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# The application of measures of object representation to the dream reports of girls aged nine to eleven

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# THE APPLICATION OF MEASURES OF OBJECT REPRESENTATION TO THE DREAM REPORTS OF GIRLS AGED NINE TO ELEVEN

by

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## Abstract

THE APPLICATION OF MEASURES OF OBJECT REPRESENTATION TO THE DREAM REPORTS OF GIRLS AGED 9 TO 11

by

Elaine Gluckman

Advisor: Professor Steven Tuber

This study attempted to validate the Krohn Object Representation Scale for Dreams (ORSD) for use on reported dreams of children. In addition, the study explored the relationships between this scale and two other scales of object representation, i.e. the Mutuality of Autonomy Scale (MOAS) and the Developmental Analysis of the Concept of the Object Scale (DACOS), which were applied to Rorschach responses. The study was conducted on a sample of 52 girls, aged 9 to 11 years, recruited from public schools and mental health clinics situated in inner city neighborhoods. Subjects' level of social and emotional health/pathology was assessed through use of the Achenbach Child Behavior Checklist (CBCL).

Results obtained indicated the ORSD to be a valid measure of object representation for preadolescent girls. The validity of the ORSD was supported by the fact that clinical girls (i.e. girls showing behavioral signs of emotional disturbance) generated significantly lower and more

primitive levels of object representation than their normal counterparts. (Lower level object representations tend to be more malevolent, amorphous, inconsistent, and less human-like than higher level ones.)

The convergent validity of the ORSD was supported by the finding that girls' ORSD scores significantly correlated with their DACOS dream scores.

Contrary to expectation, there were no significant differences in the levels of object representation generated in the Rorschachs of clinical versus nonclinical girls when rated by the DACOS or MOAS. The possibility is therefore suggested that object representations generated in dreams reflect a different aspect of object relations functioning than object representations generated in Rorschach productions.

The main findings supported the theoretical notion that object representations are a measureable characteristic of personality structure which is reflected in overt behavior. The importance of children's recalled dreams as a source of projective data regarding level of object representation was reinforced, and the ORSD was determined to be a valid instrument for the assessment of object representation level in girls' dreams.

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The dream study is dedicated to my brother, Arthur Gluckman, who inspired me to follow my own dream . . .

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# CHAPTER I: INTRODUCTION

There has been a burgeoning effort over the past 20 years among clinician/researchers to bring the highly abstract language of psychoanalytic theory into closer contact with a more pragmatic language through which a clinician may describe the actual patient she sees in clinical terms. Martin Mayman has described such a language as the "level of expression . . . [which,] outside the consultation room, the psychoanalyst may employ . . . a 'middle language' of essentially 'empirical constructs' which help . . . to formulate . . . clinical generalizations about a patient" (Mayman, 1963, p. 97). It is through such a 'middle language' that the clinician would be enabled to capture the flavor not only of her client, but of the transferential feelings of being-with the client. The development of object relations theory has very much facilitated this effort, in that a person's overt behavior, or at least potential, overt behavior can be seen as an expression of an internalized, and therefore structuralized, inner mental world of object representations (i.e. complex images or schemata) of the self, of significant others, and of the interrelationships among these characters. The language of object relations theory is very much the 'middle language' referred to by Mayman (1963).

Many researchers have looked to various sources of

projective test data in the effort to flesh out the relationship between the inferred inner mental world of object representations and the overt outer world of behavioral expression (Bieri & Blacker, 1956; Blatt & Ritzler, B.A., 1974; Blatt, 1975; Blatt et al., 1976a, 1976b; Blatt & Wild, 1976; Blatt et al., 1979; Ritzler et al., 1980; Mayman and Faris, 1960; Mayman, 1967; Mayman, 1968; Krohn & Mayman, 1974; Krohn, 1974; Franzen, 1978; Hatcher & Krohn, 1980; Ryan, E. R., 1973; Triman and Ryan, E. R., 1977; Urist, 1977; Urist & Schill, 1982; Ryan, R. M., Avery, & Grolnick, 1985; Spear & Lapidus, 1981; Tuber, 1983; Sands, 1986; Harder, et al., 1984; Palmieri, 1985 Kavanagh, 1985; Goddard & Tuber, 1989; Meyer and Tuber, 1989; Tuber & Coates, 1989; among others). A number of scales have been devised to quantify and qualify various aspects of object representations as expressed in projective test data (Sheppard & Saul, 1958; Pruitt & Spilka, 1964; Mayman, 1967; Mayman & Ryan E. R., 1972; Krohn, 1972; Ryan, E.R., 1973; Urist, 1973; Blatt et al., 1976a, 1976b; Blatt, Sugarman, & Bloom-Feshbach, 1981; Franzen, 1978; Frieswyk & Colson, 1980; Ryan E. R., 1973; Bell, et al., 1983; and Westen, 1985; among others). The general thrust of the data on the object representation studies suggests that the higher the level of object representation, as measured by a variety of object representations scales applied to a variety of types of projective data, the healthier and more adaptive an individual will be, both intrapsychically and interpersonally.

Throughout human history and throughout the history of psychology, the dream, Freud's "royal road to the unconscious," has been viewed as a potential treasure of information about the human psyche. Clinicians often look to dream material when in diagnostic doubt, when unsure about the meaning of some transference manifestation, or when confused about the course a treatment may be taking. Many clinicians have reported the value of using dreams in attempting to assess such variables as, for example, degree of impulsivity (Saul, 1972), chronicity of symptomatology (J. Sacks, personal communication, January, 1987), adaptibility of ego functioning (Warner, 1987), diagnosis and prognosis (Sperling, 1971), or intensity of unconscious conflicts (Sarnoff, 1976). However, the so-called 'transformational grammar' through which the clinician's intuitive grasp of the meaning of children's dream material translates into diagnostic knowledge appears to be largely undocumented. The application of object representation scales to children's dream material would seem to offer one way of looking at the relationship between object representations as expressed in dreams, and psychological, interpersonal, and psychopathological variables of the individual dreamer, thereby increasing an understanding of the relationship between dreams and personality.

Alan Krohn, working in conjunction with Martin Mayman, did, in fact, develop an Object Representation Scale for

Dreams (ORSD) (1974). This scale is, to date, the only object representation scale designed specifically to be used with dream material. Krohn validated his scale using the dreams of adults (Krohn,1972; Krohn & Mayman, 1974; Hatcher & Krohn, 1980). Additionally, the scale has reliably differentiated various diagnostic categories of subjects from one another (Spear & Lapidus, 1981; Palmieri, 1985; Gibbons, 1985), and age groups (Sands, 1985; Skolnick, 1984). The scale, however, has not been validated for use with children's dreams.

David Foulkes (1982), who has completed the most comprehensive, systematic study of children's dreams that exists to date, writes: "How is it possible that without deliberately trying, we construct so effortlessly, imaginative yet internally coherent narratives during sleep, stories that seem never to hem or haw, but that glide along with a rapidity that we would find it almost impossible to simulate in wakefulness?" For Foulkes, dreaming is an "index of mental operations and organizations." He adds that since children do not know their role in making dreams, they are not self conscious about telling them. Thus, dreams are "objectified mental acts" which "may be our best window on the inner mental life of children, who otherwise are neither interested in, nor competent at, introspection" (Foulkes, 1982, p. 8). One might say that dreams are the purest form of projective material available. Given this, it is quite surprising that so little has been written on the use of chil-

dren's dreams as projective material. It is interesting to note that even less has been written on girls' dreams than on boys' dreams.

This study will attempt to validate the use of Krohn's Object Representation Scale for Dreams on the dream material of pre-adolescent girls. It is hoped that this instrument will reliably differentiate a clinical group of girls (i.e. designated as displaying some sign of emotional disturbance) from a non-clinical group (i.e. relatively free of any overt signs of emotional disturbance), when applied to their recalled dreams. An alternate measure of object representation, the Developmental Analysis of the Concept of the Object, developed by Blatt et al. (1976a) will be applied to the dream material. An alternate type of projective material (modified Rorschachs) will be collected and scored according to a third object representation scale, the Urist Mutuality of Autonomy Scale, developed by E. R. Ryan (1973). Both of the latter scales have been validated for use on children's projective material (Ryan, R. M. et al., 1985; Tuber, 1983; Tuber and Coates, 1989; and others). It is hoped that the correlations among the object representation scores from the two different types of projective data and from the three different object representation scales, will be positive. Such a result would strengthen the validity of both the use of the Krohn ORSD and the use of dreams as projective material from which to derive important informa-

tion about a child's mental object relational structures.

A secondary purpose of this study will be an exploration of the conceptual underpinnings of the three object representation scales which I have mentioned, through an elaboration of the correlations of the various object representation scale scores with measures of social competence and behavioral indicators of abnormality as measured by the Achenbach Child Behavior Checklist. My hope is to further clarify what it is that these scales measure, what their relationship is with overt behavior and diagnostic elements, and in what ways they differ from one another.

Ultimately, my hope is that this research would facilitate the effort to operationalize the predictive use of children's dreams as foreshadowings of the development of pathology, and hence in identifying the need for clinical intervention.

# CHAPTER II:

# REVIEW OF THE LITERATURE AND FORMULATION OF RESEARCH PROBLEM

## *Relevant Areas of the Literature*

The study which I have introduced above lies at the intersection of two main areas --- the study of object representation as a measureable line of development, and the study of children's dreams as a reflection of the child's inner world, and hence, a source of projective material. In the review that follows, I will begin with a brief glimpse at the history of the uses and meanings attributed to dreams, and proceed to a summary of studies which have attempted to explore the meaning and usefulness of children's dreams in particular. I will then discuss the recent evolution of instruments which claim to quantify and qualify object representations. Finally, I will document the lack of and hence need for studies which employ object representation scales to explore the potential projective power of children's dreams.

## Area 1: A Brief History of Dream Study

### Ancient Conceptions

From the earliest of recorded history, dreams have been regarded with awe and a sense of mystery. Humankind has looked to the dream as a source of wisdom, not only about the present world, but about the past and the future. "Dream guides that decipher meanings of dreams are on record

from as long ago as 500 B.C. in Babylonia and Assyria" (Linde and Savary, 1974, p. 54). One might say that the sleep laboratory dates back to ancient Egypt, where dreamers were often sent to sleep and have dreams to be interpreted by "Learned Men of the Magic Library" as the dream interpreters of Egypt were known. Some 300 temples for interpreting dreams have been known to exist in Greece and in the Roman empire. Interestingly, these dream temples were most often dedicated to Aesculapius, the god of healing. Many cultures including the Egyptians, the Greeks, the Romans, and the Moors felt that dreams flowed from a divine origin and looked to dreams to fortell the future. According to ancient Chinese writings, dreams were not of divine origin, but rather a narration by the dreamer's soul of her journey out of her body to meet with souls of dead ancestors (Linde & Savary, 1974). In many "primitive" cultures, the world of the dream is held as concretely real as the world of the waking, as for example, when in the Cherokee culture, a dreamer who is bitten by a snake in a dream must be treated for snakebite as though the bite had occurred in waking life (Lincoln, J.S., 1963).

Although for the modern world, a predominant recognition of the intrapsychic origin of the dream experience has not fully occurred until this century (Mack, J., 1969), there is evidence that Indian culture has held dreams to be in part, a reflection of the self, since at least the fifth century

B.C., when the early Upanishads were written. In the Katha Upanishad, the self is described as having four quarters, that is, the waking state, the dream state, the deep-sleep state, and the state of self-realization. In fact, the Katha Upanishad asserts that a man can sleep peacefully through the night only when his anger has gone (Murphy, G., 1965). Hippocrates, the ancient Greek physician believed certain types of dreams to be indicative of mental disturbance. For example, he believed nightmares were related to conflict over criminal impulses (Mack, J., 1974). Gregory of Nyssa, a Fourth Century theologian wrote that most men's dreams conform to their character, with the brave man having one sort of fancy, the coward, another sort, the wanton man still another, and so on. He also said that the fancies of dreams are "nowhere framed by the intellect, but by the less rational disposition of the soul, which forms even in dreams the semblances of those things to which each is accustomed by the practice of his waking hours" (Gregory of Nyssa, as quoted in Linde & Savary, 1974, p. 59). Loosely speaking, one might view Gregory of Nyssa as an early quasi-object relations theorist, with an awareness of the occurrence of self-representations in dream life.

## Freud and Dreams

Freud is generally credited with bringing the study of the dream into the modern age, with the publication of his great work, The Interpretation of Dreams, originally pub-

lished in 1899. Several of the themes which Freud introduced at that time shaped the parameters of dream studies for several decades afterward. He held that the process of dreaming offered access to the Unconscious mind or Ucs., which was generally inaccessible to the conscious mind or Cs. as a result of its censorship of unacceptable infantile wishes and impulses. Although the employment of cognitive dreamwork processes (condensation, displacement, symbolization) was meant to disguise these intolerable latent dream thoughts of the Ucs. from conscious awareness, Freud used his techniques of association and interpretation to bring dream thoughts from the Ucs. into conscious awareness (Freud, 1976). This view, which was developed during the time of and in keeping with Freud's initial espousal of the topographical model of the mind, encouraged researchers to look to the latent dream content or hidden meaning thought to underlie the manifest dream content or actual dream as recalled and retold by the dreamer. The manifest dream was seen as a useless shell to be gotten past, and thus neglected as an object of research in its own right, for quite some time. In his historical review, Krohn (1972) notes that psychoanalytic theorists did not look at the ego processes which lay behind the creating and organizing of the manifest dream until the 1940's, with the work of Hartmann, Kris, and Loewenstein (1942). This area further opened up with the work of Erikson (1954) and Rapaport (1967).

A second theme which pervaded early dream research

involved Freud's notion that the dream is frequently an infantile wish fulfillment. The frequent occurrence of animals in children's dreams were said to symbolize the instinctive animal impulses or infantile wishes which were said to be less repressed and less well censored in the dreams of children than in those of adults. The child's dream, then, was seen as an expression of innate, primitive impulses, expressed through a regressive, unconscious, primary process mode of thinking, rather than a cognitive achievement whose course of development could be studied through an exploration of the manifest content.

## The Impact of Ego Psychology on the Study of Dreams

The emergence of ego psychology brought with it a new approach to the study of the dream (Krohn, 1972). Theorists such as Silberer (1955), French (1954), and Hall (1947) introduced the use of dreams to explore adaptive ego functioning. Hall held the manifest dream to serve the purpose of integrating past experiences and current conflicts in order to express and resolve current focal conflicts through use of adaptive and defensive ego functioning. Toward this end, Hall developed several scales through which he explored both content and conflict themes (e.g. castration anxiety) in dreams. Sheppard and Saul (1958) went so far as to design a set of measures to record the manifestation of ego functions as expressed in dreams. Some of their scales included source and object of impulse, extent of involvement

of the dreamer in expressing impulse, means of expression of impulse, reality, body image, and interrelationships. Although espousing an ego psychological and relational model of dreams, their actual scales were pervaded by a more classical impulse-drive theory of dreaming.

Erikson's classic article, The Dream Specimen in Psychoanalysis (1954), was perhaps the best statement of the new ego psychological approach.

Erikson felt that the "compulsive" tendency to "crack [the dream's] manifest appearance as if it were a useless shell . . . [to] discard . . . hindered a full meeting of ego psychology and the problems of dream life" (1954, p. 17). Erikson proposed that each manifest dream offered an "inventory of configurations" (p. 21), which included verbal, sensory, spatial, temporal, somatic, interpersonal, and affective aspects of the dreams. Erikson proposed that taking such an inventory would reveal much information about the dreamer's individual, characteristic style of organizing and understanding his world through his use of the variety of ego functions available to him. In particular, the interpersonal configuration is described as both "the cast of puppets on the dreamer's stage as a microcosmic reflection of his present or past social reality" and "as a 'projection' of different identity fragments of the dreamer himself" (p. 31). Erikson's investigation of interpersonal configurations may have constituted the first attempt at a

somewhat systematic object representation measure used with dreams.

Erikson went on to integrate both the new adaptive view of the dream along with the older, more classical view into his psychosocial model of development. He held that by observing the interplay between the manifest, adaptive ego functions and the latent, defensive ego functions (often in an interpersonal context) revealed in the dream, one could place the dreamer as struggling with one or more of the life crises along the developmental life cycle continuum.

Following his lead, ego theorists like Jones (1962) expanded the notion of the dream as an adaptive process in which the "synthetic function of the ego" attempts to explore and resolve conflicts through the "imagery, action, and theme of the manifest dream" (Krohn, 1972, p. 14).

Lewis (1970), taking the ego psychological perspective further, posited that the very process of dreaming is, in itself, a distinct ego function. The dream then can be viewed as a manifestation of the operation of the ego, and, as such, can be seen to contain information about the function, organization, and integrity of the ego of the individual dreamer.

James Fosshage (1987), building on the new REM sleep dream research on complex dream mentation, has taken the ego psychological view further, and integrated it into a revised object relational psychoanalytic model. The relegating of dream mentation to regressive primary process has resulted

in "higher order cognitive functions . . . [being] excluded from dreaming mentation in the classical model. . . . [Therefore] the psychological developmental function has gone unrecognized" (Fossage, 1987, p. 29). He states that "although primary process is the predominant mode of mentation in dreaming, in that dreaming typically occurs in images, secondary process or language appears in dreams, [as well as] . . . very sophisticated conceptual operations." He further posits "the supraordinate function of dreams is the development, maintenance (regulation), and when necessary, restoration of psychic processes, structure, and organization" (p. 29). Thus, Fosshage suggests, the development of new psychic structures occurs through dreaming. For example, dreams "further the consolidation of emergent self and other configurations, a sense of self and a sense of the other" (p. 29).

## Area 2:

## Brief History of the Study of Children's Dreams

### Early Research on Children's Dreams

Following the introduction of The Interpretation of Dreams, there resulted a flurry of studies of dreams in the 1920's and 1930's. In the area of children's dreams, the attempt was made to catalogue the nature, content, and frequency of dreams. Blanchard (1926) for example found common dream subjects to be parents, animals, "play activi-

ties, falling, robbers, death, relatives, dreams of the opposite sex, . . . ghosts, witches fairies, angels, boogamen, riches, and fire" (p. 30). She found the various "motivations" of dreams to be wish fulfillment, fear, mental conflict, stories of movies, sex, and compensation" (p. 36). Other researchers attempted to describe changes in dream content as a function of various characteristics of the dreamer or the dreamer's life experience. Some authors such as Cason (1935) described differences as a function of age, sex, and intelligence. For example, he found that boys dreamed more about "animals, falling, and accidents" than girls, who dreamed more often about "home and family," and "people" (p. 23). He also found children of average intelligence had nightmares more frequently than "feeble minded" children.

Others such as Foster and Anderson (1936) found the imagery in children's dreams to be closely related to their daily life experiences. They found both chronic conditions such as illness and family situation, and immediate events such as "excitement and vigorous play which occur just prior to sleep" (p. 62) reflected in the dream content. They also found that the frequency of "unpleasant" dreams decreased with age (p. 83).

Ruth Griffiths (1935) was perhaps the first to present a cohesive developmental model for the function of dreaming in children. She saw dream mentation as a component of "phantasy," or the imaginative process which she believed to

be the natural mode of thinking in early childhood which is used to work through emotional problems. As she put it, "when faced with a difficulty, he [the child] clothes it in symbolism, and experiments in the newer medium [i.e. fantasy]. Temporarily leaving the real problem which he cannot overtly work out to its logical conclusion, he develops an analogous situation at the phantasy level. Here he can safely experiment . . . and himself discover . . ." resolution (pp. 325-326).

Generally, the findings from the studies of the 1920's and 1930's tended to be inconsistent. Most of the studies found that dream variables such as occurrence of animals, frequency of appearance of strangers, frequency of appearance of family members, occurrance of frightening experiences, and amount of recreational activity, did vary with age. However there was virtually no consensus on the specifics of the variability. Elkan critiqued these studies, and attributed their inconclusiveness and contradictory nature to the lack of an organizing theoretical developmental framework upon which to base their hypotheses, as well as to a random or expedient division of subjects into age groups which varied widely from one study to the next. As she stated, "[the] lack of explicit theory, compounded by uncontrolled effects of implicit theory in research design, has obscured developmental differences in previous studies of children's dreams" (Elkan, 1969, p. 8). Perhaps due to the

inconclusivity of these results, interest in children's dreams seemed to die out for the following two decades.

The Discovery of REM Sleep, A New Research Tool

With the discovery of REM sleep and its relationship to dreaming, by Aserinsky and Kleitman, (1953), there emerged a flurry of new sleep and dream research in the late 1950's and 1960's. This was fueled by the availability of new technology involving brain wave monitoring and sleep awakening dream reporting. A controversy emerged over the comparative values and limitations of collecting dreams by later recall versus awakenings in the sleep lab. The majority of the initial sleep lab work was done mostly with adult subjects, and was mostly psychophysiological in nature. However, eventually, the new sleep awakening methodology of dream collection, developed in the context of ego psychological and psychoanalytic developmental theoretical models, led to a renewal of interest in children's dreams. For the first time, it became possible to collect sequences of dreams from one single night, and numbers of dreams across several nights. This allowed for detailed exploration of the dream sequences of single individuals within the context of their current life events. It also became possible to record massive numbers of dreams, which led to the first systematic mapping out of the developmental progression of children's dreams as they evolved over age levels, as well as to systematic studies of the relationship of dreams with

childhood personality factors and with environmental events and conditions.

The initial flurry of dream studies that emerged in the 1960's was exploratory and varied. Quantitative analyses of various dream items and themes were conducted, but due to lack of theoretical contexts, results were often fragmentary and unrelated. However child dream investigation continued in the 1960's and beyond tended to be influenced by the developmental ego psychological perspective discussed above. Several examples will be reviewed.

Although J. Mack (1965) did not collect dreams from sleep awakening, he was able to collect samples of nightmares in very young children from the age of thirteen months and older. He used the changing experience of the nightmare over the course of development to demonstrate the ways in which developing ego functions provide increasing mastery over the dream panic through the use of ever more complex symbols and increasing maturation of reality testing. "In the nightmare, before it becomes overwhelming, we are witnessing the development of the psychic apparatus in statu nascendi as it struggles to master intense anxiety" (p. 426).

L. Breger used sleep monitoring and awakening dream collection techniques to collect dreams from a small middle class group of three girls and five boys ranging in age from six to ten years. He collected several dreams per night on several different nights spaced out over several months. He

collected dreams in the homes of the children, and was able to assemble for each child a sequence of approximately 20 dreams. This enabled Breger to embark upon an in depth qualitative analysis of the dream material in which he interpreted and integrated dream content in the context of the children's family constellations, psychosexual and psychosocial stages of maturity, current and ongoing family conflicts and events, and early childhood history. Breger demonstrated the way in which, through the dream process, "affect related material from present experience is blended with related memories from the past . . . . The dreams assimilate present concerns into existing structures, and via experiment in fantasy . . . [through the emergence of] new and potentially creative solutions,. . . prepare the way for new accomodations with the world" (p. 98).

An interesting possibility which emerged from the new sleep monitoring technology was that of studying the effect of experimentally controlled pre-sleep events on the dream content of the first dreams which occurred after the event. While Breger, among others, had looked at the way in which ongoing personality characteristics, developmental factors, and life conditions were transformed by the dream process into dream content, the experimental manipulation of events prior to dreaming allowed for the first time, a glimpse into the way in which immediate short term events were processed and reflected in the dream. Foulkes et al. (1967) collected

dreams from 32 middle class rural boys ranging in age from six to ten. Half of the boys were shown a violent television movie before sleep, while the other half were shown an innocuous sports movie. Surprisingly, Foulkes et al. found no significant effects on dream content of this short term exposure to violent material.

## Theoretical Foundations

*Psychosocial Developmental View.* Beverly Elkan (1969) in her pivotal study of children's dreams, chose a particular theoretical developmental foundation upon which to organize her investigation of children's dreams. Based on Erikson's epigenetic developmental model, she asked if the dreams of children of different ages would reflect Erikson's epigenetic developmental model in general, and the specific stages of development which he had postulated. As part of her study, Elkan developed a dream scale based on Erikson's eight stage model of psycho-social development. She demonstrated the scale to be effective in differentiating children by age groups based on which of the various Eriksonian developmental crises appeared in their dreams.

*Cognitive Developmental View.* After several initial exploratory studies, David Foulkes (1982) went on to complete the most comprehensive, systematic study of children's dreams that exists to date. Informed primarily by a cognitive, Piagetian model, he asks "Why study dreams?" and answers, "How is it possible that without deliberately

trying, we construct so effortlessly, imaginative yet internally coherent narratives dur-ing sleep, stories that seem never to hem or haw, but that glide along with a rapidity that we would find it almost impossible to simulate in wakefulness?" (p. 8). Thus, to learn how children learn to master dream-making is to discover how they develop the ability to think, plan, organize, and program their behavior. Dreaming can be an "index of mental operations and organizations" (Foulkes, 1982, p. 8).

Foulkes (1982) developed a set of scales which he has used to differentiate among different age groups of middle class children in terms of the cognitive level of development as manifested by dream-making capability.

Foulkes (1982) refuted analytic notions to some extent. He believed that cognitive limitations precluded the use of dreams of children for interpretive or predictive purposes before the age of 7 to 9. Otherwise, he cautioned, a child's developmentally appropriate inability to symbolize and express his or her inner and outer experience would be misread as having psychodynamic or pathological meaning. Rather, following a Piagetian model, he explained much of the presence or absence of various types of dream imagery in young children's dreams as being related to their cognitive developmental level (i.e. sensorimotor, pre-operational, concrete operational, or formal operational). For example, he believed that young children tend to dream more of animals than of people, because the "nocturnal self-reflection

and symbolic self-expression" which would be necessary for generating dream images of the self and by extension, of the other, "cannot occur until the consolidation of concrete operational thought" (p. 275). This is as opposed to the analytic notion that animals represent the child's primitive nature, more bound by impulse and instinct.

Foulkes found that for young children, dream content was determined by both personality factors and cognitive ability. For example, he found that for a child of 5 to 7 years of age, to construct symbolic representations of family members in his or her dreams requires visuospatial cognitive skill. However he also found that at this same age, dreaming of parents was associated with the presence of parent-child conflict and with paternal control, distance and maternal pushiness. By age 7 to 9, however, Foulkes found that social behavior in dreams, whether initiated by the self or the other, tended to correlate with children's individual waking styles of interpersonal behavior and interests, rather than their cognitive skills.

Use of Children's Dreams Diagnostically: Comparisons of Dreams of Normal Versus Disturbed Children

Throughout most of the more recent research on children's dreams, the notion that children's life events, family constellations, personality characteristics, ongoing intrapsychic conflicts, developmentally maturing ego functions, and psychological stages are interwoven into and

reflected by the dreams of children, has remained constant. The idea that pathological distortions of all of these aspects would also be reflected in dreams follows logically. As a result, a variety of studies were conducted in which researchers attempted to understand and document the ways in which childhood pathology would be reflected in dreams.

Although he did not make use of the new sleep monitoring technology, J. Rychlak (1960) was one of the first researchers to use psychological measurement instruments in the systematic effort to correlate children's dreams with diagnostic variables. Investigating a normal or nonclinical, middle class sample of boys and girls in the 5th and 8th grades, he asked the children to recall and write one dream per week over a 12 week period. He also administered the Cattell Junior Personality Quiz and the Language Subscale of the California Achievement Test. He also used a popularity measurement consisting of peer ratings of each child's popularity, which seems to be an early attempt to rate an aspect of object relations. In correlating dream themes to the language achievement, popularity, and personality measurements, Rychlak found no relationship to language achievement. However, he found certain dream themes to be related to specific personality variables. For example, passive, inhibited, less popular children tended to dream more "affiliative" themes (i.e. dreamer having relaxed or pleasurable interpersonal experiences), while outgoing or

dominant, achievement oriented children tended to dream more "reward" themes (i.e. positive pleasurable experiences which were not interpersonal). He interpreted this to mean that children who were less able to have good interpersonal relationships in reality, expressed their longing for interpersonal gratification through their dreams. Rychlak also found that withdrawn children tended to have more themes of anxiety, frustration, and hostility in their dreams. He interpreted this as the expression, through the dreams, of the neurotic tendencies underlying the withdrawn behavior.

Langs (1960), expanding on the work of Sheppard and Saul (1958) and Hall (1947), developed an ego rating system which he initially applied to earliest memories of adults. He then applied the scale to adult dreams and found that he was able to differentiate diagnostic categories of psychiatric patients by the concrete and clinical themes present in their manifest dreams. Langs (1967) then used an adapted version of his rating system to compare the dreams of emotionally disturbed adolescents with emotionally disturbed adults. He scored dreams for such clinical aspects as psychosexual stage, cognitive style, superego functioning, dream defensive mechanisms, and separation themes, and such descriptive items as types of characters, settings, body themes, conflict, and presence of aggression.

Langs found that, in keeping with the psychoanalytic model of adolescence espoused by him, disturbed adolescents displayed more "phallic destructive representations" and "id

derivatives" (e.g. monsters), fewer "modified aggressive derivatives," more narcissistic self-involvement themes, and more reality impairment in their dreams than disturbed adults did (p. 640). He also found that the younger the adolescent, the greater the frequency of destructive themes. He concluded that over time, disturbed children gained mastery over their conflicts and this was reflected in their dream life.

Some of the earlier work of D. Foulkes focused on the diagnostic use of dreams. In one study, Foulkes et al. (1968) compared the dreams of normal and disturbed (i.e. living in a residential treatment facility) adolescents. He also used the California Personality Inventory as a criterion measure of Health-Sickness. The emotionally disturbed adolescent boys were found to have more physically aggressive, unpleasant content in their dreams than normal controls. The dreams of the disturbed boys were also rated as being more imaginative.

L. Mack compared the dreams of normal boys with the dreams of disturbed boys at two age levels (8 to 9 and 14 to 15), using Elkan's scale (based on Erikson's developmental schema) and Hall's Scale for Content Analysis of dream material. She demonstrated the ability of the Elkan scale to differentiate normal from disturbed boys on the basis of their dreams. Based on their dreams, disturbed boys tended to score at developmentally lower psychosocial stages than

their normal counterparts. Mack interpreted her finding that disturbed boys' dreams reflected lower psychosocial levels than expected for their age to be a result of the fact that they were preoccupied with the unresolved or unsuccessfully negotiated psychosocial conflicts and crises of earlier developmental stages. Mack also found that while disturbed preadolescent boys' dreams were not significantly different from dreams of normal preadolescent boys, their content displayed greater preoccupation with the more problematic issues of the psychosocial stage reached by the dream. Using Calvin Hall's Content Analysis scales to evaluate thematic content, Mack found that disturbed boys dreamed about bodily injury and violence in a more frequent and vivid manner than their normal counterparts. Again she interpreted this as evidence for disturbed children being more preoccupied with the oral-sadistic and castration wish or anxiety themes of earlier developmental stages than their normal counterparts.

Similar to Mack, J. Hickman (1975) compared manifest dream content of normal and disturbed 9 to 11 year old boys. Unlike Mack, he collected dreams from sleep awakenings. He scored them using a Children's Dream Scoring System developed by Foulkes in 1966. He also collected information about the boys' personality functioning through a child behavior rating scale which was completed by subjects' mothers.

According to Foulkes' Scoring System (1982), dreams

were evaluated for characteristics such as 1) content items like character types, setting, and activity, 2) affect tone, 3) type of dreamer participation (active or passive), and 4) familiarity versus strangeness of dream elements, as for instance the setting.

Unlike other studies of this type, Hickman found that although the disturbed boys had more behavioral indicators of pathology, their dreams were not significantly different from the dreams of normals on the above described dream scores.

In conclusion, while the criteria used to measure dream variables have been diverse and based on a variety of theoretical models ranging from cognitive-developmental to psychosocial to psychoanalytic, the findings generally suggest that for children, emotional disturbance is expressed through dreams, and that emotionally disturbed children tend to generate developmentally less advanced and thematically more dysphoric content in their dreams than normal children.

Summary Statement: The general Course of Dream Research

The literature consistently points out the value of dreams for gathering information about the self, especially when a theoretical model guides the dream investigation. There is clearly a need to expand the theoretical foundations in dream research to include object relations theory, because although many of the scales used to rate children's dreams include ratings of one or more interpersonal varia-

bles, there has been no formal validation of a scale designed specifically to assess the interpersonal aspects of dream content in children.

## Area 3: Object Representations

### Study of Object Representations as a Line of Development

The notion that the object representation is a cognitive and affective mental structure with a predictable course of development has led researchers to seek ways of documenting this structure. As we have seen, theorists have predicted that an individual's object representations ought to yield information about that individual's style of adaptation, and level of psychological health. Krohn (1972) viewed Kernberg as positing that "Personality structure is . . . basically a configuration of differentially metabolized internalizations" (p. 37). He then suggested, "If ego development and structure rests on internalized object relations then it should be possible to explore individual differences [in personality structure] . . . by means of projective tests to study object representations (p. 57).

The search for object representation measures. Researchers have looked to various sources of projective test data in the effort to flesh out the relationship between the inferred inner mental world of object representations and the overt outer world of behavioral expression. As early as 1960, Mayman and Faris (1960) looked at the thematic content found in early memories reported by subjects and their

parents for evidence of relationship "paradigms" (p. 509) and as "a source of information about transference patterns carried into, and often re-enacted in each new personal encounter" (p. 520).

This effort was continued by Mayman and others (Mayman, 1967; Mayman, 1968; Ryan, E.R., 1973), who subsequently, expanded their search to other sources of projective material including Rorschach human figure content and movement responses (Mayman, 1967; Mayman, 1968; Ryan, E.R., 1973; Krohn, 1974; Krohn & Mayman, 1974; Triman & Ryan, E.R., 1977; Urist, 1977; Urist & Shill, 1982; Tuber, 1983; Harder et al., 1984; Palmieri, 1985; Ryan, R.M., et al., 1985; Kavanaugh, 1985; Tuber & Coates, 1989; Meyer & Tuber, 1989; Goddard & Tuber, 1989), and also manifest dream content (Krohn, 1972; Krohn & Mayman, 1974; Hatcher & Krohn, 1980; Sands, 1986; among others).

In the mid 1970's, S.J. Blatt and colleagues developed a way of looking at the more formal or structural qualities of human figure responses on the Rorschach in order to gather information about object representations. They attempted to correlate this information with a wide variety of behavioral and diagnostic variables (Blatt et al., 1975; Blatt & Wild, 1976; Blatt et al., 1976a, 1976b; Blatt et al., 1979; Blatt et al., 1980; Ritzler et al., 1980; Blatt & Lerner, 1983; Blatt & Berman, 1984). Blatt et al. (1979) also looked at Thematic Apperception Test protocols and at spontaneous descriptions of significant figures as projec-

tive material from which to assess developmental level of object representations.

Some authors have focused on the need to integrate both content and form/structure, when looking at projective material for information about object representations (Horowitz, 1972; Athey, 1974; Spear, 1978).

The development of object representation scales. A number of scales have been devised to in some way quantify and qualify various aspects of object representations as expressed in projective test data. In the following review, a variety of these object representation scales will be mentioned. However, emphasis will be placed on the development and theoretical underpinnings of only those scales which are relevant to this study.

Sheppard and Saul (1958), in developing a scale to assess ten types of ego functions expressed in dreams, including an "interrelationships scale," were probably the first to develop a formal scale to assess object representations/relations in dream material.

Langs (1960) developed a scale similar to that of Sheppard and Saul. Langs' scale, revised in 1966, was applied to both early memories and dreams, and included a complicated scoring system which looked at three main areas. Firstly, the scale evaluated actual dream content items including persons, settings, actions, and feelings. Secondly, the scale looked at clinical themes present including body image, "conflict, separation, dependency, moral con-

cerns illness, . . . damage, and destruction" (1966, p. 635). Thirdly, the scale rated the dreamer's interaction with others as well as the emotional valence of the dream (pleassant, neutral, or traumatic).

The Rorschach Empathy-Object Relationship Scale (REORS) by Pruitt and Spilka (1964) was one of the earliest scales developed specifically to assess object relations phenomena. This scale evaluates the quality of human contact in Rorschach human movement responses on a continuum from more realistically delineated to more alien sorts of human interactions. Traditionally, Rorschach human content and human movement responses have been interpreted as representing the capacities for empathy and human relatedness. Following this notion, the REORS rates human content for Humanness, Sex Specification, Temporal-Spatial Considerations, and Movement.

In 1967, Martin Mayman, identified Rorschach human responses to be a form of object representations. Based on this, he formalized a way of looking at object relations from Rorschach responses. Mayman (1967) stated "when a person calls to mind an image of someone else on the Rorschach test, he invests a small part of himself in that other person with whom he is, for the moment, engaged. His way of relating himself to that other person can be studied not only for its formal characteristics, its style and content, but for the degree of self-other differentiation maintained in that 'relationship'" (pp. 20-21). Mayman asked clinical

raters to judge the quality of self-object representations on the Rorschach based on content suggesting aspects like warmth, empathy, and rapport. Mayman observed that the better functioning patients' object representations were more "varied in content, . . . objectively described and . . . likely to express warmth, interest, pleasure and amusement at the doings of others . . . in a way [that indicates] that the perceiver is [clearly] talking about a distinctly separate person" (1967, p. 21). On the other "hand the less well functioning patients described Rorschach figures with "an implicit cynicism or bitterness or fearfulness or alienation . . . " (p. 18). Mayman found these subjective content ratings to predict to independent psychiatric ratings of subjects' psychopathology. In 1968, Mayman went on to work with early memories. Similar to the object relational context of internalization of personality structure formulated by Kernberg, Mayman held early memories to be reconstructions of past interpersonal experiences, filtered through one's current and enduring expectations of others, views of oneself, and habitual patterns of self-other interaction. Mayman then developed a scale for analyzing early memories in which he attempted to integrate a more ego psychological, psychosexual stage framework with a more contemporary, object relational framework. Mayman's scale assessed the "psychosexual ego mode embedded in" (Krohn, 1972, p. 58) the early memory. Mayman defined psychosexual ego mode as "a multiplicity of ego states, each organized

around a distinctive affect and self experience, and including a definitive need, a need appropriate object and self-representation, and phase appropriate conflicts, defenses, compromise formations, and ego competencies" (Mayman, 1968, p. 309). In evaluating the object and self-representations, Mayman again used the content of the subject's description of human figures.

In 1970, E.R. Ryan, working in conjunction with Mayman, developed an object relations scale specifically to evaluate the thematic content of early memories for object representation constructs (Mayman & Ryan, E.R., 1972; Ryan, E.R., 1973). The scale focused on the extent of, the consistency of, the wholeness of, the degree of differentiation of, and the overall intactness of object representations. A crucial factor in the scales of both Mayman and E.R. Ryan is the fact that they relied largely upon subjective clinical judgment to assess the quality of the self and object representations. Ryan included much sample early memory material in his scale manual to help guide the raters in their subjective scoring task.

Krohn (1972), also working with Mayman, and modeling his work on E.R. Ryan and Mayman's use of thematic content and reliance on clinical judgment of raters, developed the Object Representation Scale for Dreams (ORSD). Krohn used the ORSD not only with dreams, but also with Rorschach responses and early memory material as well. Krohn relied heavily on Kernberg's formulation of the developmentally

sequenced process of internalization of interpersonal experience as the theoretical basis for the continuum of inner representations described by the ORSD. He conceived of various levels of deficit in object representation as failures of the internalization process over the course of the psychological history of the person. "On the least differentiated end [scale point 1], . . . projective tests or manifest dream . . . data should reflect a virtual absence of internalizations, a vacant, fluid object world, resulting from a fundamental failure of introjection" (1972, p. 62).

At a slightly higher level (scale point 2), "an inner [relational] world dominated by 'nonmetabolized' introjects would appear . . . introjects which retain the undifferentiated, primitive affects experienced during the process of these early introjections. Introjected during a period of life characterized by minimal affect regulation and cognitive differentiation, these inner objects often have an overwhelming, malevolent, brutal, all-powerful, or morbid quality" (p. 62).

At scale point 3, the next level of object representation, the "inner world [would be] characterized by an absence, fluidity, or insubstantiality of boundaries between self and object representations and among object representations, resulting from an incomplete separation in the introjective phase of development between self and object images" (p. 63). Also, having been internalized before the achievement of the identification process which fuses momentary

images into cohesive object representations, the object representations at this level are fragmentary, inconsistent, and unstable.

Krohn conceived of the next level of internalized objects, at scale point 4, to be "stable and consistent but 'real' and alive only around the gratification of needs" (p. 63). Krohn noted that theoretically, this level of object representation would closely correspond to Kohut's formulation of a narcissistically cathected object or self-object which is "experienced only as it mirrors wished for or rejected qualities of the self. The object representations at this level consist, then, of others only as they gratify needs, worship the self, or extend the self" (pp. 63-64).

"At the next stage [scale point 5], internal objects bear the stamp of early identifications" (p. 64). Ego splitting no longer predominates, and people are seen as cohesive, integrations of both positive and negative aspects. At this level, the affect tone is modulated, and the self and object representations are seen as having roles within themselves and in complementary relation to each other.

At scale points 6, 7, and 8, the most advanced levels, object representations "would correspond to Kernberg's . . . stages of consolidation of ego identity, the elaboration, organization, and deepening of object representations. With the stabilizing and maturing of ego structures, object representations take on a greater consistency, complexity, and

definition" (p. 64). "The object representations at this stage are sufficiently differentiated to permit a growing recognition and understanding of the motives and feelings of others" (p. 65).

Spear (1978) has noted the degree to which these levels of object representation described by Krohn correspond to stages in the development of object relations as described in the formative work of Mahler (1968). Spear likened Krohn's level one isolated, lifeless, alien, unpredictable inner world to Mahler's earliest stage of autism. He likened Krohn's second, third, and fourth levels to Mahler's symbiotic stage in which awareness of others ranges from "primitive manifestations of . . . malevolent . . . self impulses" (1978, p. 8) through vague ephemeral or need gratifying others. He likened Krohn's fifth and sixth levels to Mahler's separation stage where the other is clearly seen as separate from the self, but somewhat stereotypic or distant in relationship to the self. Spear likened Krohn's most advanced seventh and eighth levels to Mahler's final stage of individuation, where the self and the other are separate, yet aware of and emotionally invested in each other through mutual and intimate relationships.

Krohn and Mayman (1974) achieved significant correlations among ORSD applied to Rorschach, Early Memory Test, and dreams, and between these ORSD data and independent therapist-supervisor evaluations of patients' level of object representation. They took this to demon-

strate the construct validity of the ORSD. Further, they found dreams and early memories to be more "pure" sources of information about subjects' object relations, while Rorschach data seemed to reflect information both about subjects' levels of psychopathology, as well as about their object relations, when these projective protocols were scored by the ORSD. Subsequent studies employing this scale (Hatcher & Krohn, 1980; Spear & Lapidus, 1981; Sands, 1986) found it to be reliable and able to generate meaningful information about object representations.

Again, as with the scales of Mayman and Ryan, Krohn highlights the use of well trained raters' reliance on clinical intuition in applying these scale points to the interpersonal content in dreams. Despite the subjective nature of the rating process involved in using the scale, a number of studies document the ability of raters to achieve adequate interrater reliability. Krohn in his validational study, originally achieved .58 to .79 for exact agreement, and .74 to .89 for agreement within one scale point (1972). However, in 1978, when Franzen attempted to use Krohn's ORSD, she found interrater reliability difficult to obtain. Consequently, she developed an Object Representation Scale (ORS), with an emphasis on reliability of scoring, which involved eight subscales designed to tap a number of theoretical components of the concept of object representation. This scale was designed for use with Thematic Apperception Test and Early Memory Test protocols (Franzen, 1978; Fran-

zen, 1979). The scale was later applied to Self Esteem Inventory protocols (Skolnick, 1984). Sands (1986) in her study comparing three different age groups of boys in their level of object representation, based on TAT and early memory data, also compared the ORSD with Franzen's ORS. Sands found Franzen's eight combined subscales to produce similar findings as the ORSD. She observed redundancy among the ORS subscales, and found a need to establish construct validity for the ORS.

In 1973, Urist, who also worked with Mayman, developed several scales to evaluate Rorschach material for self- and other representations (Urist, 1973). After reviewing Rorschach protocols of 250 psychiatric inpatient adults in the search for indications of object representation levels, Urist (1973) postulated an "integrity" dimension which he defined as the extent to which one's conception of oneself and of others is consistent and enduring. Urist developed five component scales to measure this dimension. They are (1) body image, (2) mutuality within relationships, (3) aliveness, (4) formal thinking, and (5) fusion within relationships. Of these scales, the Mutuality of Autonomy Scale (MOAS) emerged as an important research tool and measure of the "structure of the individual's world of mental representations" (Urist, 1977, p. 3). This scale offers a seven point rating of any two animate or inanimate objects perceived as being in some relationship to each other in Rorschach percepts.

Based on theoretical contributions of Kohut and Kernberg, the scale is defined "along a developmental continuum which corresponds to the various steps in the development of object relations ranging from primitive narcissism to empathic object relatedness" (Urist, 1973, p. 3). Specific scale points range from point 1 (where mutually aware figures engage in reciprocal interaction) through point 3 (where figures in their dependency on one another, begin to lose autonomy), to points 6 and 7 (where figures by their malevolent destructive action, deprive the other of intactness).

Construct validity for the MOAS has been demonstrated through its significant correlation with independent clinician ratings of clinical adult subjects (Urist, 1977), and of clinical adolescent subjects (Urist & Shill, 1982), and with interpersonal ratings of nonclinical child subjects (Ryan, Avery, & Grolnick, 1985). The MOAS has been shown to predict prognostic differences (Tuber, 1983) as well as to differentiate or characterize diagnostic categories (Spear & Sugarman, 1984; Goddard & Tuber, 1989; Tuber & Coates, 1989). Harder, et al. (1984) suggest that for this scale, an average score of four ("anaclitic-dependent interactions," secondary narcissism) or worse (primary narcissism, a merging "envelopment incorporation level") (p. 1082) "suggest the presence of serious relationship difficulties and concommitant serious disorder" for adult populations. In their review of the MOAS, Stricker and Healey (1990) suggest

that the MOAS may be more a measure of pathology than object relations for adults, while proving more effective as a measure of object relations for children.

Interrater reliability has been reported to range from .70 to .90 for exact agreement, and to be .85 consistently for ratings within one scale point difference (Tuber, 1989).

The MOAS is more useful for children than some other scales which rely on human figures to emerge in projective material (e.g. Rorschach) in order to achieve object representation ratings. Children generate fewer human figures than adults in projective protocols. The MOAS, by contrast, looks at any two objects in relation to each other whether they are inanimate objects, animals, or people.

In 1976, Blatt and associates (Blatt et al., 1976a, 1976b) devised the Developmental Analysis of the Concept of the Object Scale (DACOS), a detailed scoring system for evaluating the formal or structural qualities of Rorschach human figure responses. This scale evaluates the three cognitive "developmental principles of differentiation, ... articulation, ... and integration" (Blatt, and Lerner, 1983), as described by Heinz Werner (1948) and Werner and Kaplan (1963). The DACOS is based on a conceptualization of the structure of the concept of the object which derived from "the integration of developmental theory of Heinz Werner (1957) and Jean Piaget (1954), with psychoanalytic ego psychology" (Blatt & Lerner, 1983, p. 9).

Blatt and colleagues adapted their scale for use with

projective material other than Rorschach responses. In 1979, Blatt et al. assessed the Concept of the Object in Spontaneous Descriptions of Significant Figures, and in 1981, Blatt et al. authored a Developmental Analysis of Object Representations on the Thematic Apperception Test.

The DACOS rates human or human-like figures in projective protocols for seven characteristics or dimensions. Figures are rated for (1) accuracy with which the figure fits the form of the percept (for Thematic Apperception Test [TAT] and Rorschach protocols); (2) differentiation or degree to which figures range from incomplete quasihumans through whole quasihumans though part humans to complete humans; (3) articulation or the degree of detail with which figures are described including details of size, clothing, posture, gender, age, role, and specific identity; (4) motivation or the degree to which actions of figures are shown to be intentional and planned out, ranging from unmotivated through reactive to intentional; (5) integration or the degree to which a figure is integrated with any action it performs (fused, incongruent, nonspecific, or congruent); (6) content or benevolent versus malevolent affective tone of any actions of the figures; and finally (7) nature of the interaction of the figure with another figure (ranging from active-passive, through active-reactive to active-active).

This scale has proven its validity both as a developmentally based scale (Blatt et al., 1976a) and in its ability to differentiate diagnostic categories (Spear, 1980;

Spear & Sugarman, 1984; Ritzler et al., 1980; Blatt et al, 1976a; Lerner & Lerner,1980).

Several other scales have been developed which measure the more general construct of object relations. A few will be mentioned here. More recently, Frieswyk and Colson (1980) developed a Quality of Relations Scale (p. 234) which was part of a multiscale "global assessment" of the Rorschach test protocol as a whole. Bell developed the Reality Testing and Object Relations Ego Functions Assessment Scale (Bell et al.,1980; Bell et al., 1983). Westen and colleagues (1989) designed the Object Relations and Social Cognition Scale (ORSCS) specifically for use with the Thematic Apperception Test (TAT), a projective technique commonly used in psychological evaluations. Based on an integration of object relations theory with social cognition theory, the ORSCS rates four aspects of object relations including (1) complexity of representations of people, (2) affect tone of relationship paradigms, (3) capacity for emotional investment, and (4) understanding of social causality. The scale has been shown to be correlated with clinical ratings of social adjustment and social pathology (1989b). Due to its relatively recent origin, this scale has not been as widely used as some of the other object relations scales.

There has been a growing trend in the literature to combine various object representation measures with various sources of projective material to further explore both the validity of the scales used and the self and object repre-

sentation constructs themselves (Krohn, 1972; Spear, 1978; Spear & Lapidus, 1981; Gibbons, 1985; Sands, 1986; Blatt, Tuber, & Auerbach, 1989; among others). The general thrust of the data on the object representation studies suggests that the higher the level of object representation, as measured by a variety of object representation scales applied to a variety of types of projective data, the healthier and more adaptive an individual will be, both intrapsychically as well as interpersonally.

Use of Object Representation Measures on Projective Data of Children

The child studies which have relied on object representation measures can be grouped into several general areas. A number of studies were designed to validate the object relations construct as a developmental line through assessment of the maturing of object representation level with increasing age. A second group of studies has attempted to differentiate diagnostic variables as a function of object representation level. Finally, object representation measures have been used to explore various aspects of the object relation construct relevant to children, such as the process of separation-individuation.

A number of investigators found levels of object representation as assessed by several of the object representation scales, to increase with age. For example, Westen (1989b) applied the ORSCS to TAT's of children in grades 2 through 5 and 9 through 12, and found that complexity of

object representations, capacity for emotional involvement in relationships, and understanding of social causality increased with age. Westen also looked at borderline adolescent patients as compared to borderline adult patients and found the same developmental differences as with his normal child samples. Although Elkan did not use an object representation measure, the scale she developed which was based on the Erikson psychosocial model, and applied to children's dreams, found younger boys to be dealing with earlier psychosocial, and interpersonal conflicts and crises than older boys. A number of researchers investigated the psychoanalytic notion that the upsurge of libidinal drive and repetition of early separation-individuation themes during adolescence would result in a regression of internal object representations (Sands, 1987; Skolnick, 1985). Contrary to expectation, findings indicated that adolescent levels of object representation tended to be higher than preadolescent levels, but that a regression did in fact occur later on in the early 20's. These studies concluded that the separation-individuation tasks of leaving home and entering adulthood were stressful and upheaval producing enough to lead to the experience of internal object loss. Puberty, by contrast, was accompanied by a consolidation of self structure and an increase in differentiation which were reflected in the increased level of object representation scores during that period of development. Sands (1987) applied the ORSD to early memories and TAT protocols, while

Skolnick applied Franzen's Object Relation Scale to TAT protocols and Self Esteem Inventories.

As part of the effort to validate the MOAS for use in assessing object representations of children, Ryan, R.M., Avery, and Grolnick (1985) established that children who received more positive teacher ratings of interpersonal functioning in the classroom achieved significantly better levels of object representation based on their Rorschach responses. Subsequently, Tuber (1989) explored the Urist MOAS score distribution obtained from Rorschachs of a non-clinical sample of 40 pre-adolescent children, in order to assess a normative sample. He found that normal children's modal scores tended to be relatively high (i.e. indicative of benign interaction), that these children tended to avoid malevolent responses, and that when a child did have malevolent scores, they were almost always "counterbalanced" by an adaptive score (p. 146). As with most studies which employed the Urist MOAS, age and I.Q. did not correlate significantly with MOAS scores. Interestingly Tuber found a significant gender difference in that girls tended to have more benign and less malevolent MOAS scores than boys.

Quite a few child studies have investigated the relationships between diagnostic variables and object representation level. Franzen (1979) in applying the Object Relations Scale to TAT protocols found normal adolescent boys to have significantly better object relations levels than psychiatrically hospitalized adolescent boys. Blatt et al.

(1976a) found similar results when applying the DACOS to Rorschach protocols of similar comparison groups.

Although L. Mack (1976) did not use an object representation measure, she did use the Elkan psychosocial scale applied to children's dreams. The study will be reviewed not only because the Elkan scale involves the interpersonal aspect of prototypical developmental psychosocial crises and conflicts, but also because this is one of the few studies which taps dreams of children. Mack found that disturbed adolescent boys scored at developmentally lower levels on this scale than normal adolescent boys. She also found that although disturbed preadolescent boys scored at the same level as their normal counterparts, the disturbed boys were less able to cope effectively in their dreams with the central crises of their developmental level.

Westen (1989b), exploring borderline personality organization, applied the ORSCS to TAT's of borderline adolescents and normal control subjects, and found the borderline subjects to have significantly less capacity for emotional involvement in relationships, less mature understanding of social causality, and lower affect tone scores, while demonstrating significantly greater complexity of object representations, than normal controls.

In a more subtle diagnostic vein, Tuber and Coates (1989) found that the MOAS was able to reliably differentiate a group of boys diagnosed as having gender identity disorder (DSM-III) from a group of matched male control

subjects. Goddard and Tuber (1989) found that the MOAS differentiated a group of boys diagnosed as having separation anxiety disorder from a group of control subjects. In both cases, the pathological group exhibited significantly more malevolent, distorted MOAS scores on Rorschach interaction responses.

Tuber, in a predictive study, applied the MOAS to Rorschach protocols of a group of boys in a residential treatment facility, comparing those who stayed out once discharged, with those who needed to return for further treatment. He found that the only variable, from among a variety of clinical data, which distinguished those boys who were able to make it on the outside from those who needed to return to residential treatment was the MOAS object representation level.

A final area of study has been the conceptual exploration of various aspects of object relations theory. For example, Meyer and Tuber (1989) looked at MOAS scores of children with imaginary companions. They found that these children obtained high level MOAS scores on human responses and malevolent, low level MOAS scores on animal or inanimate object responses. This complex result was taken as support for the theoretical formulation that imaginary companions are a creative and adaptive, interpersonally high level solution to the need to both dissociate from and work through intense, often painful conflicts.

From this brief review of object representation studies

involving children, we can see that there is a dearth of studies documenting the use of object representation measures on the dreams of children. Most of the studies have focused on projective data derived from Rorschach protocols, and in some cases, Thematic Apperception Tests or early memories.

Justification for study. Object relations is a crucial aspect of development. The level of object representation, which is measurable evidence of the quality of one's object relations, has implications for the future emotional and interpersonal development of an individual. The dream is a key element of childhood experience, with recalled dreams being perhaps the most natural and least self-conscious form of projective material we can obtain. The dream experience, then, would seem to be a most fertile source of projective material upon which to base measurements of object representations.

## Statement of the Research Problem

The primary research goal of this study is to ascertain whether measures of object representation level can differentiate between psychologically healthy and psychologically disturbed youngsters when applied to their dreams. In so doing, this study will attempt to validate the use of the Krohn Object Representation Scale for Dreams (ORSD). The first step in validating the use of the Krohn ORSD with children's dream material will be to determine whether this

scale can reliably differentiate a group of healthy children from a group of disturbed children. Therefore, procedurally, I have chosen to compare a group of 'normal' children in the public school system (who are not being seen in any sort of therapy or counseling) with a group of 'disturbed' children, i.e. children who have been referred to a therapy clinic by school or parents or who have been placed in a special educational classroom because of behavioral or emotional difficulties. Traditionally, this has been one way in which researchers have tested the validity of an instrument which claims to differentiate subjects who are emotionally healthy from subjects who are having emotional difficulties.

It is important to note that although referral to an emotionally handicapped special education class or referral to a therapy clinic often indicates emotional disturbance, it is certainly not proof of emotional disturbance. Rather it might be a sign that a child or family is reacting to a conflictual or crisis situation. The acting out behavior or symptomatology which brings a child to the attention of school authorities or mental health personnel may, in fact, represent a psychologically adaptive attempt to ameliorate a stressful or traumatic situation. Similarly, the lack of referral for mental health services does not necessarily rule out emotional disturbance. Therefore, an objective measure of emotional normalcy/pathology, the Achenbach Child Behavior Checklist (CBCL), has been included in the study to

serve as a check to ensure that the criteria of differentiation of subjects into nonclinical and clinical groups truly serves to separate emotionally healthy from emotionally disturbed children.

A second step in validating the use of the ORSD will be to compare the results obtained by using the ORSD with results obtained by means of other object representation scales which have been used successfully on previous research projects. A third potentially validating comparison would be the use of these scales on an alternate form of projective material produced by the same children. The Urist Mutuality of Autonomy Scale (MOAS), as discussed above, will provide a similarly oriented object representation assessment instrument, and the Rorschach test will provide an alternate form of projective material. A positive correlation between results of the ORSD applied to recalled dreams, and results of the MOAS applied to Rorschach responses, will support the validity of the use of the ORSD.

A secondary research goal of this study is to explore the similarities and differences among several object representation scales. The Blatt Developmental Analysis of the Concept of the Object Scale (DACOS), as discussed above, provides an assessment of the more structural aspects of object representations as compared to the ORSD which is a more thematic content oriented scale.

## Important Research Considerations

### Age of Subjects

The question of which age range to use in answering the experimental problem is extremely complex. Foulkes (1982) found the age of seven to be the first age at which most children can reliably distinguish between waking and sleeping mentation. Foulkes found that children from age three to five reported very few dreams. He found that the frequency of dream reporting at this age was not correlated in any way with conceptual understanding of dreams, with age, nor with any cognitive variable he tested. He concluded that for pre-schoolers, the REM period is largely "empty" of the organized mental experience called "dream" which he held to be dependent on "skills of imaginal representation and narrative organization" not yet developed (1982, p. 47). It is therefore not likely that subjects of this age would produce a large enough data pool. Further, due to the pre-operational level of thinking and language development at this age range, the completion of the interview task itself, which is the chief means of data collection, would be difficult and in some cases impossible. In addition, the lack of an operational understanding of the concept of dream would remove the reported dream data quite far from the original dream experience, thus confounding it.

Below age 7, lower frequency of dream report rates, smaller percentage of "self acts" (i. e. dreams in which there is an image of the self performing some action), and

lower credibility (Foulkes, 1982, p. 121) would discourage the use of this age range for the study.

"For the first time at ages seven to nine, . . . narrative intentions, enduring representations with personal motivational relevance organize the manifest dream in a complex, systematic and personally meaningful fashion" (Foulkes, 1982, p. 140-1). At this age however, one cannot make direct correlations between dream life and waking life without taking physiological factors into account. For example, Foulkes (1982) found that children who had "bad dreams" tended not to be socially oversensitive, not to be dependent, not to be talkative, not to be anxious or fearful. They tended to be judged mischievous in school and had aggressive waking fantasies. But most crucially, they tended to have slow sleep onset accompanied by a core of unpleasant sleep onset mentation. Foulkes concluded that it was the physiological sleep characteristics of these children, as well as psychological factors, which were associated with unpleasant dream imagery.

By age 9 to 11, Foulkes found, the Block Design subtest, which had, up to this age range, been the most consistent predictor of reliable REM dream reporting, no longer predicted REM recall rate. Instead, recall rate was found to be positively correlated with high achievement, achievement orientation, assertiveness, high self esteem, and imaginativeness. Foulkes (1982) interpreted this shift as meaning that by this age, most cognitive prerequisites of

REM dreaming are in place, so individual differences in REM report rates, and by extension, in dream report credibility and other dream variables, are likely to be due primarily to personality style (e.g. motivational factors, defensive styles, etc.) rather than to cognitive differences. Age 9 to 11 is also the age group by which most children have reached fully concrete operational thinking ability in Piaget's schema of cognitive development.

In summary, the age group of 9 to 11 was seen as best suited for this study in that it is the youngest group which would provide dream data unconfounded by immature cognitive development of dream-generating abilities, or physiological factors.

Dream Collection: Sleep Awakening or Later Recall

The question of whether to collect dreams from sleep awakenings or from later recall is a controversial one in the field of dream research. A number of researchers, including Foulkes (1982), take the position that the only way to collect accurate and representative dream samples is to take them from nocturnal sleep awakenings, because there is likely to be a bias in the sampling of dreams which children remember the next day or after longer periods of time. Foulkes (1982) found his dream samples to be less bizarre and disturbing than dream samples generally described in clinical dream literature (i.e. dreams later retold to therapists during treatment). There is also the problem

that dreams remembered the next day or week or month would be more likely to have been elaborated by conscious fantasy and distorted by imperfect memory or defensive ego functioning than would dreams recalled immediately upon being awakened from the sleep state in which they were constructed. One must then assume that dreams collected from night awakenings in labs and dreams remembered later are two different entities with the latter being more of a mixed sample of waking and sleeping mentation. Given that the goal of this study is to attempt to provide some way of rating dream material which is accessible to clinicians upon diagnostic interview, then, the use of the "less accurate", "more biased" sample of "dreams remembered later" which are far more accessible to out-patient clinician/diagnosticians would be justified for this study.

Dream or Fantasy?

Perhaps the most basic question to ask about recalled dreams is what are they? Are they true "dreams"? Are they confabulations composed on the spot to comply with the interviewer's request? Are they a combination of unconscious dream imagery elaborated and distorted by conscious fantasy and defensive ego functions? In any dream recall study, the impossibility of determining whether the dream sample is waking fantasy material (i.e. conscious thought) or sleep mentation (i.e. dream) is problematic. Foulkes (1982) contended with this limitation by establishing a measure of "credibility" of dream reporting. He found

scores on the Block Design subtest of the Wechsler Intelligence Scale for Children - Revised (WISC-R) to be the earliest, most consistent correlates of REM awakening dream reporting in childhood up to age nine (1982). Among several other criteria, he used as a measure of the cognitive maturity of a child's concept of the dream, the Laurendeau-Pinard Concept of Dream test, which is based on Piagetian concepts of cognitive development (Foulkes 1982). However by age nine, he found high rate REM reporting, and by extension, dream report credibility, no longer to be a function of any cognitive factor. Rather it correlated positively with high achievement orientation, assertiveness, high self esteem, and imaginativeness. He interpreted this to mean that most cognitive prerequisites of REM are in place by this age, so that individual differences in REM report rates and by extension, dream report credibility, are likely to be largely due to personality style, not cognitive differences.

This study assumes the position that no dream report is an absolutely accurate, unbiased, unelaborated, "true" dream, because dreams are apperceived as visual images but retold in words. There is necessarily a translation process involved in every dream sample. It can therefore be argued that all recalled dreams involve some amount of unconscious defensive distortion and conscious fantasy elaboration. Therefore, all dreams can be seen as creative productions which may be used as projective samples from which to derive inferences about behavioral and personality factors.

For the purposes of this study, the recalled dream will be considered to be some undetermined mixture of sleep mentation, conscious fantasy elaboration, and unconscious but waking mentation, which stands, in itself, as a creative mental production that offers, in a fashion similar to other projective data, valuable information about the nature and functioning of psychological processes.

In order to maximize the chances that subjects are cognitively equipped to generate age-appropriate dream images and differentiate between "dream mentation" and conscious fantasy, in the retelling of the dream experience, the WISC-R Block Design subtest and the Laurendeau-Pinard Concept of Dream test (see Appendix G) were administered to all subjects.

# CHAPTER III: HYPOTHESES

## Introduction to Hypotheses

As we have seen in the literature, various measures of object representation level have been applied to various types of projective data. Such measures are frequently able to distinguish children who can "make it" psychologically through the trials and tribulations of development within their respective environments from children who cannot or who are having great difficulty. I intended to use Krohn's Object Representation Scale for Dreams (ORSD), a thematic content oriented scale, which has been validated on adult dreams, as a measure of object representation level in the dreams of children. Through use of this scale on children's dreams, I hoped to both test the validity of the ORSD for use with children's dreams and explore the potential usefulness of children's recalled dreams as a source of projective data regarding level of object representation.

Additionally, I applied Blatt's Developmental Analysis of the Concept of the Object Scale (DACOS) to children's dreams in order to provide a structural approach to the assessment of the object representation level of children's dreams.

As discussed above, the Elkan Dream Scale appears to be related to object representation levels by virtue of the fact that many of the developmental crises tapped by Elkan's scale reflect prototypical object relational experiences of

childhood. We have seen that L. Mack (1974) found disturbed boys to be developmentally less advanced than normals on the Elkan scale applied to their dreams, and we would expect analogous results on the Blatt Developmental Analysis of the Concept of the Object scale when applied to dreams.

Further, I planned to apply a second thematic measure of object representation to a shortened, interpersonal interaction oriented, form of the Rorschach test to be collected from all subjects. The Urist Mutuality of Autonomy Scale (MOAS), similar to the ORSD, is a thematic scale, and has been validated on Rorschach protocols of children. Due to the fact that children generate fewer human interaction Rorschach responses than adults, the MOAS has proven to be an excellent instrument for use with child Rorschach protocols because it allows for the inclusion of animals and even inanimate objects as immediately scorable relational objects, without any adaptation of the scoring principles. The use of this scale was intended to provide a criterion measure of level of object representation, to serve in the effort to establish the validity of the use of the ORSD on the dreams of children.

A comparison of the three object representation scales mentioned here, when used on two different types of projective data, was intended to test the notion supported by this experimenter that the construct of object representation constitutes a distinct developmental line. As a line of development, it was predicted that this construct would be

measureable and reflected consistently, like other aspects of the self, across a variety of projective expressions.

In addition, I hoped to look at the relationship between two areas of development of object representation which have begun to be tapped by dream research, i.e., the structural and the thematic.

A further exploratory purpose of this study was to examine the conceptual underpinnings of and the similarities and differences among the three object representation scales which I have employed. This was planned through an elaboration of the correlations of the various scale scores with the various diagnostic and behavioral measures tapped by the Achenbach Child Behavior Checklist (CBCL). I hoped to clarify what these scales measure, and what the specific relationships are that these scales bear to actual behavior and diagnostic profiles. I also hoped to clarify some of the ways in which these scales are similar to and different from one another.

A unique characteristic of the ORSD is that it is structured in such a way as to allow for, and even require that the scorer use intuitive clinical judgment in coming up with object representation scores. Validation of this scale for use with children's dreams would constitute further support of the notion that intuitive clinical judgment is a consistent, reliable, and useful assessment tool which may and ought to be used in future clinical research.

## Statement of Hypotheses

HYPOTHESIS I: The Krohn Object Representation Scale for Dreams (ORSD) will reliably differentiate a clinical population of girls from a nonclinical population when applied to their recalled dream reports, such that the nonclinical group will obtain higher object representation level scores. That is to say, the images of people or other figures in their dreams will be more humanlike, more benevolent, richer in detail, more expressive of feelings and thoughts, and more empathic of each other. (Clinical subjects are defined by their having been singled out by the public school system as having some form of emotional disturbance, or having been singled out by the parent or other adult figure as needing the help of a mental health clinic.)

HYPOTHESIS II: The Urist Mutuality of Autonomy Scale (MOAS) applied to children's Rorschach protocols will also reliably differentiate the clinical from the nonclinical group, with the nonclinical group obtaining more adaptive object representation scores. That is to say that when figures are found to interact in their Rorschach responses, those figures will be more reciprocally aware of each other as well as more respectful of each others' boundaries (i.e. not damaging each other).

HYPOTHESIS III The Blatt Developmental Analysis of the Concept of the Object Scale (DACOS) will also reliably

differentiate a clinical population of girls from a nonclinical population when applied to their recalled dream reports. The clinical subjects will exhibit less advanced structural levels of object representations than their nonclinical counterparts.

HYPOTHESIS IIIA: In the case of variation in results between the ORSD and the DACOS, the DACOS will more significantly differentiate normal from pathological children as designated by the pathological symptom scales (a measure of health-sickness) of the Achenbach Child Behavior Checklist (CBCL), while the ORSD will better differentiate subgroups on the basis of adaptive and social competence (as determined by the Achenbach CBCL Total and Social Competence Scales).

This two fold prediction is based on both Krohn's original finding that the ORSD was more closely related to adaptive and social functioning than to pathology, and to L. Mack's finding that children's scores on a developmentally organized psychosocial dream scale were related to the pathology-health continuum.

HYPOTHESIS IV: There will be a significant correlation among the ORSD, DACOS, and MOAS scores. A comparison of the three object representation scales mentioned here, when used on two different types of projective data, will test the notion that the construct of object representation constitutes a distinct line of development. As such, this con-

struct would be measureable and reflected consistently, like other aspects of the self across a variety of projective expressions through the psychological instruments which have been developed to describe it.

HYPOTHESES V: A multidimensional schema which integrates a developmental structural axis with a developmental object-relational/thematic axis would offer the most effective means of describing those object representation constellations which are likely to predict successful environmental adaptation. I.e. the most powerful predictor of clinical versus nonclinical status and of psychological and social adaptibility as measured on the Achenbach Child Behavior Checklist, would be a composite score combining the component scores of the more thematic ORSD scores and/or MOAS scores with the more structural DACOS scores.

# CHAPTER IV: METHODOLOGY

## Subjects

The normal control group was composed of 26 students from the New York City public school system who were not being seen in any sort of therapy or counseling and who were screened by the teacher as meeting several basic criteria of normalcy (see Appendix C, for teacher screening form). The experimental group of "disturbed" children was composed of 26 children who were referred to one of several community mental health outpatient child psychiatry clinics for psychotherapy because of emotional difficulties. DSM-III-R Axis I diagnoses were obtained for every clinical subject from clinic case records. All schools and clinics involved in this study were located in stressful, high crime, inner city neighborhoods.

The subjects ranged in age from 9 years, 0 months to 11 years, 11 months, with a mean age of 10 years, 4 months. Subjects ranged from 2nd grade to 7th grade, with a mean school grade of 4.37. All subjects were limited to the female gender. Generally, pathology translates more directly into overt, observable behavior in males than in females. Therefore, the study was limited to females because given the lack of behavioral indicators of psychological difficulty, any such indicators discovered would be all the more meaningful. In terms of prior research, there is clearly a

need for exploratory study of both the developmental progression of psychosocial stages and object relations as well as the manifestations of emotional disturbance, as manifested in the dreams of girls, since most such studies to date have looked at boys (for example, Mack, 1974; Elkan, 1969; Hickman, 1975).

Subjects were interviewed with their guardians who provided demographic information. Forty-three percent of the girls came from intact, two-parent households. Thirty-one percent of the girls were cared for by single mothers. The remainder of the girls lived in foster situations, mostly with relatives. Sixty percent of the subjects considered themselves to be Afro-American, 29% considered themselves to be Hispanic, and the remainder, Caucasian or mixed. Guardians ranged from 8 to 58 on the 66 point Hollingshead Socio-Economic Status Index, with a mean Index of 26. An attempt was made to match subjects in the clinical and nonclinical groups for ethnic, racial, and socio-economic variables. Group means for a variety of demographic and background variables for subjects and guardians are presented in Tables 4 and 5.

## Measures and Scales

### Data Collection Overview

Data collection included, as a measure of overt behavior, social adaptability, and psychopathology, the

Achenbach Child Behavior Checklist (CBCL), (see Appendix I), which was administered by interview with the child's guardian. This instrument provides a criterion measure of adaptation and was considered to be a dependent variable (after Krohn's model). It also provides an alternate means of dividing the entire subject pool into emotionally healthy versus emotionally disturbed categories, as a check on the validity of the criteria used to select the clinical and nonclinical subject groups.

Physical development data, demographic data, and family background information were collected through short questionnaires filled out by the guardian and by the child. (See Appendices H and D.)

Citywide reading and arithmetic scores were obtained for children recruited from the public school system, as a measure of academic performance. This information was not available for girls recruited from clinics. A rough estimation of cognitive functioning (pro-rated Full Scale I.Q.) was obtained by administration of a shortened form of the WISC-R (Wechsler Intelligence Scale for Children - Revised). The shortened WISC-R included three brief subtests --- a test of vocabulary, an analogies test, and the "Block Design" subtest. A minimum Full Scale I.Q. criteria of 75 was established for inclusion in the subject pool in order to minimize the possibility that cognitive limitations would confound dreamtelling ability and/or performance. Unfortunately, it was not possible to administer the WISC-R to the

subjects recruited through the public school system because of limitations imposed by the New York City Board of Education on psychological testing of children not requiring special education services. Fortunately, the administration of the "Block Design" Subtest was allowed for the school children.

An abridged version of the Rorschach Inkblot Test was administered to all subjects, for the purpose of obtaining projective material other than dreams for object representation evaluation. The shortened Rorschach was tailored to highlight responses offering object relational material, and included Cards I, II, III, VII, and VIII. A structured Rorschach inquiry was developed by Tuber (1983) for the purpose of actively examining responses containing animate and/or inanimate relationship content in a nondirective way. This form of inquiry (see Appendix F) was employed.

The Laurendeau-Pinard Concept of Dream Questionnaire (Laurendeau & Pinard, 1962), (see Appendix G) was used to measure how well subjects understand what a dream is. This test was used by Foulkes (1982) for a similar purpose. The Concept of Dream Questionnaire is an interview format scale which involves a systematic series of questions about the origin, location, organ, cause, and reality of dreams. Scores range from 0 to 3 where 3 indicates an "operational" understanding of the idea of the dream (Foulkes, 1982, p. 43).

In terms of analysis of the dream material, as men-

tioned above, the ORSD (see Appendix J for abridged version) was applied to dream data. In addition, the MOAS (see Appendix K for abridged version) was applied to Rorschach material, and the results of the two scales were compared. Since the Urist MOAS has been successfully used to measure object representation level on children's Rorschach data, it was hoped that these results would provide a criterion measure of object representation level against which to assess the validity of the Krohn ORSD. The Blatt Developmental Analysis of the Concept of Object Scale (DACOS), (see Appendix L for abridged version) was applied to both dream material and Rorschach protocols, and the results compared with the results of the ORSD and the MOAS. As mentioned above, it was hoped that this would provide a way of investigating the question of structure versus content in object representation measures as applied to children.

Results from all measures applied to clinical subjects were compared with corresponding results from nonclinical subjects. Subsequently, all subjects were pooled and redivided into a healthier group versus a more emotionally disturbed group on the basis of their Achenbach CBCL Total Problem scores. The results from all object representation measures applied to the protocols of the alternate two comparison groups were then correlated to ensure that the proper comparison of normal to emotionally disturbed subjects was, in fact, being made.

## Individual Measures and Scales

### Achenbach Child Behavior Checklist (CBCL)

The Achenbach CBCL (see Appendix I) is a standardized questionnaire that was designed to obtain specific information from parents about their children's behavior which will enable the interviewer to assess social competencies and behavioral problems of children age 4 to 16 years. A description of the development and standardization of the CBCL is available in the CBCL manual (Achenbach & Edelbrock, 1983).

The checklist can be administered by an interviewer or self-administered. Each of the 118 test items in the behavior scale describes a particular behavior, and the parent is given a choice of scoring "not true (0), somewhat or sometimes true (1), or very true or often true (2)", in reference to his/her child. In addition, 20 social competency items elicit information regarding the amount and quality of the child's involvement in leisure activities, organizations, friendships, and school.

Subscales are derived from the CBCL items. The three social competency subscales include "activities", "social", and "school". There are nine psychopathology subscales which were identified by factor analysis studies performed on CBCL data from children referred for Office of Mental Health services. These nine descriptive scales which identify syndromes of behavior problems, include "depressed, social withdrawal, somatic complaints, schizoid-obsessive, hyperac-

tive, sex problems, delinquent, aggressive, and cruel." The CBCL was normed on a sample of 1,300 children. Any child's profile may be compared by T-score, to the norms of each scale. Reliability ratings, as reported in the CBCL manual, were obtained in several ways. Intraclass correlations or ICC's for individual items that were obtained "between item scores . . . from mothers filling out the CBCL at one-week intervals, mothers and fathers filling out the CBCL on their clinically referred children, and three different interviewers obtaining CBCL's from parents of demographically matched triads of children" were all greater than .90 (Achenbach and Edelbrock, 1983, p. 75). Test retest reliability of the mothers' item answers was found to be .89. As reported in the Ninth Mental Measurements Yearbook (1985), "The CBCL . . . is well documented psychometrically . . . . It is based on empirical research and appears to have adequate . . . validity" (p. 301).

Wechsler Intelligence Scale for Children - Revised (WISC-R)

"The WISC-R . . . has been designed and organized as a test of general intelligence" (Wechsler, 1974, p. iii) and is widely used in both school and clinical settings to obtain I.Q. scores and to assess cognitive functioning. The WISC-R is administered individually and includes 12 separate subtests which are divided into two major groups --- a Verbal scale and a Performance scale. The WISC-R was standardized on a stratified sample of 2200 students, age 6.5

through 16.5. This sample included ethnic and racial subgroups (i.e. whites, Blacks, American Indians, Orientals, Puerto Ricans, and Mexican-Americans) which were estimated to be in direct proportion to the 1970 population census figures (Wechsler, 1974).

Reliability coefficients for the Verbal, Performance, and Full Scales of the WISC-R were found to be .89 or above. Reliability coefficients for individual subtests were found to range from .62 to .92 (Wechsler, 1974).

Validity of the WISC-R was initially established through its correlations (.71, .60, and .73 for Verbal, Performance, and Full Scale I.Q.'s respectively) with the Stanford-Binet I.Q. (Form L-M, 1972 norms), (Wechsler, 1974). Hale (1978) and Hartlage and Steele (1977) discuss the correlations between the Full Scale WISC-R I.Q. and a wide variety of objective achievement measures. When averaged, these correlations approximate .60.

Ryan, R. M., Avery, and Grolnick (1985) used a short form of the WISC-R which consisted of the Vocabulary, Similarities, and Block Design subtests. Sattler (1982) has shown that an adapted score based on this group of subtests correlates .93 with the I.Q. derived from the full WISC-R battery, and so offers a good estimate of general I.Q. This shortened WISC-R version was therefore used in this study.

Rorschach Test

This series of ten ambiguous inkblots was designed by Hermann Rorschach in 1921 to assess the way in which percep-

tual and cognitive abilities interact with emotional factors in expressing an individual's personality functioning. The test has been widely used by clinicians as part of standard psychological test batteries.

As discussed by Exner (1986), the Rorschach has been normed on a variety of populations and age groups for different types of responses. Buros (1972, 1978) reviewed a number of Rorschach studies in which test-retest reliability was reported to range from .15 to .93. Ames (1952) reviewed a number of studies which compared Rorschach measures with other measures of personality. She reported concurrent validity coefficients to range from .55 to .83.

The Rorschach was administered according to the method described by Florence Halpern (1953) to be used for the school age child: "The child is told that he is to be shown inkblots and he is to tell the examiner everything they look like to him, everything he sees in them, everything they might be" (p. 11).

The shortened form of the Rorschach used in this study included Cards I, II, III, VII, and VIII. This subset of inkblots was selected to highlight responses offering object relational data, and was adapted from that used in a previous object representation Rorschach study by Harder and others (1984).

Generally, after all the Rorschach cards are shown, and the subject has offered his or her responses, he or she is given an "inquiry" --- a structured set of questions de-

signed to determine which perceptual aspects of the blot aided the subject in determining his or her response. For example, the examiner might say, "What made it look like a flower," to which the subject might respond, "It looks like a flower because it is pink and shaped like a flower." In this study, the standard inquiry was not used. Instead, an inquiry developed by S. Tuber (1983) was substituted. This inquiry is specifically designed to clarify relationship content which may emerge in the Rorschach responses, and it is described in full in Appendix F. The shortened form of the Rorschach which was obtained was scored using the MOAS (to be described below).

Laurendeau-Pinard Concept of Dream Questionnaire

This 25 item open ended questionnaire was developed to assess the cognitive-developmental level of a child's understanding of the concept of the dream. Depending on his or her responses, a child is classified to be in one of four stages. Incomprehension or refusal of the questions earns a rating of Stage 0. Stage 1 is that of Integral Realism in which the child believes that the dream has an origin external to the dreamer and also takes place in reality, outside of and in front of the dreamer. Stage 2 is that of Mitigated Realism, a transitional stage "in which the progressive interiorization of the dream can be witnessed in the form of a continuous oscillation between the interiorization and externalization of the phenomenon" (Laurendeau & Pinard,

1962, p. 112). Stage 3 is that of Integral Subjectivism in which all traces of the idea that the dream is real and external to the self, disappear, and the dream is understood to be a subjective phenomenon located "in the head, imagination, or mind" (p. 121).

This questionnaire was originally normed on 500 children, age 4 to 12, living in Montreal. Only children living in their own family were included, and occupational level of parents was proportionally matched to the 1955 census data. Interrater reliability in determining which stage each subject had reached was reported to be approximately .97. (Laurendeau & Pinard, 1962, p. 101-102). Although this scale was not formally validated, Laurendeau and Pinard's discussion (1962) of the patterning of the results over increasing age groups and of the correlation of these results with Piaget's estimates of ages at which children reached analogous cognitive-developmental stages points to the construct validity of this measure. D. Foulkes (1982) in his ten year longitudinal study of the development of children's dreams, used this scale to determine how well his subjects understood what a dream is. A copy of this questionnaire is included in Appendix G.

Krohn Object Representation Scale for Dreams (ORSD)

This scale was developed by A. Krohn in conjunction with M. Mayman (1972) for the purpose of measuring the developmental level of adult object representations as they are expressed in dream material.

The development and characteristics of this scale are described at length above, on pages 33 to 37. An abridged version of the scale itself is included in Appendix J.

For each subject, the highest score (HOR), the lowest score (LOR), and the mean score (MOR) are obtained.

Urist Mutuality of Autonomy Scale (MOAS)

The Urist Mutuality of Autonomy Scale or MOAS was developed by J. Urist (1973) to assess essential aspects of mental representations. Urist placed particular focus on the development of the autonomy of the self and others in his construction of this scale. Tuber (1989) has described the mutuality of autonomy construct as "the degree to which the subject can conceive of people in relationships as possessing a self while at the same time recognizing the existance and interdependence of others" (p. 148). For a more in depth description of this scale, see pages 38 to 40, above.

As with the ORSD, the highest score obtained (HOR), the lowest score obtained (LOR), and the modal score (MOR) have all been found to be meaningful in predicting to other variables. Tuber (1983, 1988) elaborated on the MOAS and provided a scoring manual for use with child populations. This study will employ both his scoring manual and his method of inquiry of Rorschach responses. Copies of both the MOAS itself (abridged version), and the adapted Rorschach inquiry can be found in Appendices K and F, respectively.

Developmental Analysis of the Concept of the Object Scale (DACOS)

Blatt and colleagues (1976a, 1976b) developed the DACOS to assess the formal or structural aspects of human or humanlike objects on Rorschach responses. The DACOS has been applied successfully in Rorschach research with children (Blatt et al., 1976a). A summary of the scale which lists the items scored for each response appears in Appendix L. A more detailed description of this scale can be found above on pages 40 to 42.

## Statement of Data Collection Protocol

An overview of the data collection protocal may be seen in Appendix A. Subjects were contacted through school classroom teachers or clinic therapists. They were given a consent-to-contact form (see Appendix B) which briefly described the dream project and asked parent permission for the interviewer to contact the parent/guardian to discuss the study. The experimenter contacted by phone those parents or guardians and subjects who returned the consent-to-contact forms to therapists or teachers. For potential nonclinical subjects obtained in school settings, the child's teacher was asked to complete a brief screening form (see Appendix C) designed to screen out subjects with severe emotional difficulties.

In the initial phone contact between the experimenter and guardian/subject pairs who expressed interest in parti-

cipating in the dream study, the experimenter explained the study and the nature of the participation requested. If child and parent agreed to participate, an appointment was scheduled for administration to child and parent of the experimental protocol. Interviewing of clinical subjects took place in the clinics from which the subjects were recruited. Interviewing of nonclinical subjects took place either in the subject's school, or in the subject's home. During the initial phone contact, the experimenter offered the subject a verbal prompt to remember several dreams. Both parent and child were informed that they might discontinue their participation in the study at any time.

During the experimental interview, collection of the data took place as follows. The parent and child were given, once again, an explanation of the study, including a point by point review of an informed consent document to ensure that they adequately understood the consent. They were offered the opportunity to ask any questions. After the parent and child both signed the informed consent, the parent was then given a Parent Questionnaire form and Child Behavior Checklist to fill out on her own, most often in a separate room (see Appendix H and Appendix I, respectively).

During that time, the experimenter interviewed the child. The interview format, as indicated in Appendix A, began with the filling out of the Girls' Questionnaire, (see Appendix D), a simple form designed to put the subject at ease. Subsequently, the experimenter administered the

modified WISC-R, a short, straightforward, school-like series of cognitive tasks. The three WISC-R subtests were administered in randomly rotating order. Afterward, the child was asked to recall several dreams and to speak them into an audiotape recorder. During the collection of dreams, the experimenter followed a structured dream inquiry format (see Appendix E) which she compiled on the basis of pilot study experience and other sources (Foulkes, 1982; Krohn, 1972; Spear, 1978). This format offered some structured flexibility to allow for subjects' varying understandings of the experimental task and degrees of willingness to be questioned. Following that, an abbreviated form of the Rorschach test (Cards I, II, III, VII, and VIII) was administered according to the administration for the school age child described by Florence Halpern (1953). The experimenter followed the structured Rorschach inquiry format compiled by Tuber (1983) (See Appendix F). Once again, each child's complete responses to both cards and inquiry were audiotaped. Finally, the Laurendeau-Pinard Concept of Dream Questionnaire (see Appendix G) was administered. The above ordering of test administration was designed to maximize efforts to put the child at ease early on in the interview, while minimizing any possible contamination of the dream material by intrusions of associations from previous tests. During the pilot study, some examples of contamination of dream material by Rorschach imagery were noted. After completion of the data collection protocol, a debriefing inter-

view was held with the child to address any concerns and answer any questions. The entire data collection interview with the child generally took about 75 to 90 minutes.

The experimenter then returned to the parent, and reviewed both forms with the parent, question by question, to assure that the parent understood each question and answered each one as accurately as possible. Finally a similar debriefing interview was held with the parent. This final portion of the interview with the parent generally took about 30 to 45 minutes.

Although the literature indicates that it is best to take a sampling of several dreams from each child on a number of occasions, this study, being limited by certain practical considerations, was only able to collect dream samples from each subject on just one occasion.

Elkan (1969) and Mack (1975) collected only one dream per subject. However most researchers who have taken some object representation measure of dream material have felt that a collection of three to five dreams per subject is preferable because it appears to offer a sampling large enough to be representative of that subject's level of object relational functioning, whereas a sample of only one dream might be so affected by situational variables as to be uncharacteristic of that subject's normal level of object relational functioning. In addition, most researchers who have applied the ORSD and the MOAS to dream material, as mentioned above, have found lowest scores, highest scores

and modal scores to be most significant in correlations with other variables. An effort was therefore made to obtain a minimum of three dreams per subject per sitting. To aid in this effort, as mentioned above, a verbal prompt was given to each subject during the initial telephone contact in which the dream study was explained. At that time the child was not only prompted to remember, but also to write down as many dreams as possible in the several days before the scheduled dream recording session was to take place.

## Coding and Interrater Reliability

Typed transcriptions of dreams and Rorschachs were scored with the ORSD, MOAS, and DACOS, by three pairs of blind judges, working independently, after suitable interrater reliability was established. A training format was developed involving children's dreams and Rorschachs which were collected in a pilot study. Several training sessions were held on use of the scales. Pilot study dreams were then scored separately by the raters, in small batches. After each batch, raters met to review their scoring and resolve differences by conference. Where raters were unable to resolve their differences, the experimenter, in consultation with several "expert" consultants, familiar in the use of the scales, resolved the differences. After the raters completed the scoring of the practice pilot dreams and Rorschachs, having reached an acceptable degree of interrater reliability, they began to score the main study data. Dif-

ferences in scoring were resolved by interrater discussion.

All six raters were selected from among graduate level clinical psychology students, and were hired by the experimenter. They were supervised by the experimenter throughout the scoring process. They were blind to the hypotheses of the study, and were rotated in their assignment to subject data, in order to insure that data scoring was completed in an objective manner. Training and scoring procedures were oriented toward safeguarding against the possibility of expectations and misconceptions distorting the findings in any way.

In scoring the ORSD, raters initially scored the dream material elicited from subjects by the experimenter's request to tell a dream ("dream"). Subsequently, the raters scored the dream plus whatever additional material was elicited by the experimenter's structured inquiry ("dream plus inquiry"). The use of inquiry material changed the score in only 14 of 131 cases. Most often, the consideration of inquiry material raised the ORSD score by one or two scale points.

For the ORSD applied to dreams, raters achieved 65% exact agreement, and 85% agreement within one scale point. When raters scored dream plus inquiry, they achieved 64% exact agreement and 86% agreement within one scale point. In seven instances, raters made adjustments in the scoring criteria to accomodate fantasy characters such as Cinderella, or the Little Mermaid when children portrayed them as

solidly human characters with high level object representation characteristics. In these cases, the characters were scored as if completely human.

A number of studies have reported on the difficulty in distinguishing the middle range scale points of 4 and 6 from each other (Roth, 1991; Greif, 1986). As a result of their experience in trying to understand the differences between the level 4 and level 6 ORSD categories, the raters developed a set of criteria to use for distinguishing these two object representation levels. A copy of these criteria have been included in Appendix J.

In applying the MOAS to 52 Rorschach protocols of the subjects, a second set of raters achieved 79% exact agreement and 82% agreement within one scale point. Coders scored a total of 200 object relational Rorschach responses.

In applying the DACOS to the Rorschach protocols, the second set of raters achieved exact agreement ranging from 63% to 89% and agreement within one scale point ranging from 74% to 94% for the various DACOS subscales.

In applying the DACOS to the dreams, a third set of raters achieved exact agreement figures ranging from 62% to 89%, and agreement within one scale point ranging from 73% to 92% for the various DACOS subscales. This scale, which was developed for use with Rorschach responses, was particularly difficult to score for dreams. During the scoring process, the raters in consultation with the experimenter developed a set of guidelines to facilitate adaptation of

this scale to dream material.

WISC-R and Achenbach Child Behavior Checklist protocols were scored using standard scoring rules and results were graphed on standard score profile forms. All numerical coding of objective data onto data entry sheets for entering onto computer files was completed by the experimenter.

**Protection of Subjects and Benefit to Subjects**

The procedures of this study are innocuous and a good portion of the questions administered are part of a standard battery of psychological tests commonly used by public school systems to ascertain intellectual and emotional levels of functioning of school children. These tests are considered to be benign, and have been used safely by David Foulkes among others, in his longitudinal 10 year study of children's dreams.

It seemed highly unlikely that the experimental test situation would cause duress to the subjects. That possibility seemed to be minimal as compared to the benefits of conducting the experiment. Subjects and parents were advised that if, at any time, the experimental questioning process caused discomfort, questioning would immediately be discontinued. In no case did any subject or parent ask to leave the study before completion of the interview or at any other time.

In addition to the value of resolving the stated research goals, the experimental procedure had unanticipated

positive effects on some subjects and parents. For example, several children became happily excited by the opportunity to hear their own dreams on audiotape. One child described a nightmare which she said had been scaring her for nearly a year. During the debriefing, the child was offered the opportunity to discuss her fears and concerns related to the nightmare. Several weeks later, the experimenter learned that the child no longer reexperienced the nightmare or associated fears. Many of the parents expressed very positive feelings about having the opportunity to think and talk about their children's behavior. In some cases, parents mentioned that parent-child communication was facilitated by the joint involvement in the research project. Typed transcriptions of dreams were offered to all participants. Some children who participated in the pilot study requested copies of their dreams and reacted quite positively to reading them.

The experimenter offered to teachers, clinicians, and other interested school, clinic, or hospital personnel working at the sites where subjects were recruited, an oral presentation reviewing the background and goals of the study and discussing the importance and possible benefits of eliciting and making use of children's dream material. Several sites took advantage of this offer. When the study is completed, an oral presentation of the results and conclusions will be offered to all subjects and parents who participated, as well as to any interested personnel in any of

the schools or clinics where subjects were obtained.

Great care was given to insure confidentiality of the subject and guardian in the construction of the experimental procedure. The procedure insured protection of the subject and guardian in the following ways:

i. Confidentiality of all responses was explicitly communicated in the informed parent consent form (see Appendix B).

ii. The informed consent letter explicitly stated that the subject and parent could withdraw from the study at any time, with no effect to child or parent, and that participation was entirely voluntary.

iii. Specific responses and participation of each subject and parent will be kept confidential through the use of a code number to identify all tapes, transcripts, and written data. This applies to any use of data. Only group results will be published in the case of future studies or any publication of results.

iv. Every parent and child were given the opportunity to air their thoughts and feelings in a debriefing period. In case of further questions or concerns, the experimenter made herself available for phone contact to subjects and parents both before and after the administration of the study protocol.

## Pilot Study

Previous to the finalization of the above methodology, a pilot study was conducted. Nine subjects and their mothers were interviewed. Three subjects were "normal" children attending public school and three children were attending therapy at an outpatient mental health center. The three remaining children were initially recruited as clinical subjects, but as it turned out, had terminated therapy one or more years before the study occurred, and these children were designated as a "past clinical" subgroup. Each parent completed a Parent Questionnaire and the CBCL. Each subject completed a Girls' Questionnaire, the abbreviated WISC-R mentioned above, and a shortened Rorschach consisting of cards I, II, III, VI, VIII, and was then asked to recall as many dreams as possible. A debriefing interview was held at the end of the protocol during which parent and child were given the opportunity to have any questions pertaining to the study answered. Children were offered the chance to receive a copy of their transcribed dreams.

The data were transcribed, coded, graphed, and inspected for trends. Both the MOAS and the ORSD were applied to both dream and Rorschach material. The DACOS was applied to dreams.

A variety of changes were made in the study methodology as a result of the pilot study. It became evident that the MOAS was not suitable for scoring dream material, and this pairing was eliminated from the study. Likewise, the ORSD

was seen to be less adapted to children's Rorschach material than dream material because of the scarcity of interactive responses. The ORSD scoring of the Rorschach material was also eliminated from the study. One scoring adaptation was added to the ORSD in order to allow for an expansion of the definition of fully human objects. This will take into account the fact that for children, certain mythic or fairy-tale characters can seem to be real people. The abbreviated Rorschach was adapted to increase the likelihood of interactive responses. (I.e. Card VI was replaced by Card VII). The Parent and Girls Questionnaires were expanded to include important demographic variables which were suggested by subjects' parents and by the proposal review committee; and to collect information the importance of which became apparent once data analysis had begun. For example, it emerged that a past history of therapy was associated with high scores on object representation scales. It was seen that the order of administration of tests needed to be changed in order to avoid contamination of dream material with associations from the Rorschach test.

Generally, data trends were found to be in the predicted direction for Hypotheses I and II for the clinical versus nonclinical subjects. A surprising result emerged, however, for the past-clinical subjects (i.e. children with a past history of therapy terminated more than one year preceding the study). These children tended to obtain the highest object representation scores of all three groups.

The variable of past history of therapy, both for child and mother, was therefore explored in subsequent data collection and analysis.

# CHAPTER V: RESULTS

## General Introduction

This study was carried out in order to attempt to validate the Krohn Object Representation Scale for Dreams (ORSD) for use with children's dreams. The primary purpose of the study, therefore, was to see whether clinical and nonclinical populations would have significantly different ORSD scores. A second purpose was to see whether the Urist Mutuality of Autonomy Scale (MOAS), a previously validated measure of Rorschach object representations, would correspond closely with the ORSD, applied to dreams. This would provide further validation of the ORSD as a measure of object representation level in children. A third purpose of the study was to explore the relationship between the Blatt Developmental Analysis of the Concept of the Object Scale (DACOS), a validated measure developed for use with adult Rorschachs and specifically designed to assess the structural aspect of object representations, and the ORSD, which was designed to assess the thematic aspects of object representations. A final purpose of this study was to look at the correlations among the above three object representation measures, in order to see the ways in which they compared and contrasted with each other in terms of their correspondence to specific observeable behavior as measured by the Achenbach Child Behavior Check List (CBCL).

The derivation of the sample groups and their demographic characteristics will be addressed first. Afterward, the results will be presented under headings corresponding to the original research hypotheses of this study.

## Selection of Sample Groups

In order to test whether the ORSD could successfully differentiate emotionally healthy children from children who had emotional problems, it was necessary to choose two samples of children which would provide as sharp a contrast to each other as possible in their degree of mental health or mental illness. With this in mind, a clinical group of 26 girls was selected from a mental health clinic population, while a nonclinical group of 26 girls was selected from a public school population. In order to maximize the chance that the school sample would include emotionally healthy girls, their teachers were asked to complete a teacher screening form developed to screen out potential subjects with overt emotional problems (see Appendix C).

The possibility remained, however, that being well-behaved in school did not rule out pathology, just as being taken by a concerned parent for psychotherapy in no way insured a child to be emotionally pathological. Therefore, the Achenbach Child Behavior CheckList (CBCL), a quantitative measure of health-pathology, was used to confirm the clinical versus nonclinical nature of the two groups selected.

Table 1 indicates that the groups, as expected, were significantly different, not only in their CBCL health-pathology ratings, but in their CBCL Competence ratings, as well. It is clear, however, from Table 2 that there was substantial overlap, with eight (31%) of the school girls falling into the clinical range and seven (27%) of the clinic girls falling into the normal or borderline ranges on their CBCL Total Problem scores. Therefore it was decided to use the CBCL Total Problem score as a more accurate way of dividing the total sample into a clinical and a nonclinical group so as to insure that those groups would be as different as possible from each other in the variable of behavioral symptomatology.

## Comparative Demographic and Background Characteristics of Subject Groups

The clinical and nonclinical groups differed significantly on several measures related to socioeconomic status. Guardians of the clinical subjects had significantly lower occupational levels, lower educational levels, lower total family income levels, and lower Hollingshead Four Factor Social Status Index levels than the guardians of the nonclinical subjects.

The clinical and nonclinical groups also differed significantly on two cognitive variables. As indicated in Table 4, clinical subjects obtained significantly lower scores on the WISC-R Block Design Subtest, a task designed to assess

certain visuospatial thinking abilities which had been linked by Foulkes (1982) with younger children's ability to report dreams. Clinical subjects also obtained significantly lower scores on the Laurendeau-Pinard Concept of the Dream Test. This is a questionnaire designed to assess the subject's conceptual level of understanding of the dream phenomenon. The discrepancy in Concept of Dream Scores between groups was primarily due to failure of more of the clinical than nonclinical girls to achieve the highest subdivision of the highest dream concept stage. However, a collapsed Chi square test (see Table 3) revealed that there was no significant difference between the groups in terms of reaching the final stage of "integral subjectivism" in their conceptual level of understanding of the dream phenomenon. That is, most girls in both the clinical and nonclinical groups were able to understand the dream experience as being a personal, interior, invisible, immaterial phenomenon occurring during sleep, and were therefore not likely, by virtue of cognitive limitations, to confuse the dream with either waking fantasy or waking reality.

The data in Tables 4 and 5 showed that the clinical and nonclinical groups did not differ significantly on a variety of other family background and demographic variables, and the groups were therefore considered to be relatively comparable.

## Controlling for the Effects of Social Status for the Clinical and Nonclinical Groups

The question was raised as to whether the Hollingshead Social Status Index was significantly related to the ORSD, the primary variable being explored in this study. Further, there was some question as to whether the ORSD would continue to be a significant differentiator of clinical versus nonclinical group membership, after the effects of social status were controlled. To answer this question, an analysis of covariance (ANCOVA) was carried out.

It might be said that such an analysis is of limited value due to the fact that partialling out the effects of such an intrinsic aspect of clinical or nonclinical group identity as social status, with its implication of environmental stress or lack of stress, leaves a hypothetical and unrealistic sample comparison. Nonetheless, the ANCOVA was undertaken in an exploratory fashion, with just two of the ORSD scores. In the analysis, the independent variable was group (clinical versus nonclinical). The covariate was the Hollingshead Four Factor Social Status Index obtained for the guardian of each subject. The dependent variables were the Krohn ORSD lowest score (LOR), and the ORSD mean score (MOR). The results of the ANCOVA (Table 6) indicated that the social status factor was not significantly related to either ORSD score. Further, as indicated in Table 6, the clinical and nonclinical groups continued to be significantly differentiated by the ORSD after the variability due

to the social status factor was controlled.

## Controlling for the Effects of the WISC-R Block Design on Selected Object Representation Score Variables

The significant difference in Wechsler Intelligence Scale for Children - Revised (WISC-R) Block Design Subtest scores of the clinical versus nonclinical subject groups noted in Table 4 was striking. The clinical subjects achieved a mean scaled score of 8.1, or 1.6 points below the mean scaled score of 9.7 achieved by the nonclinical subjects. The Block Design Subtest has been shown by Foulkes (1982) to be significantly correlated with younger children's dream reporting ability. It therefore seemed extremely important to rule out the possibility that the object representation scales might be measuring cognitive maturity differences rather than differences in psychopathology and adaptive functioning. In order to test this possibility, two multivariate analyses of covariance were carried out to determine whether object representation measures were significantly related to the Block Design Subtest, and whether the measures which significantly differentiated clinical from nonclinical subjects would continue to do so after the effect of the Block Design ability was controlled.

In these analyses, the independent variable was group, clinical versus nonclinical. The covariate was WISC-R Block Design Subtest scaled scores, and the dependent variables were various scores derived from the three object represen-

tation measures explored in this study, i.e. the ORSD, MOAS, and DACOS. As indicated in Table 7, the MANCOVAS revealed no significant relationship between the WISC-R Block Design Subtest and any of the object representation scores. Further, as noted in Table 7A, those object representation scores which significantly differentiated the clinical from nonclinical subjects continued to do so after the effects of the Block Design ability were partialled out.

## Object Representation Scales

### Krohn Object Representation Scale for Dreams

The first hypothesis predicted that the ORSD would differentiate the clinical and nonclinical groups, and that the nonclinical subjects would obtain higher level object representation scores than their clinical counterparts. This hypothesis was tested by means of a one-way multivariate analysis of variance performed on the ORSD scores representing the single lowest (LOR), single highest (HOR), and mean (MOR) levels of object representation obtained across the sample of from one to five dreams collected from each child.

Clinical subjects ranged in LOR scores from 2 to 6 with a mean LOR of 2.7, while nonclinical subjects ranged in LOR scores from 2 to 6 with a mean LOR of 3.9. Clinical subjects ranged in HOR scores from 2 to 7 with a mean HOR of 5.1, while nonclinical subjects ranged in HOR scores from 4 to 7 with a mean HOR of 6.0. Clinical subjects ranged in MOR scores from 2.0 to 6.0 with a mean MOR of 3.8, while nonclinical subjects ranged in MOR scores from 3.0 to 6.5 with a mean MOR of 4.9. Thus, given the significant results of the MANOVA presented in Table 8, the nonclinical subjects averaged significantly more adaptive ORSD scores than their clinical counterparts. Therefore Hypothesis I is confirmed in that these five scores generated from the ORSD did significantly differentiate the clinical from the nonclinical

group in the predicted direction.

## Urist Mutuality of Autonomy Scale for Relational Rorschach Responses

The second hypothesis specified that the Urist Mutuality of Autonomy Scale (MOAS) would also differentiate the nonclinical from the clinical group, with nonclinical subjects again obtaining higher level object representation scores than their clinical counterparts. This hypothesis was tested by means of a MANOVA. A one-way multivariate analysis of variance was performed on the Urist MOAS scores representing the single lowest (LOR), single highest (HOR), and mean (MOR) levels of object representation obtained by each subject.

Clinical subjects ranged in LOR scores from 2 to 6 with a mean LOR of 4.4, while nonclinical subjects ranged in LOR scores from 2 to 6 with a mean LOR of 4.3. Clinical subjects ranged in HOR scores from 1 to 5 with a mean HOR of 2.0, while nonclinical subjects ranged in HOR scores from 1 to 4 with a mean HOR of 1.6. Clinical subjects ranged in MOR scores from 1.5 to 5.8 with a mean MOR of 3.1, while nonclinical subjects ranged in MOR scores from 1.4 to 5.0 with a mean MOR of 2.8. Thus nonclinical subjects generally averaged more adaptive MOAS scores than clinical subjects. However, the results of the multivariate analysis of variance, which are summarized in Table 9, were not significant. Thus, Hypothesis II was not confirmed.

## Blatt Developmental Analysis of the Concept of the Object Scale (DACOS) Applied to Recalled Dreams

Hypothesis III stated that the level of object representation scores derived from the Blatt DACOS applied to dreams would significantly differentiate the clinical and nonclinical groups with the clinical subjects receiving developmentally less advanced scores than their nonclinical counterparts. This hypothesis was tested by means of a one-way multivariate analysis of variance. The Blatt DACOS generates six separate developmental category scores for each subject, and then a Mean Standardized Developmental Level score is derived for each subject from the six separate developmental scores. The results of the MANOVA applied to the initial six Blatt DACOS scores is summarized in Table 10. A separate MANOVA which was performed on the Blatt DACOS Mean Standardized Developmental Level scores is summarized in Table 13.

Referring to Table 8, we see that the Pillais statistic, the multivariate test, narrowly missed reaching significance. The univariate tests were therefore considered. The Blatt DACOS Dream Differentiation score did distinguish between the two groups. The mean DACOS Differentiation scores indicate that the nonclinical group, as predicted, obtained developmentally more advanced scores than the clinical group on this one significant variable. The third hypothesis was thus partly confirmed in the predicted direction.

The results of the MANOVA applied to the Blatt DACOS Dream Mean Standardized Developmental Level scores, (see Table 13) indicate that this measure did not significantly differentiate the clinical from the nonclinical group. Although presented in Table 13, the univariate test results were not consulted in light of the nonsignificant multivariate finding.

As an alternate test of the third hypothesis, the Blatt DACOS was applied to Rorschach human or quasi-human responses, a different source of projective data collected from the subjects. The hypothesis was retested by means of three one-way multivariate analyses of variance applied to this data. The Blatt DACOS for Rorschachs generates six separate developmental category scores for each subject's good form level (F+) Rorschach responses and six separate developmental category scores for each subject's poor form level (F-) Rorschach responses. Then a Mean Standardized Developmental Level F+ score is derived from the six developmental category scores for each subject for F+ responses, and similarly, a Mean Standardized Developmental Level F- score is derived for each subject from the six developmental category scores for F- responses.

The MANOVA performed on the initial six Blatt DACOS Rorschach F+ scores is summarized in Table 11. The MANOVA performed on the initial six Blatt DACOS Rorschach F- scores is summarized in Table 12. A separate MANOVA which was performed on the Blatt DACOS Rorschach Mean Standardized

Developmental scores for F+ and F- responses is summarized in Table 14. As summarized in Tables 11, 12, and 14, none of these MANOVAS were significant. These results indicate the Blatt DACOS scores, when applied to human and quasi-human responses on the Rorschach, and whether taken separately or combined, did not significantly differentiate the clinical from the nonclinical group.

## The Relative Correlation of the ORSD and DACOS with the CBCL Problem and Competence Scales

Hypothesis IIIA specified that the DACOS would be more closely related to CBCL Problem Scales, while the ORSD would be more closely related to the CBCL Competence Scales. This hypothesis was tested by correlating the DACOS Mean Standardized Developmental Level Dream and Rorschach F+ Scores and the DACOS Dream Differentiation Score and the ORSD LOR, HOR, and Mean scores with the CBCL Total Problem score and the CBCL Total Competence score. These correlations are shown in Table 15. The 0.01 probability level has been chosen as a criterion of significance due to the multiple number of correlations which appear in this table.

It was expected that the DACOS would be significantly related to the measure of psychopathology (CBCL Total Problem score) while the ORSD would be significantly related to the measures of adaptive and social functioning (CBCL Total Competence and Social Competence Scores). Referring to the Table 15, we note that the DACOS Dream and Rorschach Mean

Standardized Developmental Level scores, were not, as predicted, significantly correlated with the CBCL Total Problem score.

Of the six separate DACOS developmental level scores, that of Differentiation applied to dreams was chosen to be included in this correlation because of its previously demonstrated relationship to psychopathology. Although of all the DACOS measures considered, the correlation between this measure and the CBCL Total Problem score most closely approached significance, it did not reach the 0.01 criterion level of probability required for significance.

In addition, we note that none of the ORSD scores included in the table were correlated significantly with either the CBCL Total Competence or Social Competence score. These findings do not support Hypothesis IIIA. (Incidentally, the reader will note that the data in Table 15 did indicate significant negative correlations between each of the Krohn measures and the Total Problem Score on the CBCL suggesting that subjects with higher levels of object representation as their Lowest ORSD object representation and Mean representation scores tended to have lower Total Problem scores on the CBCL.)

Further examination of the specific magnitude of the correlations in Table 15 reveals that, contrary to Hypothesis IIIA, the ORSD tended to be more highly correlated to psychopathology than the DACOS. (Negative correlations indicate that generally speaking, across both of these ob-

ject representation scales, subjects who tended to have higher level object representation scores tended to have lower problem scores.)

In conclusion, the expectation that the DACOS measures would predict more highly to a measure of psychopathology than the ORSD measures would was strongly disconfirmed. In fact the relation between several ORSD measures and the CBCL measure of psychopathology was found to be highly significant, while no such significant correlation was found between the DACOS measures and the CBCL Total Problem score.

## Correlations Among Three Object Representation Scales: The ORSD, the MOAS, and the DACOS

Hypothesis IV stated that the three object representation measures, ORSD, MOAS, and DACOS, would all be significantly correlated with each other. A correlation matrix was calculated in which the following variables were included: ORSD lowest score (LOR), highest score (HOR), and average (MOR) score; MOAS lowest score (LOR), highest score (HOR), and average (MOR) score; DACOS Dream Mean Standardized Developmental Level, Differentiation, and Articulation scores; and finally DACOS Rorschach F+ and F- Mean Standardized Developmental Level scores as well as F+ Differentiation and Articulation scores. They will be discussed in a pairwise fashion, relating the ORSD scores to the MOAS scores, the ORSD scores to the DACOS scores, and the MOAS scores to the DACOS scores. Due to the fact that a fairly large number of

correlations were calculated, the 0.01 level of significance was adopted as a criterion for a significant relationship in order to control for the accumulating probability of Type I error.

Table 16, which shows the correlations between the three ORSD scores and the three MOAS scores, indicates that there were no significant relationships between these two scales using the 0.01 level of significance as a criterion.

Table 17, which shows the correlations between the three ORSD measures and the seven DACOS measures indicates that there were several significant relationships between the two scales. The DACOS Dream Mean Standardized Developmental score was found to be significantly related to all three ORSD scores, i.e. to the ORSD LOR, to the HOR, and to the MOR scores. Additionally, the DACOS Dream Differentiation score was significantly related to the ORSD LOR and to the ORSD MOR score. These positive correlations would imply that relatively better scores on the ORSD were associated with relatively better scores on the overall DACOS Dream composite score as well as on the specific DACOS developmental category of Differentiation. On the other hand, none of the DACOS Rorschach scores were found to be significantly related to the ORSD.

Interestingly, when the MOAS scores were related to the DACOS Dream (see Table 18), several significant relationships were found. The MOAS HOR was found to be related significantly to the DACOS Dream Differentiation score. The

MOAS Mean score was also significantly related to the DACOS Dream Differentiation score. Thus it can be seen that relatively better scores on the MOAS were associated with relatively better scores on the DACOS Dream Differentiation scale because the correlation is negative. (This relationship is depicted as negative in the Table because the MOAS is organized such that higher level scores are indicated by numerically lower digits.)

Also several significant relationships were found between the MOAS and the DACOS Rorschach scores (see Table 18). The MOAS LOR was found to be related significantly to the DACOS Rorschach Standardized Mean Developmental score for F+ Rorschach responses. The MOAS LOR was also significantly related to the DACOS Rorschach Standardized Mean Developmental score for F- Rorschach responses. Again the negative correlations reflect the fact that relatively better scores on the MOAS were associated with relatively better scores on the DACOS Rorschach composite score. However, the highly significant correlations between the individual DACOS Rorschach F+ Articulation scale and all three MOAS scores were found to run in the opposite direction. The Articulation scale was correlated with the MOAS LOR, with the MOAS HOR, and with the MOAS MOR. Thus, relatively better scores on the DACOS Rorschach F+ Articulation scale were associated with relatively lower object representation levels as measured by the MOAS.

Therefore, the fourth hypothesis was partially con-

firmed in that the ORSD correlated significantly with the DACOS. On the other hand, the ORSD was not found to be significantly correlated with the MOAS. The MOAS, however, was significantly correlated wih the DACOS. In conclusion these results provide some evidence for the convergent validity of the ORSD.

## Effect of Combining Object Representation Scales in an Attempt to Predict to CBCL Problem and Competence Scales

The fifth hypothesis predicted that the ORSD or MOAS, both thematic object representation scales, when used in combination with the DACOS, a structural object representation scale, would better predict to psychological health-pathology than any of the three scales used alone. This hypothesis was tested by means of a multiple regression analysis. It is important to note that due to the relatively small size of the sample (N = 51), and given the expectible minimum sample size of 100 for generalization of multiple regression results, the findings of this analysis may be taken as a valid description about the particular sample used in this study, but may not be used to generalize to the population from which the sample is taken.

Four multiple regressions ($R$ and $R^2$) were performed to see if the thematic ORSD or MOAS scales combined with the structural DACOS measures predicted to the CBCL Total Competence and Total Problem scores more effectively than any one individual scale. In the first of four regressions, (See

Table 19), the ORSD, the DACOS Dream, and their Interaction were used to predict to CBCL Total Competence. Together they accounted for only 4% of the variation in competence. Referring to the zero-order correlations between object representation measures with CBCL Competence noted in Table 23, we see that this is only 1% more than the 3% accounted for by the ORSD alone. The DACOS alone accounted for none of the variation in competence.

In a second regression, (Table 20), a second thematic object representation scale, the MOAS, was paired with the structural DACOS Dream, and along with their interaction they were used to predict to CBCL Total Competence. Together they accounted for 8% of the variation in competence. Referring to the highest of the zero-order correlations between these object representation measures with CBCL Competence (Table 23), we see that this is only 1% more than the 7% accounted for by the MOAS alone.

In a third regression, (Table 21), the thematic ORSD was paired with the structural DACOS Dream, and along with their interaction they were used to predict to the CBCL Total Problem score. Jointly, they accounted for 23% of the variation in Total Problems. This amount of variation explained by these predictors is sufficient to reach significance. Referring to the highest of the zero-order correlations between these object representation measures and the CBCL Problem Scale noted in Table 23, we see that this is almost double the 12% accounted for by the ORSD alone.

Interestingly, although the zero-order correlation between the DACOS Dream variable alone and the Total Problem score was very small, this variable turned out to be the most important predictor as indicated by the t-tests for the significance of the unique contribution of each of the three predictors in this regression. In fact each of the three predictors, the ORSD, the DACOS, and their interaction, explained a significant portion of the variability in CBCL Total Problem score, after the effects of the other predictors were controlled.

Finally, the MOAS was paired with the DACOS Dream in a fourth regression to predict to CBCL Total Problems (Table 22). Together they accounted for only 7% of the variation in Total Problem score, or only 2% more than the 5% accounted for by the MOAS alone in zero-order correlation with the Total Problem Score.

In conclusion, the fifth hypothesis was partially confirmed in that the thematic ORSD when combined with the structural DACOS Dream predicted somewhat more effectively to a measure of psychological health-pathology than either measure did when used alone. Together, they accounted for a statistically significant portion of the variation in the Achenbach CBCL Total Problem Scale. However, pragmatically speaking, 23% is a relatively small amount of variation and not enough to justify the use of these measures as primary predictors of psychopathology.

## Supplementary or Additional Analyses

### Interactive Effect Between Mean Scores and The Differences Between Highest and Lowest Scores (HOR - LOR) on the Urist MOAS and the Krohn ORSD

In past research with the ORSD and the MOAS, mode scores have often proven to be significant. Unfortunately, due to the limited number of dreams which were obtained from subjects in this study, it was impossible to obtain mode object representation scores for many of the children. In order to find an alternative way of conveying some of the information which is normally seen by comparing the mode with the mean, an effort was made to include some measure that would take into account the range of scores over which any subject's various dream and Rorschach scores spanned as well as their average score. Each subject received an HOR - LOR difference score (DIF) for both MOAS scores and ORSD scores. Then, in order to examine the interaction of the HOR - LOR DIF with the mean scores, two multiple regression analyses were performed in which the group (clinical versus nonclinical) was associated to the ORSD and MOAS mean scores, to the ORSD and MOAS DIF scores, and to an interaction term formed by the product of each mean and difference variable pair. The results are shown in Tables 24 and 25. Referring to the first regression (Table 24), a multiple correlation of .48 was obtained where group membership was associated to the ORSD measure. This indicates that 23% of

the variability in group membership was explained by the three ORSD measures in combination. However the amount of that variability accounted for by the interaction of mean scores with HOR - LOR difference scores was not significant. In a second regression, (see Table 25) a multiple correlation of .23 was obtained where group membership was associated to the MOAS measures. This indicates that only 5% of the variability in group membership was predicted by these three combined MOAS measures. Further, the amount of that variability accounted for by the interaction of mean scores with difference scores was not significant.

In conclusion, a consideration of the range of scores which each subject obtained in conjunction with the average of their scores did not help to differentiate clinical from nonclinical subjects.

## Exploration of Urist MOAS Findings

In an effort to understand in what ways the MOAS differed from the ORSD, a number of correlations with various CBCL subscales and several other variables were undertaken. Significant and near significant results will be presented below.

Referring to the correlation matrix shown in Table 26, it is interesting to note that while the ORSD scores, especially the LOR, tended to be significantly correlated to measures of psychopathology and behavioral acting out, the MOAS scores, expecially the HOR, tended to be more corre-

lated with competence scores, especially measures of social competence, which the ORSD did not tap at all. In particular, we note that less pathological MOAS HOR scores (i.e. numerically lower) tended to reflect higher social competence, and higher school competence. Similarly, higher level MOAS MOR scores (i.e. numerically lower) tended to reflect fewer social problems. Interestingly, a smaller range of MOAS scores was also highly correlated with better Social Competence scores.

These results led to the speculation that the MOAS was more related to adaptive and social functioning (CBCL Competence Scales) than the ORSD, which seemed more related to measures of pathology. In order to test this, the entire subject pool was regrouped according to their CBCL Total Competence scores, rather than their Total Problem scores. This resulted in a 'more competent' group of 24 subjects and a 'less competent' group of 22 subjects. A one-way multivariate analysis of variance was then performed on the Urist MOAS scores representing the lowest (LOR), highest (HOR), and mean levels of object representation obtained by each subject. The results of the analysis are summarized in Table 27. Referring to Table 27, we note that the multivariate test for significance of the 'more competent' versus 'less competent' group was not significant. Referring to the means in Table 27 however, we can see that the 'more competent' subjects, on the average, obtained higher MOAS object representation levels (numerically lower scores) than

the 'less competent' subjects. Nonetheless, there was not enough of a difference between the groups on their MOAS scores to reach significance.

Further correlations, indicated in Table 30, revealed an additional finding regarding the MOAS. Interestingly, the more months a subject's mother had spent in psychotherapy, the higher the highest level of object representation achieved by that subject ($p = -0.017$) and the less of a range between highest and lowest scores that subject tended to have ($p = -0.015$).

## Exploration of Correlations Between the Krohn ORSD Scores and Achenbach CBCL Subscales

In an effort to explore in more detail the way in which the ORSD corresponded to actual behavioral symptoms in children, a correlational analysis was performed with several ORSD scores and the various CBCL subscales. Referring to the correlation matrix shown in Table 26, we see that the ORSD LOR is the most robust of a variety of ORSD scores examined, in its ability to differentiate a clinically pathological group of children from a nonpathological group.

In particular, ORSD LOR scores tended to correlate with the presence of social problems, thought problems, attentional problems, delinquent behavior, and aggressive behavior. On the other hand, no ORSD score was correlated with the presence of withdrawn behavior, somatic complaints, anxiety/depression symptoms, or sexual problems. The ORSD

then, in general, tended to indicate the presence of externalizing behavior or acting out behavior, while not necessarily picking up the presence of internalizing behavior or inward directed symptoms such as psychosomatic problems, depression or withdrawal.

Interestingly, the ORSD HOR was significantly correlated with school competence such that the higher the highest object representation score, the better the school competence tended to be.

## Exploration of Correlations Between the Blatt DACOS Scores and the Achenbach CBCL Subscales

In an effort to further explore the way in which the DACOS corresponded to actual behavior in children, a correlational analysis was performed with selected DACOS scores and the various CBCL subscales. Referring to the correlation matrix shown in Table 28, we see that the Articulation score for DACOS for F+ Rorschach responses is correlated with a variety of CBCL scales, but in the opposite direction to that which was expected. That is, subjects with more highly developed articulation scores tended to have more social problems, more aggressive behavior, lower Social Competence scores, and lower Total Competence scores. Although several DACOS for F- Rorschach scores were significantly correlated with some CBCL scores and were included in Table 28, it would not be appropriate to generalize from these results, because the sample size was so small. Among

DACOS Dream scores, two were found to have significant correlations. The Dream Articulation was correlated to the CBCL Sexual Problems scale, again in a surprising direction. That is, subjects with higher level articulation of their object representations tended to have more sexual problems.

It is interesting to note that of all three object representation scales, only the DACOS, the structural scale based on a cognitive developmental schema, was significantly correlated with any academic measures. For those subjects who were recruited from school settings, recent national reading and math scores were obtained. Referring to Table 29, we see that within that group, a significant negative correlation of -0.69 ($p = 0.001$) was found between New York City reading scores (national percentile) and Blatt DACOS for Dream Developmental Mean scores. Girls with higher reading scores tended to have lower level DACOS scores. On the other hand, DACOS scores derived from Rorschach responses were not significantly correlated to math and reading scores.

Object Representation Level of First Dream Reported

This study attempted to obtain a sample of at least three dreams from each subject. However some subjects provided as few as one or as many as five dreams. Thus the ORSD level achieved by each subject's first dream was included in some of the correlational analyses along with the LOR, HOR, and MOR scores for each subject's set of dreams.

In looking at the correlation between the various ORSD scores with the CBCL Problem scales, the LOR score emerged as the score most significantly correlated with the highest number of problem subscales. The LOR score was therefore considered to be the most robust predictor of psychopathology of all the ORSD scores. Interestingly, the ORSD score for all of the subjects' first dreams emerged as the second most robust predictor, being more robust than the HOR or MOR scores. Referring to Table 28, we see that for some subscales, i.e. Social Problems, Aggressive Behavior, and Total Problem score, the ORSD score for first dreams was even more highly correlated with the CBCL problem scales than the ORSD LOR. However for other subscales, i.e. Thought Problems and Delinquent Behavior, the ORSD score for first dreams did not provide the significant correlation to pathology that the ORSD LOR provided. These findings suggest that although eliciting only one dream as a basis for determining object representation level is not as effective as eliciting several, enough information can be obtained from one dream to make predictions about behavioral and psychopathological correlates to object representation level.

The Use of a Structured Inquiry in Eliciting Dream Material

As mentioned earlier, in eliciting reports of dreams from the subjects, a structured inquiry was developed in order to maximize the opportunity for each child to best describe the object representations mentioned in her dreams.

Since the experimenter conducted the dream collection interviews, there was concern that experimenter bias might distort the content of the dreams through the inquiry process. In order to guard against this possible source of bias, the "pure" dreams were initially scored without inquiry, just as they were offered by the child in response to the request to tell the most recent dream she could remember. Afterward, the dream with any additional material elicited by structured inquiry was rescored.

In most cases, consideration of inquiry material did not change the original score. Paired samples t-tests were performed to determine whether the additional inquiry material caused significant change in the Krohn ORSD scores. Due to the accumulating probability of type I error for multiple t-tests, the 0.01 level of probability was used as a criterion for significance. The pure dream object representation level and the dream-with-inquiry object representation level were not found to be significantly different for each child's first dream, each child's lowest level dream (LOR), or each child's mode score. However the mean and highest object representation scores were significantly different for pure dreams versus dreams-with-inquiry.

# CHAPTER VI: DISCUSSION

## Introduction

The present study was based on the notion that a child's dream offers an opportunity to assess certain aspects of her mental representations of self, other, and the interrelationships between them. In an attempt to describe and quantify these representations, Mayman and Krohn (1972) developed the Object Representation Scale for Dreams. Krohn found that, at least for adults, this scale provided a valid measure of object representation level, and that the construct it measured was highly correlated with degrees of intrapsychic and interpersonal health or sickness. Since that time, there has been a blossoming of object representation/relation measures. However no others have emerged specifically for use with dreams. This study has attempted to take up one path which Krohn left untouched, that is to see if the Object Representation Scale for Dreams would be equally as meaningful if used with children's dreams as with adult dreams.

A further goal of this study had been to assess how this object representation scale is similar to and different from several other object representation scales now available. Some authors (Stricker & Healey, 1990) have suggested the need to explore exactly what it is that these scales measure. Toward that end, this study attempted to tie these measures to concrete behaviors, which, observeable to the

eye, perhaps constitute the concrete manifestation of the abstract internal relational images that these scales have attempted to capture.

In the discussion that follows, the meaning and clinical implication of the results obtained will be explored. Then the limitations of the study will be discussed, and finally, suggestions for further research will be offered.

## The Correlation Between the ORSD and the CBCL

### Construct Validation of the Krohn ORSD

As discussed in the literature review, a variety of studies exploring object representations as depicted in dreams, Rorschach responses, and other projective sources, generally suggest that the higher or more developmentally advanced the object representation is, the healthier and more adaptive an individual will be, both intrapsychically and interpersonally. In his original construct validational study of the ORSD, Krohn (1972) found the scale to be significantly correlated with a measure of psychopathology (Luborsky Health-Sickness Rating Scale).

Following this model, the first hypothesis predicted that the Krohn ORSD would differentiate nonclinical from clinical pre-adolescent girls on the basis of the object representation levels of their reported dreams. Confirmation of this hypothesis offers support for the validity of the use of the Krohn ORSD with girls' dreams.

Incidently, the strength of the correlation between the most highly correlated single ORSD measurement, (i.e. the lowest of scores obtained over the one to five dreams collected from each subject, or ORSD LOR), and the measure of psychological health-sickness used in this study, (i.e. the Achenbach Child Behavior Check List (CBCL) was approximately .37. This correlation is similar to that of .33 originally obtained by Krohn when he correlated the ORSD with a measure of actual behavioral symptoms. This relationship seems to be similar for both children and adults.

A closer look at correlations between the ORSD and the individual CBCL subscales raises the question of why the ORSD picks up certain manifestations of pathology and not others. In general, the problems picked up by the ORSD, i.e. aggression, delinquency, attentional problems, and "social problems" (primarily immature behaviors such as clinging), encompass behaviors which tend to elicit rejecting or hostile responses from others. One might speculate that low scores on the ORSD correlate with these acting out sorts of behaviors not only because they indicate the presence of poor internal objects, but also because they may set up negative feedback loops which would seem to perpetuate both poor relationships and poor object representations. In light of this speculation, it is interesting that the ORSD also picks up thought problems, since this is more of an internally than externally manifested behavior. In any case, the speculation of a "negative object representation feed-

back loop" offers the clinical implication that for children of the preadolescent age range, behavioral intervention at the level of reversing such negative feedback loops would be important.

The lack of correlation between the ORSD and the three Achenbach "internalizing" scales, i.e. withdrawn, somatic complaints, and anxiety/depression represents both a disappointment and a puzzle. Troubled girls often go unnoticed and untreated because their symptoms are frequently inward directed, and so do not attract attention and eventual help. It was hoped that this scale would provide a way of identifying these sorts of problems for that very reason. Unfortunately, this was not the case. However, this result raises interesting questions. Can one hypothesize the existence of an internalizing behavioral cluster which exists entirely independent of object representation status?

An interesting and unintended difference between the clinical and nonclinical groups turned out to be cognitive maturity. As mentioned earlier, the clinical subjects achieved, on the average, significantly lower scores on the WISC-R Block Design subtest, a visuospatial abstract cognitive ability which was correlated in young children with dream reporting proficiency by Foulkes (1982). The clinical girls also achieved significantly lower scores than the nonclinical girls on the Laurendeau-Pinard Concept of Dream Test. Although by far, most girls in both groups achieved the final stage of 'integral subjectivism' in their concep-

tual level of understanding of the dream phenomenon (i.e. the dream is personal, interior, invisible, and immaterial), almost one half of the clinical girls still attributed the source of dreams to external forces such as God, i.e. a last vestige of precausal thinking, while most of the nonclinical girls displayed no precausal thinking in their understanding of the dream as an entirely objective phenomenon. In light of these cognitive differences between the clinical and nonclinical groups, one might speculate some relationship between cognitive immaturity, externalizing behavioral symptoms and lower levels of object representation. Certainly aggressive behavior, delinquent behavior, and attentional deficits are often correlated with learning delays, and immature cognitive development in areas such as judgment, insight, and the ability to foresee consequences. In such a model, one would hypothesize that for the developmentally delayed child, cognitive and emotional immaturities conspire just as powerfully as significant external figures to engender and perpetuate the negative object representations seen at the lower end of the ORSD. The implication for treatment, if following such a model, then, would be to focus as much on compensating for cognitive deficits and shoring up ego weaknesses as on treating the emotional turmoil when attempting to treat the behaviorally acting out or hyperactive child.

## Convergent Validity of the Krohn ORSD

### The Urist Mutuality of Autonomy Scale (MOAS)

It was originally hypothesized that the MOAS, being an object representation scale validated for use with children's Rorschachs, would predict to intrapsychic and interpersonal psychological health-pathology in the same way the ORSD did. In fact, given Krohn's finding that projective material from Rorschach responses was even more representative of psychopathology than projective material from dreams, it was expected that the MOAS applied to Rorschach responses might be even more strongly correlated to the Achenbach measure of pathological symptoms than the ORSD. The hypothesis was not supported.

The lack of support for this hypothesis may well be related to methodology. In Krohn's original validation study, the Rorschach data was scored not with the MOAS but, just as the dreams, with the ORSD. Therefore, it is impossible to determine whether the discrepancy in results obtained between Hypothesis I and II is more related to the different source of projective material used (dream versus Rorschach) or to the different object representation scales used (Krohn ORSD versus Urist MOAS).

If this study had applied the ORSD to the Rorschach data, this study, like that of Krohn, may have found the ORSD Rorschach data to be more significantly related to the health-pathology variable than the ORSD dream data was. However, in correlating the MOAS Rorschach data and the ORSD

dream data with the CBCL measures, it emerged that the MOAS seemed to tap an aspect of personality more related to social and school functioning than to the presence or absence of pathological acting out behavior. If so, perhaps the MOAS was not able to significantly differentiate the clinical from nonclinical groups as defined in this study, because these groups were designed to form a contrast to each other on the basis of psychopathology rather than on the basis of social functioning. One might speculate that if the groups had been differentiated by criteria related to social success or lack thereof, then the MOAS applied to Rorschach data may have significantly differentiated the two groups.

Krohn, in his original study, included a criterion measure of object representation level provided by therapists who had worked with the subjects over time. The present study lacked such an independent criterion measure of object representation level based on direct, clinical observation of the children's behavior in relation to significant others. Given the correlational data observed in this study, one might predict that such a measure may have correlated more highly with the MOAS than with the ORSD.

Alternatively, if one assumes that the MOAS does measure the same object representational construct as the ORSD, then one must wonder if, for children, object representations as manifested in the Rorschach, would be more a measure of object representation independent of the health-

pathology continuum, while object representations as manifested in dreams would be more related to psychopathology-health or "overall intactness-fragmentation of personality" (Krohn, 1974, p. 139), i.e. the reverse of what Krohn hypothesized for adults. At this point, it would be important to mention the way in which the Rorschach was administered in this study, which creates a potentially complicating methodological factor. The subjects were given only half of the Rorschach cards, or those cards which seemed more likely to elicit object relational responses. An example would be Card III, which is often seen as two figures doing something together like cooking over a big pot placed between them. This abridged version of the Rorschach may have biased the data toward screening out certain types of imagery. Images of the self or others relating to each other would tend to be highlighted, while images of the view of the self alone might be screened out.

Interestingly, subjects whose mothers spent more time in therapy tended to reach higher levels of object representation among their Rorschach responses than subjects whose mothers spent less time in therapy. This relationship was not revealed by the ORSD scores. Based on this, one might speculate that the ORSD is not as sensitive as the MOAS to the manifestation of a corrective interpersonal experience (the therapy) given to the mother, and passed on to the child through their relationship. This interpretation might be taken as support for the idea that the MOAS measures a

different aspect of object representation than the ORSD.

In conclusion, the lack of relation between the MOAS and the CBCL Problem scales in this study may suggest that the MOAS and the ORSD tap different aspects of the object representation construct. Alternatively, it is suggested that object representation oriented Rorschach data and dream data present different aspects of the self for scrutiny.

## Blatt Developmental Analysis of the Concept of the Object Scale (DACOS) Applied to Dreams and Rorschachs

It was hypothesized that the (DACOS), being an object representation scale validated for use with Rorschachs, would predict to intrapsychic and interpersonal psychological health-pathology in the same way the ORSD did. When applied to Rorschach data, the hypothesis was not supported. However, when applied to dreams, one of the six DACOS developmental subscales, that of Differentiation of the Concept of the Object, did significantly differentiate the clinical from the nonclinical group. Therefore, this hypothesis, being confirmed in part, lends support to the convergent validity of the ORSD.

In addressing the application of the DACOS to the data in the present study, a question stands out as to why the DACOS applied to Rorschach responses did not differentiate the clinical from nonclinical groups, while the DACOS applied to dreams did. This finding is especially curious in light of the fact that the DACOS was developed for Rorschach

data, and has never before been applied to dreams. Analysis of the data brought to light a methodological problem particular to the application of the DACOS to Rorschach data. In tabulating the results, all subjects' good form (F+) responses are scored, summed, and analyzed separately from their poor form (F-) responses. Thus, since a large number of the subjects in this study had no F- Rorschach responses, the total number of subjects counted in the analyses of these results was greatly reduced, and the meaningfulness of the results is therefore limited. This limitation may have prevented the hypothesized relationship between DACOS level and clinical versus nonclinical status from emerging.

The application of the DACOS to dream material was a difficult task because the coders had to sift through numbers of interactions and motivations for each dream character and use subjective judgments in order to determine the final developmental scores for each dream character. A set of decision-making trees was evolved by the experimenter in conjunction with the coders during the training portion of the coding period. Thus, although adequate interrater reliability was established, the meaning of the subscales may have shifted somewhat during the process of being adapted to dream material. Again, this process of adaptation of the DACOS to dream material may have obscured relationships which otherwise might have emerged between some of the subscales, or the composite score, with the clinical versus nonclinical status of the subjects.

It is important to note that the subscale which did prove to be a significant differentiator of the clinical from nonclinical group, that of differentiation, was perhaps the clearest cut of all the DACOS subscales to score, and therefore the least affected by the process of adapting the scale to dream material. Blatt defines differentiation as a continuum within which figures range from "whole and clearly human" through "whole but less than human or not definitely specified as human" to "only part of a quasi-human figure" (Blatt, 1976, p. 3-4). Each dream character had only one level of differentiation. Basically, any character was either human (e.g. father, sister, girlfriend) or quasi-human (Little Mermaid, Bugs Bunny, a witch).

In conclusion, a variety of methodological factors may have conspired to obscure some amount of the ability of the DACOS to differentiate clincal from nonclinical subjects.

There were several DACOS subscale scores which were not able to significantly differentiate clinical from nonclinical subjects, and yet which emerged as significantly correlated with various subscales of the CBCL. These correlations are especially puzzling because they suggest that developmentally higher DACOS scores are correlated with more pathological and less competent behaviors. In particular, the Articulation scales tended to be significantly correlated with measures of pathology. Higher level scores on the DACOS Articulation scale taken from F+ Rorschach responses (based on at least 49 subjects) tended to be associated with

more social problems, more aggressive behavior, and lower Social Competence. Higher level scores on the DACOS Articulation scale taken from F- Rorschach responses (based on 29 subjects) tended to be associated with lower Total Competence scores. Finally, higher level scores on the DACOS Articulation scale applied to dreams tended to be associated with a higher sexual problem score on the CBCL.

In trying to understand the paradoxical direction of these correlations, Blatt's original definition of the articulation category will be reviewed. Articulation includes the quantity of "types of attributes ascribed to the figures ... (which) seem to provide information ... that enlarge a listener's knowledge about qualities which are appropriate to the figures represented" (Blatt, 1976, p. 4). Such attributes include both perceptual characteristics such as size, clothing, and posture, and functional characteristics such as gender, age, and role. The results obtained in the study suggest that aggressive children or children with social or sexual problems, might tend to envision or at least talk about their objects with greater detail. A complicating factor to be considered at this point is that the majority of the children in this study who have obtained more pathological scores on the CBCL have been in psychotherapy at a mental health clinic for at least twelve months. One might speculate that those children who have been in therapy for a significant length of time, by virtue of talking about their experiences and relationships, have

improved their ability to observe, envision, and articulate descriptions of themselves and others. The idea that verbal articulation of object representations is one of the changes that occurs in the therapeutic process would certainly be a testable notion.

The DACOS Articulation subscale is the only object representation measure of all of those considered in this study which bears any correlation to sexual problems. In reviewing the original data, it was discovered that those children who scored high on the CBCL sexual problem subscale tended to have experienced some form of inappropriate sexual overstimulation such as harrassment or actual abuse. It is conceivable that such experience may lead the child to develop a hypervigilence to the physical characteristics or details of the human body.

An alternative explanation of the paradoxical direction of the relationship between Articulation and pathology might lie in Blatt's own interpretation of the meaning of his composite DACOS scores. He describes the "Composite Scores for the Concept of the Object on the Rorschach" or "Mean Developmental Levels" to be "a measure of the capacity to become engaged in meaningful and realistic interpersonal relationships" if the scores are based on F+ Rorschach responses, and "the tendency to become involved in unrealistic, inappropriate, possibly autistic, types of relationships" (Blatt, 1976, p. 19-20) if the scores are based on F- Rorschach responses. This brings to light a primary meth-

odological difficulty in the application of the DACOS to dream material. In scoring a Rorschach response, the degree to which the child's visual association or fantasy accurately fits the configuration of the actual Rorschach inkblot shown to the child is judged as accurate (F+) or inaccurate (F-). The accuracy of the perception, then, is used to determine whether the developmental level of the child's object images indicates healthy interpersonal involvement, or pathological involvement. However, in considering the dream material, unlike with the Rorschach responses, there is no inkblot or objective external referent with which to compare the child's fantasy material in order to assess form quality, or the ability to make ones fantasy adhere to an accurate perception of external reality. Therefore there is no way to insure that developmentally complex or advanced human images in the dreams indicate healthy rather than unhealthy interpersonal relationship capacities. This may explain the association of high levels of ability to depict objects with perceptual complexity with certain pathological characteristics. Further, this may explain the inability of the Blatt Mean Developmental or composite scores to differentiate the clinical from the nonclinical group. If, in fact, these scores are based on averaging the six different developmental category scores, and if, in fact, the difference between investment in healthy interpersonal relationships versus unhealthy interpersonal relationships is blurred, then the healthy and unhealthy tendencies might

cancel each other out in the composite score.

In conclusion, despite the existence of a number of methodological difficulties which arose in applying this scale to dream material, a number of interesting findings were revealed. One DACOS subscale, that of degree of differentiation of the Concept of the Object in the dream, was able to significantly differentiate the clinical from non-clinical group. In addition, several other subscales were found to be significantly correlated to certain specific pathology subscales on the CBCL.

Correlation Among the Three Object Representation Scales

The fourth hypothesis stated that the ORSD, the MOAS, and the DACOS would correlate significantly with each other, thereby lending support to the convergent validity of the ORSD.

The lack of significant correlation between the ORSD and the MOAS will be addressed first. As discussed earlier, it is suggested that the different sources of projective material, i.e. Rorschach responses in the case of the MOAS, and dreams in the case of the ORSD, may reflect somewhat different aspects of the self and therefore may have obscured the similarities that may exist between the two scales. Alternatively, it was suggested that the two scales might reflect different aspects of the object representation construct, thus lessening the possibility of observing a significant correlation between them.

It is worth mentioning that the correlation between the Mean scores of the MOAS and the ORSD was -0.24. The probability of this occurring just by chance was 0.044, which would have been considered significant, had the more stringent 0.01 criterion of significance not been employed. Thus the possibility of a weak correlation between the Krohn and Urist scales was suggested.

While the MOAS and the ORSD were not significantly correlated with each other, they were both significantly correlated with certain DACOS measures. To be more specific, the MOAS was significantly correlated with a number of DACOS scores derived from Rorschach material, and correlated with only one DACOS score derived from dream material. On the other hand, the ORSD measure was significantly correlated only with DACOS scores derived from dream material, but not from Rorschach material. These results would support the speculation that in the case of children, Rorschach data and dream data present different aspects of the personality and thus offer different information about the object representation construct.

In looking at the Rorschach data, it is interesting to note that it was each child's lowest MOAS object representation score that correlated with the DACOS composite scores for both F+ (based on 48 subjects) and F- responses (based on 15 subjects). Despite the fact that for the subcategory of Articulation, higher developmental scores tended to be associated with lower level MOAS scores, yet for the

general composite DACOS score (derived from all six DACOS subcategories including Articulation), higher developmental scores were associated with higher level MOAS. If we consider the DACOS to be a measure of the more structural aspect of the object representation, and the MOAS to be more a measure of affective and thematic aspects of the object representation, then we can speculate that correlations between the DACOS and MOAS reveal something about the way that a child's cognitive and emotional abilities interact in the realm of object representation. The fact that most children achieved not one, but a range of object representation scores, suggests that each child has a repertoire of different levels of object representation available to her. One could then speculate that a child might regress to her lowest level (LOR) under stress, but have the capacity to achieve a higher level (HOR) under optimum circumstances. Returning to the MOAS/DACOS correlations, it seems that developmentally immature object representation structures appear to be more related to primitive thematic content at the most pathological end of each child's object representational capacities, but not at the most adaptive end.

The finding that higher DACOS Articulation levels tended to be associated with pathology has been discussed above. In particular, it was associated with sexual difficulties, social problems, aggressive behavior, and lack of social competence. With the exception of sexual problems, these difficulties in social relating were the main areas of

pathology which the MOAS scale tapped. It seems, then, that the DACOS Articulation scale bears a particularly close relationship to the MOAS scale.

Turning to the dream data, we note that the one DACOS dream scale which is significantly correlated to both the ORSD and MOAS is that of Differentiation. This subscale, which has been previously defined and discussed, may offer a description of that essential quality of the object representation upon which all three of these object representation scales intersect. That quality has to do with the degree to which a fantasy image or character approaches resemblance to true human-being-ness versus less than complete caricature of human-being-ness. That is, a key way in which all three scales are alike is in the basic notion of how human the object representation is, a quality which both the MOAS and ORSD try to capture. Therefore, for children, to be able to imagine and articulate fully human figures, and avoid more infantile part objects or less than human objects in their dreams appears to signify a more broad ability to maintain generally benevolent representations of self, other and the relationships between them, and to reflect those relationships in their outside lives.

The correlations between the DACOS composite score for dreams and the ORSD LOR and Mean scores were 0.522 and 0.579 respectively. The significance of these correlations was extremely high ($p = .000$). Again, as with the MOAS, it seems that developmentally immature object representation

structures appear to be more related to primitive thematic content at the most pathological end of each child's object representational capacities, but not at the most adaptive end.

In summary, the various intersections of these three scales provide evidence for the convergent validity of the ORSD. Further, it seems that the degree of "humanness" of the object representation is an essential quality which each of these three scales value.

### Effect of Combining Object Representation Scales in an Attempt to Predict to CBCL Problem and Competence Scales

The fifth hypothesis predicted that thematic object representation measures (i.e. ORSD and MOAS) when combined with structural object representation measures (i.e. DACOS) would predict more powerfully to psychological health-pathology than either a thematic or structural scale used alone. In every case where a thematic object representation scale was combined with a structural scale, the combined scores explained a greater amount of the variation in health-pathology ratings of subjects than when scales were used singly. Although in most cases, the gain in predictive power was negligible, the combination of the ORSD and the DACOS for dreams in predicting to the CBCL Total Problem score resulted in a doubling of the predictive power of the scales. Clearly we miss important information when we look at object representations from either a structural or a

thematic perspective alone to glean information about psychopathology. However, in looking at that aspect of object representations which is more related to social and adaptive functioning, than to psychopathology-health, the thematic MOAS explained a small amount of the variance, and the addition of the structural component in the form of the DACOS added virtually no further information.

## Similarities and Differences Among the Three Object Representation Scales

### The Differences Between Blatt DACOS and Krohn ORSD in Correlating with Achenbach Problem and Competence Scales

Hypothesis IIIA predicted that the DACOS would be more closely related to psychopathology-health as measured by the CBCL Problem Scales, while the ORSD would be more closely related to the CBCL Competence Scales. This prediction had been based on a two-fold rationale. Initially the ORSD portion of the prediction will be addressed, followed by the DACOS component.

The ORSD was originally found, by Krohn himself, to be more closely correlated with a subjective measure of object relations as assessed by therapists of adult subjects, than with a measure of psychological health-pathology. In this study, the CBCL Competence scale, which was a combined assessment of a child's social, school, and activities functioning by the parent or guardian, was held to be a rough equivalent to the object relations measure used by thera-

pists in the original Krohn study. The CBCL Problem Scale was, of course, held to be the equivalent of the Luborsky Health-Sickness Scale, which was used to measure psychopathology in the original Krohn study. Thus, following Krohn's model, the ORSD should have been more closely related to the Competence scales than to the Problem scales.

Methodological factors may explain the fact that the ORSD turned out to be, contrary to expectation, far more strongly correlated to the CBCL Problem Scale, than to the Competence Scale. It is quite likely that the original therapist assessment of object relational level of subjects used in the Krohn study bears very little relationship to the Achenbach Competence Scale. This leaves the possibility that had it been possible to obtain a clinically informed assessment of object relational level based on a clinician's experience of interacting with the subjects, this measure may have formed a stronger correlation with the ORSD scores than the CBCL Competence Scale did. An alternative explanation may have to do with the idea that the construct of object representation may have a somewhat different meaning for children than for adults.

As discussed in the literature review, L. Mack (1974) found disturbed boys to be developmentally less advanced than normals on a dream scale which measured psychosocial level of development based on Eriksonian principles. This measure was considered to be a quasi-object relational scale because the psychosocial levels involved prototypical object relational

experiences of childhood. It was therefore hypothesized, that since the DACOS was organized according to a developmental perspective rather than a pathology-health perspective, then following L. Mack's study, the more pathological children were predicted to achieve developmentally less advanced levels than the healthier children.

Conceptually, a fallacy in the construction of this hypothesis must be noted. That is, a developmental psychosocial scale was equated with a developmental object representation scale. In the former scale, the developmental sequence followed by the scale pertained to personality and social development, while in the latter scale, the developmental sequence underlying the scale pertained to the cognitive realm of development. They cannot be equated. The results obtained here suggest that girls with emotional problems do not necessarily have less developmentally advanced mental object representational schemata than emotionally healthy girls. Similarly, girls with less competent adaptive functioning, do not tend to have structurally more immature object representations than girls with more competent adaptive functioning.

## General Differences and Similarities Among Three Object Representation Scales

This study constitutes, in part, an exploratory effort to sketch out the nature of the object representation construct through a close look at the instruments which have

been developed to measure that construct. We have seen that the object representation construct as it is measured by the ORSD applied to reported dreams is related to our notions of psychological health or pathology in that girls who achieve better levels of object representation, demonstrate less pathological behaviors such as social problems, attention problems, delinquent and aggressive behaviors, and thought problems. We have seen that the object representation construct as it is measured by the MOAS applied to Rorschach responses is related to our notions of competent adaptive life functioning in that girls who achieve higher levels of object representation tend to be seen as functioning at higher levels in their life tasks (i.e. in the school performance and social realms).

In other words, these two scales, the MOAS and the ORSD, although both considered to be measures of the thematic or fantasy content aspect of the object representation, seem to measure very different aspects of object representation, and do not seem to be significantly correlated with each other. The DACOS, which, when applied to dream material, is significantly negatively correlated with academic measures of reading and math abilities (see Table 29), seems to measure a more structurally oriented aspect of the object representation construct which is a component of both the health-pathology and adaptive functioning aspect of the object representation construct.

As a last aside, an interesting characteristic of the

dream data is that the ORSD score for each child's first dream corresponded more closely to their LOR than to their mean or HOR scores. This would seem to suggest that although children may have pulled up their object representation level through the conscious effort to remember more dreams, the first dream which came to mind tended to be indicative of both the lower end of their repetoire of attainable representation levels, and of the possible presence of pathology.

## Limitations of This Study

### Collection of Dreams from Later Report Rather than Sleep Awakening

The method of dream collection is an important factor in any study about dream content. Foulkes (1982, p. 19) wrote that the collecting of dreams from REM, NREM, or sleep onset nocturnal sleep awakenings (in a sleep laboratory) is the only way to collect accurate, representative dream samples. He held that dreams remembered days or weeks later would represent a biased sampling of dreams, remembered, perhaps, because the subject awoke during or shortly after a dream due to some disturbing factor in the content of the dream or in sleep patterns or some other bodily function. In addition, one might assume that dreams recalled after some time would more likely be elaborated by conscious fantasy and distorted by imperfect memory or defensive ego

functioning than would sleep awakening dreams. Foulkes, in fact, did observe his dream samples to be less bizarre and disturbing than dream samples generally described in the clinical dream research literature (1982). The impossibility of collecting dreams from nocturnal sleep awakening clearly constitutes a limitation of this study.

This study, therefore, has been carried out under the assumption that the dream material collected is a mixture of unconscious sleep mentation with conscious fantasy elaboration or waking thought. Given that the study seeks to provide some way of rating dream material which is accessible to clinicians upon diagnostic examination, the use of "less accurate," "more biased," later remembered dreams can be justified.

## Dream or Fantasy?

The above discussion has described the dream collected from later conscious recall as a mixture of unconscious and conscious mentation. Actually, even if a dream is collected during nocturnal sleep awakening from REM sleep, i.e. immediately after the dream experience has occurred, the mere task of verbally telling the dream necessarily involves a translation of sensation and visual imagery into words, i.e. a conscious process of elaboration into which conscious fantasy or defensive censoring may intrude. Therefore, a "pure dream" report is impossible by definition. However, this study, as other dream studies, is limited by the ina-

bility to estimate the degree to which a "reported dream" stays faithful to the original dream experience, or departs into conscious fantasy. A further complicating factor results from the experimental situation in which a child is asked by an adult to retell several dreams. It is impossible to know whether the child may have made up a fantasy on the spot in order to comply with the interviewer's request.

Foulkes (1982) contended with this limitation by establishing a measure of "credibility" of dream reporting. He surmised that a credible reporter would be a child who had a relatively mature dream concept (as assessed by the Laurendeau-Pinard Concept of Dream test), and who was cooperative but not overly emotionally dependent on the experimenter (Foulkes, 1982, p. 52-53). Although he found visuospatial analytic skill (as assessed by the WISC-R Block Design Subtest) to be correlated with dream report credibility for children under the age of nine, this ceased to be true for older children.

An unforseen limitation of this study turned out to be the fact that although all subjects were at least nine years of age, the clinical subjects tended to be less cognitively mature than the nonclinical subjects in their visuospatial analytic skill as well as in their level of understanding of the dream concept. For those girls closer to the younger end of the age range, this may mean that their dream reports were in some cases, less credible than those of their nonclinical counterparts. It should be stated however, that

for children, cognitive immaturity and psychopathology are often intertwined, and therefore, the cognitive disparity is a realistic component of the contrast between the two populations.

## Cross-sectional Versus Longitudinal Study

Foulkes argued the advisability of the longitudinal research design for any study in the area of dreams. He stated "age and state related fluctuations in baseline measures of any dream characteristic will obscure cross-sectional results" (1982, p. 191).

The cross-sectional design of this study is a disadvantage, particularly in regard to the matter of state fluctuation. One must assume that a child's dream material is highly reactive to the day's events and mood shifts. Therefore, one would assume that a series of dream collection interviews spaced out over a significant period of time would have produced a sampling of dream data more characteristic of the underlying personality organization of each subject.

## The Confounding Variable of Treatment

In order to locate a sizeable sample of girls known to have exhibited psychopathological symptomatology, clinical subjects were recruited from mental health clinics. Therefore, although some of the clinical subjects were recruited from the public schools and had never been in therapy, most

of the clinical sample had undergone a period of psychotherapy. This constitutes a methodological limitation of the study because it is possible that any finding of a difference between the clinical and nonclinical group may be attributed to participation in therapy rather than to the greater degree of pathology in the clinical subjects. The major area in which this limitation affected interpretation of results was where for certain object representation scores, clinical subjects achieved higher levels than nonclinical subjects. In these cases, it was impossible to determine whether the higher levels of object representation (Articulation of the Concept of the Object) were related to pathology, or to time spent in therapy.

## Statistical Limitation

Another limitation of the study is that some of the regression analyses were performed on rather small sample sizes which limits the generalizability of the findings derived from those statistical procedures.

## Summary and Conclusions

This study attempted to validate the Krohn Object Representation Scale for Dreams (ORSD) for use on reported dreams of children. In addition, the study explored the relationships between this scale and two other scales of object representation, i.e. the Mutuality of Autonomy Scale (MOAS) and the Developmental Analysis of the Concept of the Object Scale (DACOS). The study was conducted on a sample of 52 girls, aged 9 to 11 years, recruited from public schools and mental health clinics situated in inner city neighborhoods.

Based on the findings obtained, and in consideration of the limitations discussed above, the following conclusions are tenable:

1) The ORSD appears to be a valid measure of object representation when used to rate the dream reports of preadolescent girls.

2) The validity of the ORSD is supported by the fact that clinical preadolescent girls (i.e. girls showing behavioral signs of emotional disturbance) generate significantly lower and more primitive levels of object representation as measured by the ORSD than their normal counterparts. (Lower level object representations tend to be more malevolent, more amorphous, more inconsistent, and less humanlike than higher level ones.) In particular, low ORSD scores tend to

be associated with the presence of social problems, thought problems, attentional problems, delinquent behavior, and aggressive behavior.

3) Clinical preadolescent girls generate significantly less differentiated object representations in their dream reports than their nonclinical counterparts when dreams are rated with the DACOS. (Less differentiated object representations tend to be less whole, less humanlike, more distorted and more fantastic than more differentiated ones.) Paradoxically, girls with more highly articulated object representations on Rorschach responses tended to have more social problems, more aggressive behavior, and less competent behaviors.

4) Contrary to expectation, there are no significant differences in the level of development or degree of disruption between the object representations generated in the Rorschachs of clinical versus nonclinical girls when rated by the DACOS or MOAS. The possibility is therefore suggested than object representations generated in dreams reflect a different aspect of object relations functioning than object representations generated in Rorschach productions.

5) Object representations generated by girls in their Rorschach responses and scored by the MOAS tend to be associated with social competence. The less disrupted and more advanced the Rorschach object representations are, the more

socially competent the girls tend to be and the less social problems then tend to have. By contrast, the ORSD ratings of object representations in dreams do not tap this social competence factor.

6) Some evidence for the convergent validity of the ORSD is provided by the finding that girls' ORSD scores significantly correlate with their DACOS dream scores.

7) Although girls' ORSD scores (based on dreams) are not significantly related to their MOAS scores (based on Rorschach responses), their MOAS scores are related to their DACOS scores (based on both dreams and Rorschach responses).

8) For the particular sample of girls in this study, the thematic ORSD when combined with the structural DACOS predicts somewhat more effectively to a measure of psychological health-pathology than either measure does when used alone. However, even together, these measures account for a relatively small 23% of the variation in health-pathology.

9) Interestingly, the more months a girl's mother has spent in psychotherapy, the higher the highest level of object representation that girl tends to achieve in her Rorschach responses (as measured by MOAS).

## Further Research

This study focused primarily on validating the ORSD by demonstrating its ability to predict to psychopathology. Future investigation of object representation scales should include measures of object relational functioning provided by significant observers who know the subjects such as teachers and parents. The development of a questionnaire to elicit such an assessment would be a valuable contribution.

This study was limited to a subject population of girls within the narrow age range of 9 to 11 years. An expansion of the sample to include boys would be useful. An eventual norming of the Krohn ORSD for children ranging in age from middle childhood through late adolescence would allow for the use of object representation assessment of dreams to be used as an effective diagnostic tool.

It would be important to further explore the relationship between object representation levels and the various components of adaptive functioning. For example, the possibility of a relationship between object representations and creative use of imagination, artistic talent, or creative problem solving ability might be investigated.

Object representation level derived from Rorschach protocols has been demonstrated to differentiate among various diagnostic categories for adults and for children. Can this use of object representation assessment for diagnostic purposes be extended to scores obtained from dream material as well? Certain correlations in this study suggested that

dream material might be useful in making particular diagnostic suggestions. For example, one subscale of the Blatt DACOS was highly correlated with sexual problems. Further exploration of the use of these scales with dream material in distinguishing different diagnostic groups is recommended.

It was suggested by the data that any child's first dream which came to mind when asked to remember several dreams, seemed to be indicative of both the lower end of their repetoire of attainable representation levels, and of the possible presence of pathology. It would seem to be worthwhile to test the validity of this notion.

The scales explored in this study would be useful tools for investigating the effects of therapy on the object representational world of children. This study had provided evidence that suggests that a child's ability to articulate her object representations verbally may increase as a result of therapy. The question of what constitutes therapeutic change is a major area of investigation. Information about whether changes in the object representational world are related to positive therapeutic movement for children would contribute valuable information to this investigation.

This study suggested the possibility that therapy for mothers may have had an effect on the object representation levels of their children. A study to confirm and expand this finding is recommended.

Further investigation is recommended to explore the

suggestion brought to light by this study that for children, Rorschach data tap different aspects of the self than manifest dream material.

Table 1

Multivariate Analysis of Variance of Achenbach Child Behavior Checklist T Scores (CBCL) for Problem Scales and Competence Scales by Groups (School versus Mental Health Clinic)

Cell Means

| Achenbach CBCL Scales | Group | | | |
|---|---|---|---|---|
| | Mental Health Clinic Subjects (N=26) | | School Subjects (N=26) | |
| | M | SD | M | SD |
| Problem Scale I Withdrawn | 64.3 | 8.6 | 58.2 | 6.0 |
| Problem Scale II Somatic Complaints | 59.0 | 7.5 | 56.6 | 7.6 |
| Problem Scale III Anxious/Depressed | 63.2 | 6.9 | 57.2 | 7.3 |
| Problem Scale IV Social Problems | 67.6 | 11.5 | 58.6 | 8.3 |
| Problem Scale V Thought Problems | 61.9 | 8.1 | 55.5 | 5.8 |
| Problem Scale VI Attention Problems | 69.5 | 12.7 | 58.0 | 7.4 |
| Problem Scale VII Delinquent Behavior | 66.8 | 8.3 | 57.0 | 7.5 |
| Problem Scale VIII Aggressive Behavior | 67.9 | 13.4 | 57.7 | 7.3 |
| Problem Scale IX Sex Problems | 59.2 | 10.1 | 52.7 | 5.6 |
| Problem Scale - Internalization | 64.3 | 7.3 | 56.4 | 9.7 |
| Problem Scale - Externalization | 67.4 | 10.5 | 56.6 | 9.3 |
| Total Problem Score | 68.3 | 8.9 | 57.3 | 9.7 |
| Competence Scale - Activities | 46.5 | 6.2 | 48.7 | 5.7 |
| Competence Scale - Social | 41.4 | 8.6 | 47.0 | 6.8 |
| Competence Scale - School | 34.3 | 7.9 | 44.0 | 6.6 |
| Total Competence Score | 39.3 | 6.7 | 47.3 | 6.8 |

Multivariate Tests

| Pillais Statistic | F | df | p |
|---|---|---|---|
| 0.86 | 3.64 | 32 and 19 | .002 |

Table 1 (continued)

Multivariate Analysis of Variance of Achenbach Child Behavior Checklist T Scores (CBCL) for Problem Scales and Competence Scales by Groups (School versus Mental Health Clinic)

Univariate Tests

| Achenbach CBCL Scales | F (df=1,50) | p |
|---|---|---|
| Problem Scale I Withdrawn | 8.85 | .004 |
| Problem Scale II Somatic Complaints | 1.34 | .252 |
| Problem Scale III Anxious/Depressed | 9.30 | .004 |
| Problem Scale IV Social Problems | 10.53 | .002 |
| Problem Scale V Thought Problems | 10.70 | .002 |
| Problem Scale VI Attention Problems | 15.75 | .000 |
| Problem Scale VII Delinquent Behavior | 19.81 | .000 |
| Problem Scale VIII Aggressive Behavior | 11.81 | .001 |
| Problem Scale IX Sex Problems | 8.17 | .006 |
| Problem Scale - Internalization | 11.12 | .002 |
| Problem Scale - Externalization | 15.28 | .000 |
| Total Problem Score | 18.37 | .000 |
| | | |
| Competence Scale - Activities | 1.76 | .190 |
| Competence Scale - Social | 6.83 | .012 |
| Competence Scale - School | 22.86 | .000 |
| Total Competence Score | 18.34 | .000 |

Table 2

Distribution of Achenbach CBCL Normal - Pathological Scores for Subjects from Schools versus Subjects from Mental Health Clinics

| Achenbach CBCL Scales | Group | | | | | |
|---|---|---|---|---|---|---|
| | School Subjects (N=26) | | | Mental Health Clinic Subjects (N=26) | | |
| | Normal | Borderline | Pathological | Normal | Borderline | Pathological |
| Problem Scale I - Withdrawn | 26=100% | 0 | 0 | 13=50% | 9=35% | 4=15% |
| Problem Scale II - Somatic Complaints | 23=88% | 2=8% | 1=4% | 20=77% | 4=15% | 2=08% |
| Problem Scale III - Anxious/Depressed | 22=85% | 3=12% | 1=4% | 17=65% | 6=23% | 3=12% |
| Problem Scale IV - Social Problems | 23=88% | 1=4% | 2=8% | 12=46% | 3=12% | 11=42% |
| Problem Scale V - Thought Problems | 25=96% | 1=4% | 0 | 17=65% | 7=27% | 2=08% |
| Problem Scale VI - Attention Problems | 22=85% | 3=12% | 1=4% | 10=38% | 5=19% | 11=42% |
| Problem Scale VII - Delinquent Behavior | 21=81% | 4=15% | 1=4% | 11=42% | 3=12% | 12=46% |
| Problem Scale VIII - Aggressive Behavior | 21=81% | 3=12% | 2=8% | 12=46% | 7=27% | 7=27% |
| Problem Scale IX - Sex Problems | 26=100% | 0 | 0 | 20=77% | 3=12% | 3=12% |
| Problem Scale - Internalization | 16=62% | 4=15% | 6=23% | 7=27% | 5=19% | 14=54% |
| Problem Scale - Externalization | 17=65% | 4=15% | 5=19% | 7=27% | 2=08% | 17=65% |
| **Total Problem Score** | **13=50%** | **5=19%** | **8=31%** | **4=15%** | **3=12%** | **19=73%** |
| Competence Scale - Activities | 26=100% | 0 | 0 | 25=96% | 0 | 1=04% |
| Competence Scale - Social | 25=96% | 1=4% | 0 | 22=85% | 1=04% | 3=12% |
| Competence Scale - School | 24=92% | 2=8% | 0 | 12=46% | 6=23% | 8=31% |
| **Total Competence Score** | **21=81%** | **5=19%** | **0** | **11=42%** | **7=27%** | **8=31%** |

Table 3

Crosstabulation of Laurendeau-Pinard Concept of Dream Scale Score by Substage and by Stage

| Variable | Value | Group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Clinical | | Non-clinical | | | |
| | | n | % | n | % | Chi-Square | p* |
| Concept of Dream Substage | Stage 1 | 0 | 0 | 0 | 0 | | |
| | Stage 2A | 0 | 0 | 0 | 0 | | |
| | Stage 2B | 4 | 14.8 | 1 | 4.2 | 8.88[b] | 0.031 |
| | Stage 2C | 2 | 7.4 | 3 | 12.5 | | |
| | Stage 3A | 10 | 37.0 | 2 | 8.3 | | |
| | Stage 3B | 11 | 40.7 | 18 | 75.0 | | |
| Concept of Dream Stage | Stage 1 | 0 | 0 | 0 | 0 | | |
| | Stage 2 | 6 | 22.2 | 4 | 16.7 | 0.25 | 0.617 |
| | Stage 3 | 21 | 77.8 | 20 | 83.3 | | |

*Two-tailed probability
[b]4 of 8 (50%) of cells had expected frequency < 5

Table 4

Independent Sample t-Test Comparing Clinical and Non-Clinical Groups on Interval Scale Background and Demographic Variables

| Variable | Group | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Clinical | | | Non-Clinical | | | | |
| | n | M | SD | n | M | SD | t | p[a] |
| Age (months) | 27 | 123.2 | 11.5 | 24 | 125.2 | 10.9 | -0.64 | .523 |
| Number of Adults Living in the Home[b] | 27 | 1.9 | 0.7 | 24 | 2.0 | 1.3 | -0.11 | .913 |
| Years with Foster Guardian | 12 | 5.2 | 2.5 | 4 | 6.3 | 4.4 | -0.62 | .546 |
| Number of Adult Relatives Involved with Child[b] | 27 | 2.3 | 2.1 | 24 | 1.9 | 1.8 | 0.76 | .452 |
| Number of Adult Non-Relatives Involved with Child[b] | 27 | 0.3 | 0.6 | 24 | 0.6 | 1.0 | -1.30 | .203 |
| Total Number of Children in Subject's Home | 27 | 3.4 | 2.0 | 24 | 3.6 | 2.5 | -0.22 | .828 |
| Total number of Children Raised by Guardian | 26 | 4.5 | 2.7 | 24 | 4.2 | 2.9 | 0.41 | .681 |
| Number of Adults Living in the Home[c] | 27 | 1.9 | 0.6 | 24 | 1.8 | 0.9 | 0.29 | .775 |
| Occupational Level of Guardian[d] | 27 | 1.4 | 1.2 | 24 | 3.4 | 2.2 | -4.03 | .000 |
| Former Occupational Level of Guardian[d] | 27 | 2.7 | 2.0 | 24 | 3.5 | 2.1 | -1.32 | .194 |
| Occupational Level of Other Parent Figure in the Home[d] | 20 | 2.4 | 1.7 | 15 | 3.2 | 1.6 | -1.40 | .173 |
| Former Occupational Level of Other Parent Figure in the Home[d] | 20 | 2.6 | 1.8 | 14 | 3.4 | 1.5 | -1.43 | .162 |

[a]Two-tailed probability
[b]By child's report
[c]By parent report
[d]Hollingshead categories

Table 4 (continued)

Independent Sample t-Test Comparing Clinical and Non-Clinical Groups on Interval Scale Background and Demographic Variables

| Variable | Group | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Clinical | | | Non-Clinical | | | | |
| | n | M | SD | n | M | SD | t | p[a] |
| Educational Level of Guardian[d] | 27 | 3.5 | 1.3 | 24 | 4.2 | 1.0 | -2.14 | .037 |
| Years of School of Other Parent Figure | 17 | 9.8 | 3.2 | 14 | 11.3 | 2.5 | -1.38 | .179 |
| Number of Adult Relatives Involved with Child[c] | 27 | 1.9 | 1.3 | 24 | 2.4 | 2.4 | -0.89 | .379 |
| Number of Adult Non-Relatives Involved with Child[c] | 27 | 0.8 | 1.3 | 24 | 0.6 | 0.8 | 0.75 | .455 |
| Guardian: Months in Therapy | 27 | 11.2 | 17.6 | 24 | 2.8 | 8.0 | 2.22 | .033 |
| Subject: Months in Therapy | 27 | 17.6 | 18.9 | 24 | 6.8 | 13.8 | 2.32 | .025 |
| Hollingshead 4-Factor Socio-Economic Status | 27 | 22.3 | 12.4 | 24 | 30.5 | 10.8 | -2.52 | .015 |
| Age of Guardian (months) | 27 | 500.2 | 161.3 | 24 | 470.2 | 116.6 | 0.75 | .455 |
| WISC-R Block Design Subtest | 27 | 8.1 | 2.3 | 24 | 9.7 | 2.6 | -2.30 | .024 |

[a]Two-tailed probability
[c]By parent report
[d]Hollingshead categories

Table 5

Crosstabulations of Categorical Background Variables by Group (Clinical versus Non-Clinical)

| Variable | Value | Group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Clinical | | Non-Clinical | | | |
| | | n | % | n | % | Chi-Square | p[a] |
| Grade in School | 2 | 1 | 3.7 | 0 | 0.0 | | |
| | 3 | 8 | 29.6 | 4 | 16.7 | | |
| | 4 | 4 | 14.8 | 8 | 33.3 | 5.36 | .373 |
| | 5 | 9 | 33.3 | 10 | 41.7 | | |
| | 6 | 4 | 14.8 | 1 | 4.2 | | |
| | 7 | 1 | 3.7 | 1 | 4.2 | | |
| Academic Performance by Self Report[b] | Below Average | 2 | 8.3 | 1 | 4.3 | | |
| | Average | 13 | 54.2 | 9 | 39.1 | 1.77 | .413 |
| | Above Average | 9 | 37.5 | 13 | 56.5 | | |
| Subject has Best Friend[b] | No | 3 | 11.1 | 0 | 0.0 | | .238[d] |
| | Yes | 24 | 88.9 | 24 | 100.0 | | |
| Subject has Group of Friends[b] | No | 6 | 22.2 | 3 | 12.5 | | .473[d] |
| | Yes | 21 | 77.8 | 21 | 87.5 | | |
| Subject has Extra-Curricular Activities[b] | No | 10 | 37.0 | 7 | 29.2 | 0.35 | .552 |
| | Yes | 17 | 63.0 | 17 | 70.8 | | |

[a]Two-tailed probability [b]By child's report
[d]Fisher Exact probability

Table 5 (continued)

Crosstabulations of Categorical Background Variables by Group (Clinical versus Non-Clinical)

| Variable | Value | Group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Clinical | | Non-Clinical | | | |
| | | n | % | n | % | Chi-Square | p[a] |
| Type of Guardian | Mother and Father | 11 | 40.7 | 12 | 50.0 | | |
| | Mother Only | 7 | 25.9 | 9 | 37.0 | 3.13 | 0.209 |
| | Foster Parent[e] | 9 | 33.3 | 3 | 12.5 | | |
| Other Adults Involved with Child[b] | No | 3 | 11.1 | 2 | 8.3 | | 1.000[d] |
| | Yes | 24 | 88.9 | 22 | 91.7 | | |
| Child's Birth Order | Only Child | 4 | 14.8 | 4 | 16.7 | | |
| | Oldest Child | 10 | 37.0 | 5 | 20.8 | | |
| | Middle Child | 10 | 37.0 | 10 | 41.7 | 2.64 | 0.619 |
| | Youngest Child | 3 | 11.1 | 4 | 16.7 | | |
| | Only Twins | 0 | 0.0 | 1 | 4.2 | | |
| Marital Status of Guardian | Single | 3 | 11.1 | 3 | 12.5 | | |
| | Married | 12 | 44.4 | 13 | 54.2 | | |
| | Divorced | 4 | 14.8 | 6 | 25.0 | 4.95 | 0.293 |
| | Separated | 4 | 14.8 | 0 | 0.0 | | |
| | Widowed | 4 | 14.8 | 2 | 8.3 | | |

[a]Two-tailed probability
[b]By child's report
[d]Fisher Exact probability
[e]Relative = 11, Non-Relative = 1

Table 5 (continued)

Crosstabulations of Categorical Background Variables by Group (Clinical versus Non-Clinical)

| Variable | Value | Group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Clinical | | Non-Clinical | | | |
| | | n | % | n | % | Chi-Square | p* |
| Total Family Income | $1000 - 5000 | 3 | 11.1 | 2 | 8.3 | | |
| | $6000 - 9000 | 10 | 37.0 | 1 | 4.2 | | |
| | $10,000 - 20,000 | 8 | 29.6 | 12 | 50.0 | 8.82 | .032 |
| | $20,000 | 6 | 22.2 | 9 | 37.5 | | |
| Religion of Guardian | Baptist | 13 | 48.1 | 9 | 37.5 | | |
| | Protestant | 3 | 11.1 | 2 | 8.3 | | |
| | Catholic | 8 | 29.6 | 8 | 33.3 | | |
| | Lutheran | 1 | 3.7 | 0 | 0.0 | | |
| | Methodist | 1 | 3.7 | 0 | 0.0 | 6.11 | .635 |
| | Born Again | 0 | 0.0 | 1 | 4.2 | | |
| | Pentecostal | 1 | 3.7 | 2 | 8.3 | | |
| | Anglican | 0 | 0.0 | 1 | 4.2 | | |
| | None | 0 | 0.0 | 1 | 4.2 | | |

*Two-tailed probability

Table 5 (continued)

Crosstabulations of Categorical Background Variables by Group (Clinical versus Non-Clinical)

| Variable | Value | Group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Clinical | | Non-Clinical | | | |
| | | n | % | n | % | Chi-Square | p* |
| Ethnic Identity of Guardian and Subject | Hispanic | 8 | 29.6 | 7 | 29.2 | 0.02 | .999 |
| | Afro-American | 16 | 59.3 | 14 | 58.3 | | |
| | White | 2 | 7.4 | 2 | 8.3 | | |
| | Hispanic Mixed | 1 | 3.7 | 1 | 4.2 | | |
| Second Parent Figure Living in Home Helping Raise Child | No | 10 | 37.0 | 10 | 41.7 | 0.11 | .735 |
| | Yes | 17 | 63.0 | 14 | 58.3 | | |
| Second Parent Figure: Relationship to Subject | Father | 10 | 58.8 | 13 | 92.9 | 4.95 | .176 |
| | Grandfather | 2 | 11.8 | 0 | 0.0 | | |
| | Aunt | 4 | 23.5 | 1 | 7.1 | | |
| | Hired Helper | 1 | 5.9 | 0 | 0.0 | | |
| Financial Support from (Ex-) Parent Figure | No | 12 | 44.4 | 8 | 33.3 | 0.66 | .417 |
| | Yes | 15 | 55.6 | 16 | 66.7 | | |

*Two-tailed probability

Table 5 (continued)

Crosstabulations of Categorical Background Variables by Group (Clinical versus Non-Clinical)

| Variable | Value | Group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Clinical | | Non-Clinical | | | |
| | | n | % | n | % | Chi-Square | p[a] |
| Other Adults Involved with Child[c] | No | 5 | 18.5 | 5 | 20.8 | 0.04 | .835 |
| | Yes | 22 | 81.5 | 19 | 79.2 | | |
| Subject Currently in Treatment | No | 8 | 29.6 | 18 | 75.0 | 10.47 | .001 |
| | Yes | 19 | 70.4 | 6 | 25.0 | | |
| Subject has Menses | No | 23 | 85.2 | 22 | 91.7 | 0.51 | .473 |
| | Yes | 4 | 14.8 | 2 | 8.3 | | |
| Subject in Special Education Class | No | 22 | 81.5 | 22 | 91.7 | 1.11 | .291 |
| | Yes | 5 | 18.5 | 2 | 8.3 | | |
| Subject Repeated at least One Grade | No | 18 | 66.7 | 18 | 75.0 | 0.43 | .514 |
| | Yes | 9 | 33.3 | 6 | 25.0 | | |

[a]Two-tailed probability
[c]By parent report

Table 6

Analysis of Covariance of Krohn ORSD Lowest Object Representation Score (LOR)* by Group (Clinical versus Non-Clinical) Controlling for Hollingshead Social Status Index (HSSI)

Cell Means

| Variable | Group | | | |
|---|---|---|---|---|
| | Clinical (N=27) | | Non-Clinical (N=23) | |
| | M | SD | M | SD |
| Krohn ORSD LOR | 2.74 | 1.3 | 3.91 | 1.4 |
| Hollingshead Social Status Index | 22.26 | 12.4 | 30.96 | 10.8 |

Regression Analysis of Variance

| Source | F | df | p |
|---|---|---|---|
| Covariate | 2.81 | 47 and 1 | .100 |
| Group | 2.14 | 47 and 1 | .001 |

*Based on dreams with inquiry

Table 6 (continued)

Analysis of Covariance of Krohn ORSD Mean Object Representation Score (MOR)* by Group (Clinical versus Non-Clinical) Controlling for Hollingshead Social Status Index (HSSI)

Cell Means

| Variable | Group | | | |
|---|---|---|---|---|
| | Clinical (N=27) | | Non-Clinical (N=23) | |
| | M | SD | M | SD |
| Krohn ORSD MOR | 3.87 | 1.1 | 5.00 | 0.9 |
| Hollingshead Social Status Index | 22.26 | 12.4 | 30.96 | 10.8 |

Regression Analysis of Variance

| Source | F | df | p |
|---|---|---|---|
| Covariate | 2.55 | 47 and 1 | .117 |
| Group | 17.64 | 47 and 1 | .000 |

*Based on dreams with inquiry

Table 7

Multivariate Analysis of Covariance of Selected Object Representation Measures by Group (Clinical versus Non-Clinical) Controlling for WISC-R Block Design Subtest[a]

Cell Means

| Variable | Group | | | |
|---|---|---|---|---|
| | Clinical (N=27) | | Non-Clinical (N=23) | |
| | M | SD | M | SD |
| Urist MOAS LOR | 4.4 | 1.6 | 4.4 | 1.5 |
| Urist MOAS HOR[b] | 2.0 | 1.2 | 1.6 | 0.8 |
| Urist MOAS MOR | 3.1 | 1.1 | 2.8 | 0.9 |
| Krohn ORSD Dream 1 | 3.5 | 1.6 | 5.2 | 1.0 |
| Krohn ORSD LOR | 2.7 | 1.3 | 3.9 | 1.4 |
| Krohn ORSD MOR | 3.8 | 1.1 | 4.9 | 0.9 |
| Blatt DACOS Dream Articulation | 3.2 | 0.8 | 2.9 | 0.7 |
| Blatt DACOS Dream Differentiation | 3.8 | 0.2 | 3.9 | 0.1 |
| Blatt DACOS Dream Mean Developmental Level | 0.0 | 0.4 | 0.1 | 0.5 |
| WISC-R Block Design[a] | 8.1 | 2.3 | 9.9 | 2.4 |

Multivariate Tests

| Source | Pillais | F | df | p |
|---|---|---|---|---|
| Covariate | 0.055 | 0.22 | 10 and 38 | .992 |
| Group | 0.339 | 1.95 | 10 and 38 | .068 |

Univariate Tests

| Variable | Covariate (df=1,47) | | Group (df=1,47) | |
|---|---|---|---|---|
| | F | p | F | p |
| Urist MAOS LOR | 0.31 | .578 | 0.03 | .857 |
| Urist MOAS HOR[b] | 0.01 | .917 | 1.56 | .218 |
| Urist MOAS MOR | 0.24 | .627 | 0.79 | .377 |
| Krohn ORSD Dream 1 | 0.24 | .630 | 15.21 | .000 |
| Krohn ORSD LOR | 0.76 | .387 | 10.05 | .003 |
| Krohn ORSD MOR | 0.13 | .716 | 13.12 | .001 |
| Blatt DACOS Dream Articulation | 0.09 | .759 | 1.35 | .251 |
| Blatt DACOS Dream Differentiation | 0.06 | .813 | 5.86 | .019 |
| Blatt DACOS Mean Developmental Level | 0.03 | .865 | 0.74 | .393 |

[a]Scaled scores [b]HOR = Highest Object Representation Score

Table 7 (continued)

Multivariate Analysis of Covariance of Selected Object Representation Measures by Group (Clinical versus Non-Clinical) Controlling for WISC-R Block Design Subtest*

Cell Means

| Variable | Group | | | |
|---|---|---|---|---|
| | Clinical (N=25) | | Non-Clinical (N=23) | |
| | M | SD | M | SD |
| Blatt DACOS Rorschach F+ Mean Developmental Level | 0.05 | 0.5 | -0.07 | 0.4 |
| Blatt DACOS Rorschach F+ Articulation | 3.25 | 1.9 | 2.49 | 1.3 |
| WISC-R Block Design* | 8.20 | 2.4 | 9.83 | 2.6 |

Multivariate Tests

| Source | Pillais | F | df | p |
|---|---|---|---|---|
| Covariate | 0.073 | 1.73 | 2 and 44 | 0.189 |
| Group | 0.050 | 1.16 | 2 and 44 | 0.322 |

Univariate Tests

| Variable | Covariate (df=1,45) | | Group (df=1,45) | |
|---|---|---|---|---|
| | F | p | F | p |
| Blatt DACOS Rorschach F+ Mean Developmental Level | 3.18 | 0.081 | 0.14 | .706 |
| Blatt DACOS Rorschach F+ Articulation | 0.01 | 0.904 | 2.38 | .130 |

*Scaled scores

Table 7a

Comparison of Significance of Selected Object Representation Measures in Predicting to Group Membership (Clinical versus Non-Clinical) Before and After Controlling for WISC-R Block Design Subtest[a]

| Variable | Controlling for WISC-R Block Design Subtest | | | |
|---|---|---|---|---|
| | Before | | After | |
| | F | p | F | p |
| Urist MOAS HOR | 1.84 | .181 | 1.56 | .218 |
| Urist MOAS MOR | 1.66 | .204 | 0.79 | .377 |
| Urist MOAS LOR | 0.06 | .803 | 0.03 | .857 |
| Krohn ORSD Dream 1 | - | - | 15.21 | .000 |
| Krohn ORSD LOR | 9.42 | .004 | 10.05 | .003 |
| Krohn ORSD MOR[c] | 14.25 | .000 | 13.12 | .001 |
| Blatt DACOS Rorschach F+ Articulation Score[b] | 2.57 | .116 | 2.38 | .130 |
| Blatt DACOS Rorschach F+ Mean Developmental Level[b] | 1.73 | .213 | 0.14 | .706 |
| Blatt DACOS Dream Differentiation Score | 7.37 | .009 | 5.86 | .019 |
| Blatt DACOS Dream Mean Developmental Level | 0.75 | .390 | 0.74 | .393 |

[a]N = 50 unless otherwise noted
[b]N = 48
[c]Based on dreams with inquiry

Table 8

Multivariate Analysis of Variance of Krohn Object Representation for Dreams (ORSD) by Group (School versus Mental Health Clinic)

Cell Means

| Variable | Group | | | |
|---|---|---|---|---|
| | Clinical (N=27) | | Non-Clinical (N=23) | |
| | M | SD | M | SD |
| Krohn ORSD LOR | 2.7 | 1.3 | 3.9 | 1.4 |
| Krohn ORSD LOR* | 2.7 | 1.3 | 3.9 | 1.4 |
| Krohn ORSD HOR | 5.1 | 1.4 | 6.0 | 0.7 |
| Krohn ORSD HOR* | 5.2 | 1.5 | 6.1 | 0.6 |
| Krohn ORSD MOR | 3.8 | 1.1 | 4.9 | 0.9 |

Multivariate Tests

| Pillais Statistic | F | df | p |
|---|---|---|---|
| 0.24 | 2.76 | 5 and 44 | .030 |

Univariate Tests

| Variable | F (df=1,48) | p | $\omega^{2\bullet\bullet}$ | $\omega^{\bullet}$ |
|---|---|---|---|---|
| Krohn ORSD LOR | 9.42 | .004 | .14 | .38 |
| Krohn ORSD LOR* | 9.20 | .004 | .14 | .38 |
| Krohn ORSD HOR | 7.63 | .008 | .12 | .34 |
| Krohn ORSD HOR* | 6.70 | .013 | .10 | .32 |
| Krohn ORSD MOR | 14.25 | .000 | .24 | .49 |

*Based on dreams with inquiry
•Omega; approximate correlation estimate
••Omega square

Table 9

Multivariate Analysis of Variance of Urist Mutuality of Autonomy Scale (MOAS) by Group

Cell Means

| Variable | Group | | | |
|---|---|---|---|---|
| | Clinical (N=27) | | Non-Clinical (N=24) | |
| | M | SD | M | SD |
| MOAS LOR | 4.4 | 1.6 | 4.3 | 1.5 |
| MOAS HOR | 2.0 | 1.2 | 1.6 | 0.8 |
| MOAS MOR | 3.1 | 1.1 | 2.8 | 0.9 |

Multivariate Tests

| Pillais Statistic | F | df | p |
|---|---|---|---|
| 0.06 | 1.03 | 3 and 47 | .386 |

Univariate Tests

| Variable | F (df=1,49) | p |
|---|---|---|
| MOAS LOR | 0.06 | .803 |
| MOAS HOR | 1.84 | .181 |
| MOAS MOR | 1.66 | .204 |

Table 10

Multivariate Analysis of Variance of Blatt Developmental Analysis of the Concept of the Object Scale (DACOS) Applied to the Dream by Group

Cell Means

| Variable | Group | | | |
|---|---|---|---|---|
| | Clinical (N=27) | | Non-Clinical (N=23) | |
| | M | SD | M | SD |
| DACOS - Dream Differentiation | 3.8 | 0.2 | 3.9 | 0.1 |
| DACOS - Dream Articulation | 3.2 | 0.8 | 2.9 | 0.7 |
| DACOS - Dream Motivation of Action | 2.3 | 0.5 | 2.2 | 0.4 |
| DACOS - Dream Integration of Action | 3.0 | 0.2 | 3.0 | 0.2 |
| DACOS - Dream Interaction with Object | 2.5 | 0.2 | 2.6 | 0.3 |
| DACOS - Dream Content of Interaction | 1.3 | 0.3 | 1.4 | 0.3 |

Multivariate Tests

| Pillais Statistic | F | df | p |
|---|---|---|---|
| 0.24 | 2.22 | 6 and 43 | .059 |

Univariate Tests

| Variable | F (df=1,48) | p | $\omega^{2\cdot\cdot}$ | $\omega^{\cdot}$ |
|---|---|---|---|---|
| DACOS - Dream Differentiation | 7.37 | .009 | 0.11 | 0.34 |
| DACOS - Dream Articulation | 1.90 | .175 | 0.02 | 0.13 |
| DACOS - Dream Motivation of Action | 0.43 | .514 | 0.00 | 0.00 |
| DACOS - Dream Integration of Action | 0.38 | .541 | 0.00 | 0.00 |
| DACOS - Dream Interaction with Object | 0.53 | .469 | 0.01 | 0.10 |
| DACOS - Dream Content of Interaction | 3.01 | .089 | 0.04 | 0.20 |

$^{\cdot}$Omega; approximate correlation estimate
$^{\cdot\cdot}$Omega square

Table 11

Multivariate Analysis of Variance of Blatt Developmental Analysis of the Concept of the Object Scale on the Rorschach (DACOS Rorschach) for Good Form Level Responses (F+) by Group

Cell Means

| Variable | Group | | | |
|---|---|---|---|---|
| | Clinical (N=25) | | Non-Clinical (N=23) | |
| | M | SD | M | SD |
| DACOS Rorschach F+ Differentiation | 3.3 | 0.4 | 3.2 | 0.6 |
| DACOS Rorschach F+ Articulation | 3.2 | 1.9 | 2.5 | 1.3 |
| DACOS Rorschach F+ Motivation of Action | 1.7 | 0.7 | 1.6 | 0.7 |
| DACOS Rorschach F+ Integration of Action | 2.8 | 0.4 | 2.8 | 0.3 |
| DACOS Rorschach F+ Interaction with Object | 2.8 | 0.4 | 2.9 | 0.3 |
| DACOS Rorschach F+ Content of Interaction | 1.8 | 0.3 | 1.7 | 0.4 |
| DACOS Rorschach F+ number scoreable responses | 3.4 | 1.2 | 3.6 | 1.7 |

Multivariate Tests

| Pillais Statistic | F | df | p |
|---|---|---|---|
| 0.08 | 0.42 | 8 and 39 | .901 |

Univariate Tests

| Variable | F (df=1,46) | p |
|---|---|---|
| DACOS Rorschach F+ Differentiation | 0.23 | .636 |
| DACOS Rorschach F+ Articulation | 2.57 | .116 |
| DACOS Rorschach F+ Motivation of Action | 0.31 | .581 |
| DACOS Rorschach F+ Integration of Action | 0.05 | .822 |
| DACOS Rorschach F+ Interaction with Object | 0.58 | .449 |
| DACOS Rorschach F+ Content of Interaction | 0.34 | .565 |
| DACOS Rorschach F+ number scoreable responses | 0.23 | .635 |

Table 12

Multivariate Analysis of Variance of Blatt Developmental Analysis of the Concept of the Object Scale on the Rorschach (DACOS Rorschach) for Poor Form Level Responses (F-) by Group

Cell Means

| Variable | Group | | | |
|---|---|---|---|---|
| | Clinical (N=6) | | Non-Clinical (N=9) | |
| | M | SD | M | SD |
| DACOS Rorschach F- Differentiation | 3.2 | 0.5 | 2.9 | 0.6 |
| DACOS Rorschach F- Articulation | 3.1 | 1.4 | 3.3 | 2.4 |
| DACOS Rorschach F- Motivation of Action | 1.5 | 0.8 | 2.0 | 1.0 |
| DACOS Rorschach F- Integration of Action | 2.3 | 0.5 | 3.0 | 0.8 |
| DACOS Rorschach F- Interaction with Object | 1.7 | 0.8 | 2.1 | 1.0 |
| DACOS Rorschach F- Content of Interaction | 1.4 | 0.5 | 1.3 | 0.4 |
| DACOS Rorschach F- number scoreable responses | 2.3 | 1.0 | 1.7 | 0.7 |

Multivariate Tests

| Pillais Statistic | F | df | p |
|---|---|---|---|
| 0.48 | 0.71 | 8 and 6 | .684 |

Univariate Tests

| Variable | F (df=1,13) | p |
|---|---|---|
| DACOS Rorschach F- Differentiation | 0.74 | .405 |
| DACOS Rorschach F- Articulation | 0.03 | .875 |
| DACOS Rorschach F- Motivation of Action | 1.06 | .321 |
| DACOS Rorschach F- Integration of Action | 3.57 | .082 |
| DACOS Rorschach F- Interaction with Object | 0.67 | .428 |
| DACOS Rorschach F- Content of Interaction | 0.33 | .577 |
| DACOS Rorschach F- number scoreable responses | 2.23 | .159 |

Table 13

Multivariate Analysis of Variance of Blatt Developmental Analysis of the Concept of the Object to the Dream (DACOS Dream) Mean Developmental Level by Group

Cell Means

| Variable | Group | | | |
|---|---|---|---|---|
| | Clinical (N=27) | | Non-Clinical (N=23) | |
| | M | SD | M | SD |
| DACOS Dream Mean Developmental Level | -0.0 | 0.4 | 0.1 | 0.5 |
| Child Adapted Blatt DACOS Dream Mean Developmental Level | 0.0 | 0.4 | 0.0 | 0.6 |

Multivariate Tests

| Pillais Statistic | F | df | p |
|---|---|---|---|
| 0.06 | 1.40 | 2 and 47 | .256 |

Univariate Tests

| Variable | F (df=1,48) | p |
|---|---|---|
| DACOS Dream Mean Developmental Level | 0.75 | .390 |
| Child Adapted Blatt DACOS Dream Mean Developmental Level | 0.01 | .910 |

Table 14

Multivariate Analysis of Variance of Blatt Developmental Analysis of the Concept of the Object Scale on the Rorschach (DACOS Rorschach) Mean Developmental Level (for F+ and F- Responses) by Group

Cell Means

| Variable | Group | | | |
|---|---|---|---|---|
| | Clinical (N=6) | | Non-Clinical (N=8) | |
| | M | SD | M | SD |
| DACOS Rorschach F+ Mean Developmental Level | -0.4 | 0.2 | -0.1 | 0.5 |
| DACOS Rorschach F- Mean Developmental Level | -0.2 | 0.4 | 0.2 | 0.5 |

Multivariate Tests

| Pillais Statistic | F | df | p |
|---|---|---|---|
| 0.17 | 1.11 | 2 and 11 | .363 |

Univariate Tests

| Variable | F (df=1,12) | p |
|---|---|---|
| DACOS Rorschach F+ Mean Developmental Level | 1.73 | .213 |
| DACOS Rorschach F- Mean Developmental Level | 1.79 | .206 |

Table 15

Correlation Between Achenbach CBCL Total Problem and Total Competence Scores and Social Competence Score and Selected Blatt DACOS and Krohn ORSD Scores[c]

| Object Representation Measure | Correlation with: Achenbach CBCL Total Problem Score[b] | | Achenbach CBCL Total Competence Score[b] | | Achenbach CBCL Social Competence Score[b] | |
|---|---|---|---|---|---|---|
| | r | p[a] | r | p[a] | r | p[a] |
| Blatt DACOS Dream Differentiation | -.26 | .036 | .01 | .485 | .07 | .319 |
| Blatt DACOS Dream Mean Developmental Level | -.02 | .444 | -.05 | .374 | -.16 | .130 |
| Blatt DACOS Rorschach F+ Mean Developmental Level | -.20 | .088 | -.14 | .166 | -.20 | .083 |
| Krohn ORSD HOR | -.25 | .038 | .24 | .048 | .10 | .252 |
| Krohn ORSD LOR | -.35 | .007 | .09 | .259 | .16 | .128 |
| Krohn ORSD MOR | -.34 | .008 | .18 | .104 | .15 | .153 |

[a]One-tailed probability
[b]T scores
[c]N = 50

Table 16

Correlation Between Selected Krohn Object Representation Scale for Dreams (ORSD) Scores and Selected Urist Mutuality of Autonomy Scale (MOAS) Scores[b]

| Urist MOAS Scores | Correlation with Krohn ORSD Scores: | | | | | |
|---|---|---|---|---|---|---|
| | ORSD LOR | | ORSD HOR | | ORSD MOR | |
| | r | p[a] | r | p[a] | r | p[a] |
| MOAS LOR | -.17 | .113 | -.07 | .309 | -.17 | .124 |
| MOAS HOR | -.14 | .172 | -.11 | .218 | -.17 | .114 |
| MOAS MOR | -.22 | .066 | -.13 | .188 | -.24 | .044 |

[a]One-tailed probability
[b]N = 50

Table 16a

Correlation Between Selected Krohn Object Representation Scale for Dreams (ORSD) Scores and Selected Urist Mutuality of Autonomy Scale (MOAS) Scores[b]

| Urist MOAS Scores | Correlation with Krohn ORSD Scores: | | | | | |
|---|---|---|---|---|---|---|
| | ORSD LOR[c] | | ORSD HOR[c] | | ORSD MOR[c] | |
| | r | p[a] | r | p[a] | r | p[a] |
| MOAS LOR | -.21 | .073 | -.11 | .217 | -.20 | .080 |
| MOAS HOR | -.14 | .174 | -.13 | .180 | -.19 | .090 |
| MOAS MOR | -.24 | .044 | -.15 | .145 | -.28 | .024 |

[a]One-tailed probability
[b]N = 50
[c]Based on dreams with inquiry

Table 17

Correlation Between Selected Krohn Object Representation Scale for Dreams (ORSD) Scores and Selected Blatt Developmental Analysis of the Concept of the Object Scale (DACOS) Scores[b]

| DACOS Scores | Correlation with ORSD Scores: | | | | | |
|---|---|---|---|---|---|---|
| | ORSD LOR | | ORSD HOR | | ORSD MOR | |
| | r | p[a] | r | p[a] | r | p[a] |
| DACOS Dream Mean Developmental Level | .52 | .000 | .32 | .012 | .58 | .000 |
| DACOS Dream Differentiation Score | .55 | .000 | .18 | .100 | .56 | .000 |
| DACOS Dream Articulation Score | .05 | .367 | .08 | .295 | .07 | .321 |
| DACOS Rorschach F+ Mean Developmental Level[c] | .24 | .050 | .03 | .430 | .21 | .072 |
| DACOS Rorschach F- Mean Developmental Level[d] | .22 | .211 | .47 | .039 | .34 | .107 |
| DACOS Rorschach F+ Differentiation Score | .14 | .174 | -.04 | .383 | .09 | .266 |
| DACOS Rorschach F+ Articulation Score | -.01 | .473 | -.04 | .396 | -.01 | .466 |

[a]One-tailed probability
[b]N = 50 unless otherwise specified
[c]N = 47
[d]N = 15

Table 18

Correlation Between Selected Urist Mutuality of Autonomy Scale (MOAS) Scores and Selected Blatt Developmental Analysis of the Concept of the Object Scale (DACOS) Scores[b]

| DACOS Scores | Correlation with MOAS Scores: | | | | | |
|---|---|---|---|---|---|---|
| | MOAS LOR | | MOAS HOR | | MOAS MOR | |
| | r | p[a] | r | p[a] | r | p[a] |
| DACOS Dream Mean Developmental Level | -.14 | .160 | -.08 | .283 | -.11 | .224 |
| DACOS Dream Differentiation Score | -.05 | .367 | -.36 | .005 | -.30 | .018 |
| DACOS Dream Articulation Score | -.03 | .411 | .14 | .163 | .11 | .224 |
| DACOS Rorschach F+ Mean Developmental Level[c] | -.36 | .006 | .07 | .316 | -.15 | .148 |
| DACOS Rorschach F- Mean Developmental Level[d] | -.59 | .010 | -.19 | .249 | -.46 | .042 |
| DACOS Rorschach F+ Differentiation Score[e] | -.24 | .048 | -.07 | .312 | -.16 | .130 |
| DACOS Rorschach F+ Articulation Score[e] | .31 | .015 | .50 | .000 | .51 | .000 |

[a]One-tailed probability
[b]N = 50 unless otherwise specified
[c]N = 48
[d]N = 15
[e]N = 51

Table 19

Regression of Achenbach Total Competence Score on Krohn ORSD LOR, Blatt DACOS Dream Mean Developmental Level, and Their Interaction*

| Analysis of Variance of Regression | | | | | |
|---|---|---|---|---|---|
| Source | SS | df | MS | F | p |
| Regression | 109.32 | 3 | 36.44 | 0.57 | .639 |
| Residual | 2955.18 | 46 | 64.24 | | |

| Summary Table | | | |
|---|---|---|---|
| Variable | Beta | t | p |
| ORSD LOR | .13 | 0.76 | .454 |
| DACOS Dream Mean Developmental Level | -.44 | -1.07 | .290 |
| Interaction | .35 | 0.83 | .414 |

$R = .19$ $R^2 = .04$

*N = 51

Table 20

Regression of Achenbach Total Competence Score on Urist MOAS HOR, Blatt DACOS Dream Mean Developmental Level, and Their Interaction*

| Analysis of Variance of Regression | | | | | |
|---|---|---|---|---|---|
| Source | SS | df | MS | F | p |
| Regression | 253.76 | 3 | 84.59 | 1.38 | .260 |
| Residual | 2810.74 | 46 | 61.10 | | |

| Summary Table | | | |
|---|---|---|---|
| Variable | Beta | t | p |
| MOAS HOR | -.27 | -1.92 | .062 |
| DACOS Dream Mean Developmental Level | .08 | -0.23 | .817 |
| Interaction | -.16 | -0.49 | .626 |

$R = .29$ $R^2 = .08$

*N = 51

Table 21

Regression of Achenbach Total Problem Score on Krohn ORSD LOR, Blatt DACOS Dream Mean Developmental Level, and Their Interaction*

Analysis of Variance of Regression

| Source | SS | df | MS | F | p |
|---|---|---|---|---|---|
| Regression | 1369.31 | 3 | 456.44 | 4.61 | .007 |
| Residual | 4558.71 | 46 | 99.10 | | |

Summary Table

| Variable | Beta | t | p |
|---|---|---|---|
| ORSD LOR | -.40 | -2.55 | .014 |
| DACOS Dream Mean Developmental Level | .92 | 2.50 | .016 |
| Interaction | -.78 | -2.08 | .043 |

$R = .48$ $R^2 = .23$

*N = 51

Table 22

Regression of Achenbach Total Problem Score on Urist MOAS HOR, Blatt DACOS Dream Mean Developmental Level, and Their Interaction*

Analysis of Variance of Regression

| Source | SS | df | MS | F | p |
|---|---|---|---|---|---|
| Regression | 393.29 | 3 | 131.10 | 1.09 | .363 |
| Residual | 5534.73 | 46 | 120.32 | | |

Summary Table

| Variable | Beta | t | p |
|---|---|---|---|
| MOAS HOR | 0.21 | 1.45 | .154 |
| DACOS Dream Mean Developmental Level | -0.30 | -0.89 | .376 |
| Interaction | 0.33 | 0.98 | .332 |

$R = .26$ $R^2 = .07$

*N = 51

Table 23

Zero-order Correlations between Selected Krohn ORSD Urist MOAS, and Blatt DACOS Scores with Achenbach CBCL Total Competence and Total Problem Scores (T-Scores)[b]

| Object Representation Measure | Correlation With: Achenbach CBCL Total Competence Score | | | Achenbach CBCL Total Problem Score | | |
|---|---|---|---|---|---|---|
| | r | $r^2$ | p[a] | r | $r^2$ | p[a] |
| ORSD Dream 1 | .166 | .03 | .124 | -.416 | .17 | .002 |
| ORSD LOR[c] | .068 | .00 | .319 | -.341 | .12 | .008 |
| ORSD MOR[c] | .170 | .03 | .119 | -.319 | .10 | .012 |
| MOAS MOR | -.185 | .03 | .098 | .188 | .04 | .093 |
| MOAS HOR | -.272 | .07 | .027 | .215 | .05 | .065 |
| DACOS Dream Mean Developmental Level | -.050 | .00 | .187 | -.020 | .00 | .222 |
| DACOS Dream Differentiation | .006 | .00 | .484 | -.256 | .07 | .035 |

[a]One-tailed significance
[b]N = 50
[c]Based on dreams with inquiry

Table 24

Multiple Regression for Krohn ORSD Mean Scores[a], HOR - LOR Difference Scores and Their Interaction in Predicting to Group (Clinic versus Non-Clinical[b]

Analysis of Variance

| Source | df | Sum of Squares | Mean Square |
|---|---|---|---|
| Regression | 3 | 2.91 | .97 |
| Residual | 46 | 9.51 | .21 |
| | F = 4.69 | p = .006 | |

Variables in the Equation

| Variable | Beta | t | p |
|---|---|---|---|
| Interaction Effect | .115 | .18 | .860 |
| ORSD MOR[a] | .458 | 2.26 | .029 |
| ORSD HOR - LOR Difference | -.108 | -.16 | .871 |
| | R = .484 | $R^2$ = .234 | |

[a]Based on dreams with inquiry
[b]N = 51

Table 25

Multiple Regression for Urist MOAS Mean Scores, HOR - LOR Difference Scores and Their Interaction in Predicting to Group (Clinic versus Non-Clinical*

Analysis of Variance

| Source | df | Sum of Squares | Mean Square |
|---|---|---|---|
| Regression | 3 | .66 | .22 |
| Residual | 47 | 12.05 | .26 |
| | F = .86 | p = .471 | |

Variables in the Equation

| Variable | Beta | t | p |
|---|---|---|---|
| Interaction Effect | .082 | .117 | .908 |
| MOAS MOR | -.192 | -.705 | .484 |
| MOAS HOR - LOR Difference | -.211 | -.349 | .728 |
| | R = .228 | $R^2$ = .052 | |

*N = 51

Table 26

Correlations Between Selected Krohn ORSD and Urist MOAS Scores with the Achenbach CBCL

| Achenbach CBCL Problem Scales | Correlation with Krohn ORSD and Urist MOAS Scores: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | ORSD LOR N=50 | ORSD HOR N=50 | ORSD MOR N=50 | ORSD Diff[b] N=50 | ORSD 1st Dream N=50 | MOAS HOR N=51 | MOAS HOR N=51 | MOAS MOR N=51 | MOAS Diff[b] N=51 |
| | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) |
| I Withdrawn | -0.13 (.175) | -0.01 (.461) | -0.07 (.304) | 0.11 (.219) | -0.18 (.105) | -0.12 (.202) | -0.03 (.406) | -0.02 (.433) | 0.09 (.257) |
| II Somatic Complaints | -0.13 (.178) | 0.00 (.491) | -0.07 (.306) | 0.12 (.196) | -0.18 (.111) | 0.11 (.221) | -0.04 (.403) | 0.17 (.115) | -0.13 (.186) |
| III Anxious/ Depressed | -0.25 (.037) | -0.17 (.115) | -0.23 (.101) | 0.10 (.241) | -0.30 (.018) | -0.01 (.463) | 0.13 (.185) | 0.07 (.306) | 0.09 (.260) |
| IV Social Problems | **-0.33 (.010)** | -0.22 (.059) | -0.30 (.017) | 0.13 (.184) | **-0.36 (.005)** | 0.21 (.074) | 0.30 (.015) | **0.34 (.007)** | -0.01 (.474) |
| V Thought Problems | **-0.37 (.005)** | -0.17 (.123) | **-0.34 (.008)** | 0.21 (.074) | -0.29 (.021) | 0.05 (.369) | 0.26 (.034) | 0.18 (.105) | 0.11 (.214) |
| VI Attention Problems | **-0.36 (.005)** | -0.13 (.194) | -0.26 (.035) | 0.23 (.051) | **-0.36 (.006)** | 0.10 (.234) | 0.22 (.057) | 0.20 (.083) | 0.04 (.394) |
| VII Delinquent Behavior | **-0.34 (.009)** | -0.18 (.101) | -0.30 (.018) | 0.17 (.121) | -0.30 (.016) | -0.12 (.201) | 0.21 (.067) | 0.05 (.361) | 0.25 (.040) |
| VIII Aggressive Behavior | **-0.35 (.007)** | -0.30 (.019) | **-0.38 (.003)** | 0.10 (.253) | **-0.37 (.005)** | 0.08 (.293) | **0.33 (.009)** | 0.24 (.048) | 0.13 (.185) |
| IX Sex Problems | -0.28 (.023) | -0.06 (.329) | -0.24 (.044) | 0.21 (.072) | -0.17 (.113) | 0.07 (.325) | 0.17 (.112) | 0.18 (.104) | 0.04 (.379) |

[a]One tailed probability [b]Diff = HOR - LOR

**p < .01**

Table 26 (continued)

Correlations Between Selected Krohn ORSD and Urist MOAS Scores with the Achenbach CBCL

| Achenbach CBCL Scales | Correlation with Krohn ORSD and Urist MOAS Scores: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | ORSD LOR N=50 | ORSD HOR N=50 | ORSD MOR N=50 | ORSD Diff[b] N=50 | ORSD 1st Dream N=50 | MOAS LOR N=51 | MOAS HOR N=51 | MOAS MOR N=51 | MOAS Diff[b] N=51 |
| | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) |
| Problem - Internalizing | -0.22 (.066) | -0.07 (.304) | -0.15 (.142) | 0.14 (.164) | -0.30 (.018) | 0.04 (.378) | 0.04 (.395) | 0.10 (.235) | -0.02 (.447) |
| Problem - Externalizing | **-0.37 (.004)** | -0.31 (.014) | **-0.40 (.002)** | 0.10 (.237) | **-0.42 (.002)** | 0.04 (.404) | 0.30 (.016) | 0.19 (.047) | 0.15 (.142) |
| Total Problems | **-0.35 (.007)** | -0.25 (.038) | **-0.34 (.008)** | 0.13 (.186) | **-0.42 (.002)** | 0.06 (.351) | 0.22 (.065) | 0.19 (.093) | 0.08 (.288) |
| Competence - Activities | -0.00 (.491) | 0.10 (.248) | 0.07 (.321) | 0.08 (.298) | -0.18 (.111) | 0.02 (.453) | 0.19 (.093) | 0.15 (.147) | 0.10 (.242) |
| Competence - Social | 0.16 (.128) | 0.10 (.252) | 0.15 (.153) | -0.08 (.299) | 0.17 (.123) | 0.06 (.339) | **-0.37 (.004)** | -0.19 (.095) | -0.28 (.022) |
| Competence - School | 0.02 (.443) | **0.33 (.010)** | 0.17 (.114) | 0.23 (.055) | 0.28 (.025) | -0.08 (.278) | **-0.41 (.002)** | -0.26 (.033) | -0.17 (.115) |
| Total Competence | 0.09 (.259) | 0.24 (.048) | 0.18 (.104) | 0.09 (.259) | 0.17 (.124) | -0.04 (.403) | -0.27 (.027) | -0.18 (.098) | -0.13 (.174) |

[a]One-tailed probability
[b]Diff = HOR - LOR
**p < .01**

Table 27

Multivariate Analysis of Variance of the Urist MOAS Scores by Group ("More Competent" versus "Less Competent") by Achenbach CBCL

Cell Means

| Variable | Group | | | |
|---|---|---|---|---|
| | Clinical "Less Competent" (N=22) | | Non-Clinical "More Competent" (N=29) | |
| | M | SD | M | SD |
| Urist MOAS LOR | 4.32 | 1.67 | 4.45 | 1.50 |
| Urist MOAS HOR | 1.96 | 1.25 | 1.66 | 0.77 |
| Urist MOAS MOR | 2.97 | 1.22 | 2.94 | 0.87 |

Multivariate Tests

| Pillais Statistic | F | df | p |
|---|---|---|---|
| 0.06 | 0.92 | 3 and 47 | .439 |

Univariate Tests

| Variable | F (df=1,49) | p |
|---|---|---|
| Urist MOAS LOR | 0.09 | .772 |
| Urist MOAS HOR | 1.11 | .297 |
| Urist MOAS MOR | 0.01 | .906 |

Table 28

Correlations Between Selected Blatt DACOS Scores and Achenbach CBCL T-Scores

| Achenbach CBCL Problem Scales | Correlation with Selected Blatt DACOS Scores: DACOS Rorschach F+ Articulation N=51 | DACOS Rorschach F- Differentiation N=29 | DACOS Rorschach F- Articulation N=29 | DACOS Dream Differentiation N=51 | DACOS Dream Articulation N=51 | DACOS Dream Motivation N=51 | DACOS Dream CA[b] Motivation N=51 | DACOS Dream Mean Developmental Level N=51 |
|---|---|---|---|---|---|---|---|---|
| | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) |
| Withdrawn | 0.05 (.374) | 0.03 (.442) | 0.19 (.166) | -0.01 (.464) | 0.09 (.262) | -0.04 (.384) | -0.01 (.477) | -0.03 (.406) |
| Somatic Complaints | 0.26 (.031) | -0.11 (.291) | 0.07 (.353) | -0.05 (.369) | -0.02 (.434) | 0.28 (.023) | **0.33 (.009)** | 0.13 (.178) |
| Anxious/ Depressed | 0.21 (.066) | -0.16 (.204) | 0.37 (.023) | -0.03 (.423) | 0.07 (.313) | 0.20 (.080) | 0.26 (.035) | -0.03 (.423) |
| Social Problems | **0.36 (.005)** | 0.05 (.401) | 0.35 (.032) | -0.22 (.063) | 0.16 (.136) | 0.10 (.247) | 0.12 (.198) | 0.04 (.404) |
| Thought Problems | 0.21 (.069) | -0.08 (.335) | 0.15 (.226) | -0.24 (.042) | 0.28 (.024) | 0.30 (.017) | **0.33 (.009)** | 0.10 (.251) |
| Attention Problems | 0.13 (.177) | 0.03 (.443) | 0.20 (.153) | -0.24 (.045) | 0.28 (.023) | 0.18 (.106) | 0.24 (.043) | 0.03 (.424) |
| Delinquent Problems | 0.27 (.029) | -0.16 (.199) | 0.27 (.076) | -0.29 (.021) | 0.07 (.314) | -0.02 (.451) | 0.06 (.338) | 0.00 (.494) |
| Aggressive Behavior | **0.34 (.007)** | -0.18 (.179) | 0.28 (.068) | -0.27 (.031) | 0.04 (.401) | 0.11 (.215) | 0.16 (.135) | -0.05 (.370) |
| Sex Problems | 0.01 (.482) | -0.15 (.213) | -0.33 (.039) | -0.24 (.044) | **0.41 (.002)** | 0.25 (.040) | 0.30 (.017) | 0.05 (.353) |

[a]One-tailed probability [b]CA = Child Adapted $p < .01$

Table 28 (continued)

Correlations Between Selected Blatt DACOS Scores and Achenbach CBCL T-Scores

| Achenbach CBCL Scales | Correlation with Selected Blatt DACOS Scores: | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | DACOS Rorschach F+ Articulation N=51 | DACOS Rorschach F- Differentiation N=29 | DACOS Rorschach F- Articulation N=29 | DACOS Dream Differentiation N=51 | DACOS Dream Articulation N=51 | DACOS Dream Motivation N=51 | DACOS Dream CA[b] Motivation N=51 | DACOS Dream Mean Developmental Level N=51 |
| | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) | r (p[a]) |
| Problem - Internalizing | 0.19 (.092) | -0.10 (.304) | 0.26 (.089) | -0.07 (.323) | 0.10 (.235) | 0.16 (.128) | 0.24 (.044) | 0.01 (.474) |
| Problem - Externalizing | 0.28 (.025) | -0.18 (.169) | 0.24 (.103) | -0.30 (.016) | 0.06 (.342) | 0.03 (.430) | 0.13 (.174) | -0.07 (.308) |
| Total Problems | 0.24 (.048) | -0.13 (.246) | 0.26 (.084) | .026 (035) | 0.15 (.143) | 0.14 (.162) | 0.25 (.038) | -0.02 (.443) |
| Competence - Activities | 0.02 (.435) | -0.47 (.005) | -0.41 (.014) | -0.20 (.081) | 0.19 (.088) | 0.27 (.030) | 0.32 (.011) | 0.17 (.114) |
| Competence - Social | -0.34 (.008) | 0.13 (.249) | -0.24 (.101) | 0.07 (.319) | -0.15 (.154) | -0.20 (.078) | -0.14 (.158) | -0.16 (.129) |
| Competence - School | -0.26 (.033) | 0.18 (.177) | -0.12 (.267) | 0.14 (.160) | -0.14 (.170) | 0.14 (.161) | 0.02 (.450) | -0.05 (.353) |
| Total Competence | -0.31 (.013) | -0.03 (.442) | -0.43 (.010) | 0.01 (.485) | -0.06 (.345) | 0.03 (.421) | 0.06 (.327) | -0.04 (.390) |

[a]One-tailed probability [b]CA = Child Adapted $p < .01$

Table 29

Correlation Between Selected Krohn ORSD, Urist MOAS, and Blatt DACOS Scores, and N.Y.C. Board of Education Citywide Reading and Arithmetic Scores

| Object Representation Scores | Correlation with Reading and Arithmetic Scores: Reading NP[b] | Arithmetic NP[b] |
|---|---|---|
| | r (p[a]) | r (p[a]) |
| DACOS Dream Mean Developmental Level (N=19) | -.693 (.001) | -.505 (.014) |
| DACOS Rorschach F+ Mean Developmental Level (N=20) | -.247 (.147) | -.204 (.195) |
| MOAS LOR (N=20) | .424 (.031) | .450 (.024) |
| MOAS HOR (N=20) | -.237 (.158) | -.333 (.081) |
| ORSD LOR (N=20) | -.258 (.143) | -.118 (.316) |
| ORSD MOR (N=20) | -.209 (.145) | -.114 (.321) |

[a]One-tailed probability
[b]National Percentile
p < .015

Table 30

Correlation Between Months Subjects and Their Guardians Spent in Psychotherapy and Selected Object Representation Scores

| Object Representation Scores | Correlation with Months in Therapy: Subjects' Months in Therapy | Guardians' Months in Therapy |
|---|---|---|
| | r (p*) | r (p*) |
| MOAS LOR (N=51) | **.370 (.004)** | .142 (.161) |
| MOAS HOR (N=51) | .262 (.032) | **-.333 (.009)** |
| ORSD LOR (N=50) | -.134 (.177) | -.085 (.278) |
| ORSD HOR (N=50) | -.262 (.033) | -.292 (.020) |
| DACOS Rorschach F+ Mean Developmental Level (N=48) | -.089 (.275) | -.097 (.255) |
| DACOS Rorschach F+ Articulation (N=48) | **.448 (.001)** | -.017 (.452) |
| DACOS Dream Mean Developmental Level (N=50) | -.139 (.169) | -.107 (.230) |

*One-tailed probability
**p < .01**

# APPENDIX A

## Dream Study Subject/Parent Data Collection Protocol
(SCHOOL SITE)

I. INITIAL TELEPHONE CONTACT (after signed Parent Consent Form has been returned; see Appendix B)

1. Introduce protocol to parent and schedule interview appointment

2. Explain protocol to subject and offer prompt to remember dreams

II. INTERVIEW WITH PARENT AND SUBJECT

1. Review study protocol

2. Review Informed Consent Form (see Appendix B)

III. INTERVIEW WITH SUBJECT (approx. 90 minutes)

1. Girls' Questionnaire (see Appendix D)

2. WISC-R: 3 subtests, randomly varied sequence

   A. Similarities
   B. Block Design
   C. Vocabulary

* 3. Dream Questions (see Appendix E for structured dream inquiry format)

   A. Tell me your most recent dream.
   B. Tell me your next most recent dream.
   C. Tell me about any other dream(s) that you can remember.

* 4. Rorschach Test, abbreviated version (see Appendix F for structured inquiry format)

   A. Cards I, II, III, VII, VIII

5. Laurendeau-Pinard Concept of Dream Questionnaire (see Appendix G)

IV. INTERVIEW WITH PARENT (approx. 30 minutes)

1. Parent Questionnare (self administered), (see Appendix H)

2. Achenbach Child Behavior Checklist (administered by interviewer), (see Appendix I)

* Subjects' responses will be tape recorded and transcribed verbatim.

## APPENDIX B

### Sample Parents' Informed Consent Form

Dear Parents:

My name is Elaine Gluckman, and I am a graduate student in the doctoral program in clinical psychology at the City University of New York. I am doing a study about girls' dreams. I hope to find out if girls' dreams can help us to understand more about their social development.

If you agree that your daughter can participate, I will need both your help and your daughter's help. I will need about 1 hour of your time and about 1 1/2 hours of your daughter's time. In that time, I will be asking your daughter to see if she can remember a few of her dreams, as well as asking her a few vocabulary and common sense questions. Then I will ask you some questions about your daughter's interests, activities, and habits. I will look at your daughter's school record to see how she is doing in her schoolwork.

Everything you and your daughter say will be completely confidential. You will both be assigned a code number, and we will use only that number. We will not put your names on any pages with your answers or with any information about you.

I believe this study will increase our knowledge of important aspects of girls' development. A better understanding will enable all of us to make the best plans for their good education and upbringing. Only with your help will this study be possible.

Please call me if you have any questions about participating in the study. My telephone number is (718) 951-6272. If you have any questions about the study itself, I'll be glad to answer them at the time the study is completed.

If you agree to allow your daughter to participate, please return the signed consent form in the enclosed, stamped envelope.

If, after you have signed the consent form, you no longer wish to participate in the study, you are certainly free to stop at any time.

Thank you very much for you time and consideration.

Sincerely,

Elaine Gluckman

Page 2 of Informed Consent Form

I fully understand the enclosed letter explaining Elaine Gluckman's study about girls' dreams.

(Parent: Please check one box below:)

Yes. I consent for my child and myself to participate. ☐

No. I refuse for my child and myself to participate. ☐

Parent's Signature: _____

Daughter's Name: _____

Witnessed by: _____

Today's Date: _____

.....

Elaine Gluckman has explained her study fully to me and my parents.

(Student: Please check one box below:)

Yes. I agree to participate with my parent. ☐

No. I refuse to participate with my parent. ☐

Child's Signature: _____

.....

Please write down a telephone number where you can be reached. If your daughter would like a typed copy of her dreams, please write down your address.

Telephone: (Day) _____ (Night) _____

Address: (please include apartment number and zip code)

_____

_____

**Sample Consent to Contact Form**

City University of New York
At City College of New York
Convent Ave. at 138 St.
New York, N. Y.

Dear _____ (parent or guardian):

A research study is being conducted by Ms. Elain Gluckman as part of her doctoral studies in psychology. Ms. Gluckman"s study is about girls' dreams. She plans to compare their dreams with their attitudes and daily behavior. This study will help us to understand more about girls' development.

Ms. Gluckman has asked permission to contact children and parents who attend P.S. 999 so that she can ask the children about their dreams. If you are willing to allow Ms. Gluckman to contact you to explain her research and ask you and your daughter to participate in her study, please sign below. Ms. Gluckman will contact you directly by phone to tell you about the study.

I, _____ (parent or guardian), agree to allow Ms. Gluckman to contact me to explain her study to myself and my daughter.

Parent's Signature: _____

Daughter's Name: _____

Today's Date: _____

Please write down a telephone number where Ms. Gluckman can reach you to explain the study and set up a time at your convenience for you and your daughter to participate in the study if you choose to do so.

Day Telephone: _____

Evening Telephone: _____

# APPENDIX C

## Sample Confidential Teacher Screening Form

Please answer the following questions about your student:

---

(Circle the one answer for each item which best describes this student: )

| | | | | | |
|---|---|---|---|---|---|
| 1. | Academic performance: | Poor | Below Average | Average | Above Average |
| 2. | Ability to get along with teaching staff: | Poor | Below Average | Average | Above Average |
| 3. | Ability to get along with other students: | Poor | Below Average | Average | Above Average |
| 4. | This student fights: | Rarely/Never | Sometimes | Often | Always |
| 5. | Other students tend to respond to this student by: | Rejecting | Ignoring | Joining with | Following |

6. Briefly describe the student's strengths:

---

---

7. Briefly describe the student's weaknesses:

---

---

*** Please note that this form will be used for screeing purposes only, not for evaluation.

**Sample Teacher Screening Form Cover Letter**

Dear _____:

My name is Elaine Gluckman, and I have spoken with you about the Board of Education approved dream study which is being conducted under the auspices of the City University of New York. Thank you very much for handing out the consent forms to the girls in your class.

The following parent(s) and students have agreed to participate in the study:

_____ parent of _____

_____ parent of _____

_____ parent of _____

In order to complete the study, your help is important. Although your participation is entirely voluntary, I would be very grateful if you would fill out the attached questionnaire about the above students. This should take no more than 5 minutes of your time. This form will not be used to evaluate the students. It will be used for screening purposes only. All information on this form will be held confidential.

I have enclosed a stamped and addressed envelope for you to return the completed questionnaire.

I greatly appreciate your help in this study. My telephone number is 718 951-6272. Please call me if you have any questions about the questionnaire or about the study, and I would be glad to answer them.

Thank you very much.

Sincerely,

Elaine Gluckman

## APPENDIX D

### GIRLS' QUESTIONNAIRE

CODE NUMBER _____ DATE _____

PLEASE ANSWER THE FOLLOWING QUESTIONS:

1. HOW OLD ARE YOU? _____

2. WHAT IS YOUR DATE OF BIRTH? _____

3. WHAT GRADE ARE YOU IN? _____ CLASS? _____

4. DIFFERENT SCHOOLS GIVE GRADES IN DIFFERENT WAYS. PICK THE WAY YOUR SCHOOL GIVES GRADES AND CIRCLE THE GRADES THAT YOU MOSTLY GOT IN SCHOOL THIS YEAR. (circle one or two)

   A B C D E F

   90's 80's 70's 60's 50's

   E G S F P

   S NI U

   any other kind of grade: _____

5. DO YOU HAVE A BEST FRIEND? (circle one) YES NO

6. DO YOU HAVE A GROUP OF FRIENDS THAT YOU HANG AROUND WITH?
   (circle one) YES NO

7. DO YOU BELONG TO ANY CLUBS, SPORTS TEAMS, OR ACTIVITIES GROUPS?
   (circle one) YES NO

8. IF YOU DO, WHICH ONES DO YOU BELONG TO? _____

   _____

9. WHAT ACTIVITIES DO YOU ENJOY MOST? _____

   _____

Girls' Questionnaire Continued CODE #:

10. HOW MANY GROWN-UPS LIVE WITH YOU IN YOUR HOME? _____

11. WHO ARE THEY? (for example, mother, father, grandmother, etc.)

_____

_____

12. ARE THERE ANY OTHER GROWN-UPS THAT YOU OFTEN SPEND TIME WITH? _____

13. IF SO, WHO ARE THEY? (for example, babysitter, mother's friend, aunt or uncle, etc.)

_____

_____

14. WHAT ARE YOUR FAVORITE TELEVISION SHOWS? _____

_____

# APPENDIX E

## Structured Dream Inquiry

1. Tell me your most recent dream.

2. Tell me your next most recent dream.

3. Tell me about any other dream(s) you remember.

4. For each dream, after the child finishes her spontaneous recounting of the dream, ask: Is that the end of the dream?

5. Ask about any ambiguous, confusing, or contradictory part of the dream: Remember you said ... Can you tell me again what happened before ....? Can you tell me again what happened next after ....?

6. Was anyone else in the dream? Who else?

   Can you tell me about that person?

7. If the self was not mentioned in the dream, ask:
   Were you in the dream?

For the next four questions: If the information was not spontaneously presented in the dream presentation, then, for each person, animal, or humanlike object in the dream, ask questions 8, 9, 10, and 11:

8. Can you tell me what ... was doing in the dream?

9. Can you tell me what ... was saying in the dream?

10. Can you tell me what ... was thinking in the dream?

11. Can you tell me what ... was feeling in the dream?

12. When did you have this dream?

13. If the child seems to depart from the dream itself and mentions associated information at any point during the dream or inquiry, ask:
    Did you remember that from the dream, or did that really happen in real life when you were awake?

# APPENDIX F

## Structured Rorschach Inquiry

S. Tuber (1988) developed a standardized Rorschach inquiry format for use in the administration of Rorschachs to be scored with the Urist Mutuality of Autonomy Scale.

1. Ask for location of percept:
   Show me where you saw ... ?

2. What made it look like (the percept) ?

If by that point, the child has described "the relationship between the percepts well enough to produce a Mutuality of Autonomy Score, no further inquiry is necessary" (Tuber, 1988, p. 6).

"If movement and/or an adjectival description of the percept is given but too general to score (i.e. 'people running' or 'a scary monster'), the salient phrase is repeated to the child, along with the phrase "as if ..." (i.e. 'running as if ...')" (Tuber, 1988, p. 6).

3a. (Movement and/or adjectival description) as if?

Or if the child's answer to question 2 (above) offers neither movement nor any salient adjectival description, ask:

3b. Tell me more about (the percept).

If question 3b elicits nothing further, then the inquiry of that reponse ends at that point. However if question 3b elicits any sort of movement or decriptive response, return to question 3a, and then end the inquiry.

Note. Taken from "An extension of the Mutuality of Autonomy Scale in the in the assessment of children's Rorschachs" by S. Tuber, 1988. Unpublished manuscript, Roosevelt Hospital, New York.

## APPENDIX H

### Confidential Parent Questionnaire

Date: _____ Your Date of Birth: _____ Code #: _____

1. How many children do you have? _____

2. What are their ages? Are they boys (B) or girls (G)? (circle B or G)
   1st child: B or G , Age = 5th child: B or G , Age =
   2nd child: B or G , Age = 6th child: B or G , Age =
   3rd child: B or G , Age = 7th child: B or G , Age =
   Others:

3. Are you: Single? Married? Divorced? Widowed? (circle one)

4. How many people live with you and your daughter in your home?
   How many adults? _____ How many children? _____

5. Circle the approximate amount of your total family income:

   1000-5000 6000-10,000 10,000-20,000 21,000 or more

6. What type of job do you have? (for example, housewife, transit worker, secretary, etc.) _____

7. If any other family member(s) is employed, what type(s) of job(s) do they hold? _____

8. Which religion do you belong to or believe in? _____

9. Which ethnic group do you belong to? (e.g. Hispanic, Afro-American, None, etc.) _____

10. How many years of schooling did you complete? Grade #: _____
    Number of years of college? _____

11. Is there another adult who has lived with you and your daughter and helped you take care of her? (circle one) Yes No

12. Who is that person? (circle which ones apply) your husband
    your child's father your child's grandparent
    other(s): _____

13. If you are separated or divorced, does your ex-husband or the father of your children help to support you or your children financially?

14. How many years of school did that adult (or those adults) complete?
    Grade #? _____ Years of College? _____
    Other adults: Grade #? _____ Years of College? _____

Parent Questionnaire cont. Code #:

15. Are there any grown-ups in your daughter's life that she often spends time with, either in your home or someplace else? (circle one) Yes No

16. If yes, who are these grown-ups? (for example, grandparent, parent's friend, cousin, your sister or brother, etc.)

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17. Have your ever had any counseling or therapy? (circle 1) Yes No
If yes, for how long? _____

18. Has your child ever had any counseling, psychological treatment, or therapy? (circle one) Yes No

19. If yes, why did you bring your child to counseling or therapy?

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20. When did your child begin counseling or therapy (approximate month and year) ? _____

21. How long did she attend therapy or counseling? _____

22. Is she still attending now? (circle one): Yes No

23. If no longer attending, why did she leave? _____

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24. Does your daughter menstruate? (circle one) Yes No
If so, about how many periods had she had so far? _____

25. How happy would you say you are with your life? (circle one)

Very Happy. Happy. A Bit Happy. A Bit Unhappy. Unhappy. Very Unhappy.

26. Does your child read at home? (circle one) Yes No

27. If yes, what type of books, magazines, etc. does your child like to read? _____

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