researchers have successfully located their subject on this dimension and then correlated it with many different personality traits (see Joe, 1971; Phares, 1973; and Lefcourt, 1976, for an extensive review).

Rotter thought that the scale measured one trait, but Mirels (1971), has identified two general factors on Rotter's scale: Factor I - felt mastery or control over one's life, and Factor II - system control or felt impact upon political institutions. Nonetheless, Rotter's questionnaire remains the most widely used instrument to date.

Notwithstanding its possible illusionary characteristics, locus of control does effect a person's behavior. Gore and Rotter (1963) collected data from Negro college students in the south during the civil rights movement in the early sixties. Internals were significantly more willing to take part in marches or freedom rides, presumably because they believed that their behavior might change their environments. Rotter and Mulry (1965) found evidence supporting the hypothesized relationship of internality to achievement motivation. Thus, locus of control, as an underlying attitude or expectancy merits consideration as an important personality variable.

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Believing himself personally responsible for his eventual outcome, the internal experiences a greater sense of freedom or independence from immediate environmental influence. Rotter noted the similarity between internality and a person's motivation towards autonomy or active mastery of the environment. Because they must accept the consequences of their behavioral choices, internals do not act impulsively; they evaluate alternatives based upon their possible outcomes. For example, Lefcourt (1976) found that internals respond to the importance of the information provided to them, and not to the status of the informer. And once committed to a position they are more trusting of their own judgment and better able to remain firm in the face of opposition than an external (Crowne & Liverant, 1963). Whereas externals respond to social cues and perform better when these cues are present, internals, on the other hand, resist being influenced and are distracted by non-task oriented information (Lefcourt, Lewis and Silverman, 1968). It seems, then, that internals can restrain their responsiveness to compelling social or emotional components of stimuli; they absorb, reflect upon, and evaluate the information instead of passively responding to it.

Although it is just a belief system, locus of control represents a self-evaluation of personal attempts to master the environment. The civil rights activists mentioned earlier is just one example. Successful mastery not only influences the perception of internal control, it also forms

an important component of the self-image. After all, self-efficacy "is a vital root of self-esteem (which is) based upon the effectiveness of one's own activity in dealing with the environment" (White, 1964, p. 151). Research supports this relationship: on a composite index of competence, internals scored higher than external patients. And externals have reported greater "feelings of inadequacy" (Fish and Karabenick, 1971; Ryckman and Sherman, 1973).

It makes sense that competent, goal-oriented behavior correlates with adaptive, well-adjusted personality functioning, and that a helpless, powerless or fatalistic perception of one's self correlates with maladaptive functioning. Harrow and Ferrante (1969) found that schizophrenics are more external. Both Shybut (1968) and Smith et al (1971) reported that severity of illness was directly associated with greater externality. Warehime and Woodson (1971) reported that externals experience more negative affect than do internals, particularly depression (Abranowitz, 1969). More recently, Archer's (1979) findings support the much reported relationship of externality to greater trait anxiety and test anxiety. Finally, Artwahl (1975) reported a correlation of -.412 ($p < .005$) between externality and ego strength thereby supporting his hypothesis that fostering internality is a useful therapeutic goal.

On this note we turn now to the various ego functions that have been empirically related to internality. Rabin

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(1978) reports that ego strength, a general measure of the ego's ability to cope adaptively with internal and external demands, correlates positively with internality; as does a measure of delay of gratification--two measures of impulsivity, the opposite of delay, correlated negatively with internality. Specific ego functions that enhance adaptive functioning such as frustration tolerance and attention (Glass and Singer, 1972), and time binding (Melges and Weisz, 1971) were also associated with internality.

It seems, then, that locus of control, specifically internality, is a useful measure of the ego's ability to operate autonomously in the social milieu. As a trait, it correlates significantly with a number of other traits such as achievement and emotional well-being. In support of these findings a number of adaptive ego functions also cluster with this belief about self-effectiveness. Internality also is associated with cognitive processes that enhance effective functioning. The predominance of this personality measure in the literature signifies the importance attached to it as a major personality variable. Its relationship to time perspective and fantasy is the subject of this study.

THE PRESENT STUDY

Although these two different lines of research, locus of control and future time perspective, converge on a number of important points, notably externality and restricted future time perspective in psychopathology, perhaps because locus of control developed out of a social learning perspective, and future time perspective came out of a dynamic point of view there has not been much work done comparing the two. What has been done is encouraging: Rabin (1978), Platt and Eisenman (1968), Shybut (1968, 1970), and Thayer, Gorman, Wessman, Schmeidler, and Mannucci (1975), all report positive relationships between internality and different measures of time perspective. Of these four studies, only two (Shybut, 1970; Rabin, 1976) investigated some underlying processes contributing to the established relationship between these two variables, and only Rabin reports significant differences in measures of delay and impulsivity associated with future time perspective. Moreover, no research utilizing projective techniques as a medium of comparison has been done. Nor has the significance of fantasy as a mediating process been explored. This present study attempts to fill that gap by using an inkblot technique to assess some of the underlying ego functions that presumably account for the positive

relationship reported between these two variables, particularly those functions that participate in fantasy activity.

Future Time Perspective And Locus Of Control

That a positive relationship might exist between future time perspective and locus of control would not be surprising. If persons think they have the ability, based upon their past experiences, to reach the goals they set for themselves, be they educational, occupational, interpersonal, or whatever, then their fantasies about their future, which reflects these goals, will become stabilized into an orderly set of expectations that guide and structure ongoing behavior. Since internals feel capable of controlling their outcomes, it seems reasonable to expect that they actively engage in formulating, coordinating, and executing behavior that will satisfy their aspirations and enhance their sense of personal control.

As a point of fact, Rotter (1966) has found that persons with a strong belief in personal control are likely 1) to be more alert to those aspects of their environment which provide useful information for their future behavior; and 2) take steps to improve their environmental condition.

In our attempt to understand the connection between internality and time perspective we turn first to Cottle and Klineberg (1974) who put it this way:

> ...a relatively broad span of temporal integration is facilitated by...the belief that present actions will have some measurable impact on future outcomes, that what will happen in the future is to some degree both predictable and controllable (p. 25).

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A key word here is "predictable". Because internals perceive past and present events as a contingent upon their behavior, future events seem predictable since they, too, should be under personal control. Feeling as they do that success hinges upon personal initiative, internals must anticipate and visualize the future in an increasingly personalized and realistic form. And these fantasies of their future, which should be organized and extensive, will serve as scripts guiding behavior.

The other side of the coin seems equally plausible. If persons are unable to establish the impact of their behavior upon eventual outcomes, they will be unable to envision future successes at achieving desired ends. Since outcomes seem contingent upon circumstances beyond personal control--due to powerful external forces or as a result of unpredictable random events--the future will appear amorphous, without any constancy or predictability. Under these conditions, anticipation, planning, or deferral of immediate graftification for more long term goals will seem useless and unprofitable. Thus, externals will experience delay as immediate frustration with no ultimate reward; the future will appear nebulous and vague because they feel powerless to shape its course; and aspirations will serve as fantasies of fulfillment and not guides to action.

Fantasy And Ego Functions

Throughout our discussion of these two personality dimensions various ego functions such as anticipation, delay,

[redacted]

imagery, and memory were evoked to explain the differences between internals' and externals' future time perspectives. As a matter of fact, this study attempts to explore the interrelationship of these two variables on the basis of these processes. Part of the relationship between locus of control and future time perspective may be accounted for by ego functions that participate in the formation of fantasies. The capacity to use fantasy adaptively may be an important determinant in forming an internal locus of control.

We already have some indication that ego functioning may be involved. Both coherent and extensive time perspectives and internal locus of control, as variables, form a cluster with ego strength in Rabin's work; Artwahl and others have independently reported ego strength's correlation with internal control too. This association with future time perspective has also been well-documented.

In the area of psychopathology we also see evidence of this relationship. Empirical studies indicate consistent correlations between externality and poor functioning. Time and time again externals report more trait anxiety, depression, and feelings of inadequacy. Schizophrenics are more externally oriented than normals; they also have more restricted time perspectives, as do the depressives.

Relationships between internality, broad time perspectives, and the specific ego functions that underlie fantasizing such as delay, frustration tolerance, attention/concentration,

anticipation, and imagery may be found empirically and hypothetically. But most of these studies are piecemeal attempts at conceptualization. With few exceptions, none address directly the relationship between these personality dimensions, or fantasizing ability. Certainly none have used projective procedures to clarify this relationship.

Projective Techniques

Projective techniques are well suited to the task. By highlighting the perceptual organizing process they shed light on the functioning ego as it struggles to lend form to ambiguous or ill-defined stimuli.

Of particular importance in forming responses are the processes of memory, integration, imagery, and delay--all necessary components of anticipation and fantasy. These processes function optimally when a person attributes movement, especially human movement, to a static inkblot forming what Rorschach called a Human Movement response. By organizing the various parts of the blot, and by associating human content to the otherwise ambiguous material, the subject demonstrates the ability to delay responding to more immediate components of the blot; to articulate, differentiate, and integrate stimulation in a relatively sophisticated fashion; to plan via fantasy; and to project himself through fantasy into unstructured time and space. This adaptive use of fantasy in the service of solving the task demands of the testing procedure should simulate both the internal's reliance upon planning and anticipation, and his projection

through time and space (Hartacollis, 1975) in the formation of a broad perspective. After all, the same dynamics that shape the form of the projective fantasy shape the future fantasy too.

Those ego processes that underlie future time perspective and internality affect other areas of human functioning as well. For example, the capacity to delay impulse expression, important in the development of fantasy and the formation of a future time perspective (Wallace and Rabin, 1960), has been positively associated with internality, and is a necessary component in the shaping of drives and affects. If a person can inhibit his immediate reaction to some exciting stimuli, he can then take the time to shape and form more appropriate or adaptive responses; ones that elicit more desirable rewards. But delay is tolerated only when future satisfaction can be anticipated. Because of past success in obtaining gratification the internal can anticipate future rewards and forego acting immediately and impulsively.

If this be the case, we can investigate the connection between tension discharge capacities, internality, and time perspective by focusing on the internal's response to the colored inkblots. The extent to which he can structure his responses to their provocative stimulation is one measure of his ability to rely upon inner resources in the service of constructive goals.

Pilot Study

There is some evidence already available that these relationships between fantasy, internality, and discharge delay exist. In a recent pilot study, students learning the administration, scoring, and interpretation of the Rorschach test gave their subjects Rotter's Social Reaction Inventory in addition to the standard Rorschach procedure. Although the sample was small (N=22), significant correlations were obtained between locus of control and some Rorschach variables. Internality was associated with a greater number of human movement responses ($r = .50$, $p < .05$), suggesting that those persons who feel control over the course of their lives are not at the mercy of their drives but can use fantasy adaptively, as a resource. In addition, these internals also produced a greater frequency of structured (FC) rather than unstructured (CF and F) responses to the colored portions of the blots ($r = .40$, $p < .05$). Thus, these persons have the capacity to inhibit immediate responsiveness in favor of developing better formed, more reality-oriented responses.

HYPOTHESES

The study now being proposed will examine the role of fantasy in the hypothesized relationship between locus of control and future time perspective. This is in keeping with the overall hypothesis that the configuration of ego functions underlying fantasy also underlie the formation of both these personality dimensions, and that fantasy, therefore, is important to the development of internality and a coherent, extensive future time perspective.

The following hypotheses are offered:

1. There is a positive relationship between internality (In) and (a) the coherence (Coh) and (b) extension (Ext) of the future time perspective (FTP).
2. There is a positive relationship between internality (In) and (a) human movement (M), and (b) structured affective expression (SAE).
3. There is a positive relationship between the future time perspective variables of coherence (Coh) and extension (Ext) and (a) human movement (M), and (b) structured affective expression (SAE).

METHODS

Subjects

Subjects were 40 male and 40 female students enrolled in undergraduate psychology classes at Michigan State University. This sample size allows for an investigation of sex differences in the data analysis. For most students, their participation in this experiment was in partial fulfillment of the class requirements.

Instruments

Each student was given the Social Reaction Inventory (Rotter, 1966), Wallace's technique for assessing the extension and coherence of future time perspective (Wallace, 1954), and a shortened version of the Holtzman Inkblot Technique (Holtzman et al, 1961). All of the measures were group-administered in a single session.

Order of Presentation:

1. Wallace's procedure (Part 1)
2. Social Reaction Inventory
3. Holtzman Inkblot Technique
4. Wallace's procedure (Part 2)

Future Time Perspective

In his study of schizophrenia, Wallace investigated characteristics of his subject's future time perspective and their degree of pathology. Defining future time perspective (FTP) as "the timing and ordering of personalized future events," Wallace used three separate tasks that measured the length and stability of his subject's view of his impending future. He called the characteristics extension and coherence (Wallace, 1954).

> Extension: "...the length or extent of the past or future which can be conceptualized" (p.33).
> Coherence: "...the degree to which the elements or events in the future or past time span are meaningfully related...the degree of logical order which is imposed upon the contents of a time span" (p. 33).

The first of his tasks adequately discriminated schizophrenic from non-schizophrenic populations. Because of its ease of administration, especially to a group, its high discriminate power, and its reasonable inter-correlation with the other two tasks, it alone was used in this study.

Part one was composed of two parts; first a spontaneous production of ten foreseeable personal events, followed later by a forced ordering of these events:

Wallace Part One

1. On the piece of paper provided in the envelope, write down ten events that refer to things that may happen to you, or you will do, during your life time.
2. Now you will find in your envelope ten index cards. Using one index card per event, write down a key word or phrase that identifies that event. Don't bother

to number the events, just write down a different one on each card. When you are finished, shuffle the ten cards and place them back in the envelope.

3. Returning to the first list, next to each event record how old you might be when that event happens.
4. Make sure your identification number is on the paper; pass the list of events to me; and keep the ten index cards in the envelope.

Part two was presented at the end of the experiment:

Wallace Part Two

1. Now find the ten index cards that you filled out earlier--the ones with the different events that might happen to you. Arrange those cards in the order in which these events might occur. In the upper right hand corner of each card write the number which indicates where in the sequence that particular event occurs. For example, first, second, and so on until the tenth. When you're finished, place the stack of cards in the envelope with the rest of the material and pass it to the examiner. Thank you for your participation.

Extension And Coherence

The number of years between the subject's present age and the median age of the events given by him was the measure of extension. Representing the extent of his projection into the future, it provided an indication of the subject's breadth of aspirations and hoped-for accomplishments.

A correlation between the rank ordering of ages given in Part One and the forced ordering given by the subject in Part Two provided a measure of coherence. High correlations suggested a relatively stable and organized view of one's self in later years. Hypothetically, this stability and organization represented a purposeful and well-thought-out approach to life.

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Locus Of Control

Rotter's Social Reaction Inventory (1966) was used to assess the subject's perceived locus of control. The questionnaire consisted of 29 forced-choice items including six filler items. The subject was asked to choose one of two statements that more closely reflected his own belief. An example of one such item was, "What happens to me is my own doing" versus "Sometimes I feel that I don't have enough control over the direction my life is taking" (Item 28). The scale was scored in the external direction so that a higher scale score indicated greater externality.

Rotter has reported (1966) reasonably high internal consistency, and satisfactory test-retest reliability and construct validity with his scale. Although he reported only one significant factor that accounted for 53% of the variance, others have found two (Mirels, 1971) or more (Collins, 1974) factors that comprise the construct as measured by this instrument; its multidimensionality is generally accepted (Lefcourt, 1975), even by Rotter (1975).

Mirels (1971) has isolated nine items that make up one factor--Personal Control--that related to the individual's belief in his ability to alter the course of his life. In addition to the total score on the Rotter scale, the subject's score on this one factor was used in the analysis since it directly related to the hypotheses under consideration. (See Appendix A for a copy of the Social Reaction Inventory.)

The Holtzman Inkblot Technique

A shortened version of this projective technique was used to assess some of the psychological processes involved in perceiving and organizing environmental stimuli. To the first 30 of the 45 inkblots of Form A, the subjects were asked to report the following:

1. You will be shown a series of inkblots, each of which will be projected on the screen before you for one minute. Using your imagination, write down in the space provided a description of the first thing the blot look like or reminds you of.
2. Then, describe the particular characteristics or qualities of the inkblot which are important in determining your responses--i.e., what about the blot made it look that way? Give as complete an answer as you can in the time available.
3. None of these inkblots have been deliberately drawn to look like anything in particular. No two people see exactly the same thing in a series of inkblots like these. There are no right or wrong answers.

[See Holtzman (1968) for a description of the blots and a summary of the scoring system. The group administration followed the procedures outlined by Swartz and Holtzman (1963)].

Although conceptually similar to the Rorschach, the Holtzman Inkblot Technique was better suited for this research because it eliminated variation in response

production by restricting the subject to one response per blot; its administration had been standardized; it had a greater variety of stimulus characteristics; and it could be administered in a group (Holtzman, 1968).

For the purposes of this study, only the first thirty blots were used. Herron (1963) has demonstrated sufficient split-half reliability for the variables studied. Subjects recorded their response on an answer sheet designed to elicit only the pertinent information needed for this study. A copy of it may be found in Appendix B.

Although Holtzman's inkblots are used for stimuli, the subject's responses were scored according to Beck's system (1961) for color and movement responses. Holtzman, who has obtained significant correlations ($p < .01$) between his system and the Rorschach, has concluded that there is "...a great deal in common as far as the underlying meaning of their respective variables are concerned (1961, p. 175)." In addition, the subject's differential responsiveness to form-dominated versus chromatic-dominated aspects of the blot was calculated according to the ratio:

$$\frac{FC + 1}{CF + C + 1}$$

All of the protocol were scored by the author of this study. In addition, twelve randomly selected protocol were scored by an independent rater. As a measure of inter-rater reliability, correlation coefficients were calculated for the twelve protocol. These coefficients were .92 for the

human movement response (M) and .78 for structured affective expression (SAE).

Personal Information And Confidentiality

On the envelope of test materials given to each subject was a subject identification number. All of the test materials were identified by that number. On the first page of the record form for the inkblot technique, the subject filled in his age, sex, the date, educational level, and G.P.A. Since recontacting specific subjects wasn't necessary, no records were kept of which identification number corresponds to whom. This insured that confidentiality for the individual subjects was maintained.

RESULTS

A table of the means, ranges and standard deviations for the subject sample, as a whole and by sex, may be found in Appendix C (Table VIII). Pearson product-movement correlation coefficients were computed for each pair of variables. Appendix D contains the complete correlation matrix of all the variables for the total sample and by sex (Table IX). Unless the results merit separate consideration, no distinction will be made between the standard locus of control score and the Mirels factor of personal control derived from the Rotter questionnaire. Furthermore, the reader should remember that Rotter's questionnaire is scored in the direction of externality. Nonetheless, the results, where applicable, are reported as they relate to internality since it is this construct about which the hypotheses are formulated. Thus, negative correlations in the tables refer to a positive relationship between the variables and vice versa.

Hypothesis I

Correlation coefficients calculated for internality and coherence, and internality and extension (See Table I) were not statistically significant ($p < .05$). Internality appears to have no relationship with either the coherence or extension of the future time perspective. Examination

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of Table I reveals that the relationship between internality and extension was in the predicted direction for women and that it was significant at a higher level of probability ($p<.10$). This relationship reached statistical significance ($p<.05$) when extension was correlated with Mirels personal control factor (Table IX).

Table I. Correlation Between Externality and Future Time Perspective Variables

	N	Coherence	Extension
Men	40	.09	.09
Women	40	-.08	-.23**
Total	80	-.001	-.10

**Significant at $p<.10$ one-tailed test

Hypothesis II

Internality and the number of human movement responses given to the inkblot material correlate significantly (See Table II) at a higher level of probability ($p < .10$) than is usually accepted ($p < .05$). This relationship holds true for women but not for men.

Examining Table II, one can also see that structured affective expression did not correlate significantly with internality as was predicted for the entire sample. Nonetheless, for males alone, there was the predicted relationship at a statistically significant level ($p < .05$).

Table II. Correlation Between Externality and Human Movement (M) and Structured Affective Expression (SAE)

	N	M	SAE
Men	40	-.09	-.27*
Women	40	-.21**	.37
Total	80	-.17**	.19

* Significant at $p < .05$ one-tailed test
** Significant at $p < .10$ one-tailed test

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Hypothesis III

Table III displays the correlation coefficients of the inkblot variables and future time perspective variables. As can be seen, there are no statistically significant relationships between coherence and either human movement (M) or structured affective expression (See Table III), the same holds true for extension and these variables (See Table IV). An examination of the differences by sex reveals a similar pattern of nonsignificant results.

Table III. Correlation Between Coherence and Human Movement (M) and Structured Affective Expression (SAE)

	N	M	SAE
Men	40	-.30	-.04
Women	40	.19	.04
Total	80	-.06	.00

Table IV. Correlation Between Extension and Human Movement (M) and Structured Affective Expression (SAE)

	N	M	SAE
Men	40	.20	-.04
Women	40	.04	-.36
Total	80	.12	-.20

Additional Results

Because of the wide variance in extension scores, a Chi Square test was done on a median split of extension X locus of control and extension X locus of control (Mirels). As Tables V and VI reveal, both Chi Square tests were non-significant ($p<.05$).

Table V. Chi Square Analysis of Locus of Control Extension by a Median Split

		Extension		
		Hi	Lo	
Locus of Control	Hi	14	21	$x^2 = .16$ Nonsignificant
	Lo	20	25	

Table VI. Chi Square Analysis of Locus of Control (Mirels) and Extension by a Medial Split

		Extension		
		Hi	Lo	
Locus of Control (Mirels)	Hi	16	22	$x^2 = .0046$ Nonsignificant
	Lo	18	24	

Table VII. Correlation between Color Responses and Locus of Control, Extension, and Human Movement (M)

	L of C	Extension	M
FC	.14	-.23*	.02
CF	-.17	.05	.19
C	-.05	.17	-.10

*Significant at $p<.05$ two-tailed test

Moreover, the two variables that make up future time perspective, coherence, and extension bear no statistically significant relationship to one another. Human movement and structured affective expression are also uncorrelated.

DISCUSSION

None of the predictions were confirmed in this study though the relationship between internality and human movement (M) approached significance ($p < .10$). An analysis of the results in light of sex differences reveals statistically significant associations between personal control (Mirels) and extension for women, and structured affective expression and internality for men. Marginal results in the predicted directions ($p < .10$) were obtained between internality and human movement especially for females, and internality and extension, also for females.

Trends in the results suggest a relationship between locus of control and extension, human movement, and SAE. Coherence and structured affective expression don't seem to bear much relation to the majority of other variables. Overall, the results provide little evidence of the hypothesized relationships between locus of control and future time perspective. Nor do they support the notion that fantasy, or the configuration of ego functions (imagery, memory, and tension discharge ability) that underlie it, serve as a mediating process in the development of internality or a coherent and extensive future time perspective.

Looking beyond the results obtained for the sample as a whole, we do find some conclusive results when the subject's sex is taken into account. For males, at least, internality correlates significantly with structured expression of affect (See Table II). For females, the personal control factor of internality correlates significantly with extension, or length, of the future time perspective (See Table IX). And though not conclusive, there is a strong trend suggesting that internality may be associated with fantasy production, especially for females (See Table II). Thus, we can say that we have limited evidence of our hypothesized relationships: there are some relationships among locus of control, future time perspective and the use of fantasy.

The psychoanalytic concept of internalization of impulses (Blanck and Blanck, 1974) and Social Learning Theory's locus of control (Rotter, 1966) are independent and, to a large extent, dissimilar ideas used to describe different fields of vision. Internalization, at least as it is used herein, refers primarily to the progressive interiorization of impulses, an accompanying increase in internal mental activity, and a progressive independence from environmental and need-related stimuli. Locus of control, which refers to a generalized expectancy of reinforcement, encompasses the individual's perception of the impact of his behavior upon the environment. Or even more broadly, it becomes a measure of self-efficacy in manipulating the environment to achieve

one's plans or desires. Different as these two theoretical perspectives may be, both deal with the increasing interiorization of events, an enhanced sense of mastery, and a progressive independence from environmental control. Both are preconditions for competent functioning.

Yet the sum of the results don't argue forcefully towards this conclusion. Even if we disregard the interpretation of M as a configuration of ego functions, especially delay of impulse expression (in fact the two measures of delay--M and structured affective expression--were not significantly correlated for the sample as a whole), and apply the more limited interpretation of it advanced by Singer (1966), M as a measure of adaptive fantasy, we still are left with a baffling conclusion. Those individuals confident in their ability to manipulate their environment successfully do not use their imagination and creative ability more than those who believe in external control.

Furthermore, we must account for the failure of this study to replicate previous researchers' work. After all, Rabin (1978), Platt and Eisenman (1968), Shybut (1968, 1970), and Thayer, Gorman, Wessman, Schmeidler and Mannucci (1975), all reported positive relationships between internality and different measures of time perspective. Kahn (1967) has reported that subjects with greater future orientations show a tendency to produce M responses on the Rorschach. And the pilot study that preceded this study confirmed the hypothesized relationship between internality, M production

and structured affective expression. The accumulated evidence suggested that this study's hypotheses would be supported. How can we account for only minimal confirmation?

A look at the composition of the subject population may be informative. In contrast to the diversity of subjects used in the pilot study, many of whom were older and non-students, the vast majority of the subjects used for this study were freshmen in their first quarter at college. The anxiety that accompanies this first major separation from home could have contributed to a constriction of the future time perspective--what Cottle and Klineburg (1974) call "antepression." Under these circumstances, the subjects' anticipations of their future extend only to immediate circumstances or events they can predict with certainty.

It is not surprising, then, that the mean extension for the sample is so short. Additional support for this explanation can be found in the surprising number of mundane and commonplace associations filling up many students' future perspectives, associations such as "going home," "going to a party," "taking an exam," or, even more concretely "finishing this experiment." With the shock of the new overwhelming them, making demands upon them to perform in new and different ways, they cling to fantasies that are common and familiar. Nor is it surprising that the coherence scores are of limited value to us. After all, the futures of freshman college students ought to be loosely organized. Too much will happen to them over the next four

years for them to be making rigid and restricting plans. In fact, it would be a sign of health to find at their age only moderate coherence scores reflecting a flexible, more laissez faire approach to what will be.

Another remarkable feature of these students' future fantasies was their stereotypicality. It was often difficult to determine whether their fantasies represented legitimate, thought-out goals or, instead, over-learned verbalisms designed either to ward off anxiety about the unknown or satisfy frequent parental inquiry. The distinction between cliches and essential ideational content drawn by Rapaport, Gill, and Schafer (1968) in their discussion of the TAT comes immediately to mind. Cliche responses, though subject to psychological determinism in their selection, are nonetheless barely revealing of the person's individual personality constellation.

Cliche responses affirm the subject's socialization. The "a house, a spouse, children and a two car garage" fantasy has spawned a generation of Levittowners who have acted out this fantasy ordinaire. But without more information about the subject's wishes and fears, his own particular configuration of drives and defenses, we fail to get a true picture, an individualized depiction, of our subject. Insofar as a future time perspective refers to the ordering of "personalized" events, the abundance of cliche responses given by these young students raises serious doubts as to how representative these fantasies are of their true strivings.

If we minimize the significance of these future time perspectives because of their stereotypicality do we necessarily dispense with the hypothesis that the future time perspective represents a fantasy that guides current transactions in a coherent and organized fashion? Not necessarily. As suggested above, the choice of the future fantasy is still subject to the laws of psychological determinism. Thus, its cliche responses are characteristic of the subject, but only in a broader context. Following Rapaport et al:

> ...one must differentiate cliches from essential ideational contents, and attempt to infer--from the interrelationships of cliches--the general rules by which the subject makes his selection of cliches. (1968, p. 478)

A deeper, more penetrating look must be taken at these fantasies; more information about future aspirations and apprehensions must be elicited.

One further word should be mentioned about the use of future time perspective as a fantasy or script for behavior. The distinction between conscious and unconscious fantasy has always been an important one for psychoanalysts. So much so, that the word used to refer to mental productions of an unconscious nature is "phantasy", while "fantasy" has been reserved for more conscious mental contents (Issacs, 1952). The role of phantasy in personality functioning is well established in the psychoanalytic literature. We need only recall that Freud based his theories of hysterical neuroses upon his discovery of the unconscious significance

of conversion symptoms. And a recent book by Stoller (1980) explores in depth the role of unconscious fantasy in behavior, especially as it relates to sexual excitement.

Conscious fantasy has its roots in the unconscious. The more personalized the conscious fantasy, the greater portion of unconscious strivings and ego defenses will it reveal. Stereotypical responses, which are impersonal, yield the least amount of information about the unconscious phantasies that motivate behavior. At best, they serve as clues to the defensive activities of the ego. In light of our results, it seems that our efforts to use future time perspective as a reflection of the individual's schema of personal development is hindered by the impersonal, and therefore unrevealing, data that they provided. All that we can say is that our subjects have incorporated the normative fantasy of our society.

There are other methodological difficulties to consider. The instruments for this study were administered in a group. For the more structured tests, such as Rotter's Social Reaction Inventory, this doesn't present much of a problem. However, group administration of projectives yields results different enough from those obtained in individual administration to warrant the establishment of an entirely different set of norma (Swartz and Holtzman, 1963).

Schafer (1954) has described the importance of the testing situation in interpreting test results, especially the role of anxiety and the transference to the examiner. It seems obvious that in a group administration anxiety is lessened, and the transference to the examiner diminished. Therefore, the ego regression necessary to produce associations to the inkblots would be more controlled and the test demands would give rise to less conflict. In this study we are using the production of M as a measure of the ego's adaptive use of fantasy. Insofar as the testing situation represents a relatively nonthreatening environment we really don't get an accurate picture of the ego's capacity to function adaptively under stress.

Nor do we get an accurate picture of the role of fantasy when the subjects do use it. A major methodological weakness of this study is its failure to differentiate between constructive and nonconstructive fantasy. Fantasy may be used adaptively in the service of furthering problem-solving and enhancing goal directed behavior. Or it may be used defensively as a means of escaping frustration by retreating into dreamy wishfulfillment. By failing to distinguish between these two forms of fantasy, that is, by failing to score M responses according to their form characteristics (M + or M-), this study fails to discriminate accurately the role of fantasy in ego functioning. Interpretations must be restricted to whether the capacity to fantasize exists

and not extended to include fantasy's role in adaptation to reality.

According to several authors, the capacity to fantasize--to produce M responses--hinges upon the vital ego function of delay working in concert with imagery and memory functions. Differential responsiveness to color has also been interpreted as a measure of the ego's tension discharge capacity. Yet the correlation between these two measures of delay was nonsignificant.

In this study the test statistic $\frac{FC + 1}{CF + C + 1}$ was used as a measure of structured affective expression. This ratio represents the predominance of one form of affect expression over another. Though it does yield a measure of differential responsiveness to color, the statistic fails to reflect the extent to which affect enters the perceptual-organizing process. For example, a person with 7 FC, 6CF and 9C would receive the same score as a person with 0 FC, 1 CF, and 0 C. Both would get a .5 for SAE even though the role of affect, in both cases, judging by the many color-dominated responses in the first protocol and so few in the second, is vastly different. So part of the problem in obtaining significant results might have originated in the use of a statistic which inadequately represents the ego tension-discharge capability. Unfortunately, further correlational analyses of chromatic responses and locus of control were also nonsignificant.

Another cause of methodological difficulty may not, at first, be so apparent. Other studies as well as the pilot study used the Rorschach and not the Holtzman. Since the theory of personality and perception underlying both inkblot tests is similar, it seemed natural to assume that either test could be used with similar results. After all, the inkblots are ambiguous designs upon which subjects project important personality determinants during the perceptual-organizing process. Could we not have had them look at clouds in the sky in order to obtain equally valuable information?

Probably not. Though we normally assume that the Rorschach inkblots are totally unstructured, there appears to be a considerable amount of what Rabin (1977) has termed "consensual connotative meaning" attached to the cards. This is not to say that the cards stimulate specific interpretations (though certain blots do elicit popular responses) but rather that they evoke standard connotative associations when measured by the semantic differential. Card IV has been described as bad, ugly, dirty, distasteful, worthless, cruel, unpleasant, sad, dishonest, strong, large, ferocious, heavy, thick, rough, and rugged. While Card VII elicits more positive associations such as good, beautiful, clean, kind, pleasant, happy, honest, peaceful, light, thin, smooth, and delicate (Rabin, 1959).

Clearly these unstructured forms are not as meaningless as we had assumed. Subjective experience alone

indicates that the Holtzman blots elicit a greater number of movement responses than does the Rorschach. Thus substituting one set of blots for another may have been based on certain unwarranted and erroneous assumptions about the equivalence of these instruments.

One final issue should be addressed in considering the methodological shortcomings of this study. Projective techniques, especially the Rorschach, have a checkered history of acceptance by the academic community. In light of the results herein obtained, ought inkblot tests be considered inappropriate for empirical research?

The answer must be a qualified "no." Expecting the Rorschach to provide confirmation about specific ego functions such as delay, time binding, imagery, etc. seems shakey at best since the relationship of these ego functions to different inkblot variables remains speculative. Using Rorschach scores as signs upon which to classify subjects also yields limited success (Cohen, 1978). More often than not the hypothesized relationships are based upon presumed third order inferences about the factors underlying the response process itself. Limiting the interpretation of Rorschach variables to more obvious inferences based upon face validity seems a safer approach (e.g. M as a measure of fantasy), though certainly limiting in scope.

RECOMMENDATIONS FOR FUTURE RESEARCH

This study failed to find empirical support for three hypotheses that were formed as a result of pilot work and a review of the literature. In the discussion section, enough serious doubts about the methodology were raised to question whether the study actually measured, authoritatively, that which it had proposed. The role of ego functions in the development of future time perspective and locus of control still needs clarification. Put another way, the importance of fantasy, both as an adaptive process and as a script guiding transactions, remains undetermined. Future research must be done before these questions can be answered.

Clearly, a more in-depth analysis of the future time perspective is needed. Measures of extension and coherence are good bench marks, but they fail to capture the actual substance of the future fantasies. Moreover, subjects of a greater diversity of backgrounds, ages, and occupations must be included. Freshman students lack the experience and psychological sophistication to possess rich, detailed, and personalized visions of their future. They have yet to confront their limitations and assess fully their strengths.

Furthermore, a multi-level approach to assessing ego functions, fantasy, and behavior ought to be developed. In this study, an inkblot test was used to measure the quantity of fantasy. Presumably, the ego functions said to underlie the production of fantasy were also assessed. Rather than using the subjects' responses to color, the interpretation of which is, in itself, inferential and arguable, it would have been better to use an independent technique as the additional measure of the ego's tension discharge ability. That way it becomes possible to separate fantasy from ego functions in the analysis and thereby gain a greater understanding of their inter-relatedness.

One important area where this study broke down was in its failure to distinguish between adaptive and defensive fantasy. It was suggested that scoring for form might have solved the problem. Future studies could better investigate the role played by fantasy by presenting the subjects with tasks designed to elicit fantasy as part of the solutions. True enough, the Rorschach is, in actuality, just this sort of task. Nonetheless, a task designed for this purpose alone may sidestep a number of problems associated with standard projective technique, e.g. administration, scoring, validity, etc.

The results of this single study are, at best, inconclusive. There is still enough reason to believe that locus of control, fantasy, ego functioning, and future time

perspective, are inter-related variables. Further research, focusing directly and in depth upon these variables needs to be done.

SUMMARY

This study was designed to investigate the role that fantasy plays in the development of future time perspective and an internal locus of control. A sample of 80 undergraduates, 40 males and 40 females, were given Rotter's Social Reaction Inventory, Wallace's test for future time perspective, and 30 cards of the Holtzman Inkblot Technique, Form A. It was hypothesized that internality would be positively correlated with an extensive and coherent time perspective and that both would be positively correlated with the production of human movement (M) and structured affective expression $\frac{FC+1}{CF+C+1}$ on the inkblot test. A correlational analysis revealed the predicted relationships between affect expression and internality for males and personal control and extension for females. Trends in the data suggested that internality is associated with fantasy when this ability is measured by the production of M. It was concluded that there was limited evidence of the predicted relationships among the experimental variables. A discussion of the methodology and the reasons for these limited results was followed by some suggestions for future research.

APPENDICES

APPENDIX A

SOCIAL REACTION INVENTORY

APPENDIX A

SOCIAL REACTION INVENTORY

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives numbered 1 or 2. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief; obviously, there are no right or wrong answers.

Your answer, either 1 or 2 to each question on this inventory, is to be reported on the answer sheet provided. Do not begin until you are told to do so.

Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. For each numbered question mark the answer sheet 1 or 2, whichever you choose as the statement most true.

In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices.

REMEMBER

Select that alternative which you personally believe to be more true.

I more strongly believe that:

1. __ 1. Children get into trouble because their parents punish them too much.
   __ 2. The trouble with most children nowadays is that their parents are too easy with them.
2. __ 1. Many of the unhappy things in people's lives are partly due to bad luck.
   __ 2. People's misfortunes result from the mistakes they make.

3. __ 1. One of the major reasons why we have wars is because people don't take enough interest in politics.
   __ 2. There will always be wars, no matter how hard people try to prevent them.
4. __ 1. In the long run people get the respect they deserve in this world.
   __ 2. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.
5. __ 1. The idea that teachers are unfair to students is nonsense.
   __ 2. Most students don't realize the extent to which their grades are influenced by accidental happenings.
6. __ 1. Without the right breaks, one cannot be an effective leader.
   __ 2. Capable people who fail to become leaders have not taken advantage of their opportunities.
7. __ 1. No matter how hard you try some people just don't like you.
   __ 2. People who can't get others to like them don't understand how to get along with others.
8. __ 1. Heredity plays the major role in determining one's personality.
   __ 2. It is one's experiences in life which determine what they're like.
9. __ 1. I have often found that what is going to happen will happen.
   __ 2. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
10. __ 1. In the case of the well prepared student, there is rarely, if ever, such a thing as an unfair test.
    __ 2. Many times exam questions tend to be so unrelated to course work that studying is really useless.
11. __ 1. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
    __ 2. Getting a good job depends mainly on being in the right place at the right time.
12. __ 1. The everage citizen can have an influence in government decisions.
    __ 2. This world is run by the few people in power, and there is not much the little guy can do about it.
13. __ 1. When I make plans, I am almost certain that I can make them work.
    __ 2. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14. __ 1. There are certain people who are just no good.
__ 2. There is some good in everybody.

15. __ 1. In my case getting what I want has little or nothing to do with luck.
__ 2. Many times we might just as well decide what to do by flipping a coin.

16. __ 1. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
__ 2. Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.

17. __ 1. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
__ 2. By taking an active part in political and social affairs the people can control world events.

18. __ 1. Most people can't realize the extent to which their lives are controlled by accidental happenings.
__ 2. There really is no such thing as "luck".

19. __ 1. One should always be willing to admit his mistakes.
__ 2. It is usually best to cover up one's mistakes.

20. __ 1. It is hard to know whether or not a person really likes you.
__ 2. How many friends you have depends upon how nice a person you are.

21. __ 1. In the long run the bad things that happen to us are balanced by the good ones.
__ 2. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22. __ 1. With enough effort we can wipe out political corruption.
__ 2. It is difficult for people to have much control over the things politicians do in office.

23. __ 1. Sometimes I can't understand how teachers arrive at the grades they give.
__ 2. There is a direct connection between how hard I study and the grades I get.

24. __ 1. A good leader expects people to decide for themselves what they should do.
__ 2. A good leader makes it clear to everybody what their jobs are.

25. __ 1. Many times I feel that I have little influence over the things that happen to me.
__ 2. It is impossible for me to believe that chance or luck plays an important role in my life.

26. __ 1. People are lonely because they don't try to be friendly.
    __ 2. There's not much use in trying too hard to please people, if they like you, they like you.
27. __ 1. There is too much emphasis on athletics in high school.
    __ 2. Team sports are an excellent way to build character.
28. __ 1. What happens to me is my own doing.
    __ 2. Sometimes I feel that I don't have enough control over the direction my life is taking.
29. __ 1. Most of the time I can't understand why politicians behave the way they do.
    __ 2. In the long run the people are responsible for bad government on a national as well as on a local level.

APPENDIX B

HOLTZMAN INKBLOT TECHNIQUE RECORD FORM

APPENDIX B

HOLTZMAN

You will be shown a series of inkblots, each of which will be projected on the screen before you for one minute. Using your imagination, write down in the space provided a description of the first thing the blot looks like or reminds you of.

Then, describe the particular characteristics or qualities of the inkblot which are important in determining your responses--i.e., what about the blot made it look that way? Give as complete an answer as you can in the time available.

None of these inkblots has been deliberately drawn to look like anything in particular. No two people see exactly the same thing in a series of inkblots like these. There are no right or wrong answers.

Holtzman

Age: Date:

Sex: Academic Level: G.P.A.

Card 1

Response:

Reason:

Card 2

Response:

Reason:

Card 3

Response:

Reason:

Card 4

Response:

Reason:

Card 5

Response:

Reason:

Card 6

Response:

Reason:

Card 7

Response:

Reason:

Card 8

Response:

Reason:

Card 9

Response:

Reason:

Card 10

Response:

Reason:

Card 11

Response:

Reason:

Card 12

Response:

Reason:

Card 13

Response:

Reason:

Card 14

Response:

Reason:

Card 15

Response:

Reason:

Card 16

Response:

Reason:

Card 17

Response:

Reason:

Card 18

Response:

Reason:

Card 19

Response:

Reason:

Card 20

Response:

Reason:

Card 21

Response:

Reason:

Card 22

Response:

Reason:

Card 23

Response:

Reason:

Card 24

Response:

Reason:

Card 25

Response:

Reason:

Card 26

Response:

Reason:

Card 27

Response:

Reason:

Card 28

Response:

Reason:

Card 29

Response:

Reason:

Card 30

Response:

Reason:

APPENDIX C

MEANS, STANDARD DEVIATIONS, AND RANGES OF EXPERIMENTAL VARIABLES

APPENDIX C

TABLE VIII. Means, Standard Deviations and Ranges of Experimental Variables

	N	Range	Mean	S.D.
1) L of C	80	4-22	10.95	3.59
M	40		9.85	3.0
F	40		12.05	4.0
2) L of C (Mirels)	80	0-9	3.59	1.99
M	40		3.05	1.83
F	40		4.13	2.03
3) Coherence	80	-.08-.97	.72	.21
M	40		.72	.22
F	40		.72	.19
4) Extension	80	0-22	5.90	3.57
M	40		6.53	4.29
F	40		5.28	2.57
5) SAE	80	.17-13	1.53	1.87
M	40		1.25	1.47
F	40		1.82	2.18
6) M	80	3-23	11.14	4.01
M	40		11.38	4.15
F	40		10.9	3.91

APPENDIX D

CORRELATION MATRIX OF ALL EXPERIMENTAL VARIABLES

APPENDIX D

Table IX. Correlation Matrix of All Experimental Variables

		L of C	L of C (Mirels)	Coherence	Extension	M
Coherence		-.001	.05			
	M	.09	.14			
	F	-.08	-.03			
Extension		-.10	-.05	.07		
	M	.09	.18	.23		
	F	-.23**	-.35*	-.22		
M		-.17**	-.05	-.06	.12	
	M	-.09	.06	-.30	.20	
	F	-.21**	-.14	.19	.04	
SAE		.19	.21	.00	-.20	.04
	M	-.27*	.11	-.04	-.04	.25
	F	.37	.35	.04	-.36	-.09

* Significant at $p < .05$ one-tailed test
** Significant at $p < .10$ one-tailed test

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